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# Codes for Natural History Collections in Ichthyology and Herpetology

Mark Henry Sabaj<sup>1</sup>

**Assembled here is a reasonably complete list of annotated codes for historical and modern natural history collections associated with lost and extant specimens of fossil and Recent fishes, amphibians, and reptiles. A total of 3,845 codes are anchored to about 2,064 distinct collections and/or institutions in 155 countries. At least 633 of those collections are exclusively paleontological or include fossil specimens. The list is primarily derived from the scientific literature and may serve as a resource for plainly citing specimens in publications and for linking such citations to records in online databases.**

WELL-curated natural history specimens physically document the distribution of living organisms in space and time. They are essential for taxa to be fully conceived, formally named, and firmly supported or refuted from one generation to the next. As such, they secure taxonomy to the scientific method by allowing one to iteratively test and refine hypotheses of phylogenetic relatedness.

Thus, it is no surprise that taxonomists and museum staff devote a significant part of their career to collecting, curating, and carefully documenting natural history specimens and their custodial institutions (e.g., Pietsch and Anderson, 1997; Del Moral-Flores et al., 2016; Beck, 2018; Beck and Joger, 2018). As a result, we know the oldest museum specimens of amphibians and reptiles are attributable to the Italian polymath Ulisse Aldrovandi (1522–1605) and remain preserved in the Palazzo Poggi Museum in Bologna (Bauer et al., 2013). The holotype of *Atlantochelys mortoni*, a giant Cretaceous sea turtle, is not limited to the proximal half of the right humerus (ANSP 9234) described by Louis Agassiz in 1849, but includes the distal half (NJSMP GP23363) unearthed as much as two centuries later (Parris et al., 2014). And, Dr. William Alexander Hammond did not collect the holotype of Edward Drinker Cope's *Salmo stomias* during the U.S. Army expedition from Fort Riley, Kansas, to Fort Bridger, Wyoming in 1857 (as was commonly held for over 150 years), but during his station near Santa Fe, New Mexico from 1849–1852, rendering Cope's species a junior synonym of *Oncorhynchus clarkii virginalis* (Girard, 1856) and the Greenback Cutthroat Trout native to the South Platte River, Colorado, scientifically nameless (Metcalf et al., 2012; Sabaj, 2013).

The objective of this paper is to present a comprehensive, but by no means exhaustive, list of annotated codes associated with natural history specimens of fossil and Recent fishes, amphibians, and reptiles. This list is intended to tie together the long and sometimes complex history of applying codes to such specimens, and to serve as a resource for plainly citing such specimens in publications and online databases.

## MATERIALS AND METHODS

The current list was seeded in 2010 with codes from three sources: Leviton et al. (1985), Leviton and Gibbs (1988), and

the online Guide to Fish Collections in the Catalog of Fishes (Fricke and Eschmeyer, 2010). The first version of the list (v1) was made available online via the American Society of Ichthyologists and Herpetologists (ASIH) website on 5 October 2010. It was replaced with revised versions on 8 November 2010 (v2), 23 February 2012 (v3), 28 June 2013 (v4), 22 September 2014 (v5), 16 August 2016 (v6.5), and 1 April 2019 (v7.1). Over that time, the list was significantly expanded and improved via personal communications with the collections community and the incorporation of other extensive lists available for fishes (e.g., Poss and Collette, 1995), amphibians (Frost, 2020), and reptiles (Wallach et al., 2014). Other important sources included catalogs of types specimens (e.g., Gilbert, 1998; Böhme, 2010) and natural history collections themselves (e.g., Roselaar, 2003; Del Moral-Flores et al., 2016; Beck, 2018; Beck and Joger, 2018). Publications were accessed via the Biodiversity Heritage Library, ResearchGate, and other freely available online sources. Efforts were made to coordinate the current list with additional databases that include or manage data on natural history specimens, such as The Reptile Database (Uetz et al., 2020), VertNet, and Integrated Digitized Biocollections (iDigBio). Unlike the lists assembled by Leviton et al. (1985) and Leviton and Gibbs (1988), the current one benefitted immeasurably from email, the internet, and the Google search engine.

The codes are divided among two lists: Appendix 1 and a Supplemental Appendix (see Data Accessibility). Appendix 1 lists 2,064 commonly used or otherwise preferred institution codes sorted first by country, then state (or close equivalent), then alphabetically by code. The code prioritized here serves to anchor information relevant to its origin and application, as well as synonymous codes. When multiple codes have been used to cite specimens at a particular institution, priority generally was given to the one 1) confirmed via personal correspondences with institutional staff or otherwise knowledgeable colleagues, 2) cited in type catalogs published by institutional staff, 3) cited in other publications co-authored by institutional staff, 4) cited by outside authors with a preference towards younger and taxonomically oriented publications. Thus, the current list focuses on codes as they appear in published papers. Those may differ from codes used to database specimens in a particular collection, aggregate specimen records across collections, or link specimen records to other databases.

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Not all institutions were contacted and not all type catalogs were consulted for the current list, but such efforts were made for large institutions with complex histories and numerous synonyms. Codes cited for privately held collections are included. Leviton et al. (1985) deliberately omitted private collections to avoid any sign of legitimation. Private collections appear in the current list merely for completeness, and their inclusion here should not be mistaken for encouragement or legitimacy. The current list also includes a number of historically important, but defunct collections.

Each institution code in Appendix 1 is followed by the full name of the institution and city. Many entries include various annotations in this order:

**Also known as.**—Alternative name currently in use for institution.

**Formerly.**—Names historically associated with institution.

**Includes.**—Collections/specimens incorporated into institution from other sources.

**Note.**—Comments on the institution and its collections including date of establishment, history, institutional affiliations and related collections, and current status when known.

**In error as.**—Code(s) wrongly attributed to institution in print publications.

**Obsolete as.**—Codes discouraged from use based on their association with former institutional names or on explicit correspondence with institutional staff (not included are codes associated with a former institutional name, but explicitly retained by staff for consistency).

**Current as.**—Code most commonly (or recently) associated with institution or otherwise explicitly codified by institutional staff; replaced by **Assigned here** for a collection cited in the literature without a code, and thereby receiving a tentative code in this paper.

**Also as.**—Other codes currently used for institution.

**See also.**—Closely associated collections often held by the same institution, but administered separately (e.g., fossils in “Museum of Geology” vs. Recent specimens in “Museum of Zoology”).

The second list, the Supplemental Appendix (see Data Accessibility), is an alphabetical index of all 3,845 codes found during the current search. As such, it highlights cases where the same code has been applied to different institutions. The Supplemental Appendix provides extra columns that include the sources for each code, a bibliography of those sources (1,816 total), and a list of 331 personal correspondents from 2006 to present.

## RESULTS

Codes for natural history collections are conceived and expressed in an extraordinary number of ways (Table 1). Codes are generally derived from one or a combination of sources including: specimen preparation (e.g., fossil vs. Recent), collector (for privately held specimens), collection, institution, meta-institution, para-institution, former institution, taxonomic group, and geology (e.g., fossils). The code or combination of codes is generally followed by a catalog number unique to the particular collection. In print publications, the code(s) and catalog number may be

confluent or variably set apart by a space or punctuations (e.g., period, dash, slash, etc.).

That said, most codes have two components, an institution code and a collection code, that may or may not be confluent. For example, collections at the University of Kansas (KU) Biodiversity Institute are now cited as KUH (herps), KUI (fishes), KUIT (fish tissues), and KUVF (vertebrate fossils). Specimens at the Naturhistoriska riksmuseet are divided between the Department of Zoology (NRM) and Department of Paleontology (NRM-PZ), and the latter is subdivided by taxonomic codes into NRM-PZ C (fossil Cyclostomata), NRM-PZ P (fossil Pisces), NRM-PZ B (fossil Batrachia), and NRM-PZ R (fossil Reptilia; S. Kullander, pers. comm., 2010; E. Åhlander, pers. comm., 2020).

A single institution does not always employ the same institution code for all constituent collections, especially for fossil vs. Recent specimens. Hence, the University of California, Berkeley, uses MVZ for the Museum of Vertebrate Zoology and UCMP for the Museum of Paleontology. The Academy of Natural Sciences of Philadelphia employs ANSP for specimens in the zoological collections and diatom herbarium, but PH (Philadelphia Herbarium) for botanical specimens. Institution codes also may differ between modern and historical collections extant within a single institution. Hence, MRSN applies to modern collections at the Museo Regionale di Scienze Naturali di Torino, whereas MACUT and MZUT are used for Università di Torino historical collections associated with Museo di Anatomia Comparata and Museo di Zoologia, respectively (Andreone and Gavetti, 2010).

Alternatively, the institution code may be annotated to distinguish modern from historical collections. Hence, collections at the Martin-Luther-Universität Halle-Wittenberg may be cited as MLUH for modern specimens or MLUH (IZH) for historical specimens associated with its predecessor, Institut für Zoologie, Halle (F. Steinheimer, pers. comm., 2018). Annotated institution codes also may be used to distinguish native holdings from those received from external sources (i.e., other institutions or private collectors). Hence, specimens from the historical collection of Stanford University (SU) now housed at the California Academy of Sciences (CAS) may be cited as SU (institution code) or CAS-SU (annotated institution code).

Finally, some institutions are part of a more inclusive meta-institution that may or may not be expressed in the institution code. Examples of meta-institutions include the Zoological Society of India (ZSI) with ZSI-ANRC (or ZSI/ANRC) used to cite specimens in collections of the Andaman and Nicobar Regional Center, one of many different ZSI regional centers that maintain natural history collections. Another example is National Academy of Sciences of Ukraine (NASU), with which collections of the I. I. Schmalhausen Institute of Zoology (SIZK) and National Museum of Natural History (NMNHU) are both associated. Additional examples of meta-institutions are large universities with collections separated between the main campus and satellite campuses and/or field stations. In such cases, a collection (vs. institution) code may be used to cite specimens. Universidad Nacional Autónoma de México (UNAM) provides a complex example. Specimens associated with the main campus in México City are cited as CNAR (herps in Colección Nacional de Anfibios y Reptiles), CNPE-IBUNAM (fishes in Colección Nacional de Peces), IGM (fossils in Colección Nacional de Paleontología, Instituto de Geología), and IGM-CMR (Colec-

**Table 1.** Variation in derivation of codes for citing natural history specimens.

Source of code or component of code underscored in column 1		Category	Name	Reference
Published citation of specimen(s) [underscores added here]				
<b>Administrative</b>				
<u>SNB</u> -BSPG AS VI 504	Meta-institution	Bayerische Staatssammlung für Paläontologie und Geologie, part of <u>Staatliche Naturwissenschaftliche Sammlungen Bayerns</u> , München [Munich], Germany		Maxwell and López-Arbarello, 2018
<u>ANSP</u> 182322	Institution with custody and ownership	The <u>Academy of Natural Sciences of Philadelphia</u> , USA		Carvalho et al., 2017
<u>ANSP</u> 187723 [ <u>NPS UPDE</u> 2153]	Institution with custody (institution with ownership)	<u>National Park Service</u> , Department of the Interior ( <u>Upper Delaware Scenic and Recreational River</u> ), USA		Sabaj, 2020 (this study)
<u>CSBD</u> F1702/ <u>AUM</u> 44721	Para-institution (dual accession)	specimen accessioned at both the Center for the Study of Biological Diversity, University of Guyana and Auburn University Museum of Natural History, USA		Tan et al., 2016
<u>FACEN</u> 0012	Faculty	<u>Facultad Ciencias Exactas y Naturales</u> , Universidad Nacional de Catamarca, Catamarca, Argentina		Fernández and Andreoli Bize, 2015
<u>FBG</u> N+SAU_F1612sb-186	Department	<u>Aquatic Bioresource Research Laboratory</u> , <u>Department of Fisheries Biology and Genetics</u> , Faculty of Fisheries and Aquaculture, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh		Habib et al., 2019
<u>LB</u> P	Laboratory	<u>Laboratório de Biologia e Genética de Peixes</u> , Departamento de Morfologia, Universidade Estadual Paulista “Júlio de Mesquita Filho”, Campus de Botucatu, Brazil		Ochoa et al., 2020
<b>Taxonomic or Geological</b>				
<u>KUJ</u> 22082	Collection	University of Kansas Ichthyology collection, Lawrence, USA		Schultze and González-Rodríguez, 2016
<u>MMM</u> - <u>CLE</u>	Public Exhibition	<u>Museo Marino de Margarita (colección ictiológica-exhibición)</u> , Boca del Río, Isla Margarita, Venezuela		Cervigón, 2016
<u>CAR</u> 187	Collector	Private collection of <u>Carlos A. Ardila Rodríguez</u> , Barranquilla, Colombia		Netto-Ferreira et al., 2011
<u>JME</u> <u>ETT</u> 365	Geological Setting	fossil from the Upper Jurassic of Etiling deposited at the Jura-Museum Eichstätt, Germany		Schultze and Arratia, 2013
<b>Specimen Preparation</b>				
<u>RMNH</u> .PISC.D 1543	Preservation type	<u>Naturalis Biodiversity Center</u> , Leiden, The Netherlands; <u>dry fish specimen</u>		Han et al., 2017
<u>MNRI</u> 41520 [ <u>MNTI</u> 8664-8666]	Tissue sample	<u>Museu Nacional</u> , Universidade Federal do Rio de Janeiro, Brazil; <u>tissues from three ichthyological specimens cataloged as MNRJ 41520</u>		Moreira et al., 2016
<u>CSDNA</u> 1	DNA extract	<u>Galleria di Storia Naturale di Casalina</u> , Italy; <u>DNA extract from holotype of <i>Esox flaviae</i> cataloged as GSI</u>		Lucentini et al., 2011; Chakrabarty et al., 2013
<b>Geographic</b>				
<u>NHMUK</u>	Country (or Sovereign State)	<u>Natural History Museum</u> , London, England, <u>United Kingdom</u>		O’Leary et al., 2019
<u>IEPA</u>	State (or equivalent)	<u>Instituto de Pesquisas Científicas e Tecnológicas do Estado do Amapá</u> , Macapá, Brazil		Andrade et al., 2018
<u>AMS</u> IB.63.15	City	<u>Australian Museum</u> , <u>Sydney</u> , Australia		McCrouther, 2006
<b>Collaborative</b>				
<u>MUS</u> .FSI.PB/EB/09/2016	Survey	<u>Museum of the Zonal Base</u> , <u>Fishery Survey of India</u> , Port Blair, Andaman Islands		Shirke et al., 2017
<u>PMOL</u> - <u>SGP</u> A0100-1	Project	<u>Sino-German Cooperation Project</u> fossils housed at the Paleontology Museum of Liaoning (PMOL) and to be integrated into the municipal museum of Shanshan, Xinjiang Autonomous Province, China		Rabi et al., 2013



ción de Material Reciente del Museo de Geología). Fish specimens associated with the UNAM campus in Sisal may be cited as CIRR UMDI, Colección Ictiológica Regional de Referencia, Unidad Multidisciplinaria de Docencia e Investigación (Gallardo-Torres et al., 2016).

A special case of a meta-institution is the National Park Service (NPS) in the U.S. Department of the Interior. Natural history specimens collected on lands administered by the National Park Service are the property of NPS, but may be deposited on loan at non-NPS repositories that meet federal requirements. The non-NPS repository generally assigns its own institution/collection code and catalog number (e.g., ANSP 187723) with a cross-reference to the corresponding NPS collection and catalog number (e.g., NPS UPDE 2153, Upper Delaware Scenic and Recreational River NPS unit). In publications, both the NPS and non-NPS repository catalog numbers should be cited, as in: ANSP 187723 [NPS UPDE 2153] (Lauren Finn Hauptman, pers. comm., 2016).

Codes may change as institutions and collections are subject to various forms of rebranding, takeover, and merger (Schindel et al., 2016; Sharma et al., 2018). Omitted from such scenarios are small-scale transfers between institutions. Curators have long exchanged natural history specimens, and those received are generally cited and/or cataloged using “ex,” as in ANSP 203158 (ex. ZUEC 11694). The “ex” notation also is commonly used when specimen(s) are transferred from one lot to another within a particular collection, such as ANSP 203169 (ex. 185074) for the holotype of *Trachydoras gepharti* cited in Sabaj and Arce (2017).

Rebranding is often associated with institutional reorganization and new affiliations, especially when new administrators measure success by renaming levels of administration. Even “trademark” codes (Schindel et al., 2016) are vulnerable. In 2011, for example, NHMUK replaced BMNH as the official code for the Natural History Museum in London (ex-British Museum of Natural History). Mergers and takeovers often accompany the demise of institutional interest in natural history collections. Large-scale transfers are generally well documented for collections of historical importance, especially in Europe, but invariably include the loss or misplacement of specimens. University collections are among the most difficult to track since colleges, departments, labs, and field stations may hold separate collections. Any university that has employed a particularly conscientious taxonomist is likely to have a natural history collection of sorts. Such collections may thrive under faculty who do collections-based research involving students (Humphrey, 1992). If a university collection, however, fails to reach a certain threshold of size and importance, they become highly vulnerable to neglect with changes in institutional priorities and staff. Many orphaned collections are adopted whole or in part by institutions with greater resources. But, some are simply shuttered and eventually discarded.

## DISCUSSION

Museum and collection codes are born of catalogs, checklists, and monographs, nurtured by printed indices, and fledged via online databases. Botanists mounted the first coordinated effort to standardize such codes by establishing the *Index Herbariorum* in 1935 (Lanjouw and Stafleu, 1952). The *Index Herbariorum* is an active global registry of botanical institu-

tions and collections, and maintains a list of 4,175 codes of which 3,324 pertain to active herbaria (Thiers, 2020). Entomologists assembled taxon-specific lists for Coleoptera (Arnett and Samuelson, 1969) and insects with an emphasis on Lepidoptera (Heppner and Lamas, 1982). Those were eventually integrated and expanded into a list of insect and spider collections of the world (Arnett et al., 1993) that is currently maintained and updated by Neal Evenhuis at the Bernice Pauahi Bishop Museum (Evenhuis, 2020). Among vertebrates, lists of codes were assembled first for collections of amphibians and reptiles (Duellman et al., 1978; Leviton et al., 1980), and later expanded to include fishes (Leviton et al., 1985) and revised (Leviton and Gibbs, 1988). The list of codes for fish collections passed through subsequent iterations via type catalogs in print (Eschmeyer, 1998; Ferraris, 2007) and online (Fricke and Eschmeyer, 2020). Though taxonomically siloed, such lists have proven invaluable for communities of biologists to efficiently locate and cite specimens in their research and publications.

The electronic capture of collections data in the late 1970s and 80s (Wiley and Peterson, 2004) and subsequent rise of the internet prompted the museum community to develop open standards for the exchange and aggregation of such data. In 1985, the Taxonomic Databases Working Group (TDWG) was founded to address the needs for natural history specimens. Renamed Biodiversity Information Standards (with the TDWG code retained), this non-profit organization eventually released a set of standards for sharing biodiversity information (Darwin Core Task Group, 2009). The Darwin Core includes four record-level fields (or properties) for parsing data related to the specimen repository: dwc:institutionID, dwc:collectionID, dwc:institutionCode, and dwc:collectionCode. The two “ID” fields are essentially unique identifiers (e.g., LSIDs) created and used by data aggregators. The two “Code” fields are created and used by the institutions and collections that curate the specimen data. A fifth Darwin Core field, dwc:catalogNumber, serves to identify the specimen (or lot) and is presumably unique within a particular collection. Strung together, the institution code, collection code, and catalog number constitute the Darwin Core Triplet. The Darwin Core Triplet has become a de facto globally unique identifier (GUID) for specimen records despite its shortcomings as such, and the most widely deployed identifier scheme for aggregating data on specimens across natural history collections (Guralnick et al., 2014; Schindel et al., 2016).

For linking genetic sequence records to museum voucher specimens, GenBank established and maintains a BioCollections Database (Sharma et al., 2018) that appends a three-letter country code to the Darwin Core Triplet to distinguish institutions with the same code (i.e., dwc:institutionCode). The country codes are supplemented by two-letter state codes when necessary. For example, the BioCollections institution code for University of Alaska, Museum of the North is UAM vs. UAM<USA-AR> for University of Arkansas at Monticello and UAM<ESP> for Universidad Autonoma De Madrid culture collection of cyanobacteria. Although users are asked to provide information on the voucher specimen when submitting sequences to GenBank, many do not provide enough data to establish reliable links to the BioCollections Database (Sharma et al., 2018).

A variety of ongoing initiatives rely on institution and collection codes to aggregate digitized data on natural history

specimens at a variety of scales (Nelson and Ellis, 2018) roughly separable into: 1) global, 2) regional, 3) taxonomic (e.g., online type catalogs), 4) fossil, 5) institutional, and 6) “niche.” The two largest initiatives are the Global Biodiversity Information Facility (GBIF) established in 2001 and the Integrated Digitized Biocollections (iDigBio) established ten years later. The latter (iDigBio) is the central coordinating unit for digitization efforts funded by the U.S. National Science Foundation’s Advancing Digitization of Biodiversity Collections (ADBC) program (Thiers et al., 2019), and the largest U.S. network for sharing specimen data with GBIF. The U.S. Geological Survey’s Biodiversity Information Serving Our Nation (BISON) also serves as a regional aggregator (U.S. node) for contributing records to GBIF.

More focused efforts (e.g., regional to “niche”) may capture or curate specimen records more reliably and/or include collections outside of the GBIF and iDigBio networks. Regional examples of specimen-based aggregators include the Atlas of Living Australia, Mexico’s National Commission for the Knowledge and Use of Biodiversity (CONABIO), Brazil’s *speciesLink*, China’s National Specimen Information Infrastructure (NSII), and SYNTHESYS+, a newly funded project within the European Distributed System of Scientific Collections (DiSSCo).

Taxonomic databases generally focus on records for type specimens and often employ the most up-to-date classification schemes. Type catalogs must contend with historical specimens cited for defunct collections, and often generate modern codes for such cases. Examples of taxonomic databases include WoRMS, the World Register of Marine Species (Horton et al., 2018), and associated World Porifera Database (Van Soest et al., 2018), the Freshwater Mussels (Unionoida) of the World (MUSSELp; Graf and Cummings, 2018), Shark-references.com (Pollerspöck and Straube, 2020), Eschmeyer’s Catalog of Fishes (Fricke et al., 2020), Amphibian Species of the World (Frost, 2020), and the Reptile Database (Uetz et al., 2019, 2020). The Paleobiology Database (PBDB) founded by John Alroy and Charles Marshall in 2000 curates 157,370 specimen records as of 1 January 2019 with about 75–80% of those records tied to museums. At large institutions, specimen records often remain taxonomically siloed in separate databases for each collection. Noteworthy exceptions are the Muséum national d’Histoire naturelle in Paris and the Smithsonian Institution’s online Collections Search Center. Large institutions struggling to aggregate specimen records *in situ* may find it easier to do so *ex situ* by having their collections separately contribute records to global aggregators such as GBIF and iDigBio. A variety of “niche” databases exist online with the Fishes of Mainland Southeast Asia (Kano et al., 2013) as a keen example. All of the aforementioned online databases maintain digital indices of museum and collection codes descended from earlier printed lists.

Institution and collection codes have proliferated in recent decades, due in part to the establishment of new collections in species-rich parts of the world and an increase in the number of journals and online databases that publish on biodiversity. Online registries for natural history collections exist at a variety of scales, although some have gone offline in recent years. At the national level, a noteworthy (and active) example is the Catálogo de las colecciones mexicanas (CONABIO, 2018) which includes 751 Mexican collections with holdings ranging from germplasm and bacteria to

mammals and fossils. Since 2001, the Instituto de Investigación de Recursos Biológicos Alexander von Humboldt has maintained the Registro Único Nacional de Colecciones Biológicas (RNC), a detailed registry of biological collections in Colombia. The Zentralregister botanischer und zoologischer Forschungssammlungen (ZEFOD) once provided a wealth of online information for German natural history collections (Weber, 2018), but its web-presence, as such, has disappeared.

The Global Registry for Biodiversity Repositories (GRBio) assembled one of the largest lists of institution and collection codes (Table 2). GRBio was developed by the Consortium for the Barcode of Life (CBOL, 2004–2011) to help link voucher specimens to DNA barcodes in GenBank (Schindel et al., 2016). GRBio incorporated data from CBOL, the U.S. National Center for Biotechnology Information (NCBI), *Index Herbariorum* (IH), and the Biodiversity Collections Index (BCI, now offline). GRBio was released by CBOL in June 2013 and its management was transferred to Scientific Collections International (GRSciColl) in December 2013. In 2018, the website for GRBio/GRSciColl was hacked and went offline. The data it once managed were dumped on 29 May 2018 and remain available online at DOI: 10.5281/zenodo.1285615. Their abandoned list (*grbio\_institutions\_05\_29\_18.csv*) included 7,097 institution and collection codes. Those data have since been migrated into a newly updated Global Registry of Scientific Collections (GRSciColl) hosted by the Global Biodiversity Information Facility (GBIF, 2018, 2019; Hobern et al., 2020). The new GRSciColl is a comprehensive, community-curated clearinghouse of data on scientific collections in natural history as well as those in other disciplines such as anthropology, archaeology, and biomedicine. GRSciColl’s online registry lists 5,263 collection codes linked to 8,037 institution codes as of 19 May 2020. GBIF uses GRSciColl to help provide valuable data on the natural history collections (i.e., “publishers”) that contribute specimen records to their database (e.g., 1,985 publishers from 1,606 institutions as of 19 May 2020). iDigBio also maintains data on natural history collections contributing records to their database with 1,621 “Recordsets” (individual collections) as of 19 May 2020. For a comparison of well-established indices to institution and collection codes, see Table 2.

The standardization of codes is challenged in part by the lack of a clear ontology for the description of natural history holdings at the collection level. In 2008, the Biodiversity Information Standards (TDWG) community drafted data standards for describing all types of natural history collections including mixed ones resulting from expeditions and voyages of discovery (NCD, 2008). This effort is currently maintained by TDWG’s Collection Descriptions Interest Group, which intends to deliver a metadata standard for natural history collections in 2020 (CD, 2019; Hobern et al., 2020). Such standards are necessary to facilitate the discovery, management, and attribution of collections relative to the specimen-level records they curate and provide.

From a bioinformatics point of view, stable institution and collection codes are essential to accurately and efficiently share data on natural history specimens (Schindel et al., 2016; Hobern et al., 2020). Such codes facilitate online type catalogs, aggregators of specimen-based records, and derivative databases that link natural history specimens to genomic information (e.g., GenBank; International Barcode of Life,

**Table 2.** Comparison of established indices to codes for natural history collections.

Title	Maintained or published by	Total codes	Distinct institutions or collections	Synonymous codes	Codes publicly available for download	Annotation
The Global Registry of Scientific Collections (GRSciColl)	Global Biodiversity Information Facility (GBIF)	8037	8037	NA	Yes (copy & paste)	as of 19 May 2020; includes herbaria, museums, zoos, botanical gardens, biobanks, among others
BioCollections Database	US National Center for Biotechnology Information (NCBI; see Sharma et al., 2018)	7421	7421	NA	Yes (FTP: Unique_institution_codes.txt)	as of 9 May 2020; biorepositories (museums, herbaria, culture collections, etc.) linked to sequence records in GenBank
Global Registry for Biodiversity Repositories (GRBio)	Scientific Collections International (GRSciColl)	7097	7097	NA	Yes (CSV file)	orphaned 29 May 2018, but data migrated to GBIF/GRSciColl in 2019
Index Herbariorum	B. Thiers, New York Botanical Garden's Virtual Herbarium	4175	4175	NA	Yes (CSV file)	as of 15 Dec 2019; 3324 codes pertain to active herbaria
Codes for natural history collections in ichthyology and herpetology	Sabaj, 2020 (this study)	3845	2064*	1781	Yes (Excel file)	*includes defunct institutions/collections
The Insect and Spider Collections of the World Website	N.L. Evenhuis, The Bernice Pauahi Bishop Museum	1872	1528	342	Yes (copy & paste)	as of 16 Mar 2020
A Guide to Fish Collections in the Catalog of Fishes	R. Fricke and W.N. Eschmeyer, 2020	1122	?	?	No	as of 16 Mar 2020; includes synonymous codes
World Porifera Database (WPD) & World Register of Marine Species (WoRMS)	R.W.M. Van Soest et al., 2018 (WPD) & WoRMS Editorial Board, 2018	714	~700	~14	No	based on subset of GRSciColl plus additional codes cited in papers (Bart Vanhoorne, pers. comm., 2018)
Standard Symbolic Codes for Institutional Resource Collections in Herpetology and Ichthyology	A.E. Leviton et al., 1985	690	518	172*	No (printed)	*listed as "Rejected Symbolic Codes"
Catálogo de las colecciones mexicanas	CONABIO	541	541	NA	Yes (copy & paste)	as of 15 May 2020; *institution codes span 751 Mexican collections from germplasm to mammals
speciesLink	D. Canhos, Centro de Referência em Informação Ambiental (CRIA)	~308*	~308*	NA	Yes (copy & paste)	as of 19 May 2020; *institution codes span ~520 collections mostly in Brazil
An inventory of major European bird collections	C.S. Roselaar, 2003	164	152	12	No (printed)	list includes details on collections, holdings and staff; online version maintained and updated by NHMUK
VertNet	VertNet Team	125*	125*	NA	Yes (copy & paste)	as of 19 May 2020; *institution codes span 312 data resources and 398 collections



iBOL) and media records such as 3D images (e.g., MorphoSource). Stable codes also allow for comparative studies and surveys of collections' growth, strengths, and value to science and society (e.g., Funk, 2017; Singer et al., 2018). Future directions for the assembly and use of natural history collections in research and education, such as the Extended Specimen Network (Schindel and Cook, 2018; Lendemer et al., 2019), will need a stable index of codes and, at a finer scale, persistent identifiers for the specimens themselves to improve the interoperability of associated data (Güntsch et al., 2017). GBIF's new online global registry of scientific collections (GRSciColl) will certainly stabilize codes within the bioinformatics community. Taxonomists and systematists, however, often reference the codes in long-standing indices compiled for their particular group, or simply copy and paste a relevant subset of such indices from one paper to the next, substituting or creating new codes when needed. The current study provides context for the idiosyncratic origins, applications, and tenures of codes for natural history collections and institutions, and may help bridge the gap between those used in bioinformatics vs. the scientific literature.

**Concluding remarks.**—In the early days of Linnaean taxonomy, authors were relatively casual about citing the natural history specimens from which their conclusions were drawn. Left to later taxonomists was the complicated task of divining the basis and application of old scientific names. In the early days of molecular taxonomy, authors were similarly casual about clearly citing repositories for specimen vouchers (if extant), making it difficult, if not impossible, for others to verify their work. Faunal surveys and ecological studies do not always involve the preservation of specimens, but those that do often neglect to specify repositories in published results. Linnaean taxonomists today, especially paleontologists, are far more careful about clearly citing repositories for the specimens they studied. Practices among molecular taxonomists have improved, but still fall short on too many occasions. Ecologists remain the most negligent at citing specimen repositories, inviting criticisms that the taxonomic aspects of their work are irreproducible (Bortolus, 2008; Vink et al., 2012). The current list intends to encourage those who collect or employ natural history specimens in their research to carefully document not only the origin, but the final destination of such specimens.

**Closing recommendations.**—General advice for the creation and management of museum codes to promote their standardization and proper use.

1. Newly created or modified codes should include at least two components, an institution code and collection code. Ideally, the institution code should be listed first and globally unique among institutions holding natural history specimens. The collection code should be unique within its parent institution.
2. Institutions holding natural history specimens should clearly identify preferred codes for citing such specimens, especially via homepages, type catalogs, and other articles specifically related to their collections.
3. Published studies that use or yield natural history specimens should clearly identify the repository(ies) for such specimens either by name and physical location (preferred) or by reference to a well-established

and readily available index of institution and collection codes.

4. Indices to institution and collection codes should include relevant sources such as personal communications with staff and primary literature (e.g., collection type catalogs).
5. Online databases that register institutions and collections and/or serve records or media based on natural history specimens should make their index of codes publicly available for download, especially in anticipation of going offline.
6. The so-called "Darwin Core Triplet" (concatenation of `dwc:institutionCode`, `dwc:collectionCode` and `dwc:catalogNumber`) is inadequate as a globally unique identifier. Efforts to create true globally unique identifiers for natural history collections should consider incorporating a fourth Darwin Core field, `dwc:owner-InstitutionCode`, to tie together collections with separate institution codes (e.g., Museum of Vertebrate Zoology and Museum of Paleontology) into a larger meta-institution (University of California, Berkeley).

#### DATA ACCESSIBILITY

An excel file containing all abbreviations and additional information on sources (bibliography and personal correspondences) is available at: <https://asih.org/standard-symbolic-codes/about-symbolic-codes>. Supplemental material is available at <https://www.copeiajournal.org/ASIHCONDONS2020>.

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#### LITERATURE CITED

- Andrade, M. C., M. Jégu, and C. S. Gama. 2018. A new species of *Myloplus* Gill (Characiformes, Serrasalminae) from the Tumucumaque Mountain Range, Brazil and French Guiana, with comments on *M. rubripinnis*. *Zootaxa* 4403:111–122.
- Andreone, F., and E. Gavetti. 2010. I musei naturalistici metropolitani nello studio e nella conservazione della biodiversità erpetologica: il caso del Museo Regionale di Scienze Naturali di Torino. *Museologia Scientifica Memorie* 5:49–61.
- Arnett, R. H., Jr., and G. A. Samuelson (Eds.). 1969. *Directory of Coleoptera collections of North America (Canada through Panama)*. Purdue University, Lafayette, Indiana.
- Arnett, R. H., G. A. Samuelson, and G. M. Nishida. 1993. *The Insect and Spider Collections of the World*. Sandhill Crane Press, Gainesville, Florida.



- Bauer, A. M., A. Ceregato, and M. Delfino. 2013. The oldest herpetological collection in the world: the surviving amphibian and reptile specimens of the Museum of Ulisse Aldrovandi. *Amphibia-Reptilia* 34:305–321.
- Beck, L. A. (Ed.). 2018. *Zoological Collections of Germany. The Animal Kingdom in its Amazing Plenty at Museums and Universities*. Springer.
- Beck, L. A., and U. Joger (Eds.). 2018. *Paleontological Collections of Germany, Austria and Switzerland*. Springer.
- Böhme, W. 2010. A list of the herpetological type specimens in the Zoologisches Forschungsmuseum Alexander Koenig, Bonn. *Bonn Zoological Bulletin* 59:79–108.
- Bortolus, A. 2008. Error cascades in the biological sciences: the unwanted consequences of using bad taxonomy in ecology. *Ambio* 37:114–118.
- Carvalho, T. P., R. E. Reis, and M. H. Sabaj. 2017. Description of a new blind and rare species of *Xylophius* (Siluriformes: Aspredinidae) from the Amazon Basin using high-resolution computed tomography. *Copeia* 105:14–28.
- CD (Collections Descriptions Interest Group). 2019. Collection Descriptions (CD), in development. Biodiversity Information Standards (TDWG) <https://www.tdwg.org/standards/>
- Cervigón, F. 2016. Colección Ictiológica: MMM CI y CI-E (de referencia y de exhibición), p. 431–439. *In: Colecciones Ictiológicas de Latinoamérica*. L. F. Del Moral-Flores, A. J. Ramírez-Villalobos, J. A. Martínez-Pérez, A. F. González-Acosta, and J. Franco-López (eds.). Universidad Nacional Autónoma de México, Facultad de Estudios Superiores Iztacala, Sociedad Ictiológica Mexicana A.C., Carrera de Biología.
- Chakrabarty, P., M. Warren, L. M. Page, and C. C. Baldwin. 2013. GenSeq: an updated nomenclature and ranking for genetic sequences from type and non-type sources. *ZooKeys* 346:29–41.
- CONABIO (Comisión Nacional para el Conocimiento y Uso de la Biodiversidad). 2018. Catálogo de las colecciones mexicanas. <https://www.biodiversidad.gob.mx/fichas-conabio-war/resources/>
- Darwin Core Task Group. 2009. Darwin Core. G. Kampmeier (review manager). Biodiversity Information Standards (TDWG). <https://www.tdwg.org/standards/450>
- Del Moral-Flores, L. F., A. J. Ramírez-Villalobos, J. A. Martínez-Pérez, A. F. González-Acosta, and J. Franco-López (Eds.). 2016. *Colecciones ictiológicas de Latinoamérica*. Universidad Nacional Autónoma de México, Facultad de Estudios Superiores Iztacala, Sociedad Ictiológica Mexicana A.C., Carrera de Biología.
- Duellman, W. E., T. Fritts, and A. E. Leviton. 1978. Museum acronyms. Prepared by Electronic Data Processing Subcommittee, Herpetological Resources Committee. *Herpetological Review* 9:5–9.
- Eschmeyer, W. N. (Ed.). 1998. *Catalog of Fishes*. Special Publication No. 1 of the Center for Biodiversity Research and Information, California Academy of Sciences.
- Evenhuis, N. L. 2020. The insect and spider collections of the world website. <http://hbs.bishopmuseum.org/codens/> (last accessed: 16 March 2020).
- Fernández, L., and J. Andreoli Bize. 2015. *Hatcheria macraei* (Girard, 1855) (Siluriformes, Trichomycteridae): new record from northwestern Argentina. *Check List* 11:1–3.
- Ferraris, C. J., Jr. 2007. Checklist of catfishes, recent and fossil (Osteichthyes: Siluriformes), and catalogue of siluriform primary types. *Zootaxa* 1418:1–628.
- Fricke, R., and W. N. Eschmeyer. 2010. A Guide to Fish Collections in the Catalog of Fishes Database. Online version of 15 January 2010.
- Fricke, R., and W. N. Eschmeyer. 2020. A Guide to Fish Collections in the Catalog of Fishes Database. Online version of 16 March 2020.
- Fricke, R., W. N. Eschmeyer, and R. van der Laan (Eds.). 2020. *Catalog of Fishes: Genera, Species, References*. Electronic version.
- Frost, D. R. 2020. *Amphibian Species of the World: An Online Reference*. Version 6.0. Electronic Database accessible at <http://research.amnh.org/herpetology/amphibia/index.html>. American Museum of Natural History, New York.
- Funk, V. A. 2017. North American Herbaria and their Tropical Plant collections: what exists, what is available, and what the future may bring. *Scientia Danica, Series B, Biologica* 6:73–96.
- Gallardo-Torres, A., M. Badillo-Alemán, H. Gutiérrez-Oliva, and X. Chiappa-Carrara. 2016. Colección Ictiológica Regional de Referencia (CIRR), UMDI Sisal, p. 358–369. *In: Colecciones Ictiológicas de Latinoamérica*. L. F. del Moral Flores, A. J. Ramírez Villalobos, J. A. Martínez Pérez, A. F. González Acosta, and J. Franco López (eds.). Universidad Nacional Autónoma de México, Facultad de Estudios Superiores Iztacala, Sociedad Ictiológica Mexicana A.C., Carrera de Biología.
- GBIF. 2018. GBIF Implementation Plan 2017-2021 and Annual Work Programme 2019. <https://www.gbif.org/document/4Pcu4jX68UE2iMOMQgQEE8/gbif-implementation-plan-2017-2021-and-annual-work-programme-2019>
- GBIF. 2019. News: GBIF provides new home for the Global Registry of Scientific Collections. <https://www.gbif.org/news/5kyAslpqTVxYqZTwYn1cub/gbif-provides-new-home-for-the-global-registry-of-scientific-collections>
- Gilbert, C. A. 1998. Type catalog of Recent and fossil North American Freshwater fishes: families Cyprinidae, Catostomidae, Ictaluridae, Centrarchidae and Elasmobranchidae. Florida Museum of Natural History, Special Publication No. 1:i-ii + 1–284.
- Graf, D. L., and K. S. Cummings. 2018. The Freshwater Mussels (Unionoida) of the World (and other less consequential bivalves), updated 9 August 2018. MUSSEL Project Web Site. <http://www.mussel-project.net/>
- Güntsch, A., R. Hyam, G. Hagedorn, S. Chagnoux, D. Röpert, A. Casino, G. Droege, F. Glöckler, K. Gödderz, Q. Groom, J. Hoffmann, A. Holleman, M. Kempa, H. Koivula . . . D. Triebel. 2017. Actionable, long-term stable and semantic web compatible identifiers for access to biological collection objects. *Database* 2017:bax003.
- Guralnick, R., T. Conlin, J. Deck, B. J. Stucky, and N. Cellinese. 2014. The trouble with triplets in biodiversity informatics: a data-driven case against current identifier practices. *PLoS ONE* 9:e114069.
- Habib, K. A., A. K. Neogi, J. Oh, Y.-H. Lee, and C.-G. Kim. 2019. *Chelonodontops bengalensis* (Tetraodontiformes: Tetraodontidae): a new species of puffer fish from the Northern Bay of Bengal based on morphology and DNA barcode. *Ocean Science Journal* 54:79–86.

- Han, S.-Y., J.-K. Kim, Y. Kai, and H. Senou. 2017. Seahorses of the *Hippocampus coronatus* complex: taxonomic revision, and description of *Hippocampus haema*, a new species from Korea and Japan (Teleostei, Syngnathidae). *ZooKeys* 712: 113–139.
- Heppner, J. B., and G. Lamas. 1982. Acronyms for world museum collections of insects, with an emphasis on Neotropical Lepidoptera. *Bulletin of the Entomological Society of America* 28:305–315.
- Hobern, D., A. Asase, Q. Groom, D. Paul, T. Robertson, P. Semal, B. Thiers, and M. Woodburn. 2020. Advancing the Catalogue of the World's Natural History Collections. v1.0. GBIF Secretariat, Copenhagen. <https://doi.org/10.15468/doc-wnsx-ep77>
- Horton, T., A. Kroh, S. Ah Yong, N. Bailly, C. B. Boyko, S. N. Brandão, S. Gofas, J. N. A. Hooper, F. Hernandez, O. Holovachov, J. Mees, T. N. Molodtsova, G. Paulay, W. Decock . . . Z. Zhao. 2018. World Register of Marine Species. <https://www.marinespecies.org> at VLIZ (accessed 2018-12-31).
- Humphrey, P. S. 1992. University Natural History Museum Systems. *Curator* 35:49–70.
- Kano, Y., M. S. B. Adnan, C. Grudpan, J. Grudpan, W. Magtoon, P. Musikasinthorn, Y. Natori, S. Ottomanski, B. Praxaysonbath, K. Phongsa, A. Rangsiruji, K. Shibukawa, Y. Shimatani, N. So . . . T. Yamashita. 2013. An online database on freshwater fish diversity and distribution in Mainland Southeast Asia. *Ichthyological Research* 60:293–295.
- Lanjouw, J., and F. A. Stafleu. 1952. Index herbariorum: a guide to the location and contents of the world's public herbaria, part I: the herbaria of the world. *Regnum Vegetabile* 2(1).
- Lendemeyer, J., B. Thiers, A. K. Monfils, J. Zaspel, E. R. Ellwood, A. Bentley, K. Levan, J. Bates, D. Jennings, D. Contreras, L. Lagomarsino, P. Mabee, L. S. Ford, R. Guralnick . . . M. C. Aime. 2019. The Extended Specimen Network: a strategy to enhance US biodiversity collections, promote research and education. *BioScience* 70:23–30.
- Leviton, A. E., and R. H. Gibbs, Jr. 1988. Standards in Herpetology and Ichthyology: Standard Symbolic Codes for Institutional Resource Collections in Herpetology and Ichthyology. Supplement No. 1: Additions and Corrections. *Copeia* 1988:280–282.
- Leviton, A. E., R. H. Gibbs, Jr., E. Heal, and C. E. Dawson. 1985. Standards in Herpetology and Ichthyology: Parts I–III. Standard Symbolic Codes for Institutional Resource Collections in Herpetology and Ichthyology. *Copeia* 1985: 802–832.
- Leviton, A. E., R. McDiarmid, S. Moody, M. Nickerson, J. Rosado, O. Sokol, and H. Voris. 1980. Museum acronyms—second edition. *Herpetological Review* 11:93–102.
- Lucentini, L., M. E. Puletti, C. Ricciolini, L. Gigliarelli, D. Fontaneto, L. Lanfaloni, F. Bilò, M. Natali, and F. Panara. 2011. Molecular and phenotypic evidence of a new species of genus *Esox* (Esocidae, Esociformes, Actinopterygii): the Southern Pike, *Esox flaviae*. *PLoS ONE* 6:1–14.
- Maxwell, E. E., and A. López-Arbarello. 2018. A new species of the deep-bodied actinopterygian *Dapedium* from the Middle Jurassic (Aalenian) of southwestern Germany. *PeerJ* 6:e5033.
- McGrouther, M. A. 2006. Ichthyology at the Australian Museum: Collections, databases and the Web, p. 103–116. *In: Proceedings of the 7<sup>th</sup> and 8<sup>th</sup> Symposia on Collection Building and Natural History Studies in Asia and the Pacific Rim*. Y. Tomida, T. Kubodera, S. Akiyama, and T. Kityama (eds.). National Science Museum Monographs 34.
- Metcalf, J. L., S. Love Stowell, C. M. Kennedy, K. B. Rogers, D. McDonald, J. Epp, K. Keepers, A. Cooper, J. J. Austin, and A. P. Martin. 2012. Historical stocking data and 19<sup>th</sup> century DNA reveal human-induced changes to native diversity and distribution of cutthroat trout. *Molecular Ecology* 21:5194–5207.
- Moreira, D. A., P. A. Buckup, M. R. Britto, M. G. P. Magalhães, P. C. C. de Andrade, C. Furtado, and T. E. Parente. 2016. The complete mitochondrial genome of *Corydoras nattereri* (Callichthyidae: Corydoradinae). *Neotropical Ichthyology* 14:e150167.
- NCD (Natural Collections Descriptions Interest Group). 2008. Natural Collections Descriptions (NCD), version 2008-08-12. Biodiversity Information Standards (TDWG). <https://www.tdwg.org/standards/312> (also: <https://www.tdwg.org/standards/ncd/>)
- Nelson, G., and S. Ellis. 2018. The history and impact of digitization and digital data mobilization on biodiversity research. *Philosophical Transactions of the Royal Society B* 374:20170391.
- Netto-Ferreira, A. L., O. T. Oyakawa, J. Zuanon, and J. C. Nolasco. 2011. *Lebiasina yepezi*, a new Lebiasininae (Characiformes: Lebiasinidae) from the Serra Parima-Tapirapecó mountains. *Neotropical Ichthyology* 9:767–775.
- Ochoa, L. E., A. Datovo, C. DoNascimento, F. F. Roxo, M. H. Sabaj, J. Chang, B. F. Melo, G. S. C. Silva, F. Foresti, M. Alfaro, and C. Oliveira. 2020. Phylogenomic analysis of trichomycterid catfishes (Teleostei: Siluriformes) inferred from ultraconserved elements. *Scientific Reports* 10:2697.
- O'Leary, M. A., M. L. Bouaré, K. M. Claeson, K. Heilbronn, R. V. Hill, J. McCartney, J. A. Sessa, F. Sissoko, L. Tapanila, E. Wheeler, and E. M. Roberts. 2019. Stratigraphy and paleobiology of the Upper Cretaceous-Lower Paleogene sediments from the Trans-Saharan Seaway in Mali. *Bulletin of the American Museum of Natural History* 436:1–177.
- Parris, D. C., J. P. Schein, E. B. Daeschler, E. S. Gilmore, J. C. Poole, and R. A. Pellegrini. 2014. Two halves make a holotype: two hundred years between discoveries. *Proceedings of the Academy of Natural Sciences of Philadelphia* 163:85–89.
- Pietsch, T. W., and W. D. Anderson, Jr. 1997. Collection Building in Ichthyology and Herpetology. American Society of Ichthyologists and Herpetologists, Special Publication No. 3.
- Pollerspöck, J., and N. Straube. 2020. Bibliography Database of living/fossil sharks, rays and chimaeras (Chondrichthyes: Elasmobranchii, Holocephali). <https://www.shark-references.com>, World Wide Web electronic publication, Version 2020.
- Poss, S. G., and B. B. Collette. 1995. Second survey of fish collections in the United States and Canada. *Copeia* 1995: 48–70.
- Rabi, M., C.-F. Zhou, O. Wings, S. Ge, and W. G. Joyce. 2013. A new xinjiangchelyid turtle from the Middle Jurassic of Xinjiang, China and the evolution of the

- basipterygoid process in Mesozoic turtles. *BMC Evolutionary Biology* 12:203.
- Roselaar, C. S. 2003. An inventory of major European bird collections. *Bulletin of The British Ornithologists' Club* 123A:253–337.
- Sabaj, M. H. 2013. Academy Collections, Year-End Report, Ichthyology, 2012. Department of Ichthyology, The Academy of Natural Sciences of Drexel University.
- Sabaj, M. H., and M. Arce Hernández. 2017. Taxonomic assessment of the Hard-Nosed Thornycats (Siluriformes: Doradidae: *Trachydoras* Eigenmann 1925) with description of *Trachydoras gepharti*, n. sp. *Proceedings of the Academy of Natural Sciences of Philadelphia* 166:1–53.
- Schindel, D. E., and J. A. Cook. 2018. The next generation of natural history collections. *PLoS Biology* 16:e2006125.
- Schindel, D. E., S. E. Miller, M. G. Trizna, E. Graham, and A. E. Crane. 2016. The Global Registry of Biodiversity Repositories: A Call for Community Curation. *Biodiversity Data Journal* 2016:e10293.
- Schultze, H.-P., and G. Arratia. 2013. The caudal skeleton of basal teleosts, its conventions, and some of its major evolutionary novelties in a temporal dimension, p. 187–246. *In: Mesozoic Fishes 5—Global Diversity and Evolution*. G. Arratia, H.-P. Schultze, and M. V. H. Wilson (eds.). Verlag Dr. Friedrich Pfeil, München, Germany.
- Schultze, H.-P., and K. A. González-Rodríguez. 2016. Actinistian gular plates from the Cretaceous of Mexico and the problems assigning gular plates taxonomically. *Fossil Record* 19:101–117.
- Sharma, S., S. Ciuffo, E. Starchenko, D. Darji, L. Chlumsky, I. Karsch-Mizrachi, and C. L. Schoch. 2018. The NCBI BioCollections Database. *Database, The Journal of Biological Databases and Curation* 2018:bay0006.
- Shirke, S. S., M. Nashad, M. D. Sukham, and H. D. Pradeep. 2017. A first record of the Bentfin Devil Ray *Mobula thurstoni* (Lloyd, 1908) (Myliobatiformes: Mobulidae) from the Indian EEZ of the Andaman Sea. *Journal of Threatened Taxa* 9:11074–11080.
- Singer, R. A., K. J. Love, and L. M. Page. 2018. A survey of digitized data from U.S. fish collections in the iDigBio data aggregator. *PLoS ONE* 13:e0207636.
- Tan, M., L. S. de Souza, and J. W. Armbruster. 2016. A new species of *Panaqolus* (Siluriformes: Loricariidae) from the rio Branco. *Neotropical Ichthyology* 14:e150033.
- Thiers, B. 2020. The World's Herbaria 2019: A Summary Report Based on Data from Index Herbariorum, Issue 3.0. [http://sweetgum.nybg.org/science/docs/The\\_Worlds\\_Herbaria\\_2019.pdf](http://sweetgum.nybg.org/science/docs/The_Worlds_Herbaria_2019.pdf)
- Thiers, B., A. Monfils, J. Zaspel, E. Ellwood, A. Bentley, K. Levan, J. Bates, D. Jennings, D. Contreras, L. Lagomarsino, P. Mabee, L. Ford, R. Guralnick, R. Gropp . . . M. C. Aime. 2019. BCoN Report: Extending U.S. Biodiversity Collections to Promote Research and Education. Biodiversity Collections Network.
- Uetz, P., S. Cherikh, G. Shea, I. Ineich, P. D. Campbell, I. V. Doronin, J. Rosado, A. Wynn, K. A. Tighe, R. McDiarmaid, J. L. Lee, G. Köhler, R. Ellis, P. Doughty . . . V. Wallach. 2019. A global catalog of primary reptile type specimens. *Zootaxa* 4695:438–450.
- Uetz, P., P. Freed, and J. Hošek (Eds.). 2020. The Reptile Database. <http://www.reptile-database.org>
- Van Soest, R. W. M., N. Boury-Esnault, J. N. A. Hooper, K. Rützler, N. J. de Voogd, B. Alvarez, E. Hajdu, A. B. Pisera, R. Manconi, C. Schönberg, M. Klautau, B. Picton, M. Kelly, J. Vacelet . . . R. Downey. 2018. World Porifera database. <https://www.marinespecies.org/porifera/> (accessed 2018-12-30).
- Vink, C. J., P. Paquin, and R. H. Cruickshank. 2012. Taxonomy and irreproducible biological science. *BioScience* 62:451–452.
- Wallach, V., K. L. Williams, and J. Boundy. 2014. *Snakes of the World: A Catalogue of Living and Extinct Species*. Taylor and Francis, CRC Press, Boca Raton, Florida.
- Weber, C. 2018. National and international collection networks, p. 29–36. *In: Zoological Collections of Germany. The Animal Kingdom in Its Amazing Plenty at Museums and Universities*. L. A. Beck (ed.). Springer International Publishing.
- Wiley, E. O., and A. T. Peterson. 2004. Biodiversity and the internet: building and using the virtual world museum, p. 91–99. *In: Environmental Online Communication. Advanced Information and Knowledge Processing*. A. Scharl (ed.). Springer, London.

## APPENDIX 1

**Codes for natural history collections in ichthyology and herpetology. Codes are listed alphabetically by country, then state (where applicable), and assigned an index number (Supplemental Appendix; see Data Accessibility). Word, PDF, and Excel versions of this appendix are available as supplemental material (see Data Accessibility).**

**1. KUZM:** Zoological Museum, Faculty of Science, Kabul University (KU), Kabul. *Also known as:* Kabul University Science Museum. *Note:* established by Clas Naumann, KU professor from 1970–1972, during which time herpetological specimens were shared with ZFMK; zoological museum destroyed during Taliban regime (1996–2001). *Assigned here:* KUZM. Afghanistan.

**2. MNST:** Natural Sciences Museum of Albania, Tirana. *Note:* affiliated with the University of Tirana. *Current as:* MNST (herps). Albania.

**3. FSB/HAL:** Faculté des Sciences Biologiques (FSB), Université des sciences et de la technologie Houari-Boumediene (USTHB), Bab Ezzouar. *Also known as:* University of Bab Ezzouar. *Current as:* FSB/HAL (fishes). *See also:* ZAR (fossils). Algeria.

**4. UTL:** University of Abou Bakr Belkaid [Abou Bakr Belkaid University of Tlemcen], Tlemcen. *Current as:* UTL (fossils, Laboratory). Algeria.

**5. ZAR:** Musée de la Faculté des Sciences de la Terre de la Géographie et de l'Aménagement du Territoire (FSTGAT), Université des sciences et de la technologie Houari-Boumediene (USTHB), Bab Ezzouar. *Current as:* ZAR (fossils from Zarzaitine Series). *See also:* FSB/HAL (fishes). Algeria.

**6. JPHM:** Jean P. Haydon Museum, Pago Pago. American Samoa.

**7. ISCED:** Instituto Superior de Ciências de Educação da Huíla (ISCED-Huíla), Lubango [ex Sá da Bandeira]. *Also known as:* Lubango Museum. *Includes:* collections of Instituto de Investigação Científica de Angola (IICA). *Current as:* ISCED. Huíla. Angola.

**8. INBAC:** Instituto Nacional da Biodiversidade e Áreas de Conservação, Ministério do Ambiente de Angola, Kilamba Xiaki, Luanda. *Current as:* INBAC (herps). Luanda. Angola.



- 9. MGUIAN:** Museu de Geologia da Universidade Agostinho Neto, Luanda. *Current as:* MGUIAN (fossils), MGUIAN-PA (fossils, PaleoAngola Collection). Luanda. Angola.
- 10. MNHNL:** Museu Nacional de História Natural de Angola, Largo do Kinaxixe, Luanda [ex São Paulo da Assunção de Loanda]. *Note:* descended from Angolan Museum founded in 1938 in São Miguel Fort, Luanda Bay area. *Current as:* MNHNL/ANF (amphibians), MNHNL/Rep (reptiles). Luanda. Angola.
- 11. MD:** Museu Regional do Dundo, Dundo, Chitato. *Also known as:* Museu do Dundo; Laboratório de Biologia do Museu do Dundo; Dundo Museum. *Current as:* MD. Lunda Norte. Angola.
- 12. AI:** Asociación Ictiológica, La Plata. *Note:* collection separate from, but in same building as MLP. *Current as:* AI (fishes). Buenos Aires. Argentina.
- 13. CENAI:** Centro Nacional de Investigaciones Iológicas, Buenos Aires. *Also as:* Colección Herpetológica, Instituto Nacional de Microbiología “Gustav G. Malbrán” (CENAI/CHINM, INM, IINM). *Note:* “Iológicas” correct, derived from Greek word for venom; institution founded by Avelino Barrio and closed in 1979; herps (including types) transferred to MACN. Buenos Aires. Argentina.
- 14. CFA:** Fundación de Historia Natural Félix de Azara Colección, Universidad Maimónides, Buenos Aires. *Includes:* fish collection formerly at Instituto de Limnología “Dr. Raúl A. Ringuélet”, La Plata (ILPLA, ILLPA). *Note:* older CFA collections assembled by Julio Rafael Contreras for Programa de Biología Básica, Corrientes, transferred to MACN and re-numbered. *Current as:* CFA-IC (fishes), CFA-AN (amphibians), CFA-RE (reptiles). Buenos Aires. Argentina.
- 15. GCF:** Grupo Conservacionista de Fósiles, Museo Paleontológico “Fray Manuel de Torres”, San Pedro. *Current as:* GCF (fossils). Buenos Aires. Argentina.
- 16. IAA:** Instituto Antártico Argentino, Museo Antártico de la Fundación Marambio, Buenos Aires. *Note:* research institution; status of collections unknown. Buenos Aires. Argentina.
- 17. MCA:** Museo Municipal de Ciencias Naturales “Carlos Ameghino”, Mercedes. *Current as:* MCA (fossils). Buenos Aires. Argentina.
- 18. MCNL:** Museo de Ciencias Naturales “Gesué Pedro Nosedá”, Lobería. *Current as:* MCNL (fossils). Buenos Aires. Argentina.
- 19. MCNLF:** Museo de Ciencias Naturales “Florentino Ameghino”, Las Flores. *Current as:* MCNLF (fossils). Buenos Aires. Argentina.
- 20. MHRA:** Museo Histórico Regional Ayacucho, Ayacucho. *Current as:* MHRA (fossils). Buenos Aires. Argentina.
- 21. MMCNP:** Museo Municipal de Ciencias Naturales Pachamama, Santa Clara del Mar. *Current as:* MMCNP (fossils). Buenos Aires. Argentina.
- 22. MMH:** Museo de Ciencias Naturales “Vicente Di Martino”, Monte Hermoso. *Current as:* MMH-QEQ (fossils from Puente Vanoli). Buenos Aires. Argentina.
- 23. MMP:** Museo Municipal de Ciencias Naturales “Lorenzo Scaglia”, Mar del Plata. *Current as:* MMP (fossils). Buenos Aires. Argentina.
- 24. CPBA:** Departamento de Ciencias Geológicas, Universidad de Buenos Aires (UBA), Buenos Aires. *Current as:* CPBA (fossils). *See also:* FCEN (Recent vertebrates). Buenos Aires. Argentina.
- 25. FCEN:** Vertebrate Collection, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires (UBA), Buenos Aires. *Current as:* FCEN-V (herps). *See also:* CPBA (fossils). Buenos Aires. Argentina.
- 26. INIDEP:** Instituto Nacional de Investigaciones desarrollo pesquero, Mar del Plata. *Formerly:* Instituto de Biología Marina (IBMC) until 1977. *Current as:* INIDEP (fishes). Buenos Aires. Argentina.
- 27. MACN:** Museo Argentino de Ciencias Naturales “Bernardino Rivadavia”, Buenos Aires. *Formerly:* Museo Nacional de Argentina; Museo Nacional de Buenos Aires (MNBA). *Includes:* herpetological collections from Centro de Ecología aplicada del Litoral (HB) and Instituto Nacional de Microbiología “Carlos G. Malbrán” (CENAI/CHINM, INM, IINM); collection assembled by Julio Rafael Contreras for Programa de Biología Básica, Corrientes (now CFA); Colección Carlos Grisolia (CCG). *Obsolete as:* MBR, MNBA, SHNBA. *Current as:* MACN-Ict (fishes, Colección Nacional de Ictiología), MACN-He (herps, Colección Nacional de Herpetología); MACN-Pv (fossils, Colección Nacional de Paleovertebrados). Buenos Aires. Argentina.
- 28. MD:** Museo Municipal de Ciencias Naturales Carlos Darwin. *Current as:* MD (fossils). Buenos Aires. Argentina.
- 29. MLP:** Museo de La Plata, Facultad de Ciencias Naturales y Museo (FCNyM), Universidad Nacional de La Plata, La Plata. *Also known as:* Museo de Ciencias Naturales de La Plata (CHMLPA). *Formerly:* Museo Antropológico y Arqueológico de Buenos Aires based on collections donated by Francisco Pascasio Moreno. *Note:* fish collection in same building but separate from Asociación Ictiológica (AI) collection. *In error as:* ILPLA (herps). *Obsolete as:* CHMLPA, MLPA. *Current as:* MLP (fishes), MLP (fossils, División Paleontología de Vertebrados), MLP A (amphibians), MLP R (reptiles, for catalog numbers  $\geq 5000$ ), MLP S. & MLP JW. (lizards & snakes, respectively, for catalog numbers  $< 5000$ ), MLP DB (Diego Baldo herpetological collection). *Also as:* UNLP (amphibians). Buenos Aires. Argentina.
- 30. PV-UNS:** Colección Paleontológica de la Universidad Nacional del Sur, Bahía Blanca. *Current as:* PV-UNS (fossils). Buenos Aires. Argentina.
- 31. UNMDP:** Universidad Nacional de Mar del Plata, Facultad de Ciencias Exactas y Naturales, Laboratorio Vertebrados, Mar del Plata. *Note:* includes Instituto de Investigaciones Marinas y Costeras (IIMyC). *Current as:* UNMDP (fishes), UNMDP (Colección Herpetológica). Buenos Aires. Argentina.
- 32. FACEN:** Facultad Ciencias Exactas y Naturales, Universidad Nacional de Catamarca, Catamarca. *Includes:* fish collection formerly known as UNCa. *Current as:* FACEN (fishes). Catamarca. Argentina.
- 33. MCNCH:** Museo de Ciencias naturales “Augusto Gustavo Schulz”, Resistencia. *Note:* reported as closed in 2016. Chaco. Argentina.
- 34. CENPAT:** Centro Nacional Patagónico, Puerto Madryn. *Note:* exclusive unit of Consejo Nacional de Investigaciones Científicas y Tecnológicas (CONICET). *Includes:* Colección Herpetológica, Luciano Javier Avila Mariana Morando (LJAMM-CNP) began in 1998 and donated to CENPAT in 2009. *Obsolete as:* CH-CNP (herps). *Current as:* CENPAT (fossil fishes), CNP-A (amphibians), CNP-P (fishes), LJAMM-CNP (Colección Herpetológica). Chubut. Argentina.
- 35. JAS-DC:** José A. Scolaro Diagnostic Collection (herps). *Current as:* JAS-DC (herps). *Also as:* CH-JAS (Colección Herpetológica de José A. Scolaro). Chubut. Argentina.



**36. MPEF:** Museo Paleontológico “Egidio Feruglio”, Trelew. *Current as:* MPEF-PV (fossil vertebrates). Chubut. Argentina.

**37. UNPSJB:** Universidad Nacional de la Patagonia San Juan Bosco, Chubut Province. *Note:* created in 1980 via merger of Universidad de San Juan Bosco and Universidad Nacional de la Patagonia. *Current as:* UNPSJB (fossils). Chubut. Argentina.

**38. AGM:** Archivo Gráfico y Museo Histórico de San Francisco y la Región, San Francisco. *Current as:* AGM (fossils). Córdoba. Argentina.

**39. CORD:** Museo de Paleontología, Universidad Nacional de Córdoba, Córdoba. *Current as:* CORD-PZ (fossils). *See also:* MZUC (Recent fishes, herps). Córdoba. Argentina.

**40. MAMM:** Museo de Ciencias Naturales de la Región de Ansenusa “Aníbal Montes”, Miramar. *Current as:* MAMM-PV (fossils, Sección Paleovertebrados). Córdoba. Argentina.

**41. MBM:** Museo Provincial de Ciencias Naturales “Bartolomé Mitre”, Córdoba. *Current as:* MBM-PV (fossils). Córdoba. Argentina.

**42. MCNC:** Museo Provincial de Ciencias Naturales “Dr. Arturo Umberto Illía”, Córdoba. *Current as:* MCNC PV (fossils). Córdoba. Argentina.

**43. MHM:** Museo Histórico Municipal de Arroyito, Arroyito. *Current as:* MHM (fossils). Córdoba. Argentina.

**44. MPH:** Museo Municipal Punta Hermengo, Miramar. *Current as:* MPH (fossils). Córdoba. Argentina.

**45. MZUC:** Museo de Zoología, Facultad de Ciencias Exactas, Físicas y Naturales, Universidad Nacional de Córdoba, Córdoba. *Current as:* MZUC (herps). *Also as:* CZA (herps, Centro de Zoología Aplicada). *See also:* CORD (fossils). Córdoba. Argentina.

**46. UNRC-ZV:** Colección Herpetológica de Zoología Vertebrados, Departamento de Ciencias Naturales, Universidad Nacional de Río Cuarto, Córdoba. *Obsolete as:* DCN-UNRC, ZVUNRC, UNRC-DCN-ZV. *Current as:* UNRC-ZV. Córdoba. Argentina.

**47. CIPBV:** Centro de Investigaciones Pesqueras “Bella Vista”, Bella Vista. *Note:* no longer extant; disposition of collection unknown. Corrientes. Argentina.

**48. INALI:** Instituto Nacional de Limnología, Consejo Nacional de Investigaciones Científicas y Tecnológicas (CONICET), Universidad Nacional del Litoral, Santo Tomé. *Note:* fish collection transferred to Museo Provincial de Ciencias Naturales “Florentino Ameghino”, Santa Fé (MFA). *See also:* MFA. Corrientes. Argentina.

**49. UNNEC:** Universidad Nacional del Nordeste, Facultad de Ciencias Exactas y Naturales y Agrimensura (FaCENA), Corrientes. *Obsolete as:* UNNE. *Current as:* CTES-PZ (fossils, Colección Paleontológica “Rafael Herbst”), UNNEC (Colección Herpetológica “Lic. Blanca Beatriz Alvarez”). Corrientes. Argentina.

**50. CICYTTP:** Centro de Investigaciones Científicas y Transferencia de Tecnología a la Producción, Diamante. *Current as:* CICYTTP-PV-P (fossil fishes). *Also as:* CICTTTP (fossils). Entre Ríos. Argentina.

**51. MER:** Museo de Ciencias Naturales y Antropológicas “Prof. Antonio Serrano”, Paraná. Entre Ríos. Argentina.

**52. PVE:** Museo de Ciencias Naturales de Villa Escolar, Villa Escolar. *Formerly:* Colección Paleontología de Villa Escolar. *Current as:* PVE-F (fossils). Formosa. Argentina.

**53. RVP:** Relevamiento de Vertebrados de La Pampa, Museo Provincial de Historia Natural, Santa Rosa. *Formerly:*

Museo Regional Pampeano until 1992. La Pampa. Argentina.

**54. IADIZA:** Instituto Argentino de Investigación de Zonas Áridas (CCT-Mendoza-CONICET), Mendoza. *Current as:* IADIZA. *Also as:* CH-IADIZA, IADIZA-CH (Colección Herpetológica). Mendoza. Argentina.

**55. IBAUNC:** Instituto de Biología Animal, Universidad Nacional de Cuyo, Mendoza. *Current as:* IBAUNC (fishes, herps). *Also as:* IBA, IBA-UNC (herps). Mendoza. Argentina.

**56. JMC-DC:** José Miguel Cej Diagnostic Collection, San Luis. *Current as:* JMC-DC (herps). Mendoza. Argentina.

**57. MCNA:** Museo de Ciencias Naturales y Antropológicas “Cornelio Moyano”, Mendoza. *Current as:* MCNA (fossils). Mendoza. Argentina.

**58. MHIN-UNSL:** Museo de Historia Natural de la Universidad Nacional de San Luis, San Luis. *Current as:* MHIN-UNSL-GEO (fossils). Mendoza. Argentina.

**59. MHNSR:** Museo Municipal de Historia Natural de San Rafael, San Rafael. *Obsolete as:* MNHSR (herps). *Current as:* MHNSR, MHNSR-PV (fossils, Sección Paleontología de Vertebrados). *Also as:* MHN, MMHN-SR, MHNSRMza. Mendoza. Argentina.

**60. CHUNAM:** Colección Herpetológica de la Universidad Nacional de Misiones, Posadas. *Current as:* CHUNAM (herps). *See also:* LGE. Misiones. Argentina.

**61. IARM:** Vivario del Museo de Ciencias Naturales e Históricas del Instituto Ruiz de Montoya, Posadas. Misiones. Argentina.

**62. LGE:** Laboratorio de Genética Evolutiva, Instituto de Biología Subtropical, Universidad Nacional de Misiones, Posadas. *See also:* CHUNAM. Misiones. Argentina.

**63. MCF:** Museo “Carmen Funes”, Plaza Huincul. *Also known as:* Carmen Funes Municipal Museum. *Current as:* MCF-PVPH (fossils). Neuquén. Argentina.

**64. MOZ:** Museo Provincial de Ciencias Naturales “Prof. Dr. Juan A. Olsacher”, Zapala. *Current as:* MOZ (fossils). *Also as:* MOZP. Neuquén. Argentina.

**65. UNCo:** Universidad Nacional del Comahue, Neuquén. *Current as:* UNCo-PH (Programa de Herpetología), MUCPv (fossils, Museo de Geología y Paleontología). *Also as:* MUC Pv, MUCP (fossils). Neuquén. Argentina.

**66. CIC:** Museo Naturalístico, Antropológico e Histórico “Jorge Gerhold”, Ingeniero Jacobacci. *Current as:* CIC (fossils). Río Negro. Argentina.

**67. MCS:** Museo Regional de Cinco Saltos, Cinco Saltos. *Current as:* MCS (fossils). Río Negro. Argentina.

**68. MML:** Paleontología de Vertebrados, Museo Municipal de Lamarque, Lamarque. *Also known as:* Museo Paleontológico de Lamarque. *Current as:* MML-PV (fossils). Río Negro. Argentina.

**69. MPBAR:** Museo Paleontológico de la Asociación Paleontológica Bariloche, San Carlos de Bariloche. *Current as:* MPBAR (fossils). Río Negro. Argentina.

**70. MPCA:** Museo provincial de Cipolletti “Carlos Ameghino”, Cipolletti. *Current as:* MPCA-PV (fossils). Río Negro. Argentina.

**71. MPCN:** Museo Patagónico de Ciencias Naturales “Juan Carlos Salgado”, General Roca. *Current as:* MPCN (fossils). Río Negro. Argentina.

**72. IBIGEO:** Instituto de Bio y Geociencias del NOA, Rosario de Lerma. *Note:* established in 2009 as scientific research unit of Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET) and Universidad Nacio-

nal de Salta (UNSa). *Current as:* IBIGEO-I, IBIGEO-P (fishes), IBIGEO-R (reptiles). Salta. Argentina.

**73. MCN:** Museo de Ciencias Naturales, Universidad Nacional de Salta, Salta. *In error as:* MCMI. *Current as:* MCN (fossils), MCNI (fishes), MCN-UNSa (herps, although MCN used on specimen tags). *Also as:* CNS-V (fossils). Salta. Argentina.

**74. UNSJ:** Universidad Nacional de San Juan, San Juan. *Includes:* Instituto y Museo de Ciencias Naturales (IMCN). *Current as:* PVSJ (fossils, División de Paleontología de Vertebrados), UNSJ (herps). *Also as:* IMCN-UNSJ (herps). San Juan. Argentina.

**75. UNSL:** Museo de Historia Natural, Universidad Nacional de San Luis, San Luis. *Current as:* MHN-UNSL-GEO V (fossils, Geología Vertebrados). San Luis. Argentina.

**76. MPM:** Museo Regional Provincial “Padre Jesus Molina”, Río Gallegos. *Note:* museum established in 1957, adopted current name in 1983. *Current as:* MPM (fossils). Santa Cruz. Argentina.

**77. MFA:** Museo Provincial de Ciencias Naturales “Florantino Ameghino”, Santa Fe. *Includes:* fish collection from Instituto Nacional de Limnología (INALI), CONICET, Universidad Nacional del Litoral (UNL), Santo Tomé. *Current as:* MFA-ZV-I (fishes), MFA-ZV-H (herps). Santa Fe. Argentina.

**78. MFCA:** Museo Universitario “Florentino y Carlos Ameghino”, Universidad Nacional de Rosario, Santa Fe. *Formerly:* Instituto de Fisiografía y Geología “Alfredo Castellanos”. *Current as:* MFCA (fossils). Santa Fe. Argentina.

**79. IAV:** Instituto de Animales Venenosas “Dr. Jorge W. Ábalos”, Santiago del Estero. Santiago del Estero. Argentina.

**80. FML:** Fundación Miguel Lillo, San Miguel de Tucumán. *Obsolete as:* IML (fishes). *Current as:* FML (fishes, herps). *Also as:* CI-FML (fishes). *See also:* PVL (fossils). Tucumán. Argentina.

**81. PVL:** Paleontología Vertebrados Lillo, Facultad de Ciencias Naturales e Instituto “Miguel Lillo”, Universidad Nacional de Tucumán, San Miguel de Tucumán. *Current as:* PVL (fossils). *Also as:* LIL-PZ (fossils). *See also:* FML (Recent fishes, herps). Tucumán. Argentina.

**82. AFAN:** Zoological Museum, Institute of Zoology, National Academy of Sciences of the Republic of Armenia, Yerevan [Erevan]. *Formerly:* Armenian Branch of USSR Academy of Sciences (1943–1993). *Note:* Institute of Zoology and Institute of Hydroecology and Ichthyology merged into Center of Zoology and Hydroecology (SCZH) founded in 2006. *Obsolete as:* ZIA (Zoological Institute). *Current as:* AFAN. *Also as:* IZAY (beetles). Armenia.

**83. ANU:** Australian National University, Canberra. *Includes:* Gauba Collection and fossils from Commonwealth Paleontological Collection (CPC). *Current as:* ANU V (fossils). Australian Capital Territory. Australia.

**84. ANWC:** Australian National Wildlife Collection, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Canberra. *Note:* founded in 1966. *Current as:* ANWC. Australian Capital Territory. Australia.

**85. AMS:** Australian Museum, Sydney. *Formerly:* Colonial Museum Sydney (1827–1836). *Includes:* fish types and herps from Macleay Museum, University of Sydney (MAMU, MMS, MMUS, MU). *Obsolete as:* AM, A.M. *Current as:* AMS (fishes, herps), AM-F (fossils). New South Wales. Australia.

**86. AZM:** Private collection of Richard Wells, Katoomba. *Also known as:* Australian Zoological Museum. New South Wales. Australia.

**87. GNHNA:** Gallery of Natural History and Native Art, Medlow Bath. New South Wales. Australia.

**88. GSNSW:** Fossil collection of the Geological Survey of New South Wales, Maitland. *Current as:* GSNSW (fossils). New South Wales. Australia.

**89. MAMU:** Macleay Museum, University of Sydney, Sydney. *Note:* fish type specimens and herps transferred to Australian Museum, Sydney (AMS). *Current as:* MAMU. *Also as:* MMS, MMUS, MU. *See also:* AMS. New South Wales. Australia.

**90. MQU:** Macquarie University, Department of Biological Sciences, North Ryde. New South Wales. Australia.

**91. NEW:** University of Newcastle, Newcastle. New South Wales. Australia.

**92. WOLL:** University of Wollongong, Wollongong. New South Wales. Australia.

**93. NTI:** Animal Industry Branch, Northern Territory Administration, Alice Springs. Northern Territory. Australia.

**94. NTM:** Museums and Art Galleries of the Northern Territory, Darwin. *Formerly:* Northern Territory Museum of Arts & Sciences. *Includes:* fluid collections of Museum of Central Australia (NTM A/S) and Arid Zone Research Institute (AZRI), Alice Springs. *Current as:* NTM (fishes, herps). *Also as:* NT, MAGNT. Northern Territory. Australia.

**95. NTM A/S:** Museum of Central Australia, Alice Springs. *Includes:* collections of Conservation Commission of the Northern Territory (CAWC). *Note:* fluid collections transferred to and re-cataloged at Museums and Art Galleries of the Northern Territory (NTM), Darwin. *Also as:* CAM (fishes), NTM-A/S (herps). Northern Territory. Australia.

**96. AFAQ:** Queensland Amateur Fishing Clubs Association, Inc. *Formerly:* Amateur Fisheries Association of Queensland. *Note:* most specimens transferred to Queensland Museum (QM). Queensland. Australia.

**97. AOD:** Australian Age of Dinosaurs Fossil Museum of Natural History, Winton. *Current as:* AOD F (fossils). *Also as:* AODF (fossils). Queensland. Australia.

**98. FBQ:** Fisheries Branch, Department of Primary Industries & Fisheries Queensland, Brisbane. Queensland. Australia.

**99. GRIF:** Griffith University, Brisbane. Queensland. Australia.

**100. GSQ:** Geological Survey of Queensland Fossil Collection, Brisbane. *Note:* some fossils transferred to Queensland Museum (QM). *Current as:* GSQ (fossils). Queensland. Australia.

**101. QM:** Queensland Museum, Centre for Biodiversity, Brisbane. *Includes:* collection from Department of Harbours & Marine, Brisbane (DHMB); specimens from Queensland Amateur Fishing Clubs Association (AFAQ) and Queensland National Parks and Wildlife Service (QP); fossils from Geological Survey of Queensland (GSQ). *Obsolete as:* QMB. *Current as:* QM F (fossils), QM I (fishes), QM J (herps). *Also as:* QMF, QMI, QMJ. Queensland. Australia.

**102. FLIN:** Flinders University, Adelaide. South Australia. Australia.

**103. SADME:** South Australian Department of Mines Fossil Collection, Adelaide. *Current as:* SADME (fossils). South Australia. Australia.

**104. SAMA:** South Australian Museum, Adelaide. *Current as:* SAMA. *Also as:* SAM (fossils). South Australia. Australia.

**105. CSIRO:** Commonwealth Scientific & Industrial Research Organisation, National Research Collections Australia, Australian National Fish Collection (ANFC), Hobart. *Includes:* fishes from Tasmanian Fisheries Development Authority, Hobart (TFDA) added in 1985. *Note:* collection formerly held

at CSIRO Marine Labs, Sydney (MLS), move to Hobart in 1984 and known as I.S.R. Munro Ichthyological Collection (1984–1999). *Current as:* CSIRO (fishes). Tasmania. Australia.

**106. QVM:** Queen Victoria Museum & Art Gallery (QVMAG), Launceston. *Obsolete as:* QVMT. *Current as:* QVM (fishes, herps). Tasmania. Australia.

**107. TMH:** Tasmanian Museum and Art Gallery, Hobart. *Includes:* most specimens from Tasmanian Inland Fisheries Commission, Hobart (TIFC), added in 2000s. *Current as:* TMH. *Also as:* TMAG. Tasmania. Australia.

**108. UTAS:** University of Tasmania, Department of Geology Fossil Collection, Hobart. *Current as:* UTAS (fossils). Tasmania. Australia.

**109. GSV:** Geological Survey of Victoria, Melbourne. *Current as:* GSV (fossils). Victoria. Australia.

**110. MUZ:** Department of Zoology, Monash University, Melbourne. *Current as:* MUZ (fossils). Victoria. Australia.

**111. NMV:** Museums Victoria, Melbourne. *Also known as:* Melbourne Museum. *Formerly:* National Museum of Victoria. *Current as:* NMV (fishes, herps), NMV P (fossils). *Also as:* NMVD (herps). Victoria. Australia.

**112. UMP:** University of Melbourne, Parkville, Melbourne. *Current as:* MUGD (fossils, Department of Geology and Mineralogy). Victoria. Australia.

**113. GSWA:** Geological Survey of Western Australia, East Perth. *Note:* early fossil collection housed in Western Australian Museum (WAM) and separated from WAM collection by Irene Crespin ca. 1964. *Current as:* GSWA F (fossils). Western Australia. Australia.

**114. UWA:** University of Western Australia, Crawley. *Note:* amphibian specimens transferred to Western Australian Museum (WAM); audio recordings of frogs curated by Centre of Excellence in Natural Resource Management, University of Western Australia, Albany Campus (CENRM). *Current as:* UWA (fossils, Edward de Courcy Clarke Earth Science Museum). Western Australia. Australia.

**115. WAM:** Western Australian Museum, Welshpool, Perth. *Includes:* amphibian specimens from University of Western Australia, Crawley (UWA). *Current as:* WAM (fishes, herps, fossils). *Also as:* WAMAG (fossils). Western Australia. Australia.

**116. JD:** Private collection of John Dwyer. *Note:* reptile collector for Taronga Zoo, Sydney; status unknown. Australia.

**117. MW:** Private collection of M. Ward (herps). Australia.

**118. NOLM:** Museum Niederösterreich [Lower Austria Museum], St. Pölten. *Formerly:* Landesmuseum Niederösterreich [Lower Austria State Museum]. *Current as:* NOLM (fossils). Niederösterreich [Lower Austria]. Austria.

**119. OLL:** Biologiezentrum, Oberösterreichisches Landesmuseum, Linz. *Current as:* OLL. *Also as:* BZL. Oberösterreich [Upper Austria]. Austria.

**120. HNS:** Haus der Natur Salzburg, Salzburg. *Current as:* HNS (sharks). Salzburg. Austria.

**121. UMJGP:** Universalmuseum Joanneum, Graz. *Also known as:* Styrian Provincial Museum Joanneum. *Formerly:* Landesmuseum Joanneum from 1811–2009. *Obsolete as:* LIG, LJG, LMJ, LMJG, SLMJ (fossils). *Current as:* UMJGP (fossils). Steiermark [Styria]. Austria.

**122. Innsb:** Institut für Geologie [Department of Geology], Universität Innsbruck [University of Innsbruck], Innsbruck. *Current as:* Innsb (fossils). Tyrol. Austria.

**123. IEND:** inatura—Erlebnis Naturschau Dornbirn, Dornbirn. *Current as:* IEND (sharks). Vorarlberg. Austria.

**124. GBA:** Geologische Bundesanstalt [Geological Survey of

Austria], Wien [Vienna]. *Obsolete as:* GBW. *Current as:* GBA (fossils). *Also as:* GBAW (fossils). Wien [Vienna]. Austria.

**125. IPUW:** Institut für Paläontologie, Universität Wien, Wien [Vienna]. *Obsolete as:* UWPI. *Current as:* IPUW (fossils), UNIVIE EMRG (ichthyological collection, Department of Palaeontology). *Also as:* PIUW (fossils). *See also:* ZCUV (fishes, herps). Wien [Vienna]. Austria.

**126. MV:** Musei Caesarei Vindobonensis, Wien [Vienna]. *Note:* no longer extant. Wien [Vienna]. Austria.

**127. NMW:** Naturhistorisches Museum, Wien [Vienna]. *Includes:* Hof-Naturalien-Cabinet (HNC), predecessor of Naturhistorisches Museum. *Obsolete as:* NHMV, NMWGP (fossils). *Current as:* NMW (fishes, herps), NHMW (fossils, geologisch-paläontologische Abteilung). Wien [Vienna]. Austria.

**128. ZCUV:** Zoological Collection, Department für Theoretische Biologie, Universität Wien, Wien [Vienna]. *Formerly:* Institut für Zoologie. *Current as:* ZCUV (fishes, herps). *Also as:* IZUW, ZIUW. *See also:* IPUW. Wien [Vienna]. Austria.

**129. CBSIZA:** Caspian Biological Station, Institute of Zoology, Azerbaijan National Academy of Sciences, Baku. *Obsolete as:* CBS. *Current as:* CBSIZA. Azerbaijan.

**130. IZAB:** Institute of Zoology, Azerbaijan National Academy of Sciences, Baku. *Obsolete as:* ZIAZ, IZA. *Current as:* IZAB. *Also as:* IZBA (entomology). Azerbaijan.

**131. NMB:** National Museum of the Bahamas, Antiquities, Monuments and Museums Corporation, Marsh Harbour, Abaco Island. *Current as:* NMB (fossils). Bahamas.

**132. BFRIRS:** Bangladesh Fisheries Research Institute (BFRI), Riverine Station, Moishadi. Chandpur. Bangladesh.

**133. CU:** University of Chittagong, Chittagong. *Note:* separate museums in Department of Zoology (DOZ, CU), Institute of Marine Sciences and Fisheries (IMSF; formerly Department of Marine Biology and Oceanography from 1971 to 1983) and Institute of Forestry and Environmental Sciences (IFES). *Obsolete as:* MMSF (fishes), CUZ (herps). *Current as:* CU preceded by catalog number (herps, Department of Zoology), CUMSF (fishes, Institute of Marine Sciences), IFESCU (herps, Institute of Forestry and Environmental Sciences), IMSFCU (herps, Institute of Marine Sciences and Fisheries). Chittagong. Bangladesh.

**134. DU:** Zoology Department, University of Dhaka, Dhaka [ex Dacca]. *Current as:* DU (fishes). Dhaka. Bangladesh.

**135. FBGN-SAU:** Aquatic Bioresource Research Laboratory, Department of Fisheries Biology and Genetics, Faculty of Fisheries and Aquaculture, Sher-e-Bangla Agricultural University, Dhaka [ex Dacca]. *Current as:* FBGN-SAU\_F (fishes). Dhaka. Bangladesh.

**136. JUHG:** Jahangirnagar University Herpetological Group, Zoology Department, Jahangirnagar University, Savar. *Current as:* JUHG (herps). Dhaka. Bangladesh.

**137. BKM:** Trudovoy Slavy Museum, Soligorsk [Salihorsk]. *Current as:* BKM (fossils). Belarus.

**138. BSUM:** Geological Museum of Belarusian State University, Minsk. *Current as:* BSUM (fossils). Belarus.

**139. ERB:** Elasmobranch Research Belgium, Bonheiden. *Includes:* fossil collection of Frederik H. Mollen, Berlaar. *Current as:* ERB (fishes, fossils). Antwerp. Belgium.

**140. IRSNB:** Institut royal des Sciences naturelles de Belgique [Koninklijk Belgisch Instituut voor Natuurwetenschappen (KBIN, KNMB), Royal Belgian Institute of Natural Sciences (RBINS)], Brussels. *Formerly:* Musée royal d'Histoire naturelle de Belgique (MRHN) [Koninklijk Natuurhistorisch Museum van België], created in 1846. *Obsolete as:* IRScNB, ISBN, ISNB, ISNM,



KNMB, MRHN, RIB. *Current as*: IRSNB (fishes, herps, fossils). *Also as*: KBIN (sharks, herps, birds), RBINS (fossils). Brussels. Belgium.

**141. ZMULB**: Muséum de Zoologie et d'Anthropologie, Université Libre de Bruxelles, Brussels. Brussels. Belgium.

**142. RMCA**: Royal Museum for Central Africa [Musée royal de l'Afrique centrale (MRAC), Koninklijk Museum voor Midden-Afrika (KMMA)], Tervuren. *Also known as*: Tervuren Museum, AfricaMuseum. *Formerly*: Musée du Congo (1898–1908), Musée du Congo belge [Museum van Belgisch Congo] (1908–1952), Musée royal du Congo belge [Koninklijk Museum van Belgisch Congo] (1952–1960). *Obsolete as*: KMMA, MRAC, MT, RG, RGM, RMAC. *Current as*: RMCA (fishes, herps, fossils). Flemish Brabant. Belgium.

**143. MZULG**: Université de Liège, L'Aquarium "Dubuisson" et le Musée de Zoologie, Liège. Liège. Belgium.

**144. GAN**: S.G.A. Nago collection housed at University of Abomey-Calavi, Cotonou [Kutonu]. *Current as*: GAN (herps). Bénin.

**145. LHC**: Laboratoire d'Hydrobiologie et d'Aquaculture, Faculté des Sciences Agronomiques, Université d'Abomey Calavi, Cotonou [Kutonu]. Bénin.

**146. BAMZ**: Bermuda Aquarium, Museum and Zoo, Bermuda Zoological Society, Flatts Village. *Formerly*: Bermuda Natural History Society. *Obsolete as*: BZS, BNHS. *Current as*: BAMZ (fishes). Bermuda.

**147. CNR**: Laboratory Collection, College of Natural Resources, Royal University of Bhutan, Punakha. *Current as*: CNR (fishes). Punakha. Bhutan.

**148. CIRA-UTB**: Centro de Investigación de Recursos Acuáticos, Universidad Técnica del Beni, Trinidad. *Current as*: CIRA-UTB (fishes). Beni. Bolivia.

**149. USFX**: Museo de Historia Natural, Universidad Mayor, Real y Pontificia de San Francisco Xavier de Chuquisaca [University of Saint Francis Xavier], Chuquisaca. Chuquisaca. Bolivia.

**150. MHNC**: Museo de Historia Natural Alcide d'Orbigny, Cochabamba [Quchapampa]. *Includes*: fish collection assembled by Unidad de Limnología y Recursos Acuáticos, Universidad Mayor de San Simón (UMSS). *Current as*: MHNC, MHNCA (amphibians), MHNC-R (reptiles). Cochabamba. Bolivia.

**151. UMSS**: Universidad Mayor de San Simón, Cochabamba [Quchapampa]. *Current as*: CBG (herps, Centro de Biodiversidad y Genética), UMSS (fishes). *Also as*: CBGR (herps). Cochabamba. Bolivia.

**152. CBF**: Colección Boliviana de Fauna, Museo Nacional de Historia Natural and Instituto de Ecología de la Universidad Mayor de San Andrés, La Paz. *Obsolete as*: CFB. *Current as*: CBF (fishes, herps). La Paz. Bolivia.

**153. CIPA**: Museo de Historia Natural "Pedro Villalobos" (MHNPV), Centro de Investigación y Preservación de la Amazonía, Universidad Amazónica de Pando, Cobija. Nicolás Suárez. Bolivia.

**154. MNK**: Museo de Historia Natural Noel Kempff Mercado, Universidad Autónoma Gabriel René Moreno, Santa Cruz de La Sierra. *Obsolete as*: MNKM, NK, NKA. *Current as*: MNKP (fishes), MNKR (reptiles), MNKA (amphibians). Santa Cruz. Bolivia.

**155. YPFB**: Yacimientos Petrolíferos Fiscales Bolivianos paleontology collection, Centro de Tecnología Petrolera (CTP), Santa Cruz. *Note*: fossils specimens are the property of CTP (YPFB), but on loan to Muséum national d'Histoire

naturelle, Paris (MNHN) for curation and study. *Current as*: YPFB Pal (fossils). Santa Cruz. Bolivia.

**156. MNPA**: Museo Nacional Paleontológico-Arqueológico, Tarija [San Bernardo de la Frontera de Tarixa]. *Formerly*: Museo Universitario de Tarija (MUT). *Current as*: MNPA-V (fossil vertebrates). Tarija. Bolivia.

**157. ZMBH**: Zemaljski Muzej Bosne i Hercegovine [National Museum of Bosnia and Herzegovina], Sarajevo. *Current as*: ZMBH (fishes, herps), BHSP (fossils). Bosnia and Herzegovina.

**158. BNM**: Botswana National Museum, Gaborone. *Note*: uncataloged herp specimens cited using field numbers (e.g., KHH). *Current as*: BNM (herps). Botswana.

**159. SADC/GEF**: Southern African Development Community, Global Environment Facility, Gaborone. *Current as*: SADC/GEF (fishes). Botswana.

**160. UFAC**: Universidade Federal do Acre, Rio Branco. *Current as*: UFAC (herps, fossils, campus Rio Branco). *See also*: UFACF (campus Floresta). Acre. Brazil.

**161. UFACF**: Universidade Federal do Acre, Campus da Floresta, Cruzeiro do Sul. *Current as*: UFACF (herps, campus Floresta). *See also*: UFAC (campus Rio Branco). Acre. Brazil.

**162. MUFAL**: Museu de História Natural da Universidade Federal de Alagoas, Maceió. *Current as*: MUFAL (herps), UFAL (fishes). Alagoas. Brazil.

**163. IEPA**: Instituto de Pesquisas Científicas e Tecnológicas do Estado do Amapá, Macapá. *Note*: mistakenly associated with "Instituto de Ensino Profissional da Amazônia" (Andrade et al., 2016:2). *Current as*: IEPA (fishes, herps). Amapá. Brazil.

**164. FMT**: Fundação de Medicina Tropical do Amazonas, Manaus. *Formerly*: Instituto de Medicina Tropical (IMTM). *Obsolete as*: IMTM (herps). *Current as*: FMT (herps). Amazonas. Brazil.

**165. IDSM**: Instituto de Desenvolvimento Sustentável Mamirauá, Tefé. *Current as*: IDSM (fishes). Amazonas. Brazil.

**166. INPA**: Instituto Nacional de Pesquisas da Amazônia, Manaus. *Current as*: INPA-ICT (fishes), INPA-H (herps). Amazonas. Brazil.

**167. CHECOA**: Coleção Herpetológica de Referência do Centro de Ecologia e Conservação Ambiental, Universidade Católica do Salvador, Salvador. Bahia. Brazil.

**168. CIAVE**: Centro de Investigações de Animais Venenosos, Universidade Estadual de Feira de Santana (UEFS), Feira de Santana. *See also*: MZFS. Bahia. Brazil.

**169. CRVS**: Coleção de Referência do Vale do São Francisco, Universidade do Estado da Bahia, Campus VIII, Paulo Afonso. *Current as*: CRVS (fishes). Bahia. Brazil.

**170. CZGB**: Coleção Zoológica Gregório Bondar (CZGB), Comissão Executiva do Plano da Lavoura Cacaueira (CE-PLAC). *Note*: collection transferred to MZUESC in 2012. *Current as*: CZGB (herps). *See also*: MZUESC. Bahia. Brazil.

**171. MZFS**: Museu de Zoologia da Universidade Estadual de Feira de Santana (UEFS), Feira de Santana. *Note*: SUEFS (Sonoteca do Laboratório de Animais Peçonhentos e Herpetologia) used for sound recordings. *Obsolete as*: LIUEFS (Laboratório de Ictiologia, Departamento de Ciências Biológicas), MZUEFS, UEFS. *Current as*: MZFS (fishes, Divisão de Peixes), MZFS-DAR (herps, Divisão de Anfíbios e Répteis). *See also*: CIAVE. Bahia. Brazil.

**172. MZUESC**: Coleção Herpetológica do Museu de Zoologia da Universidade Estadual de Santa Cruz (UESC), Ilhéus. *Includes*: Coleção Zoológica Gregório Bondar (CZGB),



added in 2012. *Current as:* MZUESC (herps). *See also:* CZGB. Bahia. Brazil.

**173. TAMAR:** Projeto Tamar, São João da Mata. *Note:* non-profit organization administered by Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio). *Current as:* TAMAR (fishes). Bahia. Brazil.

**174. UESB:** Coleção de Anfíbios, Universidade Estadual do Sudoeste da Bahia, Vitória da Conquista. Bahia. Brazil.

**175. UFBA:** Museu de Zoologia da Universidade Federal da Bahia, Salvador. *Note:* reptile collection properly founded in 1987. *Current as:* UFBA (fishes, herps). *Also as:* CRMZUFBA (reptiles), MZUFBA (Museu de Zoologia). Bahia. Brazil.

**176. CPCA:** Centro de Pesquisas Paleontológicas da Chapada do Araripe, Departamento Nacional de Produção Mineral, Crato. *Current as:* CPCA (fossils). Ceará. Brazil.

**177. DNOCS:** Departamento Nacional de Obras Contra as Secas, Pentecoste. *Note:* status of collection unknown, some fishes transferred to MZUSP. Ceará. Brazil.

**178. MPSC:** Museu de Paleontologia Plácido Cidade Nuvens, Santana do Cariri. *Current as:* MPSC (fossils). Ceará. Brazil.

**179. UFC:** Universidade Federal do Ceará, Fortaleza. *Obsolete as:* LCM (Laboratório de Ciências do Mar). *Includes:* collections transferred from Grupo de Estudo de Elasmobrânquios do Ceará (ELACE) (ELC, Chondrichthyes) and Departamento de Engenharia de Pesca (CIDEP-UFC, Coleção Ictiológica). *Current as:* DBUFC (Coleção Ictiológica do Departamento de Biologia, Campus do Pici), LABOMAR (Coleção Ictiológica do Instituto de Ciências do Mar), CHUFC (herps, Coleção Herpetológica do Departamento de Biologia e Núcleo Regional de Ofiologia [NUROF-UFC], Campus do Pici). *Also as:* UFC (herps), UFC A (amphibians). Ceará. Brazil.

**180. URCA:** Universidade Regional do Cariri, Crato. *Current as:* URCA-H (herps, Coleção Herpetológica). Ceará. Brazil.

**181. UNB:** Universidade de Brasília, Brasília. *Current as:* CIUnB (Coleção Ictiológica), CHUNB (Coleção Herpetológica). Distrito Federal. Brazil.

**182. CZNC:** Coleção Zoológica Norte Capixaba, Universidade Federal do Espírito Santo (UFES), São Mateus. *Note:* collection separate from UFES. *Current as:* CZNC (fishes). *See also:* UFES. Espírito Santo. Brazil.

**183. MBML:** Instituto Nacional da Mata Atlântica (INMA), Coleção Zoológica, Santa Teresa. *Formerly:* Museu de Biologia Professor Mello Leitão, established in 1949. *Current as:* MBML (fishes, herps). Espírito Santo. Brazil.

**184. UFES:** Universidade Federal do Espírito Santo (UFES), Vitória. *Note:* collection separate from CZNC. *Obsolete as:* ZUFES. *Current as:* CIUFES (fishes, Coleção Ictiológica), UFES (herps). *Also as:* CI-UFES (fishes). Espírito Santo. Brazil.

**185. CEPB:** Centro de Estudos e Pesquisas Biológicas, Pontifícia Universidade Católica de Goiás, Goiânia. *Includes:* specimens from faunal rescues associated with Usina Hidrelétrica de Serra da Mesa (UHESM) and Usina Hidrelétrica de Corumbá (UHEC). *Current as:* CEPB (herps), UHESM & UHEC (herps housed at CEPB). *Also as:* PUC-GO (herps). Goiás. Brazil.

**186. ZUFG:** Coleção Zoológica da Universidade Federal de Goiás, Campus Samambaia, Goiânia. *Current as:* ZUFG (herps). *Also as:* UFG (herps). Goiás. Brazil.

**187. UFMA:** Universidade Federal do Maranhão (UFMA),

Campus do Bacanga, São Luís. *Note:* presumably includes fishes deposited in Coleção de Peixes do Departamento de Oceanografia e Limnologia (CPDOL). *Obsolete as:* HUFMA (herps). *Current as:* CHUFMA (herps), CPUFMA (fishes), UFMA (fossils). *See also:* UFMA-CCAA. Maranhão. Brazil.

**188. UFMA-CCAA:** Universidade Federal do Maranhão (UFMA), Centro de Ciências Agrárias e Ambientais, Chapadinha. *Note:* fish collection began in 2015, made official in 2016. *Current as:* CICCAA (fishes, Coleção Ictiológica), CHMA (herps, Coleção Herpetológica “Claude d’Abbeville”). *See also:* UFMA. Maranhão. Brazil.

**189. LILUNX:** Laboratory of Ichthyology and Limnology, Universidade do Estado de Mato Grosso (UNEMAT), Campus de Nova Xavantina. *Current as:* LILUNX (fishes). Mato Grosso. Brazil.

**190. UFMT:** Coleção Zoológica de Vertebrados, Universidade Federal de Mato Grosso, Cuiabá. *Current as:* CPUFMT (fishes, Coleção de Peixes), UFMT (herps), UFMT-R (reptiles). Mato Grosso. Brazil.

**191. CEUCH:** Universidade Federal de Mato Grosso do Sul, Câmpus do Pantanal, Corumbá. *Current as:* CEUCH (herps). *See also:* ZUFMS. Mato Grosso do Sul. Brazil.

**192. CPUEMS:** Centro de Estudos em Recursos Naturais (CERNA), Laboratório de Ecologia, Universidade Estadual de Mato Grosso do Sul, Dourados. *Current as:* CPUEMS (fishes, Coleção de Peixes). Mato Grosso do Sul. Brazil.

**193. ZUFMS:** Coleção Zoológica da Universidade Federal de Mato Grosso do Sul, Campo Grande. *Current as:* ZUFMS-PIS (fishes), ZUFMS-AMP (amphibians), ZUFMS-REP (reptiles). *See also:* CEUCH. Mato Grosso do Sul. Brazil.

**193.5. CICMG:** (see Addendum)

**194. CPPLIP:** Centro de Pesquisas Paleontológicas “Llewellyn Ivor Price”, Universidade Federal do Triângulo Mineiro (UFTM), Peirópolis, Uberaba. *Obsolete as:* CPP (fossils). *Current as:* CPPLIP (fossils). Minas Gerais. Brazil.

**195. FUNED:** Fundação Ezequiel Dias, Belo Horizonte. *Current as:* FUNED (herps). Minas Gerais. Brazil.

**196. IGC:** Instituto de Geociências, Universidade Federal de Minas Gerais (CCT-UFMG), Belo Horizonte. *Current as:* IGC-P (fossils). *See also:* UFMG (fishes, herps). Minas Gerais. Brazil.

**197. LGC:** Laboratório de Genética da Conservação, Pontifícia Universidade Católica de Minas Gerais (PUC-MG), Belo Horizonte. *Current as:* LGC (fishes). *See also:* MCN. Minas Gerais. Brazil.

**198. LZV:** Laboratório de Zoologia dos Vertebrados, Universidade Federal de Ouro Preto, Ouro Preto. *Current as:* LZV (herps). *Also as:* LZVUFOP (herps). Minas Gerais. Brazil.

**199. MCN:** Museu de Ciências Naturais, Pontifícia Universidade Católica de Minas Gerais (PUC-MG), Belo Horizonte. *Obsolete as:* PUCMG (herps). *Current as:* MCNAM (amphibians), MCNIP (fishes), MCNR (reptiles), MCL (fossils). *See also:* LGC. Minas Gerais. Brazil.

**200. MZUFV:** Museu de Zoologia “João Moojen de Oliveira”, Universidade Federal de Viçosa, Viçosa. *Obsolete as:* UFV (herps). *Current as:* MZUFV (herps). *Also as:* CHUV (herps). Minas Gerais. Brazil.

**201. UFJF:** Universidade Federal de Juiz de Fora, Instituto de Ciências Biológicas, Departamento de Zoologia, Juiz de Fora. *Current as:* UFJF (fishes). Minas Gerais. Brazil.

**202. UFLA:** Universidade Federal de Lavras, Lavras. *Current as:* CIUFLA (fishes, Coleção Ictiológica). *Also as:* CI-UFLA (fishes). Minas Gerais. Brazil.

- 203. UFMG:** Centro de Coleções Taxonômicas, Universidade Federal de Minas Gerais (CCT-UFMG), Belo Horizonte. *Obsolete as:* MHNI (fishes). *Current as:* UFMG (herps), DZUFMG (fishes, Departamento de Zoologia). *See also:* IGC (fossils). Minas Gerais. Brazil.
- 204. UFU:** Museu de Biodiversidade do Cerrado, Universidade Federal de Uberlândia, Uberlândia. *Note:* museum opened in 2000; teaching collection transferred to Parque Municipal Victório Siquierolli in 2002. *Current as:* AAG-UFU (amphibians). *Also as:* MBC, MBC-UFU (entomology), UFU (herps). Minas Gerais. Brazil.
- 205. GEA:** Laboratório de Ictiologia do Grupo de Ecologia Aquática, Universidade Federal do Pará (UFPA), Belém. *Current as:* GEA (fishes). Pará. Brazil.
- 206. LIA:** Laboratório de Ictiologia de Altamira, Universidade Federal do Pará, Campus Altamira. *Current as:* LIA (fishes). Pará. Brazil.
- 207. LPHA:** Linha de Pesquisa em Herpetologia da Amazônia, Laboratório de Pesquisas Zoológicas (LPZ), Faculdades Integradas do Tapajós, Santarém. *Current as:* LPHA (herps). Pará. Brazil.
- 208. MPEG:** Museu Paraense “Emílio Goeldi”, Belém. *Note:* federal research institution within the Brazilian Ministry of Science, Technology and Communication (MCTIC). *Current as:* MPEG (fishes, herps), MPEG-V (fossils). Pará. Brazil.
- 209. UFOPA:** Universidade Federal do Oeste do Pará, Santarém. *Current as:* UFOPA-I (fishes, Coleção de Peixes). Pará. Brazil.
- 210. CEATOX-PB:** Centro de Assistência Toxicológica da Paraíba, Hospital Universitário Lauro Wanderley Cidade Universitária, João Pessoa. *Current as:* CEATOX-PB (herps). Paraíba. Brazil.
- 211. LHUF CG:** Laboratório de Herpetologia, Universidade Federal de Campina Grande, Campus de Patos, Patos. *Current as:* LHUF CG (herps). Paraíba. Brazil.
- 212. UFPPB:** Departamento de Sistemática e Ecologia, Universidade Federal da Paraíba, João Pessoa. *Current as:* CHUFPPB (herps, Coleção Herpetológica), UFPPB (fishes). *Also as:* CIUFPPB (fishes, Coleção Ictiológica). Paraíba. Brazil.
- 213. DZUP:** Coleção de Herpetologia, Departamento de Zoologia, Universidade Federal do Paraná, Curitiba. *Current as:* DZUP (herps). Paraná. Brazil.
- 214. MHN CI:** Museu de História Natural do “Capão da Imbuia”, Curitiba. *In error as:* MHN CL, MHN CI. *Current as:* MHN CI (fishes, herps). Paraná. Brazil.
- 215. MZUEL:** Museu de Zoologia, Universidade Estadual de Londrina, Londrina. *Current as:* MZUEL (fishes, herps). Paraná. Brazil.
- 216. NUP:** Coleção Ictiológica do Núcleo de Pesquisas em Limnologia, Ictiologia e Aquicultura (NUPELIA), Universidade Estadual de Maringá, Maringá. *Current as:* NUP (fishes). Paraná. Brazil.
- 217. MFCH:** Museu de Fauna da Caatinga, Centro de Conservação e Manejo de Fauna da Caatinga (CEMAFAUNA-CAATINGA), Universidade Federal do Vale do São Francisco (UNIVASF), Petrolina. *Current as:* MFCH (herps). Pernambuco. Brazil.
- 218. UFPE:** Universidade Federal de Pernambuco, Main Campus, Recife. *Includes:* Museu de Oceanografia “Prof. Petrônio Alves Coelho” (MOUFPE), formerly known as Instituto de Biologia Marinha e Oceanografia, Jaboatão dos Guararapes (1952–1968) and Laboratório de Ciências do Mar/LACIMAR (UFP) (1968–1973). *Current as:* LDUFPE (herps, Laboratório Didático), DGEO-CTG-UFPE (fossils, Coleção Científica Paleontológica do Departamento de Geologia, Centro de Tecnologia e Geociências). Pernambuco. Brazil.
- 219. UFRPE:** Universidade Federal Rural de Pernambuco, Recife. *Current as:* UFRPE (fishes), CHP-UFRPE (herps, Coleção Herpetológica e Paleoherpetológica). *Also as:* CHUFRPE (herps). Pernambuco. Brazil.
- 220. UFPI:** Universidade Federal do Piauí, Teresina. *Current as:* UFPI (fishes), UFPI PV (fossils). Piauí. Brazil.
- 220.5. COPPE-UFRJ:** (see Addendum)
- 221. DGM:** Coleção de Paleontologia do Museu de Ciências da Terra (MCT), Serviço Geológico do Brasil (CPRM), Ministério de Minas e Energia, Rio de Janeiro. *Formerly:* Departamento Nacional de Produção Mineral (DNPM), Divisão de Geologia e Mineralogia (DGM). *Note:* established within Serviço Geológico e Mineralógico do Brasil (SGB, SGM) in 1907; Departamento Nacional de Produção Mineral (DNPM) created in 1934, incorporated into Ministério das Minas e Energia in 1960, and dissolved into Companhia de Pesquisas e Recursos Minerais (CPRM) in 1969–70; collections formally named Museu de Ciências da Terra (MCT) in 1992; CPRM became federal public company functioning as Serviço Geológico do Brasil in 1994–95 and responsible for management of MCT in 2012. *Obsolete as:* DNPM, SGB, SGM (fossils). *Current as:* DGM (fossils). *Also as:* DGM-DNPM, MCT (fossils). Rio de Janeiro. Brazil.
- 222. EI:** Coleção Eugênio Izecksohn, Universidade Federal Rural do Rio de Janeiro, Seropédica. *Current as:* EI (fishes, herps). *Also as:* EI-UFRRJ. *See also:* UFRRJ. Rio de Janeiro. Brazil.
- 223. IOC:** Instituto Oswaldo Cruz, Fundação Oswaldo Cruz (FIOCRUZ), Rio de Janeiro. *Current as:* IOC (herps). Rio de Janeiro. Brazil.
- 224. IVB:** Instituto Vital Brazil, Niterói. *In error as:* IVP (herps). *Current as:* IVB (herps). Rio de Janeiro. Brazil.
- 225. LBRP:** Laboratório de Biodiversidade de Recursos Pesqueiros, Universidade Federal do Rio de Janeiro. *Note:* collection of marine fishes separate from main collection at UFRJ; current status unknown. *See also:* UFRJ. Rio de Janeiro. Brazil.
- 226. MNRJ:** Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro. *Includes:* Adolpho Lutz Herpetological Collection (AL-MN, maintained separately), and Carlos Alberto Gonçalves da Cruz private collection (CAGC) assembled at Universidade Federal Rural do Rio de Janeiro (UFRRJ). *Note:* collection separate and distinct from Universidade Federal do Rio de Janeiro (UFRJ/ZUFRJ); entomological, arachnid, mollusk and fossil collections stored at São Cristóvão Palace in Quinta da Boa Vista, Museu Nacional’s main building, were largely destroyed by fire on 2 Sep 2018. *Current as:* MNRJ (fishes, herps), MN TI (fish tissue collection), MN LM (vertebrate DNA extract collection), MN (fossils). *Also as:* DGP (fossils, Departamento de Geologia e Paleontologia), MNUFRJ (fossils). Rio de Janeiro. Brazil.
- 227. NPM:** Instituto de Biodiversidade e Sustentabilidade, Universidade Federal do Rio de Janeiro, Macaé. *Formerly:* Núcleo em Ecologia e Desenvolvimento Sócio-Ambiental (NUPEM). *In error as:* NUPEM. *Current as:* NPM (fishes). Rio de Janeiro. Brazil.
- 228. UERJ:** Universidade do Estado do Rio de Janeiro, Instituto de Biologia Roberto Alcântara Gomes (IBRAG), Departamento de Ensino de Ciências e Biologia (DECB), Vila Isabel, Rio de Janeiro. *Formerly:* Departamento de Biologia Animal e Vegetal (DBAV.UERJ) until 2002. *Current as:* UERJ (fishes), Pz.UERJ (fossils). *Also as:* PNT.UERJ (fishes), UERJ-PMB (fossils, Paulo M. Brito collection). Rio de Janeiro. Brazil.

**229. UFF:** Universidade Federal Fluminense, Rio de Janeiro. *Current as:* LNEP-UFF (Laboratório de Biologia do Nécton e Ecologia Pesqueira), UFF (fossils). Rio de Janeiro. Brazil.

**230. UFRJ:** Universidade Federal do Rio de Janeiro, Instituto de Biologia, Rio de Janeiro. *Includes:* herp collection of Sérgio Potsch Carvalho e Silva (SPCS), Departamento de Zoologia. *Note:* collection distinct from Museu Nacional, Universidade Federal do Rio de Janeiro (MNRJ). *Current as:* UFRJ (fishes, Laboratório de Sistemática e Evolução de Peixes Teleósteos), ZUFRJ (herps). *See also:* LBRP (Laboratório de Biodiversidade de Recursos Pesqueiros), UFRJ-DG (fossils), COPPE-UFRJ (fossils). Rio de Janeiro. Brazil.

**231. UFRJ-DG:** Universidade Federal do Rio de Janeiro, Instituto de Geociências, Departamento de Geologia (DEGEO), Ilha do Fundão, Rio de Janeiro. *Current as:* UFRJ-DG (vertebrate fossil collections). *See also:* COPPE-UFRJ (fossils), UFRJ (Recent fishes, herps). Rio de Janeiro. Brazil.

**232. UFRRJ:** Universidade Federal Rural do Rio de Janeiro, Seropédica. *Note:* Carlos Alberto Gonçalves da Cruz private collection (CAGC) at UFRRJ transferred to Museu Nacional, Universidade Federal do Rio de Janeiro (MNRJ). *See also:* El, MNRJ. Rio de Janeiro. Brazil.

**233. UNIRIO:** Laboratório de Biosistemática de Anfíbios, Universidade Federal do Estado do Rio de Janeiro, Rio de Janeiro. *Current as:* UNIRIO (amphibians). Rio de Janeiro. Brazil.

**234. UFRN:** Departamento de Botânica, Ecologia e Zoologia, Universidade Federal do Rio Grande do Norte, Natal. *Current as:* CHDBEZ (herps, Coleção Herpetológica), UFRN (fishes, Laboratório de Ictiologia Sistemática e Evolutiva). *Also as:* CIUFRN (fishes, Coleção Ictiológica), LOC-DBEZ-UFRN (fishes, Laboratório do Oceano). Rio Grande do Norte. Brazil.

**235. CIMC:** Coleção Ictiológica Morevy Cheffe, Grupo Especial de proteção ao Ambiente Aquático do Rio Grande do Sul (GEEPAA-RS), Pelotas. *Current as:* CIMC (fishes). Rio Grande do Sul. Brazil.

**236. CP:** Centro Paleontológico, Universidade do Contestado, Mafra. *Current as:* CP (fossils). Rio Grande do Sul. Brazil.

**237. CRUPF:** Museu Zoológico Augusto Ruschi, Universidade de Passo Fundo, Passo Fundo. *Current as:* CRUPF (herps). Rio Grande do Sul. Brazil.

**238. EPM:** Museu Emíldio Pereira Martino, Santa Vitória do Palmar. *Current as:* EPM (fossils). Rio Grande do Sul. Brazil.

**239. FURG:** Fundação Universidade Federal do Rio Grande, Rio Grande. *Current as:* CHFURG (herps), FURG (university laboratory of ichthyology), MOFURG (Museu Oceanográfico "Professor Eliézer de Carvalho Rios"). Rio Grande do Sul. Brazil.

**240. ICN:** Instituto de Ciências Naturais, Universidade Federal do Rio Grande do Sul, Porto Alegre. *Note:* no longer extant; some specimens transferred to Departamento de Zoologia in 1978. *See also:* UFRGS. Rio Grande do Sul. Brazil.

**241. MAPA:** Museu Anchieta de Ciências Naturais, Colégio Anchieta, Porto Alegre. *Current as:* MAPA (fishes). Rio Grande do Sul. Brazil.

**242. MCN:** Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul, Porto Alegre. *Formerly:* Museu Rio-Grandense de Ciências Naturais (MRCN) established in 1955. *Obsolete as:* MRCN, MRGS. *Current as:* MCN (fishes, herps), MCN-PV (fossils). *Also as:* FZB-RS (Coleção de Peixes), FZBRs (herps), FZRG, MCNZ (herps). Rio Grande do Sul. Brazil.

**243. MCP:** Museu de Ciências e Tecnologia (MCT), Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), Porto Alegre. *Includes:* fishes from Laboratório de Ciências do Mar, PUCRS (LACIMAR), transferred in the 1980s. *Obsolete as:*

LACIMAR, MCPU, MCTP. *Current as:* MCP (fishes, herps), MCP-PV (fossils). *Also as:* MCTPUCRS (herps). Rio Grande do Sul. Brazil.

**244. UFRGS:** Universidade Federal do Rio Grande do Sul, Departamento de Zoologia, Porto Alegre. *Includes:* fishes from general zoological collection of Instituto de Ciências Naturais (ICN). *Obsolete as:* DZUFRGS. *Current as:* UFRGS (fishes, herps). Rio Grande do Sul. Brazil.

**245. UFSM:** Universidade Federal de Santa Maria, Santa Maria. *In error as:* ZUFMS. *Current as:* UFSM (fossils), ZUFMS (herps). Rio Grande do Sul. Brazil.

**246. ULBRA:** Universidade Luterana do Brasil, Canoas. *Current as:* ULBRA (fossils). Rio Grande do Sul. Brazil.

**247. UMVT:** Museu de História da Vida e da Terra da Universidade do Vale do Rio dos Sinos, São Leopoldo. *Current as:* UMVT (fossils). Rio Grande do Sul. Brazil.

**248. UFRO:** Universidade Federal de Rondônia (UNIR), Porto Velho. *Current as:* UFRO-I (fishes), UFRO-H (herps, Coleção de Referência da Herpetofauna). *Also as:* UFRO-ICT (fishes). Rondônia. Brazil.

**249. AMA:** Assessoria para Meio Ambiente, ELETROSUL, Florianópolis. *Note:* fish collection assembled by Manuel Pereira de Godoy, presumably no longer extant. *Also as:* AMA-Electrosul (fishes). *See also:* EEBP, MHNP (Godoy fishes). Santa Catarina. Brazil.

**250. FURB:** Fundação Universidade Regional de Blumenau, Blumenau. *Current as:* FURB (herps). Santa Catarina. Brazil.

**251. MOVI:** Museu Oceanográfico Univali, Universidade do Vale do Itajaí, Balneário Piçarras. *Also known as:* Museu Oceanográfico do Vale do Itajaí. *Includes:* private collection of Jules M.R. Soto (JMRS) and Museu de Ciências Naturais (MCNC), Centro de Estudos Bio-Ecológicos Costeiros, Limnológicos e Marinheiros (CEBECLIM) in Porto Alegre, annexed by Universidade do Vale do Itajaí in 1993. *Current as:* MOVI (fishes, herps). Santa Catarina. Brazil.

**252. UFSC:** Departamento de Ecologia e Zoologia (ECZ), Centro de Ciências Biológicas (CCB), Universidade Federal de Santa Catarina (UFSC), Florianópolis. *Note:* CAUSC was previously assigned to collections in Centro de Ciências Agrárias at UFSC and is presumably obsolete. *Obsolete as:* CAUSC. *Current as:* NEMAR (fishes, coleção Ictiológica de Referência do Núcleo de Estudos do Mar), CHUFSC (herps, Coleção Herpetológica). Santa Catarina. Brazil.

**253. AZUSC:** Acervo Zoológico da Universidade Santa Cecília, Santos. *Current as:* AZUSC (fishes). São Paulo. Brazil.

**254. CFBH:** Coleção Célio Fernando Baptista Haddad, Departamento de Zoologia, Instituto de Biociências, Universidade Estadual Paulista "Júlio de Mesquita Filho" (UNESP), Campus de Rio Claro. *Current as:* CFBH (amphibians). *See also:* LGP (fishes), MHE (fossils). São Paulo. Brazil.

**255. ColBIO:** Coleção Biológica "Prof. Edmundo F. Nonato" do Instituto Oceanográfico, Universidade de São Paulo, Cidade Universitária. *Note:* most specimens (mainly fish larvae and invertebrates) held prior to 2012 by the Instituto Oceanográfico and cited as IOUSP are now lost, including types of leptocephali described by Luiz Roberto Tommasi (1960). *Obsolete as:* IO, IOUSP. *Current as:* ColBIO (uncataloged fish larvae and invertebrates). São Paulo. Brazil.

**256. DZSJRP:** Universidade Estadual Paulista "Júlio de Mesquita Filho" (UNESP), Campus de São José do Rio Preto. *Current as:* DZSJRP (fishes, herps, Departamento de Zoologia e Botânica), URP (fossils). São Paulo. Brazil.

**257. EEBP:** Estação Experimental de Biologia e Piscicultura



de Pirassununga, Ministério da Agricultura, Pirassununga. *Note:* established in 1942, EEBP became Centro de Pesquisa e Treinamento em Aquicultura in 1979 which was renamed Centro Nacional de Pesquisa de Peixes Tropicais in 1993, then Centro Nacional de Pesquisa e Conservação de Peixes Continentais (CEPTA) in 2000; CEPTA administered by Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio) since 2007; EEBP fish collection assembled by Otto Schubart, Alcides Lourenço Gomes, Felisberto Pinto Monteiro, Manuel Pereira de Godoy and others mostly discarded in 1990s except for a few lots transferred under Godoy's supervision to Museu de História Natural, Pirassununga (MHNP), at least 3 lots transferred to MZUSP in 1994, and 151 lots (19 with EEBP catalog numbers) now cataloged at LIRP. *See also:* AMA, MHNP, LIRP (Godoy fishes). São Paulo. Brazil.

**258. IBSP:** Coleção Herpetológica “Alphonse Richard Hoge”, Instituto Butantan, São Paulo. *Note:* destroyed by fire 15 May 2010. *Obsolete as:* IB, IBH. *Current as:* IBSP. São Paulo. Brazil.

**259. IP:** Instituto Pinheiros Produtos Terapêuticos S.A., São Paulo. *Note:* collection no longer extant; herp specimens divided among several institutions including Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul, Porto Alegre (MCN). *Also as:* IPSP. São Paulo. Brazil.

**260. LBP:** Laboratório de Biologia e Genética de Peixes, Departamento de Morfologia, Universidade Estadual Paulista “Júlio de Mesquita Filho” (UNESP), Campus de Botucatu. *Current as:* LBP (fishes). São Paulo. Brazil.

**261. LGP:** Laboratório de Genética de Peixes, Departamento de Biologia, Instituto de Biociências, Universidade Estadual Paulista “Júlio de Mesquita Filho” (UNESP), Campus de Rio Claro. *Current as:* LGP (fishes). *See also:* CFBH (amphibians), MHE (fossils). São Paulo. Brazil.

**262. LIRP:** Laboratório de Ictiologia de Ribeirão Preto, Departamento de Biologia, Faculdade de Filosofia, Ciências e Letras (FFLCRP), Universidade de São Paulo, Ribeirão Preto. *Includes:* ~65 lots formerly associated with Estação Experimental de Biologia e Piscicultura de Pirassununga (EEBP). *Current as:* LIRP (fishes). *See also:* LPRP (fossils). São Paulo. Brazil.

**263. LISDEBE:** Laboratório de Ictiologia Sistemática, Departamento de Ecologia e Biologia Evolutiva (DEBE), Universidade Federal de São Carlos, São Carlos. *Current as:* LISDEBE (fishes). São Paulo. Brazil.

**264. LPRP:** Laboratório de Paleontologia, Faculdade de Filosofia, Ciências e Letras, Universidade de São Paulo, Ribeirão Preto. *Current as:* LPRP (fossils). *Also as:* LPRP/USP (fossils). *See also:* LIRP (fishes). São Paulo. Brazil.

**265. MHE:** Museu de Minerais e Rochas “Heinz Ebert”, Departamento de Petrologia e Metalogenia (DPM), Instituto de Geociências e Ciências Exatas (IGCE), Universidade Estadual Paulista “Júlio de Mesquita Filho” (UNESP), Campus de Rio Claro. *Note:* Museu de Paleontologia e Estratigrafia “Prof. Dr. Paulo Milton Barbosa Landim” (URC) is separate museum in Departamento em Geologia Aplicada (DGA), IGCE. *Obsolete as:* MMR/UFU. *Current as:* MHE (fossils, DPM), URC (fossils, DGA). *See also:* CFBH (amphibians), LGP (fishes). São Paulo. Brazil.

**266. MHNP:** Museu de História Natural, Pirassununga. *Note:* private museum and collection of Manuel Pereira de Godoy currently administered by Godoy family (no public access); includes some Godoy fishes formerly deposited at Estação Experimental de Biologia e Piscicultura de Pirassununga (EEBP) and potentially Assessoria para Meio Ambiente, ELETROSUL, Florianópolis (AMA). *See also:* AMA, EEBP, LIRP (Godoy fishes). São Paulo. Brazil.

**267. MHNT:** Museu de História Natural de Taubaté, Taubaté. *Current as:* MHNT (fossils). *See also:* TAU. São Paulo. Brazil.

**268. MPMA:** Museu de Paleontologia “Prof. Antonio Celso de Arruda Campos”, Monte Alto. *Also known as:* Museu de Paleontologia de Monte Alto. *Current as:* MPMA (fossils). São Paulo. Brazil.

**268.5. MUGEO:** (see Addendum)

**269. MZUSP:** Museu de Zoologia da Universidade de São Paulo, São Paulo. *Formerly:* Museu Paulista (MPSP). *Includes:* collection of Instituto de Zootecnia, Secretaria da Agricultura [formerly Departamento de Zoologia, Museu Paulista (DZSASP)] and Werner C. A. Bokermann herp collection (WCAB). *Obsolete as:* DZ, DZSASP, DZUSP, MZSP, MSP, MPSP, MZP. *Current as:* MZUSP (fishes, herps), CTMZ (tissue collection). *Also as:* MZict (fish tissues). São Paulo. Brazil.

**270. NUPEC:** Núcleo de Pesquisa e Estudo em Chondrichthyes, Santos. *Current as:* NUPEC (fishes). São Paulo. Brazil.

**271. TAU:** Universidade de Taubaté, Taubaté. *Current as:* TAU (fishes), CCLZU (herps, Laboratório de Zoologia). *See also:* MHNT (fossils). São Paulo. Brazil.

**272. UNESP-CLP:** Elasmobranchs Collection, Universidade Estadual Paulista “Júlio de Mesquita Filho” (UNESP), Câmpus do Litoral Paulista, São Vicente. *Current as:* UNESP-CLP (fishes). *Also as:* UNE-SP-CLP. São Paulo. Brazil.

**273. UNG:** Universidade de Guarulhos, Guarulhos. *Current as:* UNG (fossils). São Paulo. Brazil.

**274. ZUEC:** Museu de Zoologia da Universidade Estadual de Campinas “Adão José Cardoso”, Campinas. *Current as:* ZUEC (fishes, herps). *Also as:* ZUEC-PIS (fishes), ZUEC-REP (reptiles). São Paulo. Brazil.

**275. UFS:** Universidade Federal de Sergipe, Aracaju. *Current as:* UFS (fishes), CHUFS (herps, Coleção Herpetológica). Sergipe. Brazil.

**276. UNT:** Universidade Federal do Tocantins (UFT), Porto Nacional. *Current as:* UNT (fishes). Tocantins. Brazil.

**277. BMKB:** Brunei Museum [Muzium Brunei], Kota Batu, Bandar Seri Begawan. *Current as:* BMKB. Brunei.

**278. UBDM:** Universiti Brunei Darussalam Museum, Faculty of Science, Department of Biology, Bandar Seri Begawan. *Obsolete as:* UBD. *Current as:* UBDM (fishes, herps). Brunei.

**279. DHISUB:** Department of Hydrobiology and Ichthyology, Faculty of Biology, Sofia University “St. Kliment Ohridski”, Sofia. *Also as:* BFSU. Bulgaria.

**280. MNHV:** Museum of Natural History, Varna. Bulgaria.

**281. NMNHS:** National Museum of Natural History, Bulgarian Academy of Sciences, Sofia. *Formerly:* National Zoological Museum (NZMS). *Current as:* NMNHS (fossils). *Also as:* IZ-BAS, IZBAN (fossils, Institute of Zoology), NZMS. Bulgaria.

**282. CVRS:** Centre Voltaïque de la Recherche Scientifique, Ouagadougou. Burkina Faso.

**283. MHV:** Musée National de Burkina Faso, Ministère de la Culture, des Arts et du Tourisme, Ouagadougou. *Formerly:* Musée de Haute Volta [Upper Volta]. Burkina Faso.

**284. CRRHA:** Centre Régional de Recherches en Hydrobiologie Appliquée, Bujumbura. *Note:* sponsored by Belgian government from 1992–1995. Burundi.

**285. CBC:** Center for Biodiversity Conservation, Royal University of Phnom Penh (RUPP), Phnom Penh. *Current as:* CBC (herps). Phnom Penh. Cambodia.



**286. IFReDI:** Inland Fisheries Research and Development Institute, Phnom Penh. *Current as:* IFReDI (fishes). Phnom Penh. Cambodia.

**287. MUBS:** MacEwan University, Department of Biological Sciences, Edmonton. *Formerly:* Grant MacEwan University. *Current as:* MUBS. Alberta. Canada.

**288. RAM:** Royal Alberta Museum, Edmonton. *Current as:* RAM. Alberta. Canada.

**289. TMP:** Royal Tyrrell Museum of Palaeontology, Drumheller. *Obsolete as:* RTMP (fossils). *Current as:* TMP (fossils). Alberta. Canada.

**290. UALVP:** University of Alberta, Laboratory for Vertebrate Paleontology, Edmonton. *Current as:* UALVP (fossils). *See also:* UAMZ (Recent fishes, herps). Alberta. Canada.

**291. UAMZ:** University of Alberta, Museum of Zoology, Edmonton. *Obsolete as:* UAZM. *Current as:* UAMZ (Recent fishes, herps). *See also:* UALVP (fossils). Alberta. Canada.

**292. RBCM:** Royal British Columbia Museum, Victoria. *Obsolete as:* BCPM (British Columbia Provincial Museum). *Current as:* RBCM. British Columbia. Canada.

**293. UBC:** University of British Columbia, Cowan Vertebrate Museum [part of Beaty Biodiversity Museum], Vancouver. *Also as:* UBCBBM. British Columbia. Canada.

**294. MM:** The Manitoba Museum, Winnipeg. *Formerly:* Manitoba Museum of Man and Nature. *Obsolete as:* MMMN. *Current as:* MM (fishes, herps). *Also as:* TMM (online database). Manitoba. Canada.

**295. MZ:** Stewart-Hay Memorial Museum, Department of Biological Sciences, University of Manitoba, Winnipeg. *Formerly:* Museum of Zoology. *Current as:* MZF (fishes), MZH (herps). Manitoba. Canada.

**296. ARC:** Atlantic Reference Centre, Saint Andrews. *Current as:* ARC (fishes). New Brunswick. Canada.

**297. NBMG:** New Brunswick Museum, Saint John. *Current as:* NBMG (fossils, Geology). New Brunswick. Canada.

**298. FOSJ:** Fisheries and Oceans Canada, Newfoundland and Labrador Region, St. John's. Newfoundland. Canada.

**299. MUDB:** Memorial University, Department of Biology, St. John's. Newfoundland. Canada.

**300. NSMC:** Nova Scotia Museum, Halifax. Nova Scotia. Canada.

**301. BIOUG:** Centre for Biodiversity Genomics (CBG), University of Guelph, Guelph. *Current as:* BIOUG (fishes, herps). Ontario. Canada.

**302. CMN:** Canadian Museum of Nature, Ottawa. *Formerly:* National Museum of Natural Sciences, National Museums of Canada (NMC). *Includes:* collections of Victoria Memorial Museum Building (VMMB) and Nunavut Fossil Vertebrate Collection (NUFV). *Obsolete as:* CMN FI, NMC, VMMB. *Current as:* CMNFI (fishes), CMNAR (herps), CMNFV (fossil vertebrates). Ontario. Canada.

**303. GSC:** Geological Survey of Canada, Ottawa. *Current as:* GSC (fossils). Ontario. Canada.

**304. MNRT:** Ministry of Natural Resources, Toronto. Ontario. Canada.

**305. ROM:** Royal Ontario Museum, Department of Natural History, Toronto. *Note:* formally created in 1912, opened to public in 1914. *Current as:* ROM (fishes, herps, fossils). Ontario. Canada.

**306. WLUB:** Wilfrid Laurier University, Department of Biology, Waterloo. Ontario. Canada.

**307. DGPM:** Direction Generale des Pêches Maritimes,

Ministere de l'Industrie et du Commerce, Quebec. Quebec. Canada.

**308. MHNM:** Musée d'histoire naturelle, Parc national de Miguasha. *Current as:* MHNM (fossils). Quebec. Canada.

**309. QPM:** Ministère du Tourisme de la Chasse et de la Pêche, Montreal. Quebec. Canada.

**310. RM:** Redpath Museum, McGill University, Montréal. *Current as:* RM. Quebec. Canada.

**311. SMNH:** Saskatchewan Museum of Natural History, Regina. Saskatchewan. Canada.

**312. INDP:** Instituto Nacional de Desenvolvimento das Pescas, Mindelo, island of São Vicente. *Current as:* INDP (fishes). Cape Verde.

**313. CEPFL:** Centre d'Etude Pêches, Service des eaux et forêts du Tchad, Fort-Lamy [now N'Djamena]. Chad.

**314. CNAR:** Centre National d'Appui à la Recherche, N'Djamena. *Current as:* CNAR (fossils). Chad.

**315. CZZA:** Colección Zoológica de Zonas Áridas y Andinas, Universidad de Tarapacá, Arica. *Current as:* CZZA (herps). Arica. Chile.

**316. CPUC:** Colecciones Paleontológicas, Departamento de Ciencias de la Tierra, Universidad de Concepción, Concepción. *Current as:* CPUC (fossils). *See also:* MZUC (fishes, herps). Concepción. Chile.

**317. MRC:** Museo de Historia Natural de Concepción, Concepción. *Current as:* MRC (herps). Concepción. Chile.

**318. MZUC:** Museo de Zoología de la Universidad de Concepción, Concepción. *Formerly:* Instituto de Zoología de la Universidad de Concepción (IZUC). *Current as:* MZUC (herps). *Also as:* IZUC, MUZUC, MZUC-UCCC. *See also:* CPUC (fossils). Concepción. Chile.

**319. MPC:** Museo Paleontológico de Caldera, Caldera. *Current as:* MPC (fossils). Copiapó. Chile.

**320. MRA:** Museo Regional de Atacama, Copiapó. *Current as:* MRA (herps). Copiapó. Chile.

**321. SCBUCN:** Sala de Colecciones Biológicas de la Universidad Católica del Norte, Coquimbo. *Current as:* SCBUCN (fossils). Elqui. Chile.

**322. MUSA:** Museo de Historia Natural e Histórico de San Antonio, San Antonio. *Current as:* MUSA (fossils). San Antonio. Chile.

**323. CIZ:** Centro de Investigaciones Zoológicas, Departamento de Ciencias Ecológicas, Facultad de Ciencias, Universidad de Chile, Santiago. *Note:* collections lost when institution closed during military dictatorship. Santiago. Chile.

**324. LBUCH:** Laboratorio de Biología, Universidad de Chile, Santiago. *Note:* lab closed ca. 1998 with specimens transferred to Museo Nacional de Historia Natural (MNHNC) and some fishes to University of Kansas (KU). Santiago. Chile.

**325. LLFS-UCH:** Laboratory of Limnology, Faculty of Sciences, Universidad de Chile, Santiago. *Note:* laboratory collection of fishes (*Orestias*) maintained by Irma Del Carmen Vila Pinto since 2003; some specimens transferred to Museo Nacional de Historia Natural, Santiago (MNHNC). Santiago. Chile.

**326. MNHNC:** Museo Nacional de Historia Natural, Santiago. *Includes:* fish collections from the Universidad de Chile, Santiago, including Departamento de Biología Celular y Genética (DBCG, DBCUCH, DBGUCH), Facultad de Ciencias Forestales (FFSUC) and Laboratorio de Biología (LBUCH). *Current as:* MNHNC (fishes, herps), SGO-PV

(fossils, Colección de Paleontología de Vertebrados, Área de Paleontología). *Also as:* MNHNCL, MNHNCH, MNHN-Stg. Santiago. Chile.

**327. SNGM:** Servicio Nacional de Geología y Minería, Santiago. *Current as:* SNGM (fossils). Santiago. Chile.

**328. SSUC:** Colección de Flora y Fauna Patricio Sánchez Reyes, Pontificia Universidad Católica de Chile, Santiago. *Current as:* SSUC (herps). Santiago. Chile.

**329. IZUA:** Instituto de Zoología, Universidad Austral de Chile, Valdivia. *Current as:* IZUA. Valdivia. Chile.

**330. CIMAR:** Pontificia Universidad Católica de Valparaíso, Centro de Investigaciones del Mar, Valparaíso. Valparaíso. Chile.

**331. EBMC:** Estación de Biología Marina de Montemar, Universidad de Valparaíso, Viña del Mar, Valparaíso. Valparaíso. Chile.

**332. MHNV:** Museo de Historia Natural de Valparaíso, Valparaíso. *Note:* original museum founded by Eduardo de la Barra in 1878 and largely destroyed by earthquake and fire in 1906; remains of collection moved to Santiago and returned to Valparaíso in 1912. *Current as:* MHNV. Valparaíso. Chile.

**333. AHU:** School of Life Sciences, Anhui University, Hefei. Anhui. China.

**334. HSU:** Huangshan University Museum, Huangshan. *Current as:* HSU (herps). *Also as:* HUM (herps). Anhui. China.

**335. BMNHC:** Beijing Museum of Natural History, Dongcheng District, Beijing. *Formerly:* National Central Museum of Natural History (1951–1962). *Current as:* BMAM (Recent fishes), BMNHC (fossils). *Also as:* BMNH (fossils), CNHM (herps), NIBM (fishes). Beijing. China.

**336. GMC:** National Geological Museum of China, Beijing. *Current as:* GMC V (fossils). *Also as:* GMV, NGMC (fossils). Beijing. China.

**337. GMPKU:** Geological Museum of Peking University, Beijing. *Formerly:* Geological Showroom of Peking University founded in 1909, renamed Geological Exhibition Hall in 1923, and incorporated into Peking Geology College in 1952; Geological Museum re-established in 1955. *Current as:* GMPKU (fossils). *Also as:* PKUP (fossils, Peking University Paleontological Collections). Beijing. China.

**338. IGCAGS:** Institute of Geology, Chinese Academy of Geological Sciences [Academia Sinica], Beijing. *Current as:* IGCAGS (fossils). *Also as:* CAGS-IG. Beijing. China.

**339. IVPP:** Institute of Vertebrate Paleontology and Paleoanthropology, Chinese Academy of Sciences [Academia Sinica], Beijing. *Formerly:* Institute of Vertebrate Paleontology (1957–1960). *Current as:* IVPP V (vertebrate fossils). *See also:* NZMC (Recent fishes, herps). Beijing. China.

**340. NZMC:** National Zoological Museum, Institute of Zoology, Chinese Academy of Sciences [Academia Sinica], Chaoyang District, Beijing. *Formerly:* Fan Memorial Institute of Biology (FMIB, ZMFIB, ZMFMIB; 1928–1962), Institute of Zoology, Academia Sinica [Chinese Academy of Sciences] (ASIZB, IZAC, IZAS). *Obsolete as:* CAS, FMIB, IOZ, IOZCAS, IZAC, IZAS, ZMFIB, ZMFMIB. *Current as:* NZMC. *Also as:* ASIZB, IZAC (mammals). *See also:* IVPP (fossils). Beijing. China.

**341. CFEC:** Chongqing Museum of Natural History, Chongqing. *Also known as:* Municipal Museum of Chongqing. *Current as:* CFEC (fossils). *Also as:* CNHM (amphibians), CV (fossils). Chongqing. China.

**342. QJGPM:** Qijiang Petrified Wood and Dinosaur Footprint National Geological Park Museum, Chongqing. *Formerly:*

Geological Museum of Qijiang Municipality Bureau of Land Resources and Housing Management (QJGM). *Current as:* QJGPM (fossils). *Also as:* QJGM (fossils). Chongqing. China.

**343. FM:** Department of Nature, Fujian Provincial Museum, Fuzhou. Fujian. China.

**344. FNU:** Fujian Normal University, Department of Biology, Fuzhou. Fujian. China.

**345. XFCC:** Jimei University, Fisheries College, Xiamen. *Formerly:* Xiamen Fisheries College. Fujian. China.

**346. ZMUA:** Zoological Museum, Department of Biology, College of Life Science, Xiamen University, Xiamen. *Formerly:* University of Amoy. Fujian. China.

**347. DBLU:** Department of Biology, Lanzhou University, Lanzhou. Gansu. China.

**348. FRDC:** Fossil Research and Development Center, Lanzhou. *Current as:* FRDC (fossils). Gansu. China.

**349. GSGM:** Gansu Geological Museum, Lanzhou. *Current as:* GSGM (fossils). Gansu. China.

**350. NWSU:** Northwest Normal University, Lanzhou. *Current as:* NWSU (herps). Gansu. China.

**351. DIP:** Dexu Institute of Paleontology, Chaozhou. *Current as:* DIP-V (vertebrate fossils). Guangdong. China.

**352. GZIG:** Guangzhou Institute of Geography, Guangdong Academy of Sciences, Guangzhou [Canton]. Guangdong. China.

**353. JNU:** Department of Biology, Jinan [Ji-Nan] University, Guangzhou [Canton]. *Current as:* JNU (fishes). *Also as:* DBJU, JNH. Guangdong. China.

**354. NCBLR:** Nanxiong County Bureau of Land and Resources, Shaoguan. *Current as:* NCBLR (fossils). Guangdong. China.

**355. NDM:** Nanxiong Dinosaur Museum, Shaoguan. *Current as:* NDM (fossils). Guangdong. China.

**356. PRFRI:** Pearl River Fisheries Research Institute, Chinese Academy of Fishery Sciences, Guangzhou [Canton]. *Formerly:* Fishery Experimental Station Canton (FESC). *In error as:* PFRI. *Obsolete as:* FESC. *Current as:* PRFRI (fishes). Guangdong. China.

**357. SCNU:** South China Normal University, School of Life Science, Guangzhou [Canton]. *Obsolete as:* DBSCNU (Department of Biology), FCSCNU. *Current as:* SCNU. Guangdong. China.

**358. SCSFRI:** South China Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences, Guangzhou [Canton]. *In error as:* SSCFRI. *Current as:* SCSFRI. Guangdong. China.

**359. SYS:** Museum of Biology, Sun Yat-Sen University [Zhongshan University], Guangzhou [Canton]. *Formerly:* Chung Shan University which incorporated Lingnan University in 1953. *Note:* status unknown for collections of Lingnan University Natural History Survey and Museum (LNHSM or LUG). *Obsolete as:* BLG (fishes), SYSU, ZLSYU. *Current as:* SYS (fishes, herps). Guangdong. China.

**360. YMK:** Yangmeikeng tracksite, Shaoguan. *Current as:* YMK (fossils). Guangdong. China.

**361. GAS:** Longgang National Nature Reserve, Longzhou [Chongzuo]. Guangxi. China.

**362. GIF:** Guangxi Institute of Fisheries, Nanning. *Obsolete as:* GXIF. *Current as:* GIF (fishes). Guangxi. China.

**363. GMU:** Department of Biology, Guangxi Medical University, Nanning. *Formerly:* Guangxi Medical College (GMC). *Obsolete as:* GMC. *Current as:* GMU. *Also as:* GMXU and GXMU (amphibians). Guangxi. China.

**364. GXSD:** College of Life Sciences, Guangxi Normal University, Guilin. *Also as:* GXNU. Guangxi. China.

- 365. GXUA:** College of Animal Science and Technology, Guangxi University, Nanning. Guangxi. China.
- 366. MESH:** Guangxi Maershan National Nature Reserve collection, Guilin. *Obsolete as:* GXMESGXUA. *Current as:* MESH. Guangxi. China.
- 367. NHMG:** Natural History Museum of Guangxi Zhuang Autonomous Region, Nanning. *Current as:* NHMG (herps, fossils). *Also as:* GXNHM (amphibians), NHMGZAR (fishes). *See also:* GMU. Guangxi. China.
- 368. BJC:** Bijie College, Bijie. *Current as:* BJC (herps). Guizhou. China.
- 369. GFGNG:** Guanling Fossil Group National GeoPark, natural history museum, Guanling Buyei and Miao Autonomous County. *Also known as:* National Geological Park for the Guanling Fossil Group (NGPGFG). *Note:* established in 2003; located on Wolonggang Hill near Xiaowa Village. *Obsolete as:* NGPGFG. *Current as:* GFGNG (fossils). Guizhou. China.
- 370. NKMC:** National Kweiyang Medical College, Division of Biology, Kweiyang. *Note:* present status unknown. Guizhou. China.
- 371. ZMC:** Zunyi Medical College, Department of Biology, Zunyi. *Obsolete as:* TMC. *Current as:* ZMC (herps). *Also as:* ZMCZ. Guizhou. China.
- 372. GNUG:** Guizhou Normal University, Animal Specimen Room of the School of Life Sciences, Guiyang. *Obsolete as:* GZNU (herps). *Current as:* GNUG. *Also as:* GZNU (entomology). Guizhou. China.
- 373. HAINNU:** Department of Biology, Hainan Normal University, Haikou. Hainan. China.
- 374. JPM:** Jehol Paleontological Museum, Chengde. *Current as:* JPM (fossils). Hebei. China.
- 375. MHBU:** Museum of Hebei University, Baoding. *Current as:* MHBU (spiders). Hebei. China.
- 376. GMH:** Geological Museum of Heilongjiang, Harbin. *Current as:* GMH (fossils). Heilongjiang. China.
- 377. HFRI:** Heilongjiang River Fisheries Research Institute, Chinese Academy of Fishery Sciences, Harbin. *Obsolete as:* HRFRI. *Current as:* HFRI (fishes). Heilongjiang. China.
- 378. HPM:** Heilongjiang Provincial Museum, Harbin. *Note:* established in 1904 and presumably listed as North Manchurian Museum (NMMH) in Leviton et al. (1985:813). *Assigned here:* HPM (fossils). Heilongjiang. China.
- 379. J:** Shenzhen Dinosaur Museum, Jiayin Dinosaur National Geological Park, Jiayin County. *Current as:* J (fossils). Heilongjiang. China.
- 380. NMMH:** North Manchurian Museum, Harbin. *Note:* museum listed by Leviton et al. (1985:813) presumably refers to the Heilongjiang Provincial Museum (HPM). Heilongjiang. China.
- 381. HGM:** Henan Geological Museum, Zhengzhou. *Note:* codes HAI and HII are collection codes, not the institutional code (HGM). *Current as:* HGM (fossils). Henan. China.
- 382. HNNU:** Henan Biological Specimen Museum, College of Life Sciences, Henan Normal University, Xinxiang. *Formerly:* Xinxiang Normal College (XNC) ca. 1956–1985. *Also as:* HENNU (amphibians). Henan. China.
- 383. HSTUM:** Henan University of Science and Technology Museum, Luoyang. *Formerly:* Luoyang Institute of Technology (1952–2002). *Current as:* HSTUM (herps). Henan. China.
- 384. HKFRS:** Hong Kong Fisheries Research Station, Aberdeen. *Note:* formerly with University of Hong Kong, Department of Zoology (1952–1960). Hong Kong. China.
- 385. KFBG:** Kadoorie Farm and Botanic Garden, Hong Kong. *Current as:* KFBG (herps). Hong Kong. China.
- 386. MSLKHC:** Simon F.S. Li Marine Science Laboratory, Department of Biology, The Chinese University of Hong Kong (CUHK), Sha Tin [Shatin]. *Formerly:* Marine Science Laboratory (MSL, 1970–2002). *Obsolete as:* MSL, MSLH. *Current as:* MSLKHC. *Also as:* CUHK. Hong Kong. China.
- 387. SHGM:** Stephen Hui Geological Museum, The University of Hong Kong (HKU), Hong Kong. *Current as:* SHGM (fossils). *See also:* SWIMS. Hong Kong. China.
- 388. SWIMS:** Swire Institute of Marine Science, The University of Hong Kong, Cape d'Aguilar Road, Shek O, Hong Kong. *Note:* division of Hong Kong University School of Biological Science. *Current as:* SWIMS (fishes). *See also:* SHGM. Hong Kong. China.
- 389. HACW:** College of Fishery, Huazhong Agriculture Collection, Huazhong Agricultural University, Wuhan. Hubei. China.
- 390. HGM:** Hubei Geological Museum, Wuhan. *Current as:* HGM (fossils). Hubei. China.
- 391. IHB:** Museum for Aquatic Organisms, Institute of Hydrobiology, Chinese Academy of Sciences [Academia Sinica], Wuhan. *Includes:* specimens from Zhuhai Fisheries Science Research Institute (ZX). *Note:* established in 1950 via merger involving Institute of Zoology of Academia Sinica located in Shanghai (ZIAS); relocated to Wuhan in 1954. *Obsolete as:* IHASW, IHBCAS, IHCAS. *Current as:* IHB (fishes). Hubei. China.
- 392. WGSC:** Wuhan Centre of China Geological Survey, Wuhan. *Current as:* WGSC V (fossils). Hubei. China.
- 393. YAGM:** Yuan'an Geological Museum, Yuan'an County, Yichang. *Current as:* YAGM V (fossils). Hubei. China.
- 394. YDENG:** Yunxian Dinosaur Eggs National Geological Park, Shiyan. *Also known as:* Qinglong Mountain Dinosaur Egg Fossils Park; Qinglongshan Dinosaur Egg National Geopark (QDENG); Qinglongshan National Geopark. *Current as:* TML (fossils in Tumiaoling in-situ exhibition hall), YDENG (hadrosauroid fossils from Lijiagou locality). Hubei. China.
- 395. YIGMR:** Wuhan Institute of Geology and Mineral Resources, Wuhan. *Formerly:* Yichang Institute of Geology and Mineral Resources, Yichang. *Current as:* YIGMR (fossils). *Also as:* YIGM (fossils). Hubei. China.
- 396. FRIHP:** Fisheries Research Institute of Hunan Province, Changsha. Hunan. China.
- 397. HHNNR:** Management Bureau of Hunan Hupingshan National Nature Reserve, Shimen County. *Current as:* HHNNR (fishes). Hunan. China.
- 398. HNUL:** Zoological Museum of Hunan Normal University, Changsha. *Current as:* HNUL. *Also as:* HNU, HNNU, HNNUL. Hunan. China.
- 399. ELDM:** Erliahaote Dinosaur Museum, Erenhot [Erlia]. *Also known as:* Dinosaur Museum of Erenhot. *Current as:* ELDM (fossils). Inner Mongolia. China.
- 400. IMM:** Inner Mongolia Museum, Hohhot. Inner Mongolia. China.
- 401. LH:** Long Hao Institute of Geology and Paleontology, Hohhot. *Current as:* LH V (vertebrate fossils). Inner Mongolia. China.
- 402. FFRIJ:** Freshwater Fisheries Research Institute of Jiangsu Province, Nanjing. *Obsolete as:* JS. *Current as:* FFRIJ. Jiangsu. China.
- 403. MMNHN:** Nanjing Museum, Chinese Academy of Sciences [Academia Sinica], Nanjing. *Formerly:* Metropolitan Museum of Natural History. Jiangsu. China.



- 404. NIGLAS:** Nanjing Institute of Geography and Limnology, Academia Sinica [Chinese Academy of Sciences], Nanjing. *Formerly:* Geographic Institute of China (1940–1953). *Obsolete as:* NIG, NIGL, NGL. *Current as:* NIGLAS. *See also:* NIGP (fossils). Jiangsu. China.
- 405. NIGP:** Nanjing Institute of Geology and Palaeontology, Academia Sinica (NIGPAS) [Chinese Academy of Sciences], Nanjing. *Note:* fossil collection descended from Institute of Geology founded in 1928. *Obsolete as:* GMN, MV. *Current as:* NIGP (fossils). *Also as:* NIGPCAS. *See also:* NIGLAS (fishes). Jiangsu. China.
- 406. NJNU:** Nanjing Normal University, Nanjing. *Obsolete as:* NNC, NNU (herps). *Current as:* NJNU (herps). *Also as:* NJNUh (herps). Jiangsu. China.
- 407. NRIBAS:** National Research Institute of Biology, Academia Sinica [Chinese Academy of Sciences], Nanjing. *Formerly:* Museum of the Biological Laboratory of the Science Society of China (SSCN), established in 1922. *Also as:* SSCN. Jiangsu. China.
- 408. JLUM:** Jilin University Museum, Changchun. *Note:* as of 2000, Jilin University is a merger of multiple universities including Changchun University of Science and Technology (CUST). *Current as:* JLUM (fossils). *Also as:* CAD (Department of Paleontology and Stratigraphy, fossils), CUST (fossils associated with Changchun University of Science and Technology), RCPS CDA (Research Center of Palaeontology and Stratigraphy). Jilin. China.
- 409. BPM:** Beipiao Paleontological Museum, Beipiao. *Also known as:* Liaoning Paleontological Museum (LPM), but that name also applied to separate museum in Shenyang. *Obsolete as:* LPM. *Current as:* BPM (fossils). *See also:* PMOL. Liaoning. China.
- 410. BXGM:** Benxi Geological Museum, Benxi. *Current as:* BXGM (fossils). Liaoning. China.
- 411. CYH:** Chaoyang Bird Fossil National Geopark, Chaoyang. *Also known as:* Bird Fossil National Geological Park. *Current as:* CYH (fossils). *Also as:* CYGB. Liaoning. China.
- 412. DFI:** Dalian Fisheries Institute, Dalian Maritime University, Dalian. *Also known as:* Liaoning Marine Fisheries Research Institute. Liaoning. China.
- 413. JZMP:** Jinzhou Museum of Paleontology, Jinzhou. *Obsolete as:* JMP. *Current as:* JZMP (fossils). Liaoning. China.
- 414. JZT:** Jizantang Paleontological Museum, Chaoyang. *Note:* some fossils donated to Shanghai Natural History Museum (SNHM). *Obsolete as:* CJPM. *Current as:* JZT (fossils). Liaoning. China.
- 415. PMOL:** Paleontological Museum of Liaoning, Shenyang. *Also known as:* Liaoning Paleontological Museum (LPM), but that name also applied to separate museum in Beipiao. *Note:* museum on campus of Shenyang Normal University. *Obsolete as:* LPM. *Current as:* PMOL (fossils), PMOL-SGP (fossils, Sino-German Cooperation Project). *See also:* BPM. Liaoning. China.
- 416. RIFFL:** Research Institute for Freshwater Fisheries of Liaoning Province, Liaoyang. Liaoning. China.
- 417. SYNU:** Shenyang Normal University, Shenyang. *Current as:* SYNU (herps). Liaoning. China.
- 418. XHPM:** Xinghai Paleontological Museum of Dalian, Dalian. *Also known as:* Dalian Natural History Museum. *Obsolete as:* D, DLNM, DMNH, DNHM, DNM. *Current as:* XHPM (fossils). Liaoning. China.
- 419. YHZ:** Yizhou Fossil Museum, Yixian. *Current as:* YHZ (fossils). Liaoning. China.
- 420. NXU:** Ningxia University, Yinchuan. Ningxia Hui. China.
- 421. NWIPB:** Northwest Institute of Plateau Biology, Academia Sinica [Chinese Academy of Sciences], Xining. *Obsolete as:* NPIB. *Current as:* NWIPB. Qinghai. China.
- 422. GSW:** Shaanxi Nature Museum, Xi'an [Xian]. *Current as:* GSW (fossils). Shaanxi [Shensi]. China.
- 423. IZSNU:** Institute of Zoology, Shaanxi Normal University, Xi'an [Xian]. *Current as:* IZSNU. *Also as:* DBSNU (Department of Biology), SNUIZ (fishes). Shaanxi [Shensi]. China.
- 424. IZSX:** Shaanxi Institute of Zoology, Xi'an [Xian]. *Also known as:* Northwest Institute of Endangered Zoological Species. *Note:* established in 1978 based on Shaanxi Institute of Biology and the SAS Survey Team for Qinling Biological Resources. *Current as:* IZSX. *Also as:* SIZ (herps). Shaanxi [Shensi]. China.
- 425. NAFU:** Northwest Agriculture and Forestry University (NWFU), Yangling. *Note:* established in 1999 via merger of seven institutions including Northwest Forestry College (NCF); much of historical herp collection, including holotype of *Oligodon ningshaanensis* Yuan 1983, lost due to inactivity. *Obsolete as:* NCF. *Current as:* NAFU (herps). Shaanxi [Shensi]. China.
- 426. EPC:** Private collection of Marco Endruweit, Qingdao. Shandong. China.
- 427. IOCAS:** Institute of Oceanology, Academia Sinica [Chinese Academy of Sciences], Qingdao. *Formerly:* Nanhai Oceanographic Institute. *Note:* Marine Biological Museum founded in 1950. *Obsolete as:* ASIO, NOI. *Current as:* IOCAS (fishes). *Also as:* MBM or MBMCAS (Marine Biological Museum). Shandong. China.
- 428. OUC:** Ocean University of China [Haida], Qingdao. Shandong. China.
- 429. SDUST:** College of Earth Science and Engineering, Shandong University of Science and Technology, Qingdao. *Current as:* SDUST (fossils). Shandong. China.
- 430. STM:** Shandong Tianyu Museum of Nature, Pingyi. *Current as:* STM (fossils). Shandong. China.
- 431. YT:** Ludong University, Yantai. *Formerly:* Yantai Normal College (1958–1984) and University (1984–2006). Shandong. China.
- 432. ZCDM:** Zhucheng Dinosaur Museum, Zhucheng. *In error as:* ZDCM (fossils). *Current as:* ZCDM (fossils). Shandong. China.
- 433. BDSSI:** Laboratory of the Biology Department, Shanghai Science Institute, Shanghai. *Note:* present status unknown. Shanghai. China.
- 434. DHFRI:** Dong Hai [Donghai] Fishery Research Institute, Shanghai. Shanghai. China.
- 435. ECSFI:** East China Sea Fisheries Research Institute, Chinese Academy of Fishery Science (CAFS), Shanghai. Shanghai. China.
- 436. FU:** Fudan University, Department of Biology, Shanghai. *In error as:* Fujian University (Wallach et al., 2014; holotype of *Trimeresurus tibetanus* is from Fudan University). *Also as:* FDU (herps). Shanghai. China.
- 437. SFU:** Shanghai Ocean University (SHOU, SOU), Shanghai. *Formerly:* Shanghai Fisheries College (SFC, 1952–1985), Shanghai Fisheries University (SFU, 1985–2008). *Obsolete as:* SFC. *Current as:* SFU. Shanghai. China.
- 438. SNHM:** Shanghai Natural History Museum, Jing'an, Shanghai. *Note:* established in 1956 based on collections from the Xujiahui Museum founded in 1868 (renamed Zhendan



Museum in 1933) and Shanghai Museum of the Asiatic Society founded in 1874; SNHM merged with Shanghai Science and Technology Museum in 2001. *Current as:* SNHM. *Also as:* SMNH, SMNHC. Shanghai. China.

**439. SXMG:** Shanxi Museum of Geology, Taiyuan. *Current as:* SXMG (fossils). Shanxi. China.

**440. CCCGS:** Chengdu Institute of Geology and Mineral Resources (CIGMRC), Chengdu. *Also known as:* Chengdu Center of China Geological Survey. *Obsolete as:* CGS. *Current as:* CCCGS (fossils), LPV (Luoping County Vertebrate fossil collection). Sichuan. China.

**441. CIB:** Chengdu Institute of Biology, Chinese Academy of Sciences [Academia Sinica], Chengdu. *Formerly:* Sichuan Biological Research Institute (SBRI). *Obsolete as:* CIS, SBRI, SERI, SIBAC (Southwest Institute of Biology), ZS. *Current as:* CIB. Sichuan. China.

**442. CWNU:** China West Normal University, Nanchong. *Current as:* CWNU (herps). Sichuan. China.

**443. NRIS:** Natural Resource Institute of Sichuan Province, Chengdu. *Current as:* NRIS (fishes). *Also as:* MSINR, SPNRI (fishes). Sichuan. China.

**444. QW:** Leshan Giant Buddha Museum, Leshan. *Current as:* QW (fossils). Sichuan. China.

**445. SCUM:** Sichuan University Museum, Chengdu. *Formerly:* West China Union University Museum (WCUUM). *Obsolete as:* WCUUM. *Current as:* SCUM. Sichuan. China.

**446. SICAU:** Sichuan Agricultural University, Ya'an. *Formerly:* Sichuan Agricultural College (1956–1985). *Note:* SICAU with three campuses in Chengdu, Ya'an and Dujiangyan. *Obsolete as:* SAUS. *Current as:* SICAU (fishes, herps; Ya'an campus). *Also as:* SAU (fishes; Ya'an campus). Sichuan. China.

**447. SNC:** Sichuan Normal University, Chengdu. *Formerly:* Sichuan Teachers College (1952–1985). *Current as:* SNC (fishes). *Also as:* SCNU (herps). Sichuan. China.

**448. YBU:** Yibin University, College of Life Science and Food Engineering, Yibin. *Note:* GP refers to personal catalogue numbers of Guo Peng. *Current as:* YBU (herps). Sichuan. China.

**449. ZDM:** Zigong Dinosaur Museum, Zigong. *Current as:* ZDM (fossils). Sichuan. China.

**450. NUMZ:** Nankai University, College of Environmental Science and Engineering, Department of Environmental Science, Museum of Zoology, Tianjin. Tianjin. China.

**451. TNZ:** Tianjin Natural History Museum, Tianjin. *Formerly:* Musée Hoang-ho Pai-ho, founded in 1914. Tianjin. China.

**452. CPM:** Chuxiong Prefectural Museum, Chuxiong. *Note:* established in 1993. *Current as:* CPM (fossils). *Also as:* CXMVZA (fossils). Yunnan. China.

**453. FAQ:** Fisheries Administration of Qujing, Qujing. Yunnan. China.

**454. FAQB:** Fishery Administration of Qiubei, Qiubei. *Current as:* FAQB (fishes). Yunnan. China.

**455. HRA:** Heilongtan Reservoir Administration, Shilin County. *Also as:* RHLCY, RHS, HRSC, HRAS. Yunnan. China.

**456. KIZ:** Kunming Institute of Zoology, Chinese Academy of Sciences, Kunming. *Current as:* KIZ (fishes, herps). Yunnan. China.

**457. KMV:** Kunming Municipal Museum, Kunming. *Current as:* KMV (fossils). Yunnan. China.

**458. LDM:** Lufeng Dinosaur Museum, Lufeng. *Current as:* LDM-LCA (fossils from Lufeng County, Chuanjie Township, A'na Village), LFGT LDM (fossils associated with Bureau of Land and Resources of Lufeng County). Yunnan. China.

**459. MSTFM:** Middle School of the Third Factory Machinery, Luliang, Qujing. *Also known as:* private collection of W.X. Li (Li). Yunnan. China.

**460. QAMS:** Qujing Aquatic Management Station, Qujing. *Also as:* YQAMS. Yunnan. China.

**461. SWFU:** Southwest Forestry University, Museum of Zoology, Kunming. *Formerly:* Southwest Forestry College (SWFC) until 2010. *Obsolete as:* SFU, SWFC, SWUF. *Current as:* SWFU (fishes). Yunnan. China.

**462. YNUK:** Yunnan Normal University, Biology Department, Kunming. *Obsolete as:* YU. *Current as:* YNUK. Yunnan. China.

**463. YU:** Yunnan University, Department of Biology, Kunming. *Formerly:* Private University of the Eastern Land (1922–1934). *Current as:* YU (herps). *Also as:* MZYU. *See also:* YNUK (separate institution). Yunnan. China.

**464. HTC:** Hangzhou Normal University, Hangzhou. Zhejiang. China.

**465. LFZFC:** Laboratory of Fishes, Zhejiang Ocean University, Zhoushan [Chusan]. *Formerly:* Zhejiang Fisheries College. Zhejiang. China.

**466. TTM:** Tiantai Museum, Tiantai. *Current as:* TTM (fossils). Zhejiang. China.

**467. ZJU:** Zhejiang University [Che Kiang University], Hangzhou. *Includes:* three historical universities (Hangzhou University, Zhejiang Agricultural University and Zhejian Medical University) combined with Zhejiang University in 1998. *Current as:* ZJU (reptiles). *Also as:* HU (amphibians). Zhejiang. China.

**468. ZMNH:** Zhejiang Museum of Natural History, Hangzhou. *Formerly:* West Lake Museum (WLMH, 1929–1952); Zhejiang Provincial Museum (ZPM, 1952–1984). *Obsolete as:* WLMH, ZH, ZPM. *Current as:* ZMNH (fishes, herps, fossils), ZMNH M (fossils). Zhejiang. China.

**469. SINCHI:** Instituto Amazónico de Investigaciones Científicas SINCHI, Leticia. *Current as:* CIACOL (fishes, Colección Ictiológica de la Amazonía Colombiana), SINCHI-R (reptiles). *Also as:* SINCHI-CIACOL (fishes). Amazonas. Colombia.

**470. CIUA:** Colección de Ictiología del Instituto de Biología de la Universidad de Antioquia, Medellín. *Note:* collection separate from Museo Universitario, Universidad de Antioquia (MUA). *Current as:* CIUA (fishes). *See also:* MUA (fishes), MHUA (herps). Antioquia. Colombia.

**471. CP-UCO:** Colección de Peces, Universidad Católica de Oriente, Rionegro. *Current as:* CP-UCO (fishes). Antioquia. Colombia.

**472. CSJ:** Colegio de San José, Museo de Historia Natural, Medellín. *Note:* administered by Instituto Tecnológico Metropolitano (ITM), Biodiversidad y Recursos Naturales. *Current as:* CSJ-I (fishes), CSJ-H (herps). *Also as:* MHNCSJ (herps). Antioquia. Colombia.

**473. MHUA:** Museo de Herpetología de la Universidad de Antioquia, Medellín. *Note:* established in 1998 and administered by Grupo Herpetológico de Antioquia (GHA). *Current as:* MHUA-A (amphibians), MHUA-R (reptiles), MHUA-L (larvae). *See also:* CIUA (fishes), MUA (fishes). Antioquia. Colombia.

**474. MUA:** Colección de Ciencias Naturales, Museo Universitario, Universidad de Antioquia, Medellín. *Note:* collection separate from Colección de Ictiología, Universidad de Antioquia (CIUA). *Current as:* MUA (fishes). *Also as:* MUUA. *See also:* CIUA (fishes), MHUA (herps). Antioquia. Colombia.

**475. CAR:** Private collection of Carlos A. Ardila Rodríguez, Barranquilla. *Current as:* CAR (fishes). Atlántico. Colombia.

- 476. CBB:** Colegio Biffi La Salle, Barranquilla. *Note:* small natural history collection assembled in the early to mid 1900s by Brothers of the De La Salle religious order; part of collection lost during transport to new building; current status unknown. Atlántico. Colombia.
- 477. UARC:** museo de colecciones científicas, programa de Biología, Universidad del Atlántico [Uniatlántico], Barranquilla. *Current as:* UARC-IC (fishes). Atlántico. Colombia.
- 478. CIP:** Centro de Investigaciones Pesqueras, Instituto Nacional de Recursos Naturales Renovables y del Ambiente (INDERENA), Cartagena. *Note:* INDERENA is a government environmental agency created in 1968 and replaced by Ministerio del Medio Ambiente in 1993; CIP transferred to the Instituto Nacional de Pesca y Acuicultura (INPA) in 1990; status unknown, collections perhaps lost. *See also:* IND (Bogotá, Distrito Capital). Bolívar. Colombia.
- 479. CFSTA:** Colección privada de la Fundación Santa Teresa de Ávila, Villa de Leyva. *Current as:* CFSTA (fossils). Boyacá. Colombia.
- 480. CIP:** Colección privada del Centro de Investigaciones Paleontológicas, Villa de Leyva. *Current as:* CIP (fossils). Boyacá. Colombia.
- 481. IAvH:** Instituto de Investigación de Recursos Biológicos Alexander von Humboldt, Villa de Leyva. *Includes:* amphibian collection from Instituto Nacional de Recursos Naturales Renovables y del Ambiente (IND-Am); freshwater fishes (including types of *Corydoras*) originally deposited at Museo del Mar (MM), Universidad de Bogotá Jorge Tadeo Lozano (UBJTL/UBJTLMM) and later transferred to INVEMAR (some apparently lost during transfers). *Obsolete as:* IAVHP (fishes). *Current as:* IAvH-CB (Colecciones Biológicas), IAvH-CT (tissue collection), IAvH-P (fishes), IAvH-Am (amphibians), IAvH-R (reptiles). *See also:* INVEMAR. Boyacá. Colombia.
- 482. MJACM:** Museo de la Junta de Acción Comunal de la vereda Monquirá, Villa de Leyva. *Current as:* MJACM (fossils). Boyacá. Colombia.
- 483. UN MPVL:** Colecciones paleontológicas de la Universidad Nacional de Colombia, Villa de Leyva. *Current as:* UN MPVL (fossils). *See also:* UN ICNMHNR (Bogotá, Distrito Capital). Boyacá. Colombia.
- 484. MHN-Uca:** Museo de Historia Natural, Universidad de Caldas, Manizales. *Obsolete as:* MHNUC (herps). *Current as:* MHN-Uca (herps). Caldas. Colombia.
- 485. UAM:** Museo de Historia Natural, Universidad de la Amazonía, Florencia. *Current as:* UAM. Caquetá. Colombia.
- 486. MHNUC:** Museo de Historia Natural de la Universidad de Cauca, Popayán. *Obsolete as:* UCP. *Current as:* MHNUC (fishes), MHNUC-Cr (Crocodylia), MHNUC-Te (Testudinata), MHNUC-Sa (Sauria), MHNUC-Se (Serpentes). Cauca. Colombia.
- 487. PNNG:** Colección de Referencia del Parque Nacional Natural Gorgona, Estación Científica “Henry von Prah”, Isla Gorgona. *Current as:* MMGPe (fishes, Museo Marino Gorgona Peces). *Also as:* CR PNNG. Cauca. Colombia.
- 488. UTCH:** Colección Científica de Referencia Zoológica del Chocó, Universidad Tecnológica del Chocó (UTCH), Quibdó. *Current as:* CHbCH (fishes, Colección Hidrobiológica), COL-ZOOCH-H (herps, administered by Grupo de Investigaciones en Herpetología). Chocó. Colombia.
- 489. ANDES:** Museo de Historia Natural Andes, Departamento de Ciencias Biológicas, Universidad de los Andes, Bogotá. *Obsolete as:* ULAB. *Current as:* ANDES-A (amphibians), ANDES-R (non-avian reptiles), ANDES-I (fishes). Distrito Capital. Colombia.
- 490. ICN-MHN:** Instituto de Ciencias Naturales, Museo de Historia Natural, Universidad Nacional de Colombia, Bogotá. *Note:* zoological collections began in 1938, fish collection in 1941. *Includes:* fishes collected by Cecil Miles and George Dahl. *Obsolete as:* I.C.N.B. (Instituto de Ciencias Naturales, Bogotá), ICNMHN, ICNMNH, ICN/MHN, MHN-UNC, MHNUNC. *Current as:* ICN-MHN (fishes), ICN (herps). *See also:* UN ICNMHNR (fossils). Distrito Capital. Colombia.
- 491. IND:** Laboratorio de Fauna, Division de Fauna Terrestre, Instituto Nacional de Recursos Naturales Renovables y del Ambiente (INDERENA), Bogotá. *Note:* government environmental agency created in 1968 and replaced by Ministerio del Medio Ambiente in 1993; amphibian collection (IND-Am) transferred to Instituto de Investigación de Recursos Biológicos Alexander von Humboldt (IAvH-Am). *See also:* CIP (Cartagena, Bolívar). Distrito Capital. Colombia.
- 492. INS-SR:** Serpentario del Instituto Nacional de Salud, Bogotá. *Current as:* INS-SR (herps). Distrito Capital. Colombia.
- 493. MCUB:** Colección de Referencia del Museo de Ciencias, Universidad El Bosque, Bogotá. *Current as:* MCUB-R-PE (fishes), MCUB-R-RE (herps). Distrito Capital. Colombia.
- 494. MLS:** Museo de Historia Natural de La Salle, Bogotá. *Note:* original collection destroyed by fire 9–10 Apr 1948. *Obsolete as:* ILS (Instituto de La Salle). *Current as:* MLS (fishes, herps). Distrito Capital. Colombia.
- 495. MPUJ:** Museo Javeriano de Historia Natural “Lorenzo Uribe, S.J.”, Pontificia Universidad Javeriana, Bogotá. *Current as:* MPUJ (fishes). *Also as:* MUJ (herps). Distrito Capital. Colombia.
- 496. MUD:** Museo de la Universidad Distrital Francisco José de Caldas, Bogotá. Distrito Capital. Colombia.
- 497. SGC:** Museo Geológico José Royo y Gómez, Instituto de Investigaciones en Geociencias, Minería y Química, Servicio Geológico Colombiano [formerly INGEOMINAS], Bogotá. *Also known as:* Museo Geológico Nacional; Geological Survey of Colombia. *Formerly:* Instituto Nacional de Investigaciones Geológicas Mineras (1968–1991). *Obsolete as:* ING, INIGM (fossils). *Current as:* SGC (fossils) followed by a variety of collection codes (e.g., DON, IGMp, IPN, MP, OB, RB, VL). *Also as:* DON (fossils), IGM, IGMp (fossil sharks), IPN-EAC, MGJRG IPN and IPN/MGJRG (fossil turtles). Distrito Capital. Colombia.
- 498. UN ICNMHNR:** Universidad Nacional de Colombia, Departamento de Geociencias, Colecciones paleontológicas, Bogotá. *Obsolete as:* UN-DG. *Current as:* UN ICNMHNR (fossils). *See also:* ICN-MHN (Instituto de Ciencias Naturales), UN MPVL (fossils, Villa de Leyva, Boyacá). Distrito Capital. Colombia.
- 499. INVEMAR:** Instituto de Investigaciones Marinas y Costeras “José Benito Vives de Andrés”, Museo de Historia Natural Marina de Colombia (MHNMC), Rodadero Sur, Santa Marta. *Formerly:* Instituto Colombo-Alemán de Investigaciones Científicas Punta de Betín (ICAL, 1963–1974); Colección de Referencia de Organismos Marinos del Invemar (CRM, 1974–1994). *Includes:* marine fishes from Colección del Museo del Mar (MM), Universidad de Bogotá Jorge Tadeo Lozano (UBJTL/UBJTLMM), some apparently lost during transfer; marine fishes from INDERENA (received from IAvH). *Current as:* INVEMAR PEC (fishes cited in publications) and INV PEC (specimen labels and publications). *Also as:* INVEMAR, INVEMAR-P, INVEMAR-PEC & INV-PEC (fishes), MHNMC (IAvH registry). *See also:* IAvH. Magdalena. Colombia.
- 500. PSO-CZ:** Museo de Historia Natural de la Universidad de Nariño, San Juan de Pasto. Nariño. Colombia.
- 501. CSJP:** Colegio San José de Pamplona, Pamplona. *Also as:* SJP. Norte de Santander. Colombia.

**502. UQ:** Universidad del Quindío, Armenia. *Current as:* IUQ (fishes, Laboratorio de Ictiología, Departamento de Biología), HERPETOS-UQ (herps, Centro de Estudios e Investigaciones en Biodiversidad y Biotecnología [CIBUQ]). Quindío. Colombia.

**503. CAC-CDMB:** Colección Ictiológica de César A. Castellanos-Corporación Autónoma para la Defensa de la Meseta de Bucaramanga, Bucaramanga. *Current as:* CAC-CDMB (fishes). Santander. Colombia.

**504. MCG:** Museo del Colegio San José de Guanentá, San Gil. Santander. Colombia.

**505. UIS:** Universidad Industrial de Santander, Bucaramanga. *Current as:* UIS-T (fishes), UIS-R (reptiles). *Also as:* UIST (fishes). Santander. Colombia.

**506. CZUT:** Colección Zoológica, Universidad del Tolima, Ibagué. *Current as:* CZUT-IC (fishes). Tolima. Colombia.

**507. IMCN:** Colección Zoológica de Referencia Científica, Museo de Ciencias Naturales Federico Carlos Lehmann Valencia del INCIVA, Cali. *Formerly:* Museo Departamental de Historia Natural de Cali (1963–1974). *Includes:* some of Cecil Miles' fishes from Museo Ictiológico de la Escuela Superior de Agricultura Tropical (E.S.A.T.), Cali, and Facultad de Agronomía del Departamento del Valle del Cauca, Palmira (now part of Universidad Nacional de Colombia); Miles' collection largely lost due to flood in 1980 and subsequent burial (48 lots unearthed in 1983 and eventually returned to IMCN). *Note:* Museo de Ciencias Naturales de Cali and Jardín Botánico Juan María Céspedes merged in 1979 to form Instituto Vallecaucano de Investigaciones Científicas (INCIVA), renamed Instituto para la Investigación y Preservación del Patrimonio Cultural y Natural del Valle del Cauca in 2000 (abbreviation INCIVA retained). *In error as:* ICMN (fishes). *Current as:* IMCN (fishes). *Also as:* INCIVA (fishes). Valle del Cauca. Colombia.

**508. UVC:** Universidad del Valle (Univalle), Cali. *Note:* herps in teaching collection sometimes cited as CD (Colección Vertebrados de Docencia), separate from UVC (Colección de Anfibios y Reptiles). *Obsolete as:* UV, UV-C. *Current as:* CIRUV (fishes, Colección Ictiológica de Referencia), CIR-LV-UV (larval fishes, Colección de referencia de Biología Marina), UVC (herps). Valle del Cauca. Colombia.

**509. CRH:** Centre de Recherche en Hydrobiologie, Uvira [formerly in Zaire]. *Current as:* CRH (fishes). *Also as:* CRHU. Sud-Kivu. Congo (DRC).

**510. IRSEN:** Institut National de Recherche en Sciences Exactes et Naturelles, Brazzaville. *Current as:* IRSEN (herps). Sud-Kivu. Congo (RC).

**511. ASL:** Private collection of Alejandro Solórzano, Serpentario Nacional de Costa Rica, San José. San José. Costa Rica.

**512. ICP:** Instituto "Clodomiro Picado", research unit of Universidad de Costa Rica, Coronado. *Also as:* MICP (herps). San José. Costa Rica.

**513. MNCR:** Museo Nacional de Costa Rica, San José. San José. Costa Rica.

**514. UCR:** Museo de Zoología, Escuela de Biología, Universidad de Costa Rica, San Pedro de Montes de Oca. *Current as:* UCR (fishes, herps). *Also as:* MZUCR (herps). San José. Costa Rica.

**515. LHUC:** Collection Laboratoire d'Hydrobiologie lagunaire, Abidjan. *Note:* collection cited by Daget (1965) and presumably associated with Université de Cocody, formerly a campus of the University of Abidjan and renamed Université Félix Houphouët-Boigny in 2012. *See also:* UFHB. Côte d'Ivoire.

**516. NG:** Research Collection of N'Goran Germain Kouamé, Department of Biology and Animal Physiology, Jean Loroug-

non Guédé University, Daloa. *Current as:* NG (herps). Côte d'Ivoire.

**517. PPEF:** Collection de la section Pêche et Pisciculture lagunaires des Eaux et Forêts, Abidjan. *Note:* collection cited by Daget (1965); status unknown. *Assigned here:* PPEF. Côte d'Ivoire.

**518. STPB:** Collection de la Station de Recherches Piscicoles de Bouaké, Bouaké. *Note:* collection cited by Daget (1965) and presumably associated with Université de Bouaké, formerly a campus of the University of Abidjan; status unknown. *Assigned here:* STPB. Côte d'Ivoire.

**519. UFHB:** Université Félix Houphouët-Boigny, U.F.R Bio-sciences, Laboratoire d'Hydrobiologie et d'Écotoxicologie des eaux (LHETE), Abidjan. *Formerly:* Université Nationale de Côte d'Ivoire, Abidjan (UAIC, UACI), Université de Cocody, Université de Cocody-Abidjan (UCA). *Note:* presumably includes collections associated with Laboratoire d'Hydrobiologie lagunaire (LHUC). *Obsolete as:* UAIC, UACI. *Current as:* UFHB. Côte d'Ivoire.

**520. IORD:** Oceanographic and Fisheries Institute, Dubrovnik. *Current as:* IORD (fishes). Dubrovnik-Neretva. Croatia.

**521. NHMD:** Dubrovnik Natural History Museum, Dubrovnik. Dubrovnik-Neretva. Croatia.

**522. CMRI:** Centar za istraživanje mora, Institut Ruder Bošković [Center for Marine Research, Rudjer Boskovic Institute], Rovinj. *Also known as:* Center for Marine Research Rovinj; Rovinj Marine Station. *Note:* established in 1891 as field station of Berlin Zoological Garden and Aquarium; original institute demolished and collections transferred to Italy during WWII with historical specimens extant at Stazione Idrobiologica, Chioggia. *Current as:* CMRI (fishes). *Also as:* CMRR (bryozoans). Istria. Croatia.

**523. PMR:** Prirodoslovni muzej Rijeka [Natural History Museum Rijeka], Rijeka. *Current as:* PMR. *Also as:* NHMR (herps), PMR VP (fishes). Primorje-Gorski Kotar. Croatia.

**524. SE-IOR:** Institute of Oceanography and Fisheries, Split. *Current as:* SE-IOR (fishes). *Also as:* IOR (fishes). Split-Dalmatia. Croatia.

**525. CPZM:** Hrvatski prirodoslovni muzej [Croatian Natural History Museum], Zagreb. *Includes:* Hrvatski narodni zoološki muzej (HZM) [Croatian National Zoological Museum] and Geološko-paleontološki muzej [Geological-Palaeontological Museum], both descended from Narodni muzej [National Museum] established in 1846; Croatian Biospeleological Society Collection (CBSS); personal collection of Primož Zupančič (PZC). *Obsolete as:* HZM. *Current as:* CPZM (fishes). *Also as:* CNHM (fishes, herps, fossils). Zagreb. Croatia.

**526. HDBI:** Hrvatsko društvo za biološka istraživanja [Croatian Biological Research Society], Croatian Institute for Biodiversity, Zagreb. *Current as:* HDBI. Zagreb. Croatia.

**527. PMF:** Zoologijski zavod, Prirodoslovno-matematički fakultet, Sveučilišta u Zagrebu [Department of Zoology, Faculty of Science, University of Zagreb], Zagreb. *Obsolete as:* ZU, ZZSZ. *Current as:* PMF (fishes). *Also as:* ZIUZ (fishes, herps). Zagreb. Croatia.

**528. MHNCT:** Museo de Historia Natural Carlos de la Torre y Huerta, Holguín. *Current as:* MHNCT. *Also as:* MHNH (herps). Holguín. Cuba.

**529. ANC:** Acuario Nacional de Cuba, La Habana [Havana]. *Includes:* fish collection from Centro de Colecciones Naturales Marinas (CCNM), Instituto de Oceanología, Academia de Ciencias de Cuba, La Habana (IdO, IOH) transferred in 2005; fishes from Orlando H. Garrido (OHG). *Current as:* ANC (fishes,



Colección de Peces), IdO (fishes, Instituto de Oceanología). La Habana. Cuba.

**530. CARE:** Private collection of Alberto R. Estrada, La Habana [Havana]. La Habana. Cuba.

**531. CZACC:** Colecciones Zoológicas de la Academia de Ciencias de Cuba, Instituto de Ecología y Sistemática (IES), Ministerio de Ciencia, Tecnología y Medio Ambiente (CITMA), La Habana [Havana]. *Includes:* Charles T. Ramsden herpetological collection (CTR); herps from Orlando H. Garrido (OHG). *Note:* created in 1987 to house specimens formerly in Instituto de Zoología (IZ or IZAC) and its predecessor, Instituto de Biología (IB); IB & IZ specimens recataloged with new CZACC numbers. *Current as:* CZACC (herps). *Also as:* IES (herps), IZAC (fishes). La Habana. Cuba.

**532. DZUH:** Departamento de Zoología, Facultad de Ciencias Naturales y Exactas, Universidad de La Habana, La Habana [Havana]. *See also:* MFP. La Habana. Cuba.

**533. MBZH:** Museo y Biblioteca de Zoología, La Habana [Havana]. *Note:* current status unknown. La Habana. Cuba.

**534. MFP:** Museo de Historia Natural Felipe Poey, Universidad de La Habana, La Habana [Havana]. *Also known as:* Museo Felipe Poey. *Formerly:* Museo de Historia Natural de la Real y Pontificia Universidad de La Habana established in 1842. *Obsolete as:* UHMP (fishes). *Current as:* MFP (fishes, herps). *See also:* DZUH (Departamento de Zoología). La Habana. Cuba.

**535. MNHNCu:** Museo Nacional de Historia Natural de Cuba, La Habana [Havana]. *Formerly:* Museo de Ciencias Felipe Poey (1962–1980), preceded by Museo Cubano de Ciencias Naturales (1959–1961). *Includes:* herps from Ansel Fong G. (AFG). *Current as:* MNHNCu (herps, fossils). La Habana. Cuba.

**536. OHG:** Private fish and herp collection of Orlando H. Garrido, La Habana [Havana]. *Note:* some herps deposited at CZACC and some fishes at ANC. La Habana. Cuba.

**537. AFG:** Private herp collection of Ansel Fong G. *Note:* some specimens deposited at BSC and MNHNCu. Santiago de Cuba. Cuba.

**538. BSC:** Herpetological Collection of Centro Oriental de Ecosistemas y Biodiversidad (BIOECO), Museo de Historia Natural “Tomás Romay”, Santiago de Cuba. *Includes:* herps from Ansel Fong G. (AFG). *Current as:* BSC.H (herps). Santiago de Cuba. Cuba.

**539. KMΦI:** Cyprus Museum of Natural History, Dali. *Note:* established in 1996 by Photos Photiades Foundation. *Assigned here:* ΚΜΦΙ (Κυπριακό Μουσείο Φυσικής Ιστορίας). Cyprus.

**540. AFG:** Private herp collection of Bohumil Král, Brně [Brno]. *Note:* based on publications; whereabouts of collection unknown. Jihomoravský [South Moravian]. Czech Republic.

**541. MZM:** Moravské zemské muzeum [Moravian Museum], Brně [Brno]. *Also known as:* Mährische Landesmuseum. *Obsolete as:* LMB. *Current as:* MMB (fishes, herps), MZM Ge (fossils). *Also as:* MMB-Ge (fossils). Jihomoravský [South Moravian]. Czech Republic.

**542. VMO:** Vlastivědné muzeum v Olomouci, Olomouc. *Current as:* VMO (sharks). Olomoucký [Olomouc]. Czech Republic.

**543. CHMHZ:** Chlupáč’s Museum of Earth History, Univerzita Karlova [Charles University], Praha [Prague]. *Also known as:* Chlupáčovo muzeum historie Země. *Includes:* collection of Institute of Geology and Paleontology, Univerzita Karlova [Charles University]. *Obsolete as:* DP-FNSP, DPFNSP (fossils), Department of Paleontology). *Current as:* CHMHZ (fossils). *See also:* CUP (Recent fishes, herps). Praha [Prague]. Czech Republic.

**544. CUP:** Univerzita Karlova [Charles University], Praha [Prague]. *Includes:* fish types of Vadim Vladykov. *Obsolete as:* DZCHU, ZICU, ZICUP. *Current as:* CUP (fishes, herps). *See also:* CHMHZ (fossils). Praha [Prague]. Czech Republic.

**545. NMP:** Národní muzeum [National Museum], Praha [Prague]. *Formerly:* Patriotic Museum, Bohemian Museum, Museum of the Bohemian Kingdom. *Includes:* fish types of Vadim Vladykov. *Obsolete as:* MHP, MNHP. *Current as:* NMP (fishes), NMP-P6V (herps). *Also as:* NMP6V (The Reptile Database). Praha [Prague]. Czech Republic.

**546. SJB:** Private collection of Jörg Bohlen, Institute of Animal Physiology and Genetics, Academy of Sciences of the Czech Republic, Liběchov. *Current as:* SJB (fishes). Středočeský [Central Bohemian]. Czech Republic.

**547. MMUL:** Muzeum města Ústí nad Labem [Municipal Museum of Ústí nad Labem], Ústí nad Labem [Aussig]. *Current as:* MMUL. Ústí nad Labem [Ústecký]. Czech Republic.

**548. OMM:** Oblastní muzeum v Mostě, Mostě [Most]. *Current as:* OMM (fossils). Ústí nad Labem [Ústecký]. Czech Republic.

**549. SGDB:** Sbírky geologie Doly Bílina [Bílina Mines Geology Collection], Bílina Mine Headquarters, Bílina. *Also known as:* geological collection of the Bílina opencast mine. *Current as:* SGDB (fossils). *Also as:* DB (fossil fishes). Ústí nad Labem [Ústecký]. Czech Republic.

**550. IAPG:** Institute of Animal Physiology and Genetics, Laboratory of Fish Genetics, Liběchov. *Current as:* IAPG (fishes). Středočeský [Central Bohemian]. Czech Republic.

**551. DBP:** Den Blå Planet, National Aquarium Denmark, Kastrup. *Current as:* DBP (fishes). Denmark.

**552. MBLC:** Marine Biological Laboratory, Københavns Universitet [University of Copenhagen], Copenhagen. *See also:* NHMD. Denmark.

**553. NHMA:** Naturhistorisk Museum Aarhus, Århus [Aarhus]. *Current as:* NHMA (all collections). Denmark.

**554. NHMD:** Statens Naturhistoriske Museum (SNM), Københavns Universitet [Natural History Museum of Denmark, University of Copenhagen], Copenhagen. *Note:* established in 2004 via merger of Botanic Garden, Botanical Museum and Library, Geological Museum [Museum Geologicum Universitatis Hafniensis (MGUH)] and Zoological Museum [Zoologisk Museum (ZMUC)]. *Obsolete as:* UZM, UZMK. *Current as:* ZMUC-P (fishes), ZMUC-R (herps), MGUH.VP (fossils). *Also as:* NHMD (fossils). *See also:* MBLC (Marine Biological Laboratory). Denmark.

**555. MHD:** Museo del Hombre Dominicano, Santo Domingo. *Current as:* MHD (fossils). Dominican Republic.

**556. MNHNSD:** Museo Nacional de Historia Natural Professor Eugenio de Jesús Marciano, Santo Domingo. *Current as:* MNHNSD (fishes, herps). Dominican Republic.

**557. MZUA:** Museo de Zoología, Universidad del Azuay (UDA), Cuenca. *Obsolete as:* UDAR, Z00A.V.Pe. (fishes). *Current as:* MZUA (herps), Z00A.V.Pe. (fishes). Azuay. Ecuador.

**558. CEMZ:** Colección de peces de la Pontificia Universidad Católica del Ecuador Sede Esmeraldas, Esmeraldas. *Current as:* CEMZ-P (fishes). Esmeraldas. Ecuador.

**559. VCCDRS:** Vertebrate Collection, Charles Darwin Research Station, Puerto Ayora, Santa Cruz. *Also known as:* museo de vertebrados. *Current as:* VCCDRS. *Also as:* CDRS, MVECCD (herps). Galápagos. Ecuador.

**560. INHMT:** Instituto de Nacional de Higiene y Medicina Tropical Leopoldo Izquieta Pérez, Guayaquil. *Note:*

currently known as Instituto Nacional de Investigación en Salud Pública (INSP). Guayas. Ecuador.

**561. MUGT:** Museo de Ciencias Naturales, Universidad de Guayaquil [University of Guayaquil], Guayaquil. *Obsolete as:* MFCN-UG, UG. *Current as:* MUGT (fishes). Guayas. Ecuador.

**562. CJ:** Centro Jambatu de Investigación y Conservación de Anfibios, Fundación Otonga, Quito. *Current as:* CJ (amphibians). Pichincha. Ecuador.

**563. MECN:** Museo Ecuatoriano de Ciencias Naturales, Quito. *Note:* created as government organization in 1977; associated with Instituto Nacional de Biodiversidad (IN-ABIO), public research institute created in 2014. *Current as:* MECN (fishes, herps). *Also as:* MECN-DP (fishes), DHMECN (División de Herpetología, herps). Pichincha. Ecuador.

**564. MEPN:** Museo de Historia Natural “Gustavo Orcés V.”, Instituto de Ciencias Biológicas, Escuela Politécnica Nacional, Quito. *Note:* collection originally included fossils from “Gabinete de Ciencias Naturales” de la Universidad Central, and those collected by Robert Hoffstetter from 1946–1952, but part of that material sent to European collections between 1950s and 1990s. *Current as:* EPN V (fossil vertebrates), MEPN (fishes, herps). Pichincha. Ecuador.

**565. MZUTI:** Museo de Zoología, Universidad Tecnológica Indoamérica, Quito. *Current as:* MZUTI (herps). Pichincha. Ecuador.

**566. QCAZ:** Museo de Zoología, Escuela de Ciencias Biológicas, Pontificia Universidad Católica del Ecuador, Quito. *Includes:* Eugenia del Pino Collection (EDP). *Current as:* QCAZ. Pichincha. Ecuador.

**567. USFQ:** Universidad San Francisco de Quito, Quito. *Current as:* DFCH-USFQ (herps, Diego F. Cisneros-Heredia collection), FHGO-USFQ (herps, Fundación Herpetológica G. Orcés collection deposited at USFQ). *Also as:* FHGO. Pichincha. Ecuador.

**568. AUZC:** Al-Azhar University Zoological Collection, Department of Zoology, Faculty of Science, Al-Azhar University, Cairo. *Note:* smaller collections of fishes and other fauna associated with other Al-Azhar campuses (e.g., Asyut), but not part of AUZC. *Current as:* AUZC (herps). Egypt.

**569. CGM:** Egyptian Geological Museum, Cairo. *Also known as:* Cairo Geological Museum. *Note:* museum established in 1904 as part of the Egyptian Geological Survey (EGS) founded in 1896. *Current as:* CGM (fossils). Egypt.

**570. MBSH:** Marine Biological Station Hurghada [Al-Ghardaqa], National Institute of Oceanography and Fisheries (NIOF), Hurghada [Al-Ghardaqa]. Egypt.

**571. MUVV:** Mansoura University Vertebrate Paleontology Center, Department of Geology, Mansoura. *Current as:* MUVV (fossils). Egypt.

**572. ICMARES:** Instituto de Ciencias del Mar y Limnología, Universidad de El Salvador, San Salvador. *Note:* collections assembled in the 1950s and associated with the Instituto Tropical de Investigaciones Científicas (ITIC) were neglected and eventually lost; current fish collection established ca. 2005. *Current as:* ICMARES (fishes). El Salvador.

**573. MUHNES:** Museo de Historia Natural de El Salvador, San Salvador. *Note:* fish collection established in 1970, but damaged during earthquake in 2001. *Current as:* MUHNES (fishes, herps). El Salvador.

**574. MNCS:** Department of Marine Biology and Fisheries, Mai-Nefhi College of Science, Eritrea Institute of Technology (EIT). *Note:* small collection of marine fishes lacking catalog numbers and staff. *Assigned here:* MNCS. Eritrea.

**575. NME:** National Museum of Eritrea, Asmara. *Includes:* fossils of Dandiero Basin collection areas Dioli (DAN), Uadi [Wadi] Aalad (UA), Uadi [Wadi] Maebele (MHB). *Current as:* NME. Eritrea.

**576. NRSM:** The Northern Red Sea Museum, Massawa. *Also known as:* The Massawa Museum. *Includes:* fossils of Mulhuli-Amo collection area (MA). *Note:* established in 2000. *Assigned here:* NRSM (fossils). Eritrea.

**577. GIT:** Institute of Geology, Tallinn University of Technology, Tallinn. *Current as:* GIT (fossils). *Also as:* Pi (fossils). Estonia.

**578. TAMZ:** Eesti Loodusmuuseum [Estonian Museum of Natural History], Tallinn. *Current as:* TAMZ (fishes, herps), TAMG (fossils). Estonia.

**579. TUZ:** University of Tartu Natural History Museum, Tartu. *Obsolete as:* MZT (Zoological Museum, Tartu). *Current as:* TUZ (fishes), TUG (fossils). Estonia.

**580. EBI:** Ethiopian Biodiversity Institute, Addis Ababa. *Formerly:* Institute of Biodiversity Conservation (IBC, 2004–2013), preceded by Institute of Biodiversity Conservation and Research (IBCR, 1998–2004). Ethiopia.

**581. MA:** Awash National Park. *Note:* status of zoological collections unknown. Ethiopia.

**582. ZNHM-AAU:** Zoological Natural History Museum, Addis Ababa University. *Obsolete as:* AAU, NHMAA. *Current as:* ZNHM-AAU. Ethiopia.

**583. NHMT:** Natural History Museum, Tórshavn. Faroe Islands (Denmark).

**584. USPS:** University of the South Pacific, Faculty of Science, Technology and Environment, School of Marine Studies, Suva. *Obsolete as:* USP. *Current as:* SUVA H (herps), USPS (fishes). Fiji.

**585. MZH:** Finnish Museum of Natural History, Zoological Museum, University of Helsinki, Helsinki. *Also as:* ZMUH (birds). Finland.

**586. UAZM:** Åbo Akademi University, Zoological Museum, Turku. Finland.

**587. Rh-E.F.:** Musée Yves-Machelon, Gannat. *Also known as:* Musée de Gannat; Natural History Museum of Gannat. *Obsolete as:* MGF. *Current as:* Rh-E.F. (fossils). Allier. France.

**588. RGHP:** Réserve naturelle géologique de Haute-Provence, Digne-les-Bains. *Current as:* RGHP (fossils). Alpes-de-Haute-Provence. France.

**589. MHNN:** Museum d’Histoire Naturelle de la ville de Nice, Nice. *Also as:* MHNNice. Alpes-Maritimes. France.

**590. MDE:** Le Musée des Dinosaures, Espéraza. *Obsolete as:* ME. *Current as:* MDE (fossils). Aude. France.

**591. MZUS:** Musée Zoologique de la ville de Strasbourg, Université de Strasbourg, Strasbourg. *Includes:* natural history collections of Johann Hermann, (purchased in 1802) and Université Louis-Pasteur. *Note:* partially destroyed in 1943–1944 during WWII; Université de Strasbourg separated into three institutions including Université Louis-Pasteur (Strasbourg I) from 1970 to 2009. *Also as:* MZS Bas-Rhin. France.

**592. MMNH:** Muséum d’histoire naturelle de Marseille, Marseille. *Current as:* MMNH (herps). *Also as:* MHNMF (fossils), MHNMF (herps). Bouches-du-Rhône. France.

- 593. MMS:** Musée du Moulin Seigneurial, Velaux. *Current as:* MMS (fossils). Bouches-du-Rhône. France.
- 594. LMA:** Le Musée d'Angoulême, Angoulême. *Formerly:* Musée des beaux-arts d'Angoulême. *Current as:* ANG (fossils, Angeac-Charente Collection), CHE (fossils, Cherves-de-Cognac Collection). Charente. France.
- 595. IFREMER:** Institut Français de Recherche pour l'Exploitation de la Mer, La Rochelle. *Note:* fish types moved to Muséum national d'Histoire naturelle, Paris (MNHN) and Muséum d'Histoire naturelle de La Rochelle (MHNRL). Charente-Maritime. France.
- 596. MHNLR:** Muséum d'Histoire naturelle de La Rochelle, La Rochelle. *Includes:* fish types from IFREMER. *Current as:* MHNLR (fishes). *Also as:* MHNLR (herps). Charente-Maritime. France.
- 597. MO:** Le Musée de l'île d'Oléron, Saint-Pierre-d'Oléron. *Current as:* MO (fossils). Charente-Maritime. France.
- 598. LBG-UD:** Laboratoire Biogéosciences, Université de Bourgogne [University of Burgundy], Dijon. *Current as:* LBG-UD (fossils). Côte-d'Or. France.
- 599. MMBR:** Musée de la Marine, Brest. Finistère. France.
- 600. MHNB:** Muséum d'histoire naturelle de Bordeaux, Bordeaux. *Current as:* MHNB (fossils). Gironde. France.
- 601. UAG:** Université des Antilles [University of the French West Indies], Guadeloupe. *Formerly:* Centre Université Antilles-Guyane, Laboratoire de Biologie et Physiologie Animales. Guadeloupe. France.
- 602. IPG:** Institut Pasteur de Guyane, Cayenne. Guiana [French Guiana]. France.
- 603. LIAT:** Laboratoire d'Ichtyologie Appliquée, École Nationale Supérieure Agronomique de Toulouse (ENSAT), Auzeville-Tolosane. Haute-Garonne. France.
- 604. MHNT:** Muséum d'histoire naturelle de la ville de Toulouse. *Also known as:* Musée de Toulouse (MT). *Current as:* MHNT (fossils). *Also as:* MT. Haute-Garonne. France.
- 605. BEV:** Collection Biogéographie et Ecologie des Vertébrés, Laboratoire de biogéographie et écologie des vertébrés, Montpellier. *Note:* collection established in 1967 and housed at Centre d'Écologie Fonctionnelle et Évolutive (CEFE) established in 1987 under the guardianship of Centre National de la Recherche Scientifique (CNRS), Université de Montpellier, Institut de Recherche pour le Développement (IRD) and École pratique des hautes études (EPHE) among others. *Obsolete as:* LBEV, LBUM (Laboratoire de Biogéographie, Université de Montpellier; presumably same as BEV collection). *Current as:* BEV (herps). *Also as:* EPHE (herps). *See also:* USTL. Hérault. France.
- 606. CW-C:** Collection of Alexandre Westphal-Castelnau, L'École nationale supérieure agronomique de Montpellier (ENSAM), Montpellier. *Note:* specimens transferred to Muséum national d'Histoire naturelle, Paris (MNHN). Hérault. France.
- 607. MC:** Musée de Cruzy, Cruzy. *Current as:* MC (fossils). Hérault. France.
- 608. MPDM:** Musée Parc des Dinosaures, Mèze. *Current as:* MPDM (fossils). Hérault. France.
- 609. USTL:** Université de Montpellier, Montpellier. *Note:* collections originally associated with Faculté des Sciences created in 1808 which became Université des sciences et techniques du Languedoc (USTL), administratively known as Université Montpellier 2, in 1968; Montpellier 1 & 2 universities began to merge in 2012 and the new Université de Montpellier was founded in 2015; historical collections partially destroyed in 1944 during World War II. *Obsolete as:* BRT, MM. *Current as:* USTL (fossils). *Also as:* ISE-M (Institut des Sciences de l'Évolution, Université Montpellier 2), LG-FSM (Laboratoire de Géologie, fossils), UM (fossils). *See also:* BEV. Hérault. France.
- 610. MS:** Musée du Savignéen, Savigné-sur-Lathan. *Note:* fossil specimens cited as year of registration (last three digits or all four), two-letter code for site and specimen number (e.g., 007-PM-295, 2012.VG.1). *Current as:* MS (general fossils), GM (fossils from La Guimardière), PM (fossils from Pelmer), VG (fossils from Vigneaux). Indre-et-Loire. France.
- 611. MAJ:** Musée d'archéologie du Jura, Lons-le-Saunier. *Current as:* MAJ (fossils). Jura. France.
- 612. ISTPM:** Institut Français de Recherche pour l'Exploitation de la Mer (IFREMER), Nantes. *Formerly:* Institut Scientifique et Technique des Pêches Maritimes (1918–1984). Loire-Atlantique. France.
- 613. MHNNT:** Museum d'Histoire Naturelle de Nantes, Nantes. Loire-Atlantique. France.
- 614. FCL:** Université Catholique Lyon, Lyon. *Formerly:* Faculté Catholique Lyon. *Current as:* FCL (fossils). Lyon. France.
- 615. MHNL:** Musée des Confluences, Lyon. *Formerly:* Musée d'Histoire Naturelle de Lyon (MHNL), descended from Musée Guimet d'Histoire Naturelle de Lyon (MG, MGL or MGHNL). *Obsolete as:* LMHN, MG, MGHNL, MGL, MMC. *Current as:* MHNL. Lyon. France.
- 616. UCBL:** Université Claude Bernard Lyon 1, paléontologie collection, Villeurbanne. *Also known as:* University of Lyon 1 (UL1). *Note:* includes fossils formerly in Faculté des Sciences de Lyon (FSL) at UCBL; collection distinct from musée des Confluences (MHNL). *Obsolete as:* CST (Centre des Sciences de la Terre), UL1. *Current as:* UCBL-FSL (fossils). *Also as:* CPS-UL, FSL (fossils). Lyon. France.
- 617. MAN:** Muséum-Aquarium de Nancy, Institut de Zoologie, Université de Nancy, Nancy. *Formerly:* L'Ancienne Université, among others. *Also as:* MZN, MZUVN. Meurthe-et-Moselle. France.
- 618. MNHN:** Muséum national d'Histoire naturelle, Paris. *Includes:* herp collection of M. Alexandre Westphal-Castelnau formerly at L'École nationale supérieure agronomique de Montpellier (ENSAM); collections from Laboratoire des Sciences Naturelles, Université-Indochinoise, Hanoi (LSNUI) and Office de la Recherche scientifique et Technique d'Outre-mer (ORSTOM). *Obsolete as:* MHN. *Current as:* MNHN (fishes, herps), MNHN TGE (fossils, ensemble divisions from Morocco, Algeria and Mali), MNHN.F (fossils). *Also as:* MNHN (amphibians, fossils), MNHN-ZA (osteological specimens of fishes, amphibians, reptiles). Paris. France.
- 619. PGe:** Collection of Philippe Geniez, École pratique des hautes études (EPHE), Paris. *Current as:* PGe (herps). Paris. France.
- 620. PMC:** Collection de paléontologie, Sorbonne Université. *Note:* Sorbonne Université established in 2018 via merger of Université Paris-Sorbonne and Université Pierre et Marie Curie (UPMC, *Also known as* Université Paris VI). *Obsolete as:* UPVI. *Current as:* PMC (fossils, Laboratoire de Paléontologie des Vertébrés, Université Pierre et Marie Curie). Paris. France.
- 621. IES:** Institut H. E. Sauvage, Saint-Étienne-au-Mont. *Current as:* IES (fishes). Pas-de-Calais. France.



**622. MMB:** Musée de la Mer, Biarritz. *Also known as:* Biarritz Aquarium. Pyrénées-Atlantiques. France.

**623. MHN RUN:** Muséum d'Histoire Naturelle de la Réunion, Saint-Denis, La Réunion. *Obsolete as:* URUN. *Current as:* MHN RUN (fishes). *Also as:* LEMUR (Laboratoire d'Écologie Marine, Université de La Réunion), MHN RUN (fishes). Réunion. France.

**624. MHNH:** Muséum d'Histoire Naturelle du Havre, Le Havre. *Current as:* MHNH (fossils). *Also as:* MHBR (fossils, Brun Collection). Seine-Maritime. France.

**625. UP:** Université de Poitiers, Poitiers. *Current as:* UP (fossils). Vienne. France.

**626. CJG:** Private fish collection of Jacques Géry (1917–2007). *Note:* no longer extant; some specimens deposited at The Academy of Natural Sciences of Philadelphia (ANSP), Zoologische Staatssammlung München (ZSM), Muséum d'histoire naturelle, Genève (MHNG [as GSC]). France.

**627. CLB:** Private collection of Charles Lucien Bonaparte (1803–1857). *Note:* extant collections of fishes and herps currently at The Academy of Natural Sciences of Philadelphia (ANSP). France.

**628. MH:** Museo Humphrediano [Humphredianis]. *Note:* cited in Hermann (1804), perhaps in reference to private collection of Humphrey Waldo Sibthorp and/or his son John Sibthorp. France.

**629. ORSTOM:** Institut de Recherche pour le Développement. *Formerly:* Office de la Recherche scientifique et Technique d'Outre-mer. *Note:* multiple collections including those in Nouméa, New Caledonia; Dakar, Senegal (IRD); Trinidad, Bolivia; some collections moved to Muséum national d'Histoire naturelle, Paris (MNHN). France.

**630. IRET:** Institut de Recherche en Ecologie Tropicale, Centre National de la Recherche Scientifique et Technologique (CENAREST), Libreville. *Note:* founded in 1985. Gabon.

**631. GNM:** Georgian National Museum, Tbilisi [Tiflis]. *Formerly:* Georgian State Museum (GSM). *Includes:* collections of Georgian Institute of Paleobiology (IPGAS) and Simon Janashia Museum of Georgia (ZMT). *Obsolete as:* GSM (fossils), IP (fossils), TMT (Tiflis Museum). *Current as:* GNM (fishes, herps), IPGAS (fossils, Institut of Palaeobiology). *See also:* ZMT (history). Georgia.

**632. ZIT:** Ilia State University, Institute of Zoology, Zoological Collections, Tbilisi [Tiflis]. *Formerly:* Institute of Zoology, Georgian National Academy of Sciences (1941–2009), descended from the Georgian branch of the Russian Academy of Sciences and Tbilisi State University. *Current as:* ZIT (amphibians). Georgia.

**633. ZMT:** Simon Janashia Museum of Georgia, Tbilisi [Tiflis]. *Includes:* collections of the Georgian Museum (1919–1947), formerly Caucasus Museum (1865–1919, also known as Caucasus Natural History Museum), descended from the Museum of the Caucasian Department of the Russian Royal Geographic Society founded in 1852. *Note:* museum incorporated into Georgian National Museum (GNM) in 2004. *See also:* GNM. Georgia.

**634. AMRS:** Abkhazian Museum of Regional Studies, Sukhumi [Sokhumi]. *Also known as:* Abkhazian State Museum of Local Lore. *Current as:* AMRS (fossils). Georgia [Abkhazia].

**635. CGDBK:** Collection Grande Duke of Baden, Karlsruhe. *Current as:* CGDBK (fossils). Baden-Württemberg. Germany.

**636. CTL:** Private fish collection of Thomas Litz, Attenweiler. *Note:* some specimens deposited at Museo Nacional de Historia Natural y Antropología, Montevideo (MUNHINA) and Zoologische Staatssammlung München (ZSM) with ZSM catalog numbers. Baden-Württemberg. Germany.

**637. GEOW:** Institut für Geowissenschaften Universität Heidelberg, Heidelberg. *Current as:* GEOW (fossils). *See also:* ZMUH. Baden-Württemberg. Germany.

**638. GPIT:** Eberhard Karls Universität Tübingen [University of Tübingen], Museum der Universität (MUT), Paläontologische Sammlung, Tübingen. *Formerly:* Institut für Geowissenschaften der Universität Tübingen. *Obsolete as:* TIMGP, UT. *Current as:* GPIT (fossils). *Also as:* Pi (fossils, but mistakenly associated with Georg-August-Universität). *See also:* ZST (herps). Baden-Württemberg. Germany.

**639. KEWI:** Private fish collection of Kai Erik Witte, Tübingen. *Note:* some specimens deposited at Zoologische Staatssammlung München with ZSM catalog numbers. Baden-Württemberg. Germany.

**640. MFB:** Städtische Museen: Museum Natur und Mensch [Museum of Nature and Man], Freiburg im Breisgau. *Formerly:* Adelhausermuseum für Naturkunde und Völkerkunde (established in 1996), descended from Städtisches Museum für Naturkunde und Völkerkunde, founded in 1895. *Note:* naturkundlichen Sammlungen [natural history collection] housed at Zentralen Kunstdepot since 2012–2013. Baden-Württemberg. Germany.

**641. MHH:** Urweltmuseum Hauff [Hauff Museum], Holzmaden. *Current as:* MHH (fossils). Baden-Württemberg. Germany.

**642. MHI:** Muschelkalkmuseum Hagdorn Stadt Ingelfingen, Ingelfingen. *Current as:* MHI (fossils). Baden-Württemberg. Germany.

**643. PSGV:** Private collection of Gernot Vogel, Heidelberg. *Current as:* PSGV (herps). Baden-Württemberg. Germany.

**644. SMG:** Städtische Naturkundliche Museum Göppingen. *Current as:* SMG (fossils). Baden-Württemberg. Germany.

**645. SMNK:** Staatliches Museum für Naturkunde Karlsruhe [Karlsruher Naturkundemuseum], Karlsruhe. *Formerly:* Landessammlungen für Naturkunde Karlsruhe (LNK). *Obsolete as:* LNK. *Current as:* SMNK (fishes, herps), SMNK-PAL (fossils). Baden-Württemberg. Germany.

**646. SMNS:** Staatliches Museum für Naturkunde [Stuttgart State Museum of Natural History], Stuttgart. *Obsolete as:* MNS. *Current as:* SMNS (fishes, herps, fossils). *Also as:* SMNHS (fossils). Baden-Württemberg. Germany.

**647. UFR:** Albert-Ludwigs-Universität Freiburg [Albert Ludwigs University of Freiburg], Zoologische Sammlung, Freiburg im Breisgau. Baden-Württemberg. Germany.

**648. ZMUH:** Zoologisches Museum der Universität Heidelberg, Heidelberg. *Note:* founded as Zoologisches Cabinet in 1819 by Friedrich Tiedemann (1781–1861); some fishes transferred to SMF and SMNS. *Current as:* ZMUH (herps). *Also as:* ZIH (fishes, Zoologisches Institut). *See also:* GEOW (fossils). Baden-Württemberg. Germany.

**649. ZST:** Eberhard Karls Universität Tübingen [University of Tübingen], Museum der Universität (MUT), Zoologische Sammlung, Tübingen. *Obsolete as:* UTZI (Zoologisches Institut). *Current as:* ZST (herps). *See also:* GPIT (fossils). Baden-Württemberg. Germany.

**650. BMMS:** Bürgermeister-Müller-Museum, Solnhofen.

*Current as:* BMMS (fossils). *Also as:* BMM-S. Bayern [Bavaria]. Germany.

**651. BSPG:** Bayerische Staatssammlung für Paläontologie und Geologie [Bavarian State Collection for Paleontology and Geology], München [Munich]. *Also known as:* Paläontologisches Museum München [Paleontological Museum Munich] (PMM) used for public part of BSPG. *Formerly:* Bayerische Staatssammlung für Paläontologie und Historische Geologie (BSPHG). *Note:* one of multiple institutions comprising and administered by Staatliche Naturwissenschaftliche Sammlungen Bayerns [Bavarian Natural History Collections] (SNSB). *Obsolete as:* BSM, BSP, BSPHG, BSPHM, BSPM. *Current as:* BSPG (fossils). *Also as:* SNSB-BSPG (fossils). Bayern [Bavaria]. Germany.

**652. FAU:** Paläontologische Sammlung, Friedrich-Alexander-Universität Erlangen-Nürnberg [University of Erlangen-Nuremberg], Erlangen. *Formerly:* Sammlungen des Palaontologischen Lehrstuhls des Universität Erlangen. *Obsolete as:* SPLUE. *Current as:* FAU (fossils). Bayern [Bavaria]. Germany.

**653. JME:** Jura-Museum Eichstätt [Jura Museum Eichstaett], Eichstätt. *Note:* one of multiple institutions comprising and administered by Staatliche Naturwissenschaftliche Sammlungen Bayerns [Bavarian Natural History Collections] (SNSB). *Obsolete as:* JM-E, SoS/SOS. *Current as:* JME (fossils). *Also as:* JM (fossils). Bayern [Bavaria]. Germany.

**654. LfU:** Bayerisches Landesamt für Umwelt [Bavarian State Office for the Environment], Geologische Sammlung [Gesteinssammlung], München [Munich], Bavaria. *Current as:* LfU (fossils). Bayern [Bavaria]. Germany.

**655. MOR:** Mark-Oliver Rödel herpetological collection at Julius-Maximilians-Universität (JMU) [University of Würzburg], Würzburg. *Current as:* MOR (herps). *See also:* PIW (fossils). Bayern [Bavaria]. Germany.

**656. MTH:** Münchner Tierpark Hellabrunn A.G. [Hellabrunn Zoo], München. *Note:* old collection destroyed in 1944 during WWII. Bayern [Bavaria]. Germany.

**657. NKMB:** Naturkunde-Museum Bamberg, Bamberg. *Note:* one of multiple institutions comprising and administered by Staatliche Naturwissenschaftliche Sammlungen Bayerns [Bavarian Natural History Collections] (SNSB). *Obsolete as:* NMB (fossils). *Current as:* NKMB (fossils). Bayern [Bavaria]. Germany.

**658. NMA:** Naturmuseum Augsburg, Augsburg. *Current as:* NMA (fossils). *Also as:* NMSA (Naturmuseum der Stadt Augsburg). Bayern [Bavaria]. Germany.

**659. NMC:** Naturkundemuseum Coburg, Coburg. *Current as:* NMC. *Also as:* NMCL (fossils). Bayern [Bavaria]. Germany.

**660. NMR:** Naturkundemuseum Ostbayern, Regensburg. *Current as:* NMR (fossils). Bayern [Bavaria]. Germany.

**661. PIW:** Institut für Paläontologie, Julius-Maximilians-Universität (JMU) [University of Würzburg], Würzburg. *Current as:* PIW (fossils). *See also:* MOR (herps). Bayern [Bavaria]. Germany.

**662. TRF:** Private collection of Helmut Tischlinger, Stammham. Bayern [Bavaria]. Germany.

**663. UMO:** Urwelt-Museum Oberfranken, Bayreuth. *Formerly:* Oberfränkische Kreisnaturalienkabinett [Kreis-Naturalien-Cabinet]. *Note:* one of multiple institutions comprising and administered by Staatliche Naturwissenschaftliche Sammlungen Bayerns [Bavarian Natural History

Collections] (SNSB). *Obsolete as:* U-MO, UM-O, U-MOB (fossils). *Current as:* UMO (fossils). Bayern [Bavaria]. Germany.

**664. ZPLMU:** Zoologische Präparatesammlung der Ludwig-Maximilians-Universität München [Zoological objects collection of the Ludwig Maximilians University Munich]. *Note:* historically distinct from Zoologische Staatssammlung München (ZSM); “valuable historic material...imprudently discarded” during reorganization of the university in the 1970s (D. Schaller in Neumann 2011:235); bulk of remaining ZPLMU fish collection transferred to ZSM in 2004; only few historic anatomical specimens retained in ZPLMU Institute of Zoology. *See also:* ZSM. Bayern [Bavaria]. Germany.

**665. ZSM:** Zoologische Staatsammlung München, München [Munich]. *Formerly:* Zoologisches Sammlung des Bayerischen Staates [Bavarian State Collection of Zoology]. *Includes:* fishes from NMW (Kähsbauer Donation) and Zoologische Präparatesammlung der Ludwig-Maximilians-Universität München (ZPLMU) as part of ZSM Old Collection, partially destroyed during WWII (24–25 Apr 1944 and 11 Apr 1945); holotype of *Diaphorolepis wagneri* from Museum of Monaco (MM); Hans Hermann Schleich collection of Nepalese and Indian amphibians and reptiles (VW/D); part of Philipp Wagner private collection (PWC, herps). *Note:* one of multiple institutions comprising and administered by Staatliche Naturwissenschaftliche Sammlungen Bayerns [Bavarian Natural History Collections] (SNSB). *Current as:* ZSM (fishes, herps, fossils). Bayern [Bavaria]. Germany.

**666. ZSM/CMK:** Private collection of Maurice Kottelat (CMK) at Zoologische Staatsammlung München (ZSM). *Note:* fishes published as ZSM/CMK were never intended for final deposition at ZSM and never part of ZSM collection. *Obsolete as:* ZSM/CMK (replaced by CMK). Bayern [Bavaria]. Germany.

**667. ZSM/LIPI:** Introduced by Maurice Kottelat (1990) to identify types to be temporarily stored at Zoologische Staatsammlung München (ZSM) for later exchange and final deposition in Indonesia; ZSM/LIPI material is not traceable at ZSM and was never transferred to LIPI, Bogor, but may be available at ZRC. *Obsolete as:* ZSM/LIPI (not referable to specimens at ZSM or LIPI). Bayern [Bavaria]. Germany.

**668. BGR:** Bundesanstalt für Geowissenschaften und Rohstoffe [Federal Institute for Geosciences and Natural Resources], Berlin. *Current as:* BGR (fossils). Berlin. Germany.

**669. FSJF:** Private fish collection [Fischsammlung] of Jörg Freyhof, Berlin. Berlin. Germany.

**670. IPFUB:** Freie Universität Berlin [Free University of Berlin], Institut für Geologische Wissenschaften, Fachrichtung Paläontologie, Berlin. *In error as:* IFPUB (fossils). *Current as:* IPFUB (fossils). Berlin. Germany.

**671. MB:** Museo Blochiano [Blochianum], Berlin. *Note:* private collection of Marcus Elieser Bloch; extant specimens at Museum für Naturkunde (ZMB). Berlin. Germany.

**672. TUB:** Technischen Universität Berlin [Technical University of Berlin], Berlin. *Current as:* TUB (fossils). Berlin. Germany.

**673. ZMB:** Museum für Naturkunde (MfN), Leibniz-Institut für Evolutions- und Biodiversitätsforschung an der Humboldt-Universität zu Berlin [Humboldt University of

Berlin], Berlin. *Also known as:* Humboldt Museum. *Formerly:* Zoologischen Museum Berlin. *Includes:* extant specimens of Museo Blochiano [Blochianum] (MB), private collection of Marcus Elieser Bloch. *Obsolete as:* ISZZ, ZMHU, ZMBP. *Current as:* MB (fossils), ZMB (fishes, herps). *Also as:* HMBM, HMN MB, PMHU (fossils), ISZ (birds), MfN, MHUB (parasites). Berlin. Germany.

**674. NKMP:** Naturkundemuseum Potsdam [Natural History Museum of Potsdam], Potsdam. *Formerly:* Municipal or District Museum of Potsdam. *Current as:* NKMP. Brandenburg. Germany.

**675. GSUB:** Geowissenschaftliche Sammlung [Geosciences Collection], Universität Bremen [University of Bremen], Bremen. *Current as:* GSUB (fossils). Bremen [Bremen]. Germany.

**676. UMB:** Überseemuseum, Bremen. *Formerly:* Gesellschaft Museum (1783–1896); Städtisches Museum für Natur-, Völker- und Handelskunde (1896–1951). *Current as:* UMB (herps). Bremen [Bremen]. Germany.

**677. JGF:** Private collection of J.G. Fischer, Hamburg. *Note:* some herps deposited at ZMH. Hamburg. Germany.

**678. MGH:** Museum Godeffroy (1861–1885), Hamburg. *Note:* museum no longer extant; collections sold to various museums including Natural History Museum, London (NHMUK), Staatliches Museum für Naturkunde (SMNS), Zoologisches Museum, Universität Hamburg (ZMH) and Museum für Naturkunde (ZMB). Hamburg. Germany.

**679. ZMH:** Centrum für Naturkunde (CeNak), Zoologisches Museum, Universität Hamburg, Hamburg. *Formerly:* Naturhistorisches Museum zu Hamburg (NMH) founded in 1843, partially destroyed July 1943 during WWII; museum and staff became part of Universität Hamburg in 1969. *Note:* includes fishes from Institut für Seefischerei, Hamburg (ISH); herps described by J.G. Fischer. *In error as:* Z.M.B. (Roze 1967). *Obsolete as:* ISH, NMH, ZHM, ZIM. *Current as:* ZMH (fishes, herps). Hamburg. Germany.

**680. GZM:** Giessen Zoological Museum, Giessen [Giessen]. *Obsolete as:* MG. *Current as:* GZM. Hesse [Hessen]. Germany.

**681. HLMD:** Hessisches Landesmuseum, Darmstadt. *Includes:* Norbert Micklich fossil fish reference collection (SMFF) and extant fish reference collection (SMFR); fossil vertebrate collection, Natural History Department (WT). *Obsolete as:* HLD. *Current as:* HLMD (herps, fossils). Hesse [Hessen]. Germany.

**682. MWNH:** Museum Wiesbaden, Naturhistorische Landessammlung, Wiesbaden. *Note:* partially destroyed during World War II, but most types survived. *Obsolete as:* HLMW, MW, MWHN, NMSW, NSMW, NWNH, SMW (Staatliches Museum, Wiesbaden). *Current as:* MWNH (herps). Hesse [Hessen]. Germany.

**683. PUM:** Philipps-Universität Marburg [University of Marburg], Marburg. *Current as:* MZC (Marburg Zoological Collection), PUM (fossils). *Also as:* ZSUM (herps, Zoologische Sammlung). Hesse [Hessen]. Germany.

**684. SMF:** Senckenberg Forschungsinstitut und Naturmuseum [Senckenberg Research Institute and Natural History Museum], Frankfurt am Main. *Includes:* collections assembled by Eduard Rüppell and Oskar Boettger (1844–1910). *Note:* headquarters of Senckenberg Collections composed of six institutes with stations at 10 locations including Dresden (MMG, MTD) and Görlitz (SMNG). *In error as:* SFM. *Obsolete as:* NMS, SENCK, SenkM. *Current as:* SMF (fishes, herps, fossils). *Also as:* SFN (sharks). Hesse [Hessen]. Germany.

**685. UVF:** Ur- und Vorgeschichtsmuseum Fritzlär, Fritzlär. *Current as:* UVF (fossils). Hesse [Hessen]. Germany.

**686. DMM:** Deutsches Meeresmuseum [German Oceanographic Museum], Stralsund. *Current as:* DMM. Mecklenburg-Vorpommern. Germany.

**687. GAM:** Deutsches Bernstein-Museum, Ribnitz-Damgarten. Mecklenburg-Vorpommern. Germany.

**688. GG:** Institut für Geographie und Geologie, Ernst-Moritz-Arndt-Universität [University of Greifswald], Greifswald. *Current as:* GG (fossils). *See also:* ZMG. Mecklenburg-Vorpommern. Germany.

**689. ZMG:** Zoologischen Museums Greifswald, Greifswald. *See also:* GG (fossils). Mecklenburg-Vorpommern. Germany.

**690. ZSRO:** Zoologische Sammlung der Universität Rostock [University of Rostock], Rostock. *Current as:* ZSRO. Mecklenburg-Vorpommern. Germany.

**691. BGRHB:** Bundesanstalt für Geowissenschaften und Rohstoffe [Federal Institute for Geosciences and Natural Resources] of Hannover-Buchholz, Hannover [Hanover]. *Note:* one of three institutions in Geozentrum Hannover. *Obsolete as:* BGHan. *Current as:* BGRHB (fossils). *See also:* BGR (Berlin). Niedersachsen [Lower Saxony]. Germany.

**692. GZG:** Geowissenschaftliches Zentrum der Georg-August-Universität Göttingen [Göttingen University], Göttingen. *Also known as:* Geowissenschaftliches Museum. *Obsolete as:* GOE, GPIG/GZG, MGAU (fossils). *Current as:* GZG.V (fossil vertebrates). *Also as:* IMGP (fossils, Institut und Museum für Geologie und Paläontologie). *See also:* ZMUG. Niedersachsen [Lower Saxony]. Germany.

**693. LMNMO:** herpetologischen Sammlung [herpetological collection], Landesmuseum für Natur und Mensch, Oldenburg. *Formerly:* Grossherzogliche Museum Oldenburg. *Current as:* LMNMO (herps). Niedersachsen [Lower Saxony]. Germany.

**694. MLH:** Museum Lampianum, Hanover [Hannover]. *Note:* no longer extant. Niedersachsen [Lower Saxony]. Germany.

**695. NHM-BS:** Staatliches Naturhistorisches Museum, Braunschweig. *Formerly:* Herzogliches Naturhistorisches Museum (1857–1918). *Obsolete as:* NMB, SNHM, SNMB, SNMBR. *Current as:* NHM-BS (herps). *Also as:* SNHMB (fishes), SNMBG (birds). Niedersachsen [Lower Saxony]. Germany.

**696. NMO:** Museum am Schölerberg, Osnabrück. *Also known as:* städtisches Museum für Natur und Umwelt Osnabrück. *Current as:* NMO (fossils). Niedersachsen [Lower Saxony]. Germany.

**697. SMSS:** Städtisches Museum Schloss Salder, Salzgitter. *Current as:* SMSS (fossils). Niedersachsen [Lower Saxony]. Germany.

**698. ZMUG:** Zoologisches Museum, Johann-Friedrich-Blumenbach-Institut für Zoologie und Anthropologie, Georg-August-Universität Göttingen [Göttingen University], Göttingen. *Formerly:* Zoologisches Institut und Museum Universität Göttingen (ZIUG), descended from Königliche Academische Museum founded in 1773. *Note:* herpetological collection transferred to Zoologisches Forschungsmuseum Alexander Koenig (ZFMK) in 1977. *Obsolete as:* ZIUG, ZMG. *Current as:* ZMUG. *Also as:* AZM (flatworms). *See also:* GZG (fossils). Niedersachsen [Lower Saxony]. Germany.

**699. CETC:** Collection de l'École technique (Realschule) de Cologne, Köln [Cologne]. *Note:* collection cited by Jan &



Sordelli (1865); apparently no longer extant. Nordrhein-Westfalen [North Rhine-Westphalia]. Germany.

**700. DMB:** Dobergmuseum—Geologisches Museum Ost-westfalen-Lippe, Bünde. *Note:* part of the Museum Bünde network. *Obsolete as:* BDNLTM. *Current as:* DMB (fossils). Nordrhein-Westfalen [North Rhine-Westphalia]. Germany.

**701. GCC:** Institut für Geologie und Mineralogie, Universität zu Köln [University of Cologne], Köln [Cologne]. *Current as:* GCC (fossils). Nordrhein-Westfalen [North Rhine-Westphalia]. Germany.

**702. LLM:** Lippisches Landesmuseum, Detmold. *Current as:* LLM (fossils). Nordrhein-Westfalen [North Rhine-Westphalia]. Germany.

**703. NAMU:** Naturkunde-Museum Bielefeld, Bielefeld. *Formerly:* Museum der Stadt Bielefeld, founded in 1889. *Current as:* NAMU (fossils). Nordrhein-Westfalen [North Rhine-Westphalia]. Germany.

**704. STIPB:** Steinmann-Institut für Geologie, Mineralogie und Paläontologie [Steinmann Institute for Mineralogy, Geology and Palaeontology], Rheinische Friedrich-Wilhelms-Universität Bonn [University of Bonn], Bonn. *Formerly:* Institut für Paläontologie Bonn (IPB), Geologisch-Paläontologisches Institut Bonn (GPIBO) and Goldfuss Museum [Goldfuss Museum]; STIPB founded in 2007. *Obsolete as:* GPIBO, IPB, PIUB. *Current as:* STIPB (fossils). *See also:* SUB. Nordrhein-Westfalen [North Rhine-Westphalia]. Germany.

**705. SUB:** Rheinische Friedrich-Wilhelms-Universität Bonn [University of Bonn], Institut für Zoologie, Sammlung der Universität, Bonn. *See also:* STIPB (fossils). Nordrhein-Westfalen [North Rhine-Westphalia]. Germany.

**706. VW/D:** Hans Hermann Schleich collection of Nepalese and Indian amphibians and reptiles, Fuhlrott-Museum, Wuppertal. *Note:* transferred to Zoologische Staatssammlung München (ZSM) in 2012. Nordrhein-Westfalen [North Rhine-Westphalia]. Germany.

**707. ZFMK:** Zoologisches Forschungsmuseum Alexander Koenig [Zoological Research Museum Alexander Koenig], Bonn. *Formerly:* Forschungsinstitut und Museum. *Includes:* University of Göttingen herpetological collection, acquired in 1977; part of Philipp Wagner private collection (PWC; herps); herpetological specimens received from the University of Kabul in the 1970s. *Current as:* ZFMK (fishes, herps). Nordrhein-Westfalen [North Rhine-Westphalia]. Germany.

**708. CPN:** Private collection of Prince Alexander Philipp Maximilian zu Wied-Neuwied, Wied [Hausen]. *Note:* herps now at American Museum of Natural History (AMNH). Rheinland-Pfalz [Rhineland-Palatinate]. Germany.

**709. GPIM:** Johannes-Gutenberg-Universität Mainz, Institut für Geowissenschaften, Mainz. *Current as:* GPIM (fossils). Rheinland-Pfalz [Rhineland-Palatinate]. Germany.

**710. NHMM:** Naturhistorisches Museum Mainz, Mainz. *Also known as:* Landessammlung für Naturkunde Rheinland-Pfalz [State Collection of Natural History of Rhineland-Palatinate]. *Note:* major parts of historical collection assembled by Rheinische Naturforschende Gesellschaft (RNG) destroyed during British air raid in 1945. *Current as:* NHMM (fossils). *Also as:* MHMZ, NMM (fossils). Rheinland-Pfalz [Rhineland-Palatinate]. Germany.

**711. POL:** Pollichia Geoscience Collections, Urweltmuseum GEOSKOP, Thallichtenberg. *Current as:* POL (fossils). Rheinland-Pfalz [Rhineland-Palatinate]. Germany.

**712. SB:** Private collection of Hans Bath, Pirmasens. Rheinland-Pfalz [Rhineland-Palatinate]. Germany.

**713. SSN:** Paläontologisches Museum Nierstein, Nierstein. *Current as:* SSN (fossils). Rheinland-Pfalz [Rhineland-Palatinate]. Germany.

**714. ZIS:** Zoologischen Institut, Universität des Saarlandes, Saarbrücken. *Note:* collection apparently no longer at university as of 2011. Saarland. Germany.

**715. FG:** Schneider and Scholze collection, Department of Palaeontology and Stratigraphy, Technische Universität Bergakademie Freiberg, Freiberg. *Current as:* FG (fossils). *Also as:* BAF FG (fossils). Sachsen [Saxony]. Germany.

**716. GFEF:** Geologische Landesuntersuchung GmbH, Freiberg. *Formerly:* Geologische Forschung und Erkundung Freiberg. *Current as:* GFEF (fossils). Sachsen [Saxony]. Germany.

**717. GPSL:** Geologische und Paläontologische Sammlung, Institut für Geophysik und Geologie, Universität Leipzig, Leipzig. *Current as:* GPSL (fossil invertebrates). *Also as:* PMUL (fossil herps, Paläontologisches Museum der Universität Leipzig). *See also:* MUL. Sachsen [Saxony]. Germany.

**718. MMG:** Senckenberg Naturhistorische Sammlungen (SNSD), Museum für Mineralogie und Geologie, Dresden. *Formerly:* Königliches Naturalienkabinett; Dresdener Hof-Mineralien-Cabinet. *Includes:* collection of Gustav Freiherr von Stockheim including fossils formerly known as Ortenburger Kreide. *Current as:* MMG (fossils). *Also as:* SNSD-MMG (fossils). *See also:* MTD. Sachsen [Saxony]. Germany.

**719. MTD:** Senckenberg Naturhistorische Sammlungen (SNSD), Museum für Tierkunde, Dresden. *Note:* established in 1728 in the “Palais de Sciences” [Dresden Zwinger]; majority of zoological specimens destroyed by fire in 1849 during Dresden May Uprising; partially destroyed 7 Oct 1944 and 13–14 Feb 1945 during World War II; MTD combined with Museum für Mineralogie und Geologie (MMG) in 1999 to form Staatliche Naturhistorische Sammlungen Dresden which merged with Senckenberg Gesellschaft für Naturforschung in 2009. *Includes:* original zoological collections of Universität Leipzig (MUL) transferred in 1970–1971. *Current as:* MTD F (fishes), MTD D (herps). *Also as:* MTKD (herps), SMTD (birds). *See also:* MMG. Sachsen [Saxony]. Germany.

**720. MUL:** Universität Leipzig, Institut für Zoologie, Zoologische Lehrsammlung, Leipzig. *Note:* original zoological collection dissolved in 1968 and partly transferred to Museum für Tierkunde in Dresden (MTD) in 1970–1971. *Also as:* ULIZ. *See also:* GPSL (fossils). Sachsen [Saxony]. Germany.

**721. MWLK:** Museum der Westlausitz, Kamenz. *Current as:* MWLK (herps). Sachsen [Saxony]. Germany.

**722. NML:** Naturkundemuseum Leipzig [Leipzig Museum], Leipzig. *Note:* partially destroyed during WWII. *Obsolete as:* LM, MLEP. *Current as:* NML (fishes, herps, fossils). *Also as:* NKML (birds). Sachsen [Saxony]. Germany.

**723. SMNG:** Senckenberg Museum für Naturkunde, Abteilung Zoologie, Görlitz. *Formerly:* Staatliches Museum für Naturkunde Görlitz; merged with Senckenberg Gesellschaft für Naturforschung in 2009. *Current as:* SMNG. Sachsen [Saxony]. Germany.

**724. ZIDTU:** Institut für Zoologie, Technische Universität Dresden [Dresden Technical University], Dresden. *Note:* currently a teaching collection [Zoologische Lehrsammlung]. Sachsen [Saxony]. Germany.

**725. CPHR:** Private collection of Herbert Rösler, Thale. *Note:* specimens to be deposited in Museum für Naturkunde (ZMB), Senckenberg Naturhistorische Sammlungen, Museum für Tierkunde (MTD) and probably Zoologische Staatssammlung München (ZSM). *Current as:* CPHR (herps). Sachsen-Anhalt [Saxony-Anhalt]. Germany.

**726. KHMM:** Museum für Naturkunde, Magdeburg. *Also known as:* Kulturhistorisches Museum Magdeburg; Magdeburger Museen (MM). *Current as:* KHMM (herps). *Also as:* MM (herps). Sachsen-Anhalt [Saxony-Anhalt]. Germany.

**727. MLUH:** Martin-Luther-Universität Halle-Wittenberg, Zentralmagazin Naturwissenschaftlicher Sammlungen (ZNS), Halle (Saale). *Formerly:* Institut für Zoologie, Halle (IZH); Geiseltal Museum (GM). *Note:* Founded in 1769 as natural history cabinet by J.F.G. Goldhagen; MLU created in 1817 via merger of Universität Wittenberg and Universität Halle; collections of Geiseltal Museum relocated to ZNS in 2009. *Obsolete as:* GM, MLU, ZIH, ZMUH, ZNS. *Current as:* MLUH (fishes, herps, fossils), MLUH (IZH-P), MLUH (IZH-A), MLUH (IZH-R) (historical specimens of fishes, amphibians & reptiles, respectively), MLUH (GMH) (Geiseltal fossils, Eocene), MLUH (Ifg) (other fossils, Geology Department). Sachsen-Anhalt [Saxony-Anhalt]. Germany.

**728. BAH:** Biologische Anstalt Helgoland, Helgoland [Heligoland]. *Formerly:* Königlich Preussische Biologische Anstalt Helgoland founded in 1892. *Note:* part of the Alfred-Wegener-Institut since 1998. Schleswig-Holstein. Germany.

**729. CAUK:** Institut für Geowissenschaften der Christian-Albrechts-Universität (CAU) zu Kiel [University of Kiel], Kiel. *Current as:* CAUK (fossils). *See also:* ZMK. Schleswig-Holstein. Germany.

**730. MNUL:** Museum für Natur und Umwelt, Lübecker Museen, Lübeck. *Also known as:* Museum Lübeck, Naturhistorisches Museum zu Lübeck. *Note:* original museum destroyed 28 Mar 1942 during WWII; reopened in 1963 as Naturhistorisches Museum—Museum für Natur und Naturgeschichte in Schleswig-Holstein. *Also as:* LNHM (herps). Schleswig-Holstein. Germany.

**731. ZMK:** Zoologisches Museum der Christian-Albrechts-Universität (CAU) zu Kiel [University of Kiel], Kiel. *Also known as:* Zoologisches Museum Kiel. *Note:* closely associated with Helmholtz-Zentrum für Ozeanforschung Kiel (GEOMAR), successor to the Leibniz-Institut für Meereswissenschaften [Leibniz Institute of Marine Sciences], itself established in 2004 via merger of Institut für Meereskunde (IfM, IMUK) and Forschungszentrum für Marine Geowissenschaften (GEOMAR). *Obsolete as:* KIEL. *Current as:* ZMK. *See also:* CAUK (fossils). Schleswig-Holstein. Germany.

**732. HSBS:** Heimat- und Salinemuseum Bad Sulza. *Includes:* fossils from quarry “Krähenhütte”, Bad Sulza. *Current as:* HSBS (fossils). *See also:* NME. Thüringen [Thuringia]. Germany.

**733. MJU:** Museo Jenensis Universitatis, Jena. *Note:* no longer extant. Thüringen [Thuringia]. Germany.

**734. MMA:** Naturkundemuseum Mauritianum Altenburg. *Current as:* MMA (fossils). Thüringen [Thuringia]. Germany.

**735. MNG:** Museum der Natur Gotha, Gotha. *Current as:* MNG (fossils). Thüringen [Thuringia]. Germany.

**736. NME:** Naturkundemuseum, Erfurt. *Includes:* fossils from quarry “Krähenhütte”, Bad Sulza. *Current as:* NME

(fossils), NME R (reptiles). *See also:* HSBS. Thüringen [Thuringia]. Germany.

**737. PMJ:** Phyletisches Museum [Phyletic Museum], Jena. *Formerly:* Groherzogliches Zoologisches Museum until ca. 1907, itself descended from Carl August Museum. *Current as:* PMJ. Thüringen [Thuringia]. Germany.

**738. HvM:** Private collection of Hermann von Meyer (1801–1869). *Note:* status unknown. Germany.

**739. JWM:** Private collection of Johannes Peter Müller (1801–1858). *Note:* status unknown. Germany.

**740. KWF:** Private collection of Herr Klaus Weis. *Current as:* KWF (fossils). Germany.

**741. PWC:** Private collection of Philipp Wagner. *Note:* herps transferred in part to Zoologisches Forschungsmuseum Alexander Koenig (ZFMK) and Zoologische Staatssammlung München (ZSM). Germany.

**742. UOG:** Zoology Department, University of Ghana, Legon, Accra Metropolis District. *Obsolete as:* UGA. *Current as:* UOG (cetaceans). Ghana.

**743. AMPG:** Athens Museum of Palaeontology and Geology, National and Kapodistrian University of Athens (UoA), Athens. *Also known as:* University of Athens. *Current as:* AMPG (fossils). *See also:* ZMUA (Zoological Museum). Attica. Greece.

**744. GNHM:** The Goulandris Natural History Museum, Kifissia. *Current as:* GNHM (fishes, herps). Attica. Greece.

**745. HCMR:** Hellenic Centre for Marine Research, Institute of Marine Biological Resources and Inland Waters (IMBRIW), Anavyssos [Anavissos]. *Formerly:* National Center for Marine Research (NCMR). *Obsolete as:* IOAKE, NCMR. *Current as:* HCMR. Attica. Greece.

**746. ZMUA:** Zoological Museum, National and Kapodistrian University of Athens (UoA), Athens. *Also known as:* University of Athens. *Current as:* ZMUA (mollusks & birds). *Also as:* MZUA. Attica. Greece.

**747. ATEITH:** Alexander Technological Educational Institute of Thessaloniki, Department of Fisheries and Aquaculture Technology, Nea Moudania. *Current as:* ATEITH (fishes). Central Macedonia. Greece.

**748. AUTH:** Aristotle University of Thessaloniki, Thessaloniki. *Obsolete as:* MZUTH (Museum of Zoology), ZMUT. *Current as:* AUTH (fishes & fossils). *Also as:* AUT (fossils), DZAUT and MDZAUT (fishes, Department of Zoology), LGPUT (Laboratory of Geology and Paleontology), LZUT (fishes, Laboratory of Zoology). Central Macedonia. Greece.

**749. HSR:** Hydrobiological Station of Rhodes, Rhodes. *Formerly:* Reale Istituto di Ricerche Biologiche di Rodi, built in 1934–1935 during Italian occupation of the Dodecanese (1912–1943). *Note:* currently part of Hellenic Centre for Marine Research (HCMR). *Current as:* HSR (fishes). *See also:* HCMR. Crete. Greece.

**750. NHMC:** Natural History Museum of Crete, University of Crete, Heraklion [Irakleio]. *Current as:* NHMC (herps). Crete. Greece.

**751. FRINP:** Fisheries Research Institute (FRI) of Nea Peramos, Kavala. *Current as:* FRINP (fishes). East Macedonia and Thrace. Greece.

**752. NHMAS:** Natural History Museum of the Aegean, Paleontological Museum, Mytilene [Mytilini, Mitilini], Samos Island. *Note:* established by Konstantinos and Maria Zimalis Foundation. *Current as:* NHMAS (fossils). North Aegean. Greece.

- 753. VM:** Vrisa Natural History Museum, Lesvos [Lesbos]. North Aegean. Greece.
- 754. NMP:** Paleontological and Paleobotanical Museum, Nostimo Kastorias. *Also known as:* Nostimo Museum of Palaeontology (NMP). *Note:* formally affiliated with Athens Museum of Palaeontology and Geology (AMPG). *Current as:* NMP V (fossils). Western Macedonia. Greece.
- 755. UGM:** University of Guam, College of Natural and Applied Sciences, Western Pacific Tropical Research Center (WPTRC), Mangilao. *Also known as:* Unibetsedât Guåhan. *Current as:* UGM (fishes). *Also as:* UTIO-F (fishes). Guam.
- 756. USAC:** Museo de Historia Natural, Universidad de San Carlos de Guatemala (MUSHNAT), Guatemala City. *Current as:* USAC (fishes, herps). Guatemala.
- 757. UVG:** Universidad del Valle Guatemala, Guatemala City. *Current as:* UVG. Guatemala.
- 758. CSBD:** Center for the Study of Biological Diversity, University of Guyana, Georgetown. *Note:* some fish holotypes dual-accessioned at CSBD Auburn University Natural History Museum (AUM) for temporary storage at AUM. *Obsolete as:* HA or CSBD no. HA (herps), UG, CSBD/UG, UG/CSBD. *Current as:* CSBD, CSBD F (fishes). Guyana.
- 759. GNMGG:** Guyana National Museum, Georgetown. *Note:* no longer extant. Guyana.
- 760. UNAH:** Universidad Nacional Autónoma de Honduras, Museo de Historia Natural, Tegucigalpa. *Current as:* UNAH (herps). Honduras.
- 761. ELTE:** Eötvös Loránd University, Biological and Paleontological Museum, Budapest. *Formerly:* Royal University of Pest (until 1873), University of Budapest (1873–1921), Royal Hungarian Pázmány Péter University (1921–1950). *Note:* some fossils donated to Hungarian Natural History Museum (HNHM). *Current as:* ELTE (fossils). Hungary.
- 762. GIH:** Geological Institute of Hungary, Geological Museum, Budapest. *Also known as:* Magyar Állami Földtani Intézet (MAFI). *Formerly:* Royal Hungarian Geological Institute founded in 1869. *Note:* many fossils transferred to other institutions (HNHM, NHMUK); merged into Magyar Földtani és Geofizikai Intézet (MFGI) in 2012. *Current as:* GIH (fossils). *Also as:* HGIM, MHGI, MNGL. *See also:* MFGI. Hungary.
- 763. HNHM:** Magyar Természettudományi Múzeum [Hungarian Natural History Museum], Budapest. *Also known as:* Musei Nationalis Hungarici/Musée National Hongrois (MNH). *Formerly:* part of the Hungarian National Museum (HNM) or Magyar Nemzeti Múzeum. *Includes:* fossils donated from Geological Institute of Hungary (GIH) and Eötvös University (ELTE), Budapest. *Note:* collections destroyed in part by fire during Hungarian uprising in 1956. *Obsolete as:* HNM, MNH, MNSB, NHMB. *Current as:* HNHM (fishes, herps, fossils). *Also as:* MTM (fossils), PG-HNHM (Department of Paleontology and Geology). Hungary.
- 764. MFGI:** Magyar Földtani és Geofizikai Intézet [Hungarian Institute of Geology and Geophysics], Budapest. *Note:* established in 2012 via merger of Geological Institute of Hungary (GIH/MAFI) and Eötvös Loránd Geophysical Institute. *Current as:* MFGI (fossils). *See also:* ELTE, GIH. Hungary.
- 765. HAF:** Hafrannsóknastofnun [Marine Research Institute of Iceland], Reykjavik. *Current as:* HAF (fishes). *Also as:* MRII (fishes). Iceland.
- 766. IINH:** Icelandic Institute of Natural History, Garda-
- baer. *Formerly:* Icelandic Museum of Natural History (IMNH). *Obsolete as:* IMNH, NHMR. *Current as:* IINH. Iceland.
- 767. NHMK:** Natural History Museum of Kópavogur, Kópavogur. *Assigned here:* NHMK. Iceland.
- 768. CIARI:** Indian Council of Agricultural Research (ICAR), Central Inland Agricultural Research Institute, Port Blair, Andaman Islands. *Current as:* CIARI/FF (freshwater fishes). *See also:* JPC. Andaman and Nicobar Islands. India.
- 769. JPC:** Private collection of Jayasimhan Praveenraj, Fisheries Science Division, Central Inland Agricultural Research Institute (CIARI), Port Blair, Andaman Islands. *Current as:* JPC (fishes). *See also:* CIARI. Andaman and Nicobar Islands. India.
- 770. MUS.FSI.PB:** Museum of the Zonal Base, Fishery Survey of India, Port Blair, Andaman Islands. *Current as:* MUS.FSI.PB/EB (elasmobranchs). Andaman and Nicobar Islands. India.
- 771. PUMB:** Museum of Department of Ocean Studies and Marine Biology, Pondicherry University, Port Blair Campus, Andaman Islands. *Current as:* PUMB (fishes). Andaman and Nicobar Islands. India.
- 772. ZSI-ANRC:** Zoological survey of India, Andaman and Nicobar Regional Centre. *Also as:* ZSI/ANRC. Andaman and Nicobar Islands. India.
- 773. ZMAU:** Zoology Museum, Department of Zoology, Andhra University, Visakhapatnam [Vizag, Waltair]. *Also as:* AU/DMLR (fishes, Department of Marine Living Resources), MDZAU (fishes), ZDAU (parasites). Andhra Pradesh. India.
- 774. APF/SFRI:** Arunachal Pradesh Forest Department, State Forest Research Institute, Van Vihar, Itanagar. *Current as:* APF/SFRI (herps). Arunachal Pradesh. India.
- 775. BLT:** BioLab of Seshachalam Hills, Wildlife Management Circle, Kapilatheertham, Tirupati. *Also known as:* BioLab of Tirupati. *Current as:* BLT (herps). Arunachal Pradesh. India.
- 776. GBP-NE:** G.B. Pant National Institute of Himalayan Environment & Sustainable Development, North East Unit, Vivek Vihar, Itanagar. *Current as:* GBP-NE (fishes). Arunachal Pradesh. India.
- 777. RGUMF:** Rajiv Gandhi University Museum of Fishes, Rono Hills, Doimukh, Itanagar. *Current as:* RGUMF (fishes). Arunachal Pradesh. India.
- 778. ZSI-APRC:** Zoological Survey of India, Arunachal Pradesh Regional Centre [formerly Field or Regional Station], Itanagar. *Obsolete as:* ZSI/APFS, APFS/ZSI, ZSI-APRS. *Current as:* ZSI-APRC. *Also as:* ZSI/APRC, ZSI/V/APRC/P (fishes). Arunachal Pradesh. India.
- 779. AU-Ecol/ABM:** Animal Biodiversity Museum of the Department of Ecology & Environmental Science, Assam University, Silchar. *Current as:* AU-Ecol/ABM (herps). Assam. India.
- 780. AVC:** Zoology Department, Arya Vidyapeeth College, Tarun Nagar, Guwahati. *Note:* affiliated with Gauhati University. *Current as:* AVC (herps). *Also as:* AVCM (herps). Assam. India.
- 781. GUZM:** Gauhati University Zoological Museum, Guwahati. *Obsolete as:* F/GUZ. *Current as:* GUZM. *Also as:* GUMF (Museum of Fishes), GUZ. Assam. India.
- 782. IASST:** Institute of Advanced Study in Science and Technology, Guwahati. *Current as:* IASST (amphibians). Assam. India.



**783. LGCFM:** Lakhimpur Girls' College Fish Museum, Lakhimpur. *Current as:* LGCFM (fishes). Assam. India.

**784. TMBU:** Tilka Manjhi Bhagalpur University, Department of Zoology Museum, Bhagalpur. *Formerly:* Bhagalpur University. *Current as:* TMBU (fishes). Bihar. India.

**785. ZSI Solan:** Zoological Survey of India, High Altitude Regional Center, Solan. *Current as:* ZSI Solan F (fishes). Himachal. India.

**786. JU:** University of Jammu, Jammu. *Note:* Department for Biosciences split into Department of Zoology and Department of Botany in 1998. *Current as:* BJRG (herps), JU (fossils, Department of Geology). Jammu and Kashmir. India.

**787. DAVK:** Dayanand Anglo Vaidik Mahavidyalaya (DAV College), Civil Lines. Kanpur. India.

**788. ATREE:** Museum of Ashoka Trust for Research in Ecology and the Environment, Bengaluru [Bangalore]. *Current as:* ATREE. Karnataka. India.

**789. BUB:** Museum of Department of Zoology, Bangalore University, Bengaluru [Bangalore]. *Current as:* BUB (herps). *See also:* CCB. Karnataka. India.

**790. CCB:** Central College of Bangalore Museum, Bengaluru [Bangalore]. *Note:* originally affiliated with University of Mysore which became Bangalore University in 1964. *See also:* BUB. Karnataka. India.

**791. CES:** Centre for Ecological Sciences, Indian Institute of Sciences (IISc), Bengaluru [Bangalore]. *Current as:* CES (herps). *Also as:* CESL (lizards). Karnataka. India.

**792. CMA:** Private collection of M. Arunachalam. *Current as:* CMA (fishes). Karnataka. India.

**793. GSI:** Geological Society of India, Bengaluru [Bangalore]. *Current as:* GSI (fossils). *See also:* GSI (headquarters, Kolkata, West Bengal). Karnataka. India.

**794. KUES:** Kuvempu University, Department of Environmental Science, Shankaraghatta, Shimoga District. *Current as:* KUES (herps). Karnataka. India.

**795. NCBS:** National Centre for Biological Sciences, Bengaluru [Bangalore]. *Current as:* NCBS (herps). Karnataka. India.

**796. CMFRI:** Marine Biodiversity Museum, Central Marine Fisheries Research Institute, Kochi [Cochin]. *Note:* museum inaugurated in 2006, recognized as Designated National Repository (DNR) by Government of India in 2007; museum separate from older one in Mandapam, Tamil Nadu. *Obsolete as:* DNR GB (fishes), GB. *Current as:* CMFRI GA (cartilaginous fishes), CMFRI GB (bony fishes). *Also as:* CMFRI/PFD (fishes, Pelagic Fisheries Division), MBM. *See also:* MMMC (Mandapam, Tamil Nadu), NBFGR (genetic resources). Kerala. India.

**797. CMLRE:** Centre for Marine Living Resources & Ecology, Government Ministry of Earth Sciences, Kochi [Cochin]. *Current as:* CMLRE (fishes). Kerala. India.

**798. CRG-SAC:** Conservation Research Group Collection, St. Albert's College, Kochi. *Current as:* CRG-SAC (fishes). Kerala. India.

**799. CUSAT:** Museum of the Department of Marine Biology, Microbiology and Biochemistry (DMMB), School of Marine Sciences, Cochin University of Science and Technology, Kochi [Cochin]. *Formerly:* University of Cochin. *Current as:* CUSAT (fishes). Kerala. India.

**800. DABFUK:** Department of Aquatic Biology and Fisheries, University of Kerala, Thiruvananthapuram [ex Trivandrum]. *Obsolete as:* DAB-UoK (fishes). *Current as:* DABFUK-FI (fishes). Kerala. India.

**801. IFP:** Museum of the Marine Research Laboratory of the Integrated Fisheries Project, Kochi [Cochin]. *Note:* descended from fishing centre established in Cochin in 1957 by Indo Norwegian Project; became IFP managed by Government of India in 1972 and renamed National Institute of Fisheries Post Harvest Technology and Training (NIFPHATT) in 2008; status of natural history collections unknown. *See also:* CMFRI. Kerala. India.

**802. IISER-TVM:** Indian Institute of Science Education and Research, Thiruvananthapuram [ex Trivandrum]. *Note:* IISER-TVM is abbreviation for institution, but VPC-GK used to cite gecko specimen in collection. Kerala. India.

**803. KAUNHM:** Kerala Agricultural University Natural History Museum, Thrissur. *Current as:* KAUNHM (herps). Kerala. India.

**804. KFRI:** Kerala Forest Research Institute, Peechi. Kerala. India.

**805. MESPC:** Museum of M.E.S. Ponnani College [affiliated with Calicut University], Ponnani, Malappuram District. *Note:* museum cited as repository for fish type specimens but mistakenly associated with collection at Cochin University of Science and Technology (CUSAT); existence of fish collection at Ponnani College not confirmed. *Assigned here:* MESPC. Kerala. India.

**806. NBFGR:** Indian Council of Agricultural Research (ICAR), National Bureau of Fish Genetic Resources, Kochi Unit, CMFRI Campus, Kochi [Cochin]. *Note:* founded in 1983. *Current as:* NBFGR-CH (fish tissues). *Also as:* NBFGR CHN, NBFGR/LRT. *See also:* CMFRI. Kerala. India.

**807. PCMP:** Private collection of Mathews Plamoottil. Kerala. India.

**808. TNHM:** Natural History Museum, Thiruvananthapuram [ex Trivandrum]. *Current as:* TNHM (herps). Kerala. India.

**809. ZMCC:** Zoology Museum, Christ College, Irinjalkuda. *Current as:* ZMCC F (fishes). Kerala. India.

**810. ZSI-WGRC:** Zoological Survey of India, Western Ghats Regional Centre [formerly Station], Kozhikode [Calicut]. *Also known as:* Western Ghats Field Research Centre. *Obsolete as:* WGRS, ZSI/CLT [Calicut Station], ZSI/WGFRS (Field Research Station), ZSI/WGRS. *Current as:* ZSI-WGRC (fishes, herps). *Also as:* ZSIK (herps). Kerala. India.

**811. ZSI-CRC:** Zoological Survey of India, Central Regional Centre [formerly Station], Jabalpur. *Obsolete as:* CRS-ZSI, ZSI-CRS. *Current as:* ZSI-CRC. Madhya Pradesh. India.

**812. AGCZRL:** Abasaheb Garware College, Zoology Research Laboratory, Pune. *Obsolete as:* AGC-ZRL. *Current as:* AGCZRL (herps). Maharashtra. India.

**813. BNHS:** Bombay Natural History Society, Mumbai [Bombay]. *Includes:* specimens formerly deposited at Konkan field station museum, Ratnagiri. *Note:* unregistered fishes from old BNHS collection transferred to ZSI-WRC. *Obsolete as:* BNHM. *Current as:* BNHS (herps), BNHS A (amphibians), BNHS FWF (fishes). Maharashtra. India.

**814. INHER:** Institute of Natural History Education and Research, Kothrud, Pune. *Current as:* INHER (herps). Maharashtra. India.

**815. MACS:** Fossil Repository of the Agharkar Research Institute, Pune. *Current as:* MACS (fossils). Maharashtra. India.

**816. NKGMF:** Fish Genetics and Biotechnology laboratory, Indian Council of Agricultural Research (ICAR), Central Institute of Fisheries Education, Mumbai [Bombay]. *Current*

as: NKGMF (fish specimens), VIZNK (tissue samples). Maharashtra. India.

**817. ZID:** Department of Zoology, Arts, Commerce and Science College, Palus, Sangli District. *Current as:* ZID (fishes). Maharashtra. India.

**818. ZSI-WRC:** Zoological Survey of India, Western Regional Centre [formerly Station], Pune. *Includes:* unregistered fishes from the old Bombay Natural History Society collection (BNHS) currently housed at ZSI-WRC, but not cataloged or registered into collection as of 2014. *Obsolete as:* ZSI-WRS. *Current as:* ZSI-WRC (fishes, herps). *Also as:* ZSIP, ZSI/WRC P/ (fishes). Maharashtra. India.

**819. IBSD:** Institute of Bioresources and Sustainable Development, Ministry of Science and Technology, Government of India, Takyelpat, Imphal. Manipur. India.

**820. MUMF:** Manipur University Museum of Fishes, Chanchipur. *Obsolete as:* MUFM (fishes). *Current as:* MUMF (fishes). *Also as:* MUMF-Per 95 (W. Vishwanath personal collection), MUM (fishes, Manipur University Central Museum), RCMFM (fishes, Research Centre). Manipur. India.

**821. MZMLC:** Museum of Zoology, Mayai Lambi College, Yumnam Huidrom. Manipur. India.

**822. FBLM:** Fish Biology Lab Museum, Department of Zoology, North Eastern Hill University, Shillong. *Current as:* FBLM (fishes). Meghalaya. India.

**823. ZSI-NERC:** Zoological Survey of India, North Eastern Regional Centre, Shillong. *Formerly:* Eastern Regional Centre/Station. *Obsolete as:* ERS/ZSI, V/A/ERS, V/ERS, ZSI-ERC, ZSI/ERS, ZSI-E, ZSI-S. *Current as:* ZSI-NERC (fishes, herps). *Also as:* NERC/ZSI (herps), ZSI/NERC. Meghalaya. India.

**824. MZMU:** Departmental Museum of Zoology, Mizoram University, Aizawl. *Current as:* MZMU (herps). *Also as:* MZUBM (fishes, Mizoram University Biodiversity Museum). *See also:* PUCMF. Mizoram. India.

**825. PUCMF:** Pachhunga University College Museum of Fishes, Aizawl. *Note:* constituent college of Mizoram University, Aizawl. *Current as:* PUCMF (fishes). *See also:* MZMU. Mizoram. India.

**826. KSC:** Kohima Science College, Kohima. *Also as:* MA (amphibians). Nagaland. India.

**827. NMND:** National Museum of Natural History, New Delhi. *Note:* destroyed by fire 26 April 2016. *Obsolete as:* NMNH, NMNHI. *Current as:* NMND. New Delhi. India.

**828. SDBDU:** University of Delhi, Department of Environmental Studies, Systematics Lab, Delhi. *Current as:* SDBDU (herps). New Delhi. India.

**829. RMNH-BBSR:** Regional Museum of Natural History, Bhubaneswar. *Current as:* RMNH-BBSR-R (reptiles). Odisha [ex Orissa]. India.

**830. ZSI-EBRC:** Zoological Survey of India, Estuarine Biology Regional Centre [formerly Station], Gopalpur-on-Sea, Ganjam District. *Obsolete as:* EBS/ZSI/F. *Current as:* ZSI-EBRC (fishes). *Also as:* EBRC/ZSI/F (fishes). Odisha [ex Orissa]. India.

**831. CASAU:** Centre of Advanced Study in Marine Biology, Annamalai University, Parangipettai. *Formerly:* Biological Station Reference Museum at Porto Novo (BSRM). *Obsolete as:* BSRM. *Current as:* CASAU. Tamil Nadu. India.

**832. CSPT:** Chennai Snake Park Trust, Chennai. *Formerly:* Madras Snake Park (MSP). *Obsolete as:* MSP. *Current as:* CSPT (herps), CSPT/L (lizards), CSPT/S (snakes). Tamil Nadu. India.

**833. FCRM:** Fisheries College Reference Museum, Tamil Nadu Veterinary and Animal Sciences University, Thoothukudi [Tuticorin]. *Note:* Fisheries College established in 1977 as constituent unit of Tamil Nadu Agricultural University at Thoothukkudi; currently Fisheries College and Research Institute (FCRI). Tamil Nadu. India.

**834. MAD:** Government Museum Chennai, Egmore, Chennai. *Also known as:* Madras Museum, Madras Government Museum (MGM). *Obsolete as:* MGM. *Current as:* MAD (herps). Tamil Nadu. India.

**835. MKC:** Private collection of J.D. Marcus Knight, Chennai. *Note:* to be deposited at Zoological Survey of India, Southern Regional Centre (ZSI-SRC). *Current as:* MKC (fishes). Tamil Nadu. India.

**836. MMMC:** Marine Biodiversity Museum of Mandapam Regional Centre, Central Marine Fisheries Research Institute (CMFRI), Mandapam, Ramanathapuram District. *Formerly:* Museum of the Regional Centre of Central Marine Fisheries Research Institute, Mandapam Camp. *Note:* established in 1947; CMFRI headquarters shifted from Mandapam to Kochi [Cochin] with second museum established in Kochi. *Current as:* MMMC. *Also as:* CMFRI F (fishes), FMRI (fishes). *See also:* CMFRI (Kochi [Cochin], Kerala). Tamil Nadu. India.

**837. MSUMNH:** Manonmaniam Sundaranar University Museum of Natural History, Sri Paramakalyani Centre for Environmental Sciences (SPKCES), Alwarkurichi. *Current as:* MSUMNH (fishes). *Also as:* SPKCES. Tamil Nadu. India.

**838. SACON:** Sálím Ali Centre for Ornithology and Natural History, Coimbatore [Kovai]. Tamil Nadu. India.

**839. WILD:** Wildlife Information Liaison Development Society, Coimbatore [Kovai]. *Note:* cited as code, two-digit year of registration, collection abbreviation and catalog number, e.g. WILD-15-PIS (fishes registered in 2015), WILD-13-AMP (amphibians registered in 2013). *Current as:* WILD (fishes, herps). Tamil Nadu. India.

**840. ZSI-MBRC:** Zoological Survey of India, Marine Biology Regional Centre, Chennai. Tamil Nadu. India.

**841. ZSI-SRC:** Zoological Survey of India, Southern Regional Centre [formerly Station], Chennai. *Also known as:* Zoological Survey of India, Madras (ZSIM). *Obsolete as:* SRC-ZSI, SRS/ZSI, ZSI-SRS, ZSI/SRS, ZSIC, ZSIM. *Current as:* ZSI-SRC. *Also as:* ZSI/SRC. Tamil Nadu. India.

**842. NHM.OU:** Natural History Museum of Osmani University, Department of Zoology, College of Science, Osmania University, Hyderabad. *Current as:* NHM.OU.F (fishes), NHM.OU.AMPH (amphibians), NHM.OU.REP (reptiles). Telangana [ex Andhra Pradesh]. India.

**843. ZSI-FBRC:** Zoological Survey of India, Freshwater Biology Regional Centre, Hyderabad. *Current as:* ZSI-FBRC (fishes). *Also as:* FBRC/ZSI, FBS (Freshwater Biology Station). Telangana [ex Andhra Pradesh]. India.

**844. COF-CAU:** Natural History Referral Museum, College of Fisheries, Central Agriculture University (I), Lembucherra, Agartala. *Current as:* COF-CAU (fishes). Tripura. India.

**845. DDUGU:** Deen Dayal Upadhyay Gorakhpur University, Department of Zoology, Gorakhpur. Uttar Pradesh. India.

**846. FM:** Faizabad Museum, Faizabad. *Note:* presumably defunct. Uttar Pradesh. India.

**847. LUVP:** Vertebrate Paleontology Laboratory, Geology Department, Lucknow University, Lucknow. *Current as:* LUVP (fossils). *Also as:* LUGD (fossil echinoderms), ULM. Uttar Pradesh. India.

- 848. SJC:** St. John's College, Agra. *Note:* herp collection no longer extant; later maintained by the Academy of Zoology, Khandari Road, Agra, but that institution appears to be defunct. Uttar Pradesh. India.
- 849. ZM:** Zoologische Museum, Kanpur. *Note:* presumably defunct. Uttar Pradesh. India.
- 850. DCFR:** Fish Museum, Directorate of Coldwater Fisheries Research, Bhimtal, Nainital. *Current as:* DCFR (fishes). Uttarakhand. India.
- 851. GU/RSR/VAS:** Hemwati Nandan Bahuguna Garhwal University, Department of Geology, R.S. Rana Vastan Lignite Mine collection, Srinagar. *Obsolete as:* VAS. *Current as:* GU/RSR/VAS (fossils). Uttarakhand. India.
- 852. IITR:** Vertebrate Paleontology Laboratory, Department of Earth Sciences, Indian Institute of Technology, Roorkee. *Formerly:* University of Roorkee (RUSB) until 2001. *Includes:* fossils from Vastan lignite mine, Taluka Mangrol, Surat District, Gujarat. *Obsolete as:* RUSB. *Current as:* IITR (fossils). *Also as:* IITR/SB/VLM (fossils). Uttarakhand. India.
- 853. WII:** Wildlife Institute of India [vertebrate collections], Dehradun [Dehra Dun]. *Current as:* WII (herps). Uttarakhand. India.
- 854. ZSI-NRC:** Zoological Survey of India, Northern Regional Centre [formerly Station], Dehradun [Dehra Dun]. *Obsolete as:* NRS/ZSI, ZSI/NRS. *Current as:* ZSI-NRC. *Also as:* ZSI/NRC. Uttarakhand. India.
- 855. AC-IFF/AABM:** Aquatic Animal Biodiversity Museum, Department of Industrial Fish and Fisheries, Asutosh College, Kolkata [ex Calcutta]. *Current as:* AC-IFF/AABM/Pisces/ (fishes). West Bengal. India.
- 856. ASK:** Museum of the Asiatic Society of Bengal (ASB), Kolkata [ex Calcutta]. *Also known as:* Oriental Museum of the Asiatic Society. *Note:* original natural history collection established ca. 1828, transferred to Indian Museum, Calcutta (IMC) in 1866 and then to Zoological Survey of India (ZSI) in 1916. *Current as:* ASK. West Bengal. India.
- 857. BNHMD:** Bengal Natural History Museum, Padmaja Naidu Himalayan Zoological Park, Darjeeling. *Note:* incorporated into West Bengal Zoo Authority (WBZA) in 2015. West Bengal. India.
- 858. CIFE/KOL:** Museum of Central Institute of Fisheries Education (CIFE), Indian Council for Agricultural Research (ICAR), Kolkata [ex Calcutta]. *Current as:* CIFE/KOL (fishes). West Bengal. India.
- 859. GSI:** Geological Survey of India, Curatorial Division, Central Fossil Repository, Kolkata [ex Calcutta]. *Note:* GSI headquartered in Kolkata. *Current as:* GSI K (fossils). *Also as:* GSI/PAL/CR, GSI/GC. *See also:* GSI (Bengaluru, Karnataka). West Bengal. India.
- 860. ISI:** Indian Statistical Institute, Geological Studies Unit, Palaeontological collections, Kolkata [ex Calcutta]. *Current as:* ISI P (fossil fishes), ISIR (fossil reptiles). *Also as:* GSU:ISI (fossil fishes). West Bengal. India.
- 861. MCMC:** Museum of the Calcutta Medical College, Kolkata [ex Calcutta]. *Formerly:* Medical College of Bengal, established in 1835. *Note:* status of natural history collections unknown; college closely associated with the Indian Museum in Calcutta (IMC, now ZSI) in late 1800s. *Also as:* MCMK. West Bengal. India.
- 862. NLK:** Museum of the PG Department of Zoology, Raja N.L. Khan Women's College, Midnapur. West Bengal. India.
- 863. UCDZ:** University of Calcutta, Department of Zoology, Kolkata [ex Calcutta]. West Bengal. India.
- 864. ZSI:** National Zoological Collections (NZC) of the Zoological Survey of India (ZSI), Kolkata [ex Calcutta]. *Formerly:* Indian Museum, Calcutta (IMC), Natural History Museum, Calcutta. *Includes:* collections transferred from Asiatic Society of Bengal (ASK) to IMC in 1866. *Note:* ZSI designated national repository for zoological collections in India in 2002. *Obsolete as:* IMC, ZSIF (fishes), ZSIK (herps). *Current as:* ZSI. *Also as:* NZC-ZSI, ZSI-F (fishes), ZSI FF (freshwater fishes), ZSIC (amphibians), ZSI-K (herps). West Bengal. India.
- 865. ZSI-MARC:** Zoological Survey of India, Marine Aquarium and Regional Centre, Digha. *Current as:* ZSI-MARC. *Also as:* MARC/ZSI. West Bengal. India.
- 866. USK:** Universitas Syiah Kuala [Syiah Kuala University], Faculty of Marine and Fisheries, Laboratory of Ichthyology, Banda Aceh. *Current as:* USK (fishes). Aceh. Indonesia.
- 867. IBRC:** Indonesian Biodiversity Research Center, Denpasar City. *Note:* opened in June 2010 as a collaboration between Udayana University, Diponegoro University, the State University of Papua, University of California Los Angeles and the Smithsonian Institution. *Current as:* IBRC (fishes). Bali. Indonesia.
- 868. NCIP:** National Catalogue for Indonesian Pisces, Koleksi Rujukan, Pusat Penelitian Oseanografi [reference collection, Oceanographic Research Center], Lembaga Ilmu Pengetahuan Indonesia (LIPI), Ancol. *Formerly:* Visscherij Station (1905–1915); Visscherij Station te Batavia (1915–1922); Laboratorium Voor Het Onderzoek der Zee (LOZ, 1922–1949); Laboratorium/Lembaga Penyelidikan Laut [Laboratory/Institute of Marine Investigation] (1949–1962); Lembaga Penelitian Laut (1962–1970); Lembaga Oseanologi Nasional (LON) [National Oceanographic Institute], part of LIPI (1970–1986); Pusat Penelitian dan Pengembangan Oseanologi [Center for Oceanographic Research and Development] (1986–2001). *Note:* fishes cataloged under NCIP remain housed in Ancol as of 2018, but eventually may be transferred to MZB in Cibinong. *Obsolete as:* LOZ, LON, LON NCIP, NCIV [typo]. *Current as:* NCIP. Jakarta. Indonesia.
- 869. CRDOA:** Center for Research and Development of Oceanology, Indonesian Institute of Science, Ambon. *Current as:* CRDOA (fishes). Maluku. Indonesia.
- 870. ITB:** School of Life Sciences and Technology, Institut Teknologi Bandung, Bandung. *Note:* some herp specimens (including types) to be transferred to MZB in Cibinong; abbreviations DTI or ITB.DTI used for herps collected by Djoko T. Iskandar. *Current as:* ITB (herps), PALITB (fossils). West Java. Indonesia.
- 871. MGB:** Vertebrate Palaeontology Collection, Geology Museum Bandung, Bandung. *Current as:* MGB (fossils). West Java. Indonesia.
- 872. MZB:** Bidang Zoologi, Pusat Penelitian Biologi, Lembaga Ilmu Pengetahuan Indonesia (LIPI), Cibinong, Bogor Regency. *Formerly:* Museum Zoologicum Bogoriense (1894–1997). *Obsolete as:* LBN. *Current as:* MZB (fishes, herps). *Also as:* MZB.Lace (Lacertilia), MZB.Ophi (Ophidia). West Java. Indonesia.
- 873. UIMZ:** Research Center for Climate Change, University of Indonesia, Kampus UI, Depok. *Current as:* UIMZ (herps). West Java. Indonesia.
- 874. RSI:** Razi Vaccine and Serum Research Institute,



Hessarak, Karaj. *Also known as:* Razi State Institute; Razi Institute (RI). *Note:* reptile collection inaccessible after death of Mahmoud Latifi in 2005. Alborz. Iran.

**875. TUIC:** Terhan University Ichthyological Collection, Karaj. *Current as:* TUIC (fishes). Alborz. Iran.

**876. ZM-CBSU:** Zoological Museum of Shiraz University, Collection of Biology Department, Shiraz. *Formerly:* Pahlavi University. *Obsolete as:* ZM-CBSUZG (fishes). *Current as:* ZM-CBSU (fishes, herps). *Also as:* CBSU (herps). Fars. Iran.

**877. FCKG:** Fish Collection of Kiavash Golzarianpour, Gonbad Kavous University, Gonbad-e Kāvus. *Current as:* FCKG (fishes). Golestān. Iran.

**878. ZMGU:** Zoological Museum of Gorgan University of Agricultural Sciences and Natural Resources. *Current as:* ZMGU (herps). *Also as:* GUZM. Golestān. Iran.

**879. GUIC:** Ichthyological Museum, Department of Fisheries Sciences, Faculty of Natural Resources, University of Guilan, Sowmeh Sara. *Current as:* GUIC (fishes). Guilan. Iran.

**880. ZMHU:** Zoological Museum of Hamedan University, Hamadān. *Current as:* ZMHU (herps). Hamadan. Iran.

**881. DHZC:** Department of the Environment of Hormozgan Province Zoological Collection. *Current as:* DHZC (herps). Hormozgan. Iran.

**882. DEZC:** Department of the Environment of Isfahan Province Zoological Collection, Isfahan. *Current as:* DEZC (herps). Isfahan. Iran.

**883. IUT-IM:** Isfahan University of Technology Ichthyology Museum, Isfahan. *Current as:* IUT-IM (fishes). Isfahan. Iran.

**884. ICSTZM:** International Center for Science, High Technology, and Environmental Sciences, Zoological Museum, Kerman. *Obsolete as:* ZCSK. *Current as:* ICSTZM (herps). *Also as:* ICSTZ (herps). Kerman. Iran.

**885. ZMSBUK:** Zoological Museum of Shahid Bahonar University, Kerman. *Current as:* ZM-SBUK (fishes), ZMSBUK.HD (herps). Kerman. Iran.

**886. RUZM:** Razi University Zoological Museum, Kermanshah. *Current as:* RUZM (herps). Kermanshah. Iran.

**887. YUZM:** Yasouj University Zoological Museum, Yasuj. *Current as:* YUZM (herps). Kohgiluyeh and Boyer-Ahmad. Iran.

**888. FCFUK:** Fish collection, Fish Department, University of Kurdistan, Sanandaj [Senneh]. *Current as:* FCFUK (fishes). Kurdistan. Iran.

**889. FTHM:** Private collection of Farhang Torki, Nurabad [Noor Abad]. *Note:* cited as Farhang Torki Herpetological Museum (FTHM) and Farhang Torki Ecology and Herpetology Center for Research (FTEHCR). *Current as:* FTHM (herps). *Also as:* FTHR (herps). Lorestan. Iran.

**890. MKQ:** Private collection of Mahdi Kazemi, Qom. Qom. Iran.

**891. ERP:** Private collection of Eskandar Rastegar-Pouyani. *Note:* associated with Hakim Sabzevari University (SUHC). *Current as:* ERP (herps). Razavi Khorasan. Iran.

**892. SUHC:** Hakim Sabzevari University (HSU), Herpetological Collection, Sabzevar. *Formerly:* branch of Tarbiat Moallem University (SUZM, TMUS), Tehran. *Obsolete as:* SUZM, TMUS. *Current as:* SUHC (herps). *See also:* ERP. Razavi Khorasan. Iran.

**893. ZMCMU:** Zoological Museum of Chabahar Maritime University, Chabahar. *Current as:* ZMCMU (fishes). Sistan and Baluchestan. Iran.

**894. IMNRF-UT:** Ichthyological Museum, Faculty of Natural Resources, University of Tehran, Tehran. *Current as:* IMNRF-UT (fishes). *See also:* ZUTC (Zoological Museum). Tehran. Iran.

**895. MMTT:** Muzeye Melli-e Tarikh-e Tabiei, Tehran. *Also known as:* Muzeh-e Melli-ye Tarikh-e Tabi'i [National Museum of Natural History]. *Note:* founded in 1973; now part of Iran Department of the Environment. *Current as:* MMTT. Tehran. Iran.

**896. VMFC:** Private fish collection of Vatandoust and Mousavi-Sabet. Tehran. Iran.

**897. ZUTC:** Zoological Museum, University of Tehran Collection, Tehran. *Current as:* ZUTC. *Also as:* TUZM. *See also:* IMNRF-UT (fishes). Tehran. Iran.

**898. INHRCM:** Iraq Natural History Research Center and Museum, University of Baghdad, Al-Waziriya, Baghdad. *Formerly:* Iraq Museum of Natural History (IMNH, IMNHB). *Includes:* collection assembled by A.D. Niazi and staff at the Natural History Museum of the University of Baghdad. *Note:* some fossils in INHRCM, others in Department of Earth Science (Geology), College of Science. *Obsolete as:* IMNH, IMNHB, IRAQ. *Current as:* INHRCM (herps, fossils). Iraq.

**899. KMNH:** Kurdistan Museum of Natural History, Salahaddin University, Erbil (SUE), Kurdistan. *Current as:* KMNH. Iraq.

**900. UBI:** University of Basrah, Marine Science Center, Basrah. Iraq.

**901. NMI:** National Museum of Ireland (Natural History), Dublin. *Current as:* NMI (fossils). *Also as:* NMING (fossils), NMINH (fishes, Natural History Division). Ireland.

**902. TCD:** Trinity College of Dublin, Geological and Zoological Museums. *Includes:* Huxley and Wright fossils (fishes and amphibians) that were moved to the National Museum of Ireland in 1959 and returned in 1994. *Current as:* TCD (fossils). Ireland.

**903. SFRS:** Sea Fisheries Research Station, Haifa. *Current as:* SFRS (fishes). Israel.

**904. TAU:** Tel Aviv University Zoological Museum (TAU), part of Steinhardt Museum of Natural History (SMNH), Israel National Center for Biodiversity Studies, Tel Aviv. *Obsolete as:* TAUM, UTAI, ZMTAU. *Current as:* TAU (fishes, herps). *Also as:* SMNHTAU. Israel.

**905. HUI:** The Hebrew University of Jerusalem, Zoological Museum, Jerusalem. *Obsolete as:* HUIF. *Current as:* HUI-F (fishes), HUI-R (herps), HUI-PAL (fossils). Israel.

**906. MCSNB:** Museo Civico di Scienze Naturali "Enrico Caffi", Bergamo. *Obsolete as:* MCSN. *Current as:* MCSNB (fossils). *Also as:* MCSNBG (fossils). Bergamo. Italy.

**907. MCGS:** Museo Archeologico e Naturalistico "Giuseppe Scarabelli", Imola. *Also known as:* Museo Civico Giuseppe Scarabelli. *Note:* founded in 1857. *Current as:* MCGS (fossils). Bologna. Italy.

**908. MGGC:** Museo Geologico "Giovanni Capellini", Università di Bologna, Bologna. *Also known as:* Museo di Geologia e Paleontologia (MB, MGPC); Capellini Museum. *Note:* founded 8 March 1860, dedicated to Giovanni Capellini in 1911; some artifacts and fossils transferred to Palazzo Poggi (PP) in 2000. *Current as:* MGGC (fossils). *See also:* MZUB (fishes, herps), PP (herps). Bologna. Italy.

**909. MZUB:** Museo di Zoologia, Università di Bologna, Bologna. *Includes:* Collezione/Museo di Anatomia Comparata (MACB) assembled by Antonio Alessandrini (1786–1861). *Obsolete as:* IBI. *Current as:* MZUB (fishes, herps). *Also*

as: MZ (two herp specimens attributable to Ulisse Aldrovandi collection). *See also*: MGGC (fossils), PP (herps). Bologna. Italy.

**910. PP:** Museo Ulisse Aldrovandi in the Palazzo Poggi, Bologna. *Includes*: part of Ulisse Aldrovandi (1522–1605) collection including world's oldest herpetological museum specimens; fossils formerly held by Capellini Museum (MGGC). *Current as*: PP (herps). *See also*: MGGC (fossils), MZUB (fishes, herps). Bologna. Italy.

**911. MCSNBS:** Museo Civico di Scienze Naturali, Brescia. *Current as*: MCSNBS (fossils). Brescia. Italy.

**912. IZUCS:** Collezione Zoologica, Dipartimento di Biologia Animale ed Ecologia, Università di Cagliari, Cagliari, Island of Sardinia. *Obsolete as*: MZUC. *Current as*: IZUCS. *See also*: MDLCA (fossils). Cagliari. Italy.

**913. MDLCA:** Museo Sardo di Geologia e Paleontologia "Domenico Lovisato", Dipartimento di Scienze Chimiche e Geologiche (DSCG), Università di Cagliari, Cagliari, Sardinia. *Formerly*: Dipartimento di Scienze della Terra (DSTC), combined with other departments in 2012 to form DSCG. *Obsolete as*: DSTC (fossils). *Current as*: MDLCA (fossils). *See also*: IZUCS (fishes, herps). Cagliari. Italy.

**914. MSTC:** Museo di Scienze della Terra, Università di Catania, Catania. *Current as*: MSTC (fossils). Catania. Italy.

**915. CLC:** Museo Universitario dell'Università "G. D'Annunzio" di Chieti-Pescara, Chieti. *Current as*: CLC (fossils, Capasso-registered collection). Chieti. Italy.

**916. MCSNFE:** Museo Civico di Storia Naturale, Ferrara. *Includes*: herpetological collection of Guido Campadelli (Collezione Campadelli) donated in 2005. *Current as*: MCSNFE (herps). Ferrara. Italy.

**917. IGF:** Museo di Storia Naturale, collezioni della Sezione di Geologia e Paleontologia, Università di Firenze, Firenze [Florence]. *Formerly*: Institute of Geology, Firenze [Florence]. *Obsolete as*: MGPF, MGPUF, MGUF. *Current as*: IGF (fossils). *Also as*: MSNFI IGF (fossils). *See also*: MZUF (fishes, herps). Firenze [Florence]. Italy.

**918. ISMF:** Istituto [Scuola] di Sanità Militare di Firenze, Firenze [Florence]. Firenze [Florence]. Italy.

**919. MZUF:** Museo di Storia Naturale, collezioni della Sezione di Zoologia "La Specola", Università di Firenze, Firenze [Florence]. *Also known as*: Museo di Storia Naturale di Firenze; Museo Zoologico La Specola. *Formerly*: Imperiale e Reale Museo di Fisica e Storia Naturale (IMRC, IRMC, MRF). *Includes*: new herpetological collection of Benedetto Lanza (NHCL). *Obsolete as*: IMRC, IRMC, MF, MRF, MZF, NHCL. *Current as*: MZUF (fishes, herps). *See also*: IGF (fossils). Firenze [Florence]. Italy.

**920. IZUG:** Dipartimento di Scienze della Terra, dell'Ambiente e della Vita (DISTAV), Università di Genova [University of Genoa], Genova [Genoa] *Note*: DISTAV derived from merger of multiple institutes and departments including Dipartimento del Territorio e delle sue Risorse (DTRG), Istituto di Scienze Ambientali Marine and Istituto di Zoologia. *Current as*: IZUG. *Also as*: DTRG (sharks). Genova [Genoa]. Italy.

**921. MSNG:** Museo Civico di Storia Naturale "Giacomo Doria" [Civic Museum of Natural History], Genova [Genoa]. *Includes*: Collection of Marquis Giacomo Doria (MSNGD). *Obsolete as*: MCG, MCSNG. *Current as*: MSNG (fishes, herps). *Also as*: MCSN (insects). Genova [Genoa]. Italy.

**922. MPCM:** Museo Paleontologico Cittadino di Monfalcone, Monfalcone. *Current as*: MPCM (fossils). Gorizia. Italy.

**923. MNHM:** Museo di Storia Naturale della Maremma [Maremma Natural History Museum], Grosseto. *Current as*: MNHM. Grosseto. Italy.

**924. IZA:** Istituto di Zoologia, Università degli Studi dell'Aquila, L'Aquila. *Note*: status unknown; some specimens moved to Università di Napoli Federico II (CMSNF/MZN). L'Aquila. Italy.

**925. CNHM:** Museo di Storia naturale del Salento, Calimera. *Also known as*: Civic Museum of Natural History in Calimera. *Current as*: CNHM (fossils). Lecce. Italy.

**926. MAUS:** Museo dell'Ambiente dell'Università del Salento [Museum of the Environment, University of Salento], Campus Ecotekne, Monteroni di Lecce. *Current as*: MAUS (fossils). Lecce. Italy.

**927. MSNL:** Museo di storia naturale del Mediterraneo, Livorno. *Current as*: MSNL (sharks). Livorno. Italy.

**928. ISPRA:** Institute for Environmental Protection and Research, Laboratory of Milazzo ichthyological collection, Milazzo, Island of Sicily. *Current as*: ISPRA (fishes). Messina. Italy.

**929. MFV:** Museo della Fauna, Dipartimento di Scienze veterinarie, Università di Messina, Messina. *Note*: Università di Messina formerly associated with Istituto di Idrobiologia in Ganzirri (IIG); institute apparently no longer exists and status of collections unknown. *Current as*: MFV-ME (mollusks). Messina. Italy.

**930. CSI:** Acquario e civica stazione Idrobiologica, Milano [Milan]. Milano [Milan]. Italy.

**931. MPUM:** Museo Paleontologia, Dipartimento di Scienze della Terra "A. Desio", Università degli Studi di Milano, Milano [Milan]. *Current as*: MPUM (fossils). Milano [Milan]. Italy.

**932. MSNM:** Museo Civico di Storia Naturale, Milano [Milan]. *Note*: partially destroyed in August 1943 during World War II. *Includes*: extant collection assembled by Giorgio Jan (1791–1866). *Obsolete as*: MCSN. *Current as*: MSNM. *Also as*: BES (fossils). Milano [Milan]. Italy.

**933. IPUM:** Inventario Paleontologia Università di Modena e Reggio Emilia (UNIMORE), Dipartimento di Scienze Chimiche e Geologiche, UNIMORE, Modena. *Current as*: IPUM (fossils). *See also*: IZUM (herps). Modena. Italy.

**934. IZUM:** Museo di Zoologia ed Anatomia Comparata, Università di Modena e Reggio Emilia, Modena. *Formerly*: Università di Modena until 1998. *Note*: descended from Museo di Storia Naturale del ducato Estense established in 1776. *Includes*: collections donated by Francesco Testi to Istituto e Museo di Zoologia/Istituto di Zoologia e de Anatomia comparata (IZUM) ca. 1913–1915. *Current as*: IZUM (herps). *Also as*: MZAC, MSNM (sharks, Museo di Storia Naturale). *See also*: IPUM (fossils). Modena. Italy.

**935. CMSNF:** Centro Musei delle Scienze Naturali e Fische, Università di Napoli Federico II, Napoli [Naples]. *Formerly*: Museo Zoologico della Regia Università degli Studi, founded in 1813; Regio Museo Zoologico (RMZ). *Includes*: fishes from Istituto di Zoologia, Università degli Studi dell'Aquila (IZA); herps from university gabinetto di anatomia comparata (GAC) and gabinetto di anatomia generale et patologica (GAGP). *Obsolete as*: MZUN, RMZ, UNZM. *Current as*: CMSNF (fossils), MZN (fishes & herps, Museo Zoologico). Napoli [Naples]. Italy.

**936. SZN:** Stazione Zoologica "Anton Dohrn", Napoli [Naples]. *Current as*: SZN. Napoli [Naples]. Italy.

**937. MGP:** Museo di Geologia e Paleontologia, Centro di

Ateneo per i Musei, Università degli Studi di Padova [University of Padua], Padova. *Current as:* MGP (fossils). *Also as:* MGP-PD (fossils). *See also:* MZP. Padova [Padua]. Italy.

**938. MZP:** Museo di Zoologia, Centro di Ateneo per i Musei, Università di Padova [Università degli Studi di Padova; University of Padua], Padova. *Also known as:* Museo di Zoologia di Padova. *Includes:* Gabinetto di Storia Naturale assembled by Antonio Vallisneri, Jr., and his father, Antonio Vallisneri, Sr.; Vallisneri collection donated to University of Padova ca. 1734. *Obsolete as:* IGB (Istituto Gabinetto), ZMUP. *Current as:* MZP (fishes). *Also as:* MZUP (arachnids). *See also:* MPG (fossils). Padova [Padua]. Italy.

**939. MRST:** Museo Regionale di Palazzo d'Aumale, Collezione Naturalistica, Terrasini. *Also known as:* Museo Regionale di Storia Naturale di Terrasini. *Current as:* MRST. Palermo. Italy.

**940. MZUP:** Museo Zoologia Pietro Doderlein, Università di Palermo, Palermo. *Obsolete as:* MZDP, MZP, MZPA. *Current as:* MZUP. Palermo. Italy.

**941. MPP:** Museo Paleontologico Parmense, Parma. *Note:* originated as sezione paleontologica del Gabinetto di Storia Naturale dell'Università di Parma. *Current as:* MPP (fossils). Parma. Italy.

**942. MSNPV:** Museo di Storia Naturale, Università di Pavia, Pavia. *Also known as:* Museo di Pavia, Lombardy (MPI). *Obsolete as:* MCNPV, MZUP. *Current as:* MSNPV (fishes, herps, fossils). Pavia. Italy.

**943. GS:** Galleria di Storia Naturale di Casalina (Deruta) [Natural History Gallery of Casalina], Casalina. *Includes:* historical collections of the Museo Zoologico della Libera Università di Perugia and Museo di Scienze Naturali del Seminario Arcivescovile di Perugia. *Current as:* GS (fish), GSDNA (fish DNA). Perugia. Italy.

**944. MCSNP:** Museo Civico di Storia Naturale, Piacenza. *Also known as:* Museo di Storia Naturale. *Assigned here:* MCSNP. Piacenza. Italy.

**945. MSNUP:** Museo di Storia Naturale dell'Università di Pisa [Natural History Museum of the University of Pisa], Calci. *Also known as:* Museo di Storia Naturale e del Territorio di Calci (MSNT), Museo di Storia Naturale di Pisa (MSNP). *Obsolete as:* MSNT, PUM. *Current as:* MSNUP (fossils). *Also as:* MSNP (invertebrates, fossils). Pisa. Italy.

**946. ITCAM:** Istituto Tecnico Commerciale Archimede, Modica. *Current as:* ITCAM (fossils). Ragusa. Italy.

**947. MSF:** Museo Civico di Scienze Naturali, Faenza. *Also known as:* Malmerendi Museum of Natural Science. *Current as:* MSF (fossils). Ravenna. Italy.

**948. MCRE:** Musei Civici di Reggio Emilia, Reggio Emilia. *Current as:* MCRE (fossils). Reggio Emilia. Italy.

**949. CVSRSN:** Società Romana di Scienze Naturali, Roma [Rome]. *Current as:* CVSRSN (herps). *Also as:* SRSN (herps). Roma [Rome]. Italy.

**950. MCZR:** Museo Civico di Zoologia, Roma [Rome]. *Includes:* herp collections donated by Massimo Capula between 1975–2009, Claudio Bagnoli in 2007 and Sergio Zerunian in 2007; herp collections acquired in 2007–2008 from Istituto di Zoologia “F. Raffaele”, Sapienza Università di Roma, and in 2009 from Laboratorio Centrale di Idrobiologia. *Note:* collection temporarily associated with Giardino Zoologico di Roma (MZGZ) from ca. 1932 to 1980s. *Obsolete as:* MZGZ. *Current as:* MCZR (fishes, herps). *Also as:* MCZRVR (reptiles). *See also:* MDBR (Dipartimento di

Biologia Animale e dell'Uomo), MPUR (fossils). Roma [Rome]. Italy.

**951. MDBR:** Museo di Anatomia Comparata “Battista Grassi”, Dipartimento di Biologia e Biotecnologie Charles Darwin (BBCD), Università degli Studi di Roma “La Sapienza” [Sapienza University of Rome], Roma [Rome]. *Formerly:* Dipartimento di Biologia Animale e dell'Uomo until 2010. *Includes:* Marco Bologna Collection (MBC). *Current as:* MDBR (herps). *Also as:* MACR (sharks). *See also:* MCZR (Museo Civico di Zoologia, Roma), MPUR (fossils). Roma [Rome]. Italy.

**952. MPUR:** Museo Paleontologia Università Roma, Università degli Studi di Roma “La Sapienza” [Sapienza University of Rome], Roma [Rome]. *Note:* currently part of Museo Universitario di Scienze della Terra (MUST). *Current as:* MPUR (fossils). *See also:* MCZR (fishes, herps), MDBR (Dipartimento di Biologia Animale e dell'Uomo). Roma [Rome]. Italy.

**953. MZURT:** Museo di Zoologia ed Anatomia Comparata [Museum of Zoology and Comparative Anatomy], Università degli Studi Roma Tre, Roma [Rome]. *Includes:* Marco A. Bologna Collection. *Note:* founded in 2001–2002 in Department of Biology, transferred to Department of Environmental Biology in 2008. *Current as:* MZURT (insects). Roma [Rome]. Italy.

**954. MUSNAF:** Museo di Storia Naturale dell'Accademia dei Fisiocritici, Siena. *Current as:* MUSNAF (fossils). Siena. Italy.

**955. DMMI:** Dolomythos-Museum, Innichen [San Candido]. *Also known as:* DoloMythos—The Natural Heritage of Humanity Museum; Museo Dolomythos. *Note:* fossils cited according to locality, as in PZIF (fossils from Piz da Peres, Furkel Pass). *Assigned here:* DMMI (fossils). South Tyrol. Italy.

**956. MGR:** Museo Geologico di Redagno, Bolzano [Bozen]. *Current as:* MGR (fossils). South Tyrol. Italy.

**957. PZO:** Museo di Scienze Naturali dell'Alto Adige [Museum of Natural Sciences of South Tyrol], Bolzano [Bozen]. *Also known as:* Natur-Museum Bozen (NMB), Naturmuseum Südtirol (NMS). *Includes:* fossils from Kühwiesenkopf (KUH or KÜH). *Obsolete as:* NMB. *Current as:* PZO (fossils). *Also as:* NMS (fossils). South Tyrol. Italy.

**958. IAMC-CNR:** Istituto per l'Ambiente Marino Costiero del Consiglio Nazionale delle Ricerche, Taranto. Taranto. Italy.

**959. CBD:** Private collection of G.A.C Balma & G.B. Delmastro, Torino [Turin]. *Also known as:* Collezione Ittiologica Balma-Delmastro. Torino [Turin]. Italy.

**960. MCCI:** Museo Civico di Storia Naturale di Carmagnola, Torino [Turin]. *Note:* distinct from Museo Regionale di Scienze Naturali di Torino (MRSN). *Obsolete as:* MCC, MCSNC, MSNC. *Current as:* MCCI (fishes, herps). Torino [Turin]. Italy.

**961. MDHC:** Massimo Delfino Herpetological Collection, Dipartimento di Scienze della Terra, Università degli Studi di Torino [University of Turin], Torino [Turin]. *Current as:* MDHC (herps). *See also:* MRSN. Torino [Turin]. Italy.

**962. MRSN:** Museo Regionale di Scienze Naturali di Torino, Torino [Turin]. *Includes:* historical collections owned by Università degli Studi di Torino [University of Turin], but housed and managed by MRSN, specifically Museo di Zoologia (MZUT), Museo di Anatomia Comparata (MACUT) and Museo di Geologia e Paleontologia (MGPT-PU); recent collections assembled after MRSN established in 1978.



*Obsolete as:* IMZUT, MRSNT, MSNT, MSNTO, MUZT, PU. *Current as:* MRSN (modern collections), MACUT & MZUT (Università di Torino historical collections), MGPT-PU (fossils). *See also:* MDHC. Torino [Turin]. Italy.

**963. MTSN:** Museo delle Scienze di Trento (MUSE), Trento. *Formerly:* Museo civico di storia naturale di Trento (1922–1964); Museo Tridentino di Scienze Naturali (1964–2013). *Current as:* MTSN (herps). *Also as:* MUSE (fossils). Trentino. Italy.

**964. MCSNT:** Museo Civico di Storia Naturale di Trieste [Civic Museum of Natural History of Trieste], Trieste. *Obsolete as:* MCSN, MCST (insects), MSNT (fossils). *Current as:* MCSNT. Trieste. Italy.

**965. MFSN:** Museo Friulano di Storia Naturale, Udine. *Current as:* MFSN (fossils). Udine. Italy.

**966. MCSNIO:** Civico Museo Insubrico di Storia Naturale, Induno Olona. *Current as:* MCSNIO (fossils). *Also as:* CMISNIO (fossils). Varese. Italy.

**967. MSNVE:** Museo di Storia Naturale di Venezia, Venezia [Venice]. *Formerly:* Museo Civico di Storia Naturale di Venezia. *Obsolete as:* MSNV, MVEN (formally replaced). *Current as:* MSNVE. Venezia [Venice]. Italy.

**968. MSND:** Museo Civico di Storia Naturale di Domodossola, Domodossola. *Also known as:* Museo di Storia Naturale “G.G. Galletti” di Domodossola. *Note:* founded in 1875. *Current as:* MSND (herps). Verbano-Cusio-Ossola. Italy.

**969. IGVR:** Museo Geopaleontologico di Camposilvano, Velo Veronese. *Current as:* IGVR (fossils). Verona. Italy.

**970. MCSNV:** Museo Civico di Storia Naturale di Verona, Verona. *Includes:* Museo Zangheri della Romagna. *Obsolete as:* MCSN. *Current as:* MCSNV (fossils). *Also as:* MCVR (Lepidoptera), MSNV (Coleoptera), MSNVR (decapods). Verona. Italy.

**971. MCV:** Museo Naturalistico Archeologico, Musei Civici Vicenza, Vicenza. *Current as:* MCV (fossils). Vicenza. Italy.

**972. FAT:** Museo Illustrissimi Comitibus Francisci Annibalis Turriani. *Note:* no longer extant; specimens apparently not at Museo Regionale di Scienze Naturali di Torino (MRSN) or Naturhistorisches Museum, Wien (NMW). Italy.

**973. AKPM:** Akita Prefectural Museum, Akita. *Current as:* AKPM (fishes). Akita. Japan.

**974. ACAP:** Aquaculture Center of Aomori Prefecture [Aomoriken Suisan Zoshoku Senta], Higashitsugaru. *Current as:* ACAP (fishes). Aomori. Japan.

**975. APM:** Aomori Prefectural Museum, Aomori. Aomori. Japan.

**976. CBM:** Natural History Museum and Institute, Chiba. *Current as:* CBM-ZF (fishes). *See also:* CMNH. Chiba. Japan.

**977. CMNH:** Fish Collection of Coastal Branch of Natural History Museum and Institute, Chiba, Yoshio. *Note:* located in Yoshio, separate from collection in Chiba city. *Current as:* CMNH-ZF (fishes). *See also:* CBM. Chiba. Japan.

**978. NMJH:** National Museum of Japanese History, Sakura. *Also known as:* Rekihaku. *Current as:* NMJH (fossils). Chiba. Japan.

**979. EUB:** Ehime University, Laboratory of Biology, Faculty of Science, Matsuyama. Ehime. Japan.

**980. MGHSJ:** Matuyama Girl's High School, Matuyama. Ehime. Japan.

**981. FPDM:** Fukui Prefectural Dinosaur Museum, Katayama. *Includes:* fossil collection transferred from Hay-

ashibara Museum of Natural Sciences (HMNS) following its closure in 2015. *Current as:* FPDM (fossil fishes, herps). Fukui. Japan.

**982. FUE:** Fukuoka University of Education, Munakata. *Current as:* FUE (amphibians). Fukuoka. Japan.

**983. JNC:** Private collection of Jun Nakajima, Fukuoka Institute of Health and Environmental Sciences, Dazaifu. *Current as:* JNC (fishes). *Also as:* JNCP. Fukuoka. Japan.

**984. KMNH:** Kitakyushu Museum of Natural History and Human History, Kitakyushu. *Current as:* KMNH (fishes), KMNH VP (Department of Vertebrate Paleontology). Fukuoka. Japan.

**985. LFBKU:** Kyushu University, Laboratory of Fishery Biology, Fukuoka. *Formerly:* Kyushu Imperial University. Fukuoka. Japan.

**986. QUYK:** Private collection of Yuichi Kano, Kyushu University, Fukuoka. *Current as:* QUYK (fishes, herps). Fukuoka. Japan.

**987. IMCF:** Iwaki City Museum of Coal and Fossils, Iwaki. *Note:* questionably the same as Iwaki Museum of Natural History (IMNH). *Current as:* IMCF (fossils). Fukushima. Japan.

**988. GPM:** Gifu Prefectural Museum, Seki. *Current as:* GPM (fossils). Gifu. Japan.

**989. MFM:** Mizunami City Fossil Museum, Mizunami. *Current as:* MFM (fossils). Gifu. Japan.

**990. GMNH:** Gunma Museum of Natural History, Tomioka. *Current as:* GMNH PV (fossils). Gunma. Japan.

**991. JSC:** Japan Snake Center, Ota. Gunma. Japan.

**992. HNSM:** Hiwa Natural Sciences Museum, Hiwa. *Current as:* HNSM (fossils). Hiroshima. Japan.

**993. IABHU:** Institute for Amphibian Biology, Hiroshima University, Higashihiroshima. *Current as:* IABHU (amphibians). *See also:* ZIHU. Hiroshima. Japan.

**994. ZIHU:** Hiroshima University, Faculty of Science, Department of Biological Sciences [formerly Zoological Institute], Hiroshima. *See also:* IABHU (amphibians). Hiroshima. Japan.

**995. AMP:** Ashoro Museum of Paleontology, Ashoro. *Current as:* AMP (fossils). Hokkaido. Japan.

**996. BIHM:** Bihoro Museum, Abashiri. *Current as:* BIHM (fishes). Hokkaido. Japan.

**997. HCM:** Hakodate City Museum, Hakodate. *Formerly:* Hakodate Museum. *Note:* some historical specimens lost. Hokkaido. Japan.

**998. HMC:** Hidaka Mountain Center, Hidaka. *Current as:* HMC (fossils). Hokkaido. Japan.

**999. HMG:** Hobetsu Museum, Mukawa. *Current as:* HMG (fossils). Hokkaido. Japan.

**1000. HMH:** Historical Museum of Hokkaido, Sapporo. *Current as:* HMH (fossils). Hokkaido. Japan.

**1001. HUMZ:** The Hokkaido University Museum, Sapporo, and Fisheries Science Center, Hakodate. *Formerly:* Hokkaido University, Marine Zoology Laboratory. *Obsolete as:* HUNHM. *Current as:* HUMZ (fishes). *See also:* UHR (fossils). Hokkaido. Japan.

**1002. MCM:** Mikasa City Museum, Mikasa. *Current as:* MCM (fossils). Hokkaido. Japan.

**1003. NFL:** Numata Fossils Laboratory, Numata. *Current as:* NFL (fossils). Hokkaido. Japan.

**1004. NM:** Nakagawa Museum, Nakagawa. *Current as:* NM (fossils). Hokkaido. Japan.

- 1005. OM:** Obira Museum, Obira. *Current as:* OM (fossils). Hokkaido. Japan.
- 1006. SMAC:** Sapporo Museum Activity Center, Sapporo. *Current as:* SMAC (fossils). Hokkaido. Japan.
- 1007. UHR:** The Hokkaido University Museum, Sapporo. *Current as:* UHR (fossils). *See also:* HUMZ. Hokkaido. Japan.
- 1008. TMBS:** Tatsuo Tanaka Memorial Biological Laboratory, Ako, Miyake-jima, Izu Islands. *Note:* lab closed, collection transferred to National Museum of Nature and Science (NSMT). Hyogo. Japan.
- 1009. GSJ:** Geological Survey of Japan, Geological Museum, Tsukuba. *Current as:* GSJ (fossils). Ibaraki. Japan.
- 1010. INM:** Ibaraki Nature Museum, Bando. *Current as:* INM (fishes). Ibaraki. Japan.
- 1011. TKD:** University of Tsukuba, Tsukuba. *Current as:* EESUT (fossils, Graduate School of Life and Environmental Sciences), IBUT (Institute of Biological Sciences), IGUT, TKD (fossils, Institute of Geoscience). Ibaraki. Japan.
- 1012. SBEI:** Museum of the Shiramine Board of Education, Hakusan City. *Current as:* SBEI (fossils). Ishikawa. Japan.
- 1013. FSKU:** Kitasato University, School of Fisheries Sciences, Sanriku [now part of Ōfunato], Kesen. *Current as:* FSKU (fishes). Iwate. Japan.
- 1014. IPMM:** Iwate Prefectural Museum, Morioka. *Current as:* IPMM (fossils). Iwate. Japan.
- 1015. KAUM:** Kagoshima University Museum, Korimoto. *Includes:* fishes donated from Kagoshima University Faculty of Fisheries except T. Ozawa larval fish collection (disposed of in 2003). *Obsolete as:* KMJ (herps). *Current as:* KAUM-I (fishes), KAUM-II (fish images), KAUM-VE (vertebrates including herps but not fishes), KGU (fossils). Kagoshima. Japan.
- 1016. KPM:** Kanagawa Prefectural Museum of Natural History, Odawara. *Includes:* fishes from Izu Oceanic Park (IOP, IOPM), Ito, Shizuoka. *Current as:* KPM-NFA (amphibians), KPM-NI (fishes), KPM-NR (Image Database of Fishes). Kanagawa. Japan.
- 1017. YCM:** Yokosuka City Museum, Yokosuka. *Current as:* YCM-P (fishes). Kanagawa. Japan.
- 1018. YNUGI:** Geological Institute, Yokohama National University, Yokohama. *Current as:* YNUGI (fossils). Kanagawa. Japan.
- 1019. BSKU:** Kochi University, Department of Biological Science, Faculty of Science and Technology, Kochi. *Formerly:* Department of Natural Science, Faculty of Science until April 2017. *Includes:* material from Usa Marine Biological Laboratory and Kochi University, Faculty of Agriculture (FAKOU). *Obsolete as:* FAKOU, ZIKU. *Current as:* BSKU (fishes). *See also:* KCU (fossils). Kochi. Japan.
- 1020. FAKU:** Kyoto University Museum, Kyoto University, Yoshida (main campus), Sakyo. *Formerly:* Kyoto Imperial University (1897–1947). *Note:* FAKU established in 1947 by Kiyomatsu Matsubara (1907–1968) in the Faculty of Agriculture, Department of Fisheries, Maizuru campus; expanded to Yoshida campus upon relocation of Department of Fisheries in 1972 and continued at Maizuru campus in newly established Fisheries Research Station; Yoshida campus collection moved to Kyoto University Museum (KUM) in 2001 (FAKU 60000–99999, ≥200000 and FAKU P) which also houses specimens formerly at Kyoto University Seto Marine Biological Laboratory (SMBL) and Otsu Hydrobiological Station (OHS); Maizuru Fisheries Research Station, Aquatic Natural History Museum, houses other part of FAKU collection (FAKU 1000~59999 and 100000~199999 [ex FRSKU]) including some specimens formerly at MIKU. *Obsolete as:* FRSKU, KUM. *Current as:* FAKU (fishes). *See also:* KUHE (herps), KUZ (Department of Zoology), MIKU, SMBL. Kochi. Japan.
- 1021. KCU:** Kochi University, Kochi. *Current as:* KCU (fossils). *See also:* BSKU (Recent fishes). Kochi. Japan.
- 1022. KSHS:** Kochi Senior High School, Kitabata, Kochi City. *Note:* Takeshi Yamakawa fish collection at KSHS transferred to National Museum of Nature and Science (NSMT) in 2012. *Also as:* HSHS. *See also:* NSMT. Kochi. Japan.
- 1023. KCM:** Kumamoto City Museum, Kumamoto. *Current as:* KCM (fossils). Kumamoto. Japan.
- 1024. MDM:** Mifune Dinosaur Museum, Mifune. *Current as:* MDM (fossils). Kumamoto. Japan.
- 1025. KUHE:** Kyoto University, Graduate School of Human and Environmental Studies. *Current as:* KUHE (herps). *See also:* FAKU (fishes), KUZ (Department of Zoology). Kyoto. Japan.
- 1026. KUZ:** Kyoto University, Department of Zoology Museum, Kyoto. *Current as:* KUZ. *Also as:* KUZR. *See also:* FAKU (fishes), KUHE (herps). Kyoto. Japan.
- 1027. FRLM:** Fish Collection of the Fisheries Research Laboratory, Mie University, Wagu, Shima. *Current as:* FRLM (fishes). Mie. Japan.
- 1028. MPM:** Mie Prefectural Museum, Tsu. *Note:* original Mie Prefectural Museum opened in 1953 and closed in 2014; current museum opened on new site in 2014. *Current as:* MPM (fishes). *Also as:* MPMQ. Mie. Japan.
- 1029. TUM:** Tohoku University Museum, Sendai. *Obsolete as:* TU (fossils). *Current as:* TUM (fossils). Miyagi. Japan.
- 1030. MUFs:** Division of Fisheries Science, Faculty of Agriculture, University of Miyazaki, Miyazaki. *Obsolete as:* FLMU (Fisheries Laboratory), MUDF. *Current as:* MUFs (fishes). Miyazaki. Japan.
- 1031. MSFM:** Matsumoto Shiga Fossil Museum, Matsumoto. *Current as:* MSFM (fossils). Nagano. Japan.
- 1032. FFNU:** Faculty of Fisheries, Nagasaki University, Nagasaki. *Obsolete as:* FNU. *Current as:* FFNU (fishes). Nagasaki. Japan.
- 1033. NUFES:** Nagasaki University Fisheries Experimental Station, Nagasaki. *Note:* marine laboratory transferred from School of Medicine to Faculty of Fisheries in 1961; reorganized into Marine Research Institute in 1997; discontinued in 2005 with establishment of Institute for East China Sea Research in 2005; status of collections unknown. *See also:* FFNU. Nagasaki. Japan.
- 1034. SNFR:** Seikai National Fisheries Research Institute, Nagasaki. Nagasaki. Japan.
- 1035. KUN:** Faculty of Agriculture, Kindai University, Nakamachi. *Formerly:* Kinki University until 2016. *Obsolete as:* FAK (in use 1964–2000) and FKUN (in use 2000–2008 for Department of Fisheries). *Current as:* KUN-P (fishes). Nara. Japan.
- 1036. NUSMBS:** Niigata University, Faculty of Science, Sado Marine Biological Station, Niigata. Niigata. Japan.
- 1037. SICC:** Sado Island Community Center, Sado. *Current as:* SICC (fossils). Niigata. Japan.
- 1038. KHPC:** Private collection of Kazuo Hoshino, Ōita. *Current as:* KHPC (fishes). Ōita. Japan.
- 1039. OCF:** Okinawa Churashima Foundation Research

Center, Kunigami. *Includes*: fish collection cataloged at the University of the Ryukyus by Mr. Tetsuo Yoshino first using the code URB and later URM, URM-P and URM-PL. *Current as*: OCF-P (fishes, although specimens formerly deposited at the University of the Ryukyus still cited as URM-P). *See also*: RUMF. Okinawa. Japan.

**1040. OPM**: Okinawa Prefectural Museum & Art Museum, Naha. Okinawa. Japan.

**1041. RUMF**: Ryukyu University Museum (Fujukan), Nishihara. *Also known as*: Museum of the University of the Ryukyus. *Note*: status of collections originally associated with Ryukyu University Department of Zoology (URB, URM) and College of Agriculture and Home Economics (URJ, 1954–1958) at RUMF not investigated. *Obsolete as*: MUR. *Current as*: RUMF-ZV (fishes, herps), RUMF-GF (fossils). *See also*: OCF (fishes). Okinawa. Japan.

**1042. SMLVO**: Subtropical Marine Laboratory, Iriomote Marine Research Centre [formerly Station], Tokai University, Iriomote Island. Okinawa. Japan.

**1043. URJ**: College of Agriculture and Home Economics, University of the Ryukyus, Nishihara, Ryukyu Islands. *Note*: official name from 1954–1958; eventually became College of Agriculture in 1967; URJ assigned by Wallach et al. (2014). *See also*: RUMF. Okinawa. Japan.

**1044. YMHF**: Yaese Museum of History and Folklore, Yaese. *Current as*: YMHF-MA (fossils). Okinawa. Japan.

**1045. KSNHM**: Natural History Museum, Kishiwada. *Current as*: KSNHM (fossils). Osaka. Japan.

**1046. MIKU**: Misaki Marine Biological Institute, Misaki-Koen. *Note*: founded in 1958, closed ca. 1970; collection included fishes from 1958 Amami (Kagoshima) Expedition by K. Matsubara; most specimens lost, some transferred to Kyoto University Museum and Maizuru Fisheries Research Station (FAKU). Collection distinct from Misaki Marine Biological Station of the University of Tokyo. *See also*: FAKU. Osaka. Japan.

**1047. OKU**: Osaka Kyoiku University, Department of Arts and Sciences, Division of Natural Sciences. Osaka. Japan.

**1048. OMNH**: Osaka Museum of Natural History, Osaka. *Current as*: OMNH (fishes, herps, fossils). Osaka. Japan.

**1049. LBM**: Lake Biwa Museum, Oroshimo, Kusatsu. *Current as*: LBM (fishes). Shiga. Japan.

**1050. SSOFM**: Shimane Nature Museum of Mt. Sanbe, Shimane. *Formerly*: Sanbe Shizenkan Open Field Museum. *Also as*: SAHIMEL. Shimane. Japan.

**1051. FSFRL**: National Research Institute of Far Seas Fisheries, Fisheries Research Agency, Shimizu, Shizuoka. *Formerly*: Far Seas Fisheries Research Laboratory (FSFL). *Note*: fishes transferred to National Museum of Nature and Science (NSMT) ca. 2009. Shizuoka. Japan.

**1052. HVMSH**: Heda Shipbuilding Local Data/Bottom Feeder Museum, Heda [town merged with Numazu]. Shizuoka. Japan.

**1053. IORD**: Institute of Oceanic Research and Development, Tokai University, Shimizu. *Note*: some fishes transferred to National Museum of Nature and Science (NSMT). *See also*: MSM, TMFE. Shizuoka. Japan.

**1054. MSM**: Marine Science Museum, Tokai University, Shimizu. *Current as*: MSM. *Also as*: MSMTU (crustaceans). *See also*: IORD, TMFE. Shizuoka. Japan.

**1055. SPMN**: Museum of Natural and Environmental History, Shizuoka. *Current as*: SPMN (fishes). Shizuoka. Japan.

**1056. TMFE**: Elasmobranchii Collection, Department of Fisheries, Faculty of Marine Science and Technology, Tokai University, Shimizu, Shizuoka. *Obsolete as*: TUMF. *Current as*: TMFE (fishes). *See also*: IORD, MSM. Shizuoka. Japan.

**1057. TKPM**: Tokushima Prefectural Museum, Tokushima. *Current as*: TKPM (fishes). Tokushima. Japan.

**1058. ABE**: Private collection of Tokiharu Abe. *Note*: some fish types were housed at Tokyo fish market; collection to be transferred to The University Museum, University of Tokyo (ZUMT). Tokyo. Japan.

**1059. BLIP**: Biological Laboratory, Imperial Palace, Tokyo. *Obsolete as*: BLIH (Imperial Household), LIAIP (Laboratory of Ichthyology, Akasaka Imperial Palace), LICPP (Laboratory of Ichthyology, The Crown Prince's Palace). *Current as*: BLIP (fishes). Tokyo. Japan.

**1060. IBRP**: Institute for Breeding Research, Tokyo University of Agriculture, Tokyo. Tokyo. Japan.

**1061. MTUF**: Tokyo University of Marine Science and Technology, Museum of Fishery Sciences, Tokyo. *Formerly*: Museum of Tokyo University of Fisheries (TUF), descended from the Imperial Fisheries Institute (IFI). *Obsolete as*: TUF, TUFIL, TUFLFB (Laboratory of Fishery Biology). *Current as*: MTUF (fishes). Tokyo. Japan.

**1062. NIPR**: National Institute of Polar Research, Tachikawa, Tokyo. Tokyo. Japan.

**1063. NSMT**: National Museum of Nature and Science, Ueno Park, Tokyo. *Formerly*: National Science Museum, Ueno Museum, Tokyo Museum, Tokyo Science Museum, Tokyo Zoological Museum (TZM). *Includes*: fishes from National Research Institute of Far Seas Fisheries (FSFL/FSFRL) and Tatsuo Tanaka Memorial Biological Laboratory (TMBS), Shinjuku-ku, Tokyo; Takeshi Yamakawa's fish collection transferred from Kochi Senior High School (KSHS) in 2012. *Obsolete as*: NMNS, NSMT-PL (typographic error), TZM. *Current as*: NSMT-P (fishes), NSM-PV (fossils). Tokyo. Japan.

**1064. ORIT**: University of Tokyo, Ocean Research Institute, Tokyo. *Note*: most fish types now at The University Museum, University of Tokyo (ZUMT). Tokyo. Japan.

**1065. THUG**: Teikyo Heisei University, Tokyo. *Obsolete as*: TUTg (Teikyo University of Technology). *Current as*: THUG (fossils). Tokyo. Japan.

**1066. WIRI**: Watanabe Ichthyological Research Institute, Tokyo. *Current as*: WIRI (fishes). Tokyo. Japan.

**1067. ZUMT**: The University Museum, University of Tokyo, Tokyo. *Formerly*: Tokyo Imperial University (TIU, 1897–1947); University Storage Center for Research Materials (FUMT, 1966–1997). *Includes*: specimens formerly in the Fisheries Bureau of the Imperial Department of Agriculture and Commerce and most fish types from University of Tokyo Ocean Research Institute (ORIT). *Obsolete as*: FUMT (Department of Fisheries), MUT, TIU, UMUTZ, ZIUT, ZMUT. *Current as*: UMUT (fossils), ZUMT (fishes, herps). Tokyo. Japan.

**1068. TOYA**: Toyama Science Museum, Toyama. *Current as*: TOYA-P (fishes). Toyama. Japan.

**1069. KMPC**: Kushimoto Marine Park Center, Kushimoto-chu, Nishimuro-gun, Kii Peninsula. Wakayama. Japan.

**1070. SMBL**: Kyoto University Seto Marine Biological Laboratory, Shirahama, Nishimuro District. *Note*: established in 1922, integrated into Field Science Education and Research Center (FSERC) in 2003; collection developed by Chuichi Araga; most specimens transferred to Kyoto



University Museum and recataloged under FAKU. *See also:* FAKU. Wakayama. Japan.

**1071. WMNH:** Wakayama Prefectural Museum of Natural History, Kainan. *Current as:* WMNH (fishes). Wakayama. Japan.

**1072. SUF:** National Fisheries University, Shimonoseki. *Formerly:* Shimonoseki University of Fisheries (1963–1994), among others. *Current as:* SUF. *Also as:* NFUS (crustaceans). Yamaguchi. Japan.

**1073. YFTC:** Yamanashi Prefectural Fisheries Technology Center, Ushiku, Kai. Yamanashi. Japan.

**1074. MSSA:** Marine Science Station, Aqaba. Jordan.

**1075. UJ:** University of Jordan, Amman. *Current as:* UJZM (Zoological Museum), UJA (fossils, Department of Geology). Jordan.

**1076. YU:** Jordanian Natural History Museum, Al Yarmouk University, Irbid. *Current as:* YUPS (Palaeontology-Selachii, Department of Earth and Environmental Sciences). Jordan.

**1077. DBQA:** Museum of Biology, Department of Biology and Biotechnology, Al-Farabi Kazakh National University, Almaty [formerly Alma-Ata and Verny]. *Current as:* DBQA (herps). *Also as:* KNU (fishes). Kazakhstan.

**1078. IZK:** Institute of Zoology, Kazakhstan Academy of Sciences [Kazakh Academy of Sciences], Almaty [formerly Alma-Ata and Verny]. *Current as:* IZK (fossils). *Also as:* IZASK, ZIA (Zoological Institute). Kazakhstan.

**1079. BAR:** Kipsaraman Museum, Baringo. *Note:* affiliated with National Museums of Kenya (NMK). *Current as:* BAR (fossils). Kenya.

**1080. BK:** Bio-Ken Snake Farm, Watamu. Kenya.

**1081. NMK:** National Museums of Kenya, Directorate of Research and Collections, Zoology Department, Nairobi. *Formerly:* Coryndon Museum (1930–1964). *Obsolete as:* KNM (fossils). *Current as:* NMK FW (fishes) and NMK (herps, fossils). Kenya.

**1082. NHMK:** Kuwait Science and Natural History Museum, Safat, Kuwait City. *Formerly:* Natural History Museum, Kuwait; Educational Science Museum. *Note:* opened to public in 1972 under auspice of Crown Prince Sheikh Jaber Al-Ahmad Al-Sabah. *Current as:* NHMK (cetaceans). *Also as:* KNHM. Kuwait.

**1083. IBKB:** Institute of Biology and Soil Sciences, National Academy of Sciences of the Kyrgyz Republic, Bishkek. Kyrgyzstan.

**1084. LARReC:** Living Aquatic Resources Research Centre, National Agriculture and Forestry Research Institute (NAFRI), Ministry of Agriculture and Forestry, Vientiane. *Obsolete as:* DFV (Division of Fisheries), LARRI. *Current as:* LARReC (fishes). Vientiane. Laos.

**1085. NEM:** Nam Lik Eco Village Museum, Ban That-Wang Monh. *Also known as:* Namlik Ecovillage. *Current as:* NEM (herps). Vientiane. Laos.

**1086. NUOL:** National University of Laos (NUoL), Zoological Collection, Vientiane. *Current as:* NUOL (fishes, herps). *Also as:* FES (mammals, Faculty of Environmental Sciences). Vientiane. Laos.

**1087. LDM:** Latvijas Dabas muzejs [Latvian Museum of Natural History], Riga. *Includes:* natural history collections of the Himsel Museum, Riga. *Note:* descended from museum of Riga Naturalist Society founded in 1845. *Current as:* LDM (fossils). *Also as:* LMNH (entomology). Latvia.

**1088. AUBM:** American University of Beirut, Natural

History Museum, Beirut. *Current as:* AUBM (fishes). *Also as:* AUB (mammals). Lebanon.

**1089. LNM:** Lesotho National Museum, Ministry of Tourism, Culture and Environment, Maseru. Lesotho.

**1090. UT:** University of Tripoli [Al-Fateh University], Faculty of Science, Department of Geology, Paleontological Collections, Tripoli. *Note:* some fossils temporarily held at Université de Poitiers, France (UP); fossils housed at University of Tripoli sometimes cited by site only. *Current as:* UT (fossils), DT (fossils from Dur At-Talah site, Libya), Z71 (fossils from Zallah 7 Incision locality, Libya). Libya.

**1091. KNP:** El Kouf National Park natural history collection. *Current as:* KNP (herps). Libya.

**1092. MBRC:** Marine Biology Research Centre, Tajura, Tripoli. *Current as:* MBRC (herps). Libya.

**1093. NHMT:** Assaraya Alhamra Museum [The Red Castle or The Red Fort], Tripoli. *Also known as:* Assaray Al-hamra Museum; Libyan Museum of Natural History; Museo Libico di Storia Naturale. *Note:* Founded in 1919 during Italian occupation, renamed Classical Museum in 1930s, became The Libyan Museum in 1948 during British occupation; opened to public as Assaraya Alhamra Museum; vandalized 20 August 2011 during civil war; current status of collections unknown. *Current as:* NHMT (fossils). Libya.

**1094. ZCT:** Zoological Collection at Taraghen [Traghan], Murzuq District. *Includes:* herp specimens deposited by Adel A. Ibrahim. *Current as:* ZCT (herps). Libya.

**1095. MNHNL:** Nationalmuseum fir Naturgeschichte [Musée national d'histoire naturelle, National Museum of Natural History], Luxembourg. *Obsolete as:* MHNL, MNHNLU. *Current as:* MNHNL (fossils). Luxembourg.

**1096. MMNHS:** Macedonian Museum of Natural History, Skopje. *Also as:* MHNNS. Macedonia.

**1097. CAD:** Private collection of Charles A. Domergue (herps). *Note:* presumably in Madagascar. Madagascar.

**1098. CNRO:** Centre National de Recherches Oceanographiques, Nosy-Be [Nossi-bé]. Madagascar.

**1099. IRSM:** Institut de Recherche Scientifique de Madagascar (1946–1957), Antananarivo [Tana]. *Note:* fishes mostly transferred to Muséum national d'Histoire naturelle, Paris (MNHN). Madagascar.

**1100. UADBA:** Université d'Antananarivo, Département de Biologie Animale, Antananarivo [Tana]. *Obsolete as:* ZIAU (Zoological Institute). *Current as:* UADBA (fishes, herps). *Also as:* UA and UAN (fossils). Madagascar.

**1101. MFRU:** Malawi Fisheries Research Unit, Ministry of Forestry, Fisheries and Environmental Affairs, Monkey Bay. *Current as:* MFRU. *Also as:* MFU. Malawi.

**1102. MOM:** Top Mandala [Old Museum Building], National Museums of Malawi, Blantyre. *Formerly:* Nyasaland Museum. *Note:* Museums of Malawi consists of five facilities, Top Mandala, Chichiri Museum, Lake Malawi Museum, Regional Mzuzu Museum and Gallery and Mtengatenga Postal Hut Museum; Top Mandala Museum serves as storage for collections and administrative headquarters for federal Department of Museums and Monuments. *Current as:* MOM, MOM-Hepe (herps). *Also as:* MMCM (entomology). Malawi.

**1103. UMBC:** University of Malawi, Bunda College of Agriculture, Lilongwe. Malawi.

**1104. LRCUKM:** Langkawi Research Center of Universiti Kebangsaan Malaysia, Pulau Langkawi (island). *Current as:* LRCUKM (herps). *See also:* UKMHC (herps). Kedah. Malaysia.

**1105. IMRKL:** Institute of Medical Research, Kuala Lumpur. Kuala Lumpur. Malaysia.

**1106. NMM:** National Museum Malaysia [Muzium Negara], Kuala Lumpur. *Formerly:* Selangor State Museum (SM, SSMKL), member of Federated Malay States Museums (FMSM), partially destroyed 10 Mar 1945 during WWII, although some Duncker specimens survived at The Natural History Museum, London (NHMUK). Kuala Lumpur. Malaysia.

**1107. UMKL:** University of Malaya, Institute of Biological Sciences, Museum of Zoology, Kuala Lumpur. *Also as:* BIRCUM. Kuala Lumpur. Malaysia.

**1108. FRIM:** Forest Research Institute Malaysia, Kepong. *Also known as:* Institut Penyelidikan Perhutanan Malaysia. *Current as:* FRIM (herps). Kuala Lumpur/Selangor. Malaysia.

**1109. FRIGL:** Fisheries Research Institute, Glami Lemi, Jelebu. *Current as:* FRIGL (fishes). Negeri Sembilan. Malaysia.

**1110. DWNP:** Zoological Museum, Institute for Biodiversity (IBD), Department of Wildlife and National Parks (PERHILITAN), Lanchang. *Current as:* DWNP (fishes, herps). Pahang. Malaysia.

**1111. FRI:** Fisheries Research Institute, Department of Fisheries Malaysia, Gelugor. Penang. Malaysia.

**1112. USMHC:** Universiti Sains Malaysia Herpetological Collection, School of Biological Sciences, Gelugor. *Current as:* USMHC (herps). Penang. Malaysia.

**1113. FRC:** Forest Research Centre, Sabah Forestry Department, Sepilok. Sabah. Malaysia.

**1114. FRCL:** Fisheries Research Centre [Pusat Penyelidikan Perikanan], Likas, Kota Kinabalu. Sabah. Malaysia.

**1115. IPMB:** Institut Penyelidikan Marin Borneo, Aquarium & Marine Museum of University Malaysia Sabah [Universiti Malaysia Sabah], Kota Kinabalu. *Also known as:* Borneo Marine Research Institute (BMRI). *Obsolete as:* BMRI. *Current as:* IPMB. *Also as:* UMSB (not confirmed). *See also:* ITBC. Sabah. Malaysia.

**1116. ITBC:** Institute for Tropical Biology and Conservation Zoological Collection [BORNEENSIS], Universiti Malaysia Sabah (UMS), Kota Kinabalu. *Current as:* ITBC. *Also as:* BORN (amphibians), UMSB (not confirmed). *See also:* IPMB. Sabah. Malaysia.

**1117. MUS:** Muzium Sabah [Sabah Museum], Jalan Muzium, Kota Kinabalu. *Also known as:* Sabah State Museum (SSM). *Formerly:* North Borneo Museum, Sandakan. *Obsolete as:* SBM, SM, SSM. *Current as:* MUS (bony fishes, herps), SMEC (elasmobranchs) with registration no. for zoological specimens preceded by NH. Sabah. Malaysia.

**1118. SP:** Sabah Parks Natural History Museum [Kinabalu Park Museum], Kinabalu Conservation Center at Kinabalu Park Headquarters. *Obsolete as:* SPM. *Current as:* SP (fishes, herps). Sabah. Malaysia.

**1119. IPPS:** Institut Penyelidikan Perikanan Sarawak [Fisheries Research Institute Sarawak (FRIS)], Kuching. Sarawak. Malaysia.

**1120. SBC:** Sarawak Biodiversity Center, Kuching. *Note:* founded in 1998. Sarawak. Malaysia.

**1121. SMK:** Muzium Sejarah Semulajadi [Sarawak Natural History Museum], Kuching. *Also as:* SM. Sarawak. Malaysia.

**1122. SRC:** Sarawak Research Collections, Forest Research Center, Kuching. *Current as:* SRC (herps). *Also as:* FRCS (arachnids). Sarawak. Malaysia.

**1123. SRWK:** Universiti Malaysia Sarawak, Kuching.

*Current as:* SRWK-P (fishes). *Also as:* UNIMAS (fishes). Sarawak. Malaysia.

**1124. UKMHC:** Universiti Kebangsaan Malaysia (UKM) Herpetological Collection, Bangi. *Also known as:* National University of Malaysia. *Current as:* UKMHC (herps). *Also as:* HC (herps). *See also:* LRCUKM (Langkawi Research Center). Selangor. Malaysia.

**1125. UMT:** South China Sea Biodiversity Museum at Institute of Oceanography, University Malaysia Terengganu, Kuala Terengganu. *Current as:* UMT (fishes). Terengganu. Malaysia.

**1126. CNRST-SUNY:** Joint collection of the Centre National de la Recherche Scientifique et Technologique, Bamako, Republic of Mali, and Stony Brook University, Stony Brook, New York. *Note:* fossils belonging to the Republic of Mali to be transferred to American Museum of Natural History (AMNH) in 2019. *Current as:* CNRST-SUNY (fossils). Mali.

**1127. MMB:** National Museum of Malí, Bamako. *Also known as:* Musée national du Mali. *Current as:* MMB (fossils). Mali.

**1128. CBRG:** Conservation Biology Research Group Laboratory, Department of Biology, University of Malta, Msida. *Current as:* CBRG/F. (fishes). Malta.

**1129. NMNHM:** National Museum of Natural History, Mdina. *Includes:* some sharks from Guido Lanfranco collection. *Assigned here:* NMNHM. Malta.

**1130. NHMI:** Natural History Museum and Institute, Port Louis. Mauritius.

**1131. UAA:** Universidad Autónoma de Aguascalientes, Museo de Zoología, Aguascalientes. Aguascalientes. Mexico.

**1132. UABC:** Universidad Autónoma de Baja California, Ensenada. *Current as:* CI-UABC (fishes), CMMEX (herps), CVUABC (vertebrates). *Also as:* UABC (fishes). Baja California. Mexico.

**1133. CIBN:** Centro de Investigaciones Biológicas del Noroeste, S.C. (CIBNOR), La Paz. *Obsolete as:* CIBM. *Current as:* CIBN (fishes). *Also as:* CIB (fishes). Baja California Sur. Mexico.

**1134. CICIMAR:** Colección Ictiológica del Centro Interdisciplinario de Ciencias Marinas, Instituto Politécnico Nacional (IPN), La Paz. *Current as:* CICIMAR-CI (fishes, non-ichthyoplankton), CICIMAR (ichthyoplankton). *Also as:* CI, CI-CICIMAR. Baja California Sur. Mexico.

**1135. UABCS:** Museo de Historia Natural, Universidad Autónoma de Baja California Sur, La Paz. *Current as:* MHN-UABCS (fishes). *Also as:* MZUABCS (fishes). Baja California Sur. Mexico.

**1136. ECO-SC:** El Colegio de la Frontera Sur (ECOSUR), San Cristóbal de Las Casas. *Includes:* herp collection formerly at Instituto Nacional de Investigaciones En Recursos Bióticos (INIREB). *Obsolete as:* CFSHER (herps). *Current as:* ECO-SC-P (fishes), ECO-SC-H (herps). *Also as:* ECOSC (fishes). Chiapas. Mexico.

**1137. IHN:** Instituto de Historia Natural de Chiapas, Tuxtla Gutiérrez. *Formerly:* Museo de Zoología de Tuxtla Gutiérrez (MZTG). *Obsolete as:* MZTG. *Current as:* IHN (herps). Chiapas. Mexico.

**1138. MZ-UNICACH:** Universidad de Ciencias y Artes del Estado de Chiapas, Museo Zoológico, Tuxtla Gutiérrez. *Obsolete as:* MZ-ICACH, MZ-P-UNICACH. *Current as:* MZ-UNICACH (fishes, herps). *Also as:* UNICACH-MZ. Chiapas. Mexico.

- 1139. BMCHIHUAHUA:** Universidad Autónoma de Chihuahua, Chihuahua. *Current as:* BMCHIHUAHUA (fishes). Chihuahua. Mexico.
- 1140. CCVUACJ:** Colección Científica de Vertebrados (CCV), Universidad Autónoma de Ciudad Juárez (UACJ). *Current as:* CCVUACJ (herps). Chihuahua. Mexico.
- 1141. CHFCB:** Colección Herpetológica Facultad de Ciencias Biológicas, Universidad Juárez del Estado de Durango (UJED), Durango. *Current as:* CHFCB (herps). Durango. Mexico.
- 1142. CIIDIR-DGO:** Centro Interdisciplinario de Investigación para el Desarrollo Integral Regional (CIIDIR), Unidad Durango, Durango. Mexico.
- 1143. MADUG:** Museo de Historia Natural “Alfredo Dugès”, Universidad de Guanajuato, Guanajuato. *Includes:* fishes and herps studied by Alfredo Augusto Delsescoutz Dugès (1826–1910). *Obsolete as:* ADM. *Current as:* MADUG-IC (fishes, Colección Ictiológica), MDUG (herps). Guanajuato. Mexico.
- 1144. CIB-UAEH:** Universidad Autónoma del Estado de Hidalgo, Centro de Investigaciones Biológicas, Pachuca. *Obsolete as:* CIB. *Current as:* CI-CIB (fishes, Colección Ictiológica), CH-CIB (herps), UAHMP (fossils, Museo de Paleontología). *Also as:* CIB-UAEH (herps). Hidalgo. Mexico.
- 1145. ITAH:** Instituto Tecnológico Agropecuario de Hidalgo, Huejutla de Reyes. Hidalgo. Mexico.
- 1146. COHERP-UAG:** Universidad Autónoma de Guadalajara, Colección Herpetológica, Guadalajara. *Current as:* COHERP-UAG. *Also as:* UAG (herps). Jalisco. Mexico.
- 1147. IMECBIO:** Universidad de Guadalajara, Instituto Manantlán de Ecología y Conservación de la Biodiversidad, Colección de Vertebrados. *Formerly:* Colección Zoológica del Laboratorio Natural Las Joyas de la Sierra de Manantlán. *Current as:* IMECBIO. *Also as:* LNLJ. Jalisco. Mexico.
- 1148. CNAR:** Colección Nacional de Anfibios y Reptiles, Instituto de Biología, Universidad Nacional Autónoma de México (UNAM), Mexico City. *Includes:* herps from Dirección General de Fauna Silvestre Secretaría de Desarrollo Urbano y Ecología, Coyoacán (DGFSSEDUE), Escuela Nacional de Estudios Profesionales, Unidad Iztacala, Tlalnepantla de Baz (ENEPI) and Museo Nacional de Historia Natural, Chapultepec (MNHNM). *Obsolete as:* IBH, IBHUNAM, IBM. *Current as:* CNAR (herps). *See also:* MZFC. Mexico City. Mexico.
- 1149. CNPE-IBUNAM:** Colección Nacional de Peces, Instituto de Biología, Universidad Nacional Autónoma de México (UNAM), Mexico City. *Includes:* fishes from Museo Nacional de Historia Natural, Chapultepec (MNHNM) and Escuela Nacional de Estudios Profesionales, Unidad Iztacala, Tlalnepantla de Baz (ENEPI). *Obsolete as:* CNP-IBUNAM, IBUNAM-CNPE, IBUNAM-P, UNAM, UNAM-CNP, UNAM-CNPE. *Current as:* CNPE-IBUNAM (preferred for citation in publications although IBUNAM currently used to catalog fishes). Mexico City. Mexico.
- 1150. ENCB:** Escuela Nacional de Ciencias Biológicas, Instituto Politécnico Nacional (IPN), Mexico City. *Obsolete as:* IPN, IPN-ENCB, IPNM. *Current as:* ENCB (herps), ENCB-IPN-P (fishes, Colección Nacional de Peces Dulceacuícolas Mexicanos), ENCB-IPN-LEM (fishes, Colección de Peces del Laboratorio de Ecología Marina). Mexico City. Mexico.
- 1151. ENEPZ:** Museo Zoológico de la Escuela Nacional de Estudios Profesionales, Zaragoza, Campus II, Mexico City. Mexico City. Mexico.
- 1152. GECM:** Geographical and Exploring Commission of the Republic of México collection of the World Exhibition in New Orleans, LA, 1879–1885. *Note:* original collection destroyed by fire 29 Aug 1884, second collection Oct 1884–Jan 1885. Mexico City. Mexico.
- 1153. IGM:** Colección Nacional de Paleontología, Museo María del Carmen Perrilliat, Instituto de Geología, Universidad Nacional Autónoma de México (UNAM), México City. *Obsolete as:* IGM-CMR (Recent fishes). *Current as:* IGM (fossils), CMRC (fishes, Colección de Material Reciente para Comparación; *Also as:* CMR, UNAM (IGM-CMR)). Mexico City. Mexico.
- 1154. INIBP:** Instituto Nacional de la Pesca (INP), Santa Cruz Atoyac, Mexico City. *Formerly:* Instituto Nacional de Investigaciones Biológico Pesqueras (1962–1971). *Also as:* EBMP-INP, INP, LBT (Laboratorio Biológico). Mexico City. Mexico.
- 1155. MNHNM:** Museo Nacional de Historia Natural, Chapultepec, Mexico City. *Also known as:* Museo de Historia Natural de la Ciudad de México; currently Museo de Historia Natural y Cultura Ambiental. *Note:* various collections transferred to CNPE-IBUNAM (fishes) and CNAR (herps). Mexico City. Mexico.
- 1156. MZFC:** Museo de Zoología “Alfonso L. Herrera”, Facultad de Ciencias, Universidad Nacional Autónoma de México (FC-UNAM), Mexico City. *Current as:* MZFC (herps). *Also as:* MZFC-HE (herps). *See also:* CNAR. Mexico City. Mexico.
- 1157. UBIPRO:** Unidad de Biotecnología y Prototipos (UBIPRO), Facultad de Estudios Superiores (FES) Iztacala, Universidad Nacional Autónoma de México (UNAM), Tlalnepantla de Baz. *Formerly:* Escuela Nacional de Estudios Profesionales, Unidad Iztacala (ENEPI). *Note:* historical collections associated with ENEPI transferred to CNAR (herps), CNPE-IBUNAM (fishes), other Mexican institutions (fishes in part) or destroyed (fishes in part). *Obsolete as:* CIFES-I, CPFESI (fishes). *Current as:* CIFI (fishes, Colección Ictiológica, Laboratorio de Ictiología), LEUBIPRO (herps, Laboratorio de Ecología). *Also as:* CLAC-FESI (Laboratorio de Anatomía Comparada, Chondrichthyes and other marine fishes), UBIPRO (herps). *See also:* CNAR. Mexico City. Mexico.
- 1158. CPUM:** Colección de Peces de la Universidad Michoacana de San Nicolás de Hidalgo, Morelia. *Obsolete as:* CP-UMSNH, UMSNH (fishes). *Current as:* CPUM (fishes). *See also:* INIRENA (herps). Michoacán. Mexico.
- 1159. INIRENA:** Instituto de Investigaciones sobre los Recursos Naturales, Universidad Michoacana de San Nicolás de Hidalgo, Morelia. *Current as:* INIRENA (herps). *Also as:* UMSNH. *See also:* CPUM (fishes). Michoacán. Mexico.
- 1160. UAEM:** Centro de Investigaciones Biológicas, Universidad Autónoma del Estado de Morelos (CIB-UAEM), Chamilpa, Cuernavaca. *Obsolete as:* EBUM. *Current as:* CICIB-UAEM (fishes, Colección Ictiológica “Dr. Edmundo Díaz Pardo”), CARUM (herps, colección de anfibios y reptiles). *Also as:* UAEM (fishes). Morelos. Mexico.
- 1161. FCT:** Facultad de Ciencias de la Tierra, Universidad Autónoma de Nuevo León, campus Linares. *Current as:* FCT. *See also:* UANL. Nuevo León. Mexico.
- 1162. UANL:** Facultad de Ciencias Biológicas, Universidad Autónoma de Nuevo León, San Nicolás de los Garza. *Obsolete as:* UNL (fishes). *Current as:* UANL. *Also as:* FCB-UANL (fishes, Colección Ictiológica). *See also:* FCT (campus Linares). Nuevo León. Mexico.



**1163. CIDOAX:** Centro Interdisciplinario de Investigación para el Desarrollo Integral Regional (CIIDIR), Unidad Oaxaca, Instituto Politécnico Nacional (IPN), Santa Cruz Xoxocotlán. *Obsolete as:* CIIDIR Oaxaca (fishes). *Current as:* CIDOAX (fishes). *Also as:* CPC-CIIDIR OAXACA (fishes, Colección de Peces Continentales), CRP-CIIDIR (fishes, Colección Regional de Peces). Oaxaca. Mexico.

**1164. UMAR:** Colección Ictiológica, Laboratorio de Ictiología y Biología Pesquera, Universidad del Mar, campus Puerto Ángel, San Pedro Pochutla. *Current as:* UMAR (fishes). *Also as:* CP-UMAR (fishes, Colección de Peces). Oaxaca. Mexico.

**1165. EBUAP:** Escuela de Biología, Benemérita Universidad Autónoma de Puebla, Puebla. *Current as:* EBUAP (herps). Puebla. Mexico.

**1166. ECO-CH:** El Colegio de la Frontera Sur (ECOSUR), Chetumal. *Obsolete as:* ECOCHH (herps). *Current as:* ECO-CH (fishes), ECO-CH-LP (larval fishes), ECO-CH-H (herps). *Also as:* ECOCH. Quintana Roo. Mexico.

**1167. IIZD:** Colección de Vertebrados, Instituto de Investigaciones de Zonas Desérticas, Universidad Autónoma de San Luis Potosí. San Luis Potosí. Mexico.

**1168. CI-ICMYL:** Colección Ictiológica del Instituto de Ciencias del Mar y Limnología, Unidad Mazatlán, Universidad Nacional Autónoma de México (UNAM), Mazatlán. *Current as:* ICMyl-MAZ. *Also as:* CIICMYL-P, I-ICMYL (fishes). Sinaloa. Mexico.

**1169. CIAD:** Colección de Referencia de Peces (CRP), Unidad Mazatlán en Acuicultura y Manejo Ambiental del Centro de Investigación en Alimentación y Desarrollo A.C. (CIAD), Mazatlán. *Current as:* CIAD (fishes). Sinaloa. Mexico.

**1170. CES:** Colección Herpetológica Centro Ecológico de Sonora, Hermosillo. Sonora. Mexico.

**1171. USON:** Universidad de Sonora, Hermosillo. *Current as:* USON (fishes). Sonora. Mexico.

**1172. CAR-ITCV:** Colección de Anfibios y Reptiles, Instituto Tecnológico de Ciudad Victoria (ITCV), Ciudad Victoria. *Current as:* CAR-ITCV (herps). *Also as:* ITCV, ITT (herps). Tamaulipas. Mexico.

**1173. CARIE:** Colección de Anfibios y Reptiles del Instituto de Ecología, A.C., El Haya, Xalapa [Jalapa]. *Current as:* CARIE (herps). Veracruz. Mexico.

**1174. EBMTV:** Estación de Biología Marina, Instituto Tecnológico de Veracruz (ITV). Veracruz. Mexico.

**1175. IBH-LT:** Estación de Biología Tropical de Los Tuxtlas, Instituto de Biología de la Universidad Nacional Autónoma de México (UNAM), near San Andrés Tuxtla. *Note:* herp collection to be incorporated into CNAR. *Obsolete as:* CAR-EBTT, UNAM-LT (herps). *Current as:* IBH-LT (herps). Veracruz. Mexico.

**1176. IIB-UV:** Instituto de Investigaciones Biológicas (IIB), Universidad Veracruzana, Xalapa Enríquez. *Obsolete as:* MZUV (Museo de Zoología). *Current as:* IIB-UV (herps, mammals). *See also:* VER. Veracruz. Mexico.

**1177. INIREB:** Instituto Nacional de Investigaciones En Recursos Bióticos, Xalapa [Jalapa]. *Note:* herp collection transferred to El Colegio de la Frontera Sur (ECO-SC). Veracruz. Mexico.

**1178. ITSZ:** Colección Científica de Flora y Fauna Silvestre del Instituto Tecnológico Superior de Zongolica, Zongolica. *Current as:* ITSZ (herps). Veracruz. Mexico.

**1179. VER:** Universidad Veracruzana, Facultad de Ciencias

Biológicas y Agropecuarias, Tuxpan. *Current as:* VER-PEC (fishes). *See also:* IIB-UV. Veracruz. Mexico.

**1180. CINV-NEC:** Colección Ictiológica (CI) del Centro de Investigación y de Estudios Avanzados (CINVESTAV) del Instituto Politécnico Nacional (IPN), Unidad Mérida [Mérida Campus], Mérida. *Note:* established in 1986 and maintained within Laboratorio de Taxonomía y Ecología de Peces. *Current as:* CINV-NEC (fishes). Yucatán. Mexico.

**1181. UADY:** Colecciones Zoológicas de la Universidad Autónoma de Yucatán (UADY), Campus de Ciencias Biológicas y Agropecuarias (CCBA), Mérida. *Current as:* UADY (fishes, Colección Ictiológica Regional). *Also as:* CZOO-CCBA-UADY (fishes). Yucatán. Mexico.

**1182. UMDI:** Colección Ictiológica Regional de Referencia (CIRR), Unidad Multidisciplinaria de Docencia e Investigación (UMDI), Unidad Académica Sisal [Sisal Campus], Universidad Nacional Autónoma de México (UNAM), Sisal. *Current as:* CIIR UMDI (fishes). Yucatán. Mexico.

**1183. GPMTSU:** Geological and Paleontological Museum, Taras Shevchenko Transnistria State University, Tiraspol. *Note:* university descended from Institute for Public Education of Moldova founded in Tiraspol in 1930, although Tiraspol State University in Chişinău (TSU) is the legal successor of that institute. *Obsolete as:* SIPT (State Pedagogical Institute, Tiraspol). *Current as:* GPMTSU (fossils). Moldova.

**1184. NMENHM:** National Museum of Ethnography and Natural History, Chişinău [Kishinev]. *Formerly:* National Museum of Natural History of Chisinau (1926–1937), Regional Museum of Bessarabia (1937–1940), State Museum of History and Study of the Motherland (1957–1983), among others. *Current as:* NMENHM (fossils). Moldova.

**1185. TSU:** Tiraspol State University, Department of Geography, Chişinău [Kishinau, Kishinev]. *Note:* considered legal successor to Institute for Public Education of Moldova, founded in Tiraspol in 1930 and renamed Moldovan Pedagogical Institute (1933–1939). *Current as:* TSU (fossils). Moldova.

**1186. MOM:** Musée Oceanographique de Monaco. *Current as:* MOM (fishes). Monaco.

**1187. BIUB:** Mongolian Academy of Sciences, Biological Institute, Ulaanbaatar [Ulan Bator]. *Current as:* BIUB (herps). Mongolia.

**1188. MPC:** Mongolian Paleontological Center, Institute of Paleontology and Geology, Mongolian Academy of Sciences, Ulaanbaatar [Ulan Bator]. *Current as:* MPC (fossils). *Also as:* GI DPS (fossils), IGM or MGI (Geological Institute), MPS. Mongolia.

**1189. NHMM:** Prirodnjački muzej Crne Gore [Natural History Museum of Montenegro], Podgorica. *Note:* collections originally associated with Republican Institute for Nature Protection established in 1961. Montenegro.

**1190. UMFSP:** Faculty of Natural Sciences and Mathematics, University of Montenegro [Univerzitet Crne Gore], Podgorica. *Obsolete as:* BIP (Biological Institute, Podgorica), BZF, BZT, FSUM (Faculty of Sciences). *Current as:* UMFSP (fishes). Montenegro.

**1191. OCP:** Office Chérifien des Phosphates, Service Geologique, Khouribga. *Current as:* OCP (fossils). Béni Mellal-Khénifra. Morocco.

**1192. FSAC:** Département de Géologie (Paléontologie), Faculté des Sciences Ain Chock, Université Hassan II,

Casablanca. *Current as:* FSAC (fossils). Casablanca-Settat. Morocco.

**1193. MHNM:** Muséum d'Histoire Naturelle de Marrakech, Marrakesh. *Current as:* MHNM (fossils). Marrakesh-Safi. Morocco.

**1194. MUAP:** Musée Universitaire d'Archéologie et du Patrimoine, Oujda. *Current as:* MUAP (fossils). Oriental. Morocco.

**1195. ISCM:** Institut scientifique de Rabat, Rabat. *Formerly:* Institut Scientifique Chérifien (ISCR). *Also as:* ISCR, ISR (herps). Rabat-Salé-Kénitra. Morocco.

**1196. SGM:** Service Géologique du Maroc, Direction de la Géologie, Ministère de l'Energie et des Mines, Rabat. *Current as:* SGM (fossils). *Also as:* CPSGM (Collections Paléontologiques). Rabat-Salé-Kénitra. Morocco.

**1197. DBAEU:** Département de Biologie, Faculté des Sciences, Université Abdelmalek Essaadi [Abdelmalek Essaâdi University], Tétouan. *Current as:* DBAEU (herps). Tanger-Tetouan-Al Hoceima. Morocco.

**1198. EBM:** Estação de Biologia Marítima da Inhaca, Faculdade de Ciências, Universidade Eduardo Mondlane, Inhaca Island. *Current as:* EMB. *Also as:* EBMI. Mozambique.

**1199. GNP:** Collection of the E.O. Wilson Biodiversity Laboratory, Gorongosa National Park. *Current as:* GNP (herps). Mozambique.

**1200. JPT:** Private collection of J.P. Tello, Maputo [formerly Lourenço Marques]. *Note:* herp collection questionably destroyed. Mozambique.

**1201. UEMM:** Universidade Eduardo Mondlane, Museu de História Natural, Maputo [formerly Lourenço Marques]. *Formerly:* Museu Provincial, then Museu Dr. Álvaro de Castro. *Also as:* LMM (Lourenço Marques Museum), MHNMM. Mozambique.

**1202. SEABRI:** Laboratory of Aquatic Biodiversity Research Group, Southeast Asia Biodiversity Research Institute, Forest Research Institute (FRI), Yezin. *Current as:* SEABRI (fishes). Myanmar.

**1203. ZMYU:** Zoological Museum, Faculty of Arts and Sciences, Yangon University, Kamayut Township, Yangon. *Formerly:* University of Rangoon. Myanmar.

**1204. GSN:** National Earth Science Museum, Geological Survey of Namibia, Windhoek. *Includes:* fossil collections from Sperrgebiet. *Note:* established in 1995. *Current as:* GSN (fossils). Namibia.

**1205. NMNW:** National Museum of Namibia, Windhoek. *Formerly:* Staatsmuseum Windhoek. *Includes:* Helmut Finkeldey collection, Windhoek (HF). *Note:* many uncataloged herp specimens stolen (denoted by "B" prefix in Broadley & Wüster 2004). *Obsolete as:* NMN, NMWN, SMWN. *Current as:* NMNW (herps). Namibia.

**1206. SMS:** Swakopmund Museum, Swakopmund. Namibia.

**1207. CDZMTU:** Tribhuvan University, Central Department of Zoology Museum, Kirtipur, Kathmandu. *Obsolete as:* ZICT (Zoological Institution Committee). *Current as:* CDZMTU (gastropods) *Also as:* TUK, TZC (fishes). *See also:* NHMTU. Nepal.

**1208. NHMTU:** Natural History Museum of Nepal, Swoyambhu [Soyambhu], Kathmandu. *Note:* founded in 1975 and managed by Institute of Science and Technology, Tribhuvan University; fishes collected by D. Edds (1984–1986) found desiccated in 1996. *Current as:* NHMTU (fishes). *Also as:* NHM (herps). *See also:* CDZMTU. Nepal.

**1209. AG:** Academie Groningen, Rijksuniversiteit Groningen, Groningen. *Note:* destroyed by fire in 1906. Groningen. Netherlands.

**1210. TM:** Teylers Museum, Haarlem. *Also known as:* Teylers Strichtina Museum. *Current as:* TM. *Also as:* TMH, TSMHN. North Holland. Netherlands.

**1211. ZMA:** Zoölogisch Museum, Universiteit van Amsterdam. *Also known as:* Zoological Museum Amsterdam. *Note:* collections officially part of Naturalis Biodiversity Center and relocated to RMNH, Leiden in 2012. *See also:* RMNH. North Holland. Netherlands.

**1212. NME:** Natuurmuseum Enschede, Enschede [Eanske]. *Obsolete as:* ME. *Current as:* NME (fossils). Overijssel. Netherlands.

**1213. TW:** De Museumfabriek, Enschede [Eanske]. *Formerly:* Museum TwentseWelle [Twentse Welle Museum]. *Current as:* TW (fossils). Overijssel. Netherlands.

**1214. MG:** Museo Laurentii Theodori Gronovii, Lugdunum Batavorum [Leiden]. *Also known as:* Museum Gronovianum, Museo Lugdunensi Batavorum (MLB). *Note:* no longer extant; some fishes at NHMUK. South Holland. Netherlands.

**1215. NMR:** Natuurhistorisch Museum Rotterdam, Rotterdam. *Current as:* NMR. South Holland. Netherlands.

**1216. RMNH:** Naturalis Biodiversity Center, Leiden. *Note:* established in 2013 as merger of Naturalis–Nationaal Natuurhistorisch Museum (formerly Rijksmuseum van Natuurlijke Historie; RMNH, RNHL), Zoölogisch Museum Universiteit van Amsterdam (ZMA), and branches of National Herbarium of the Netherlands, Leiden; RMNH/RNHL preceded by Museum d'Histoire Naturelle Pays-Bas (MHNPB, MPB). *Includes:* collections from Universiteit Utrecht Zoological Museum (UZ). *Obsolete as:* NMNHL (National Museum for Natural History, Leiden), MHNPB, MPB, RNHL. *Current as:* RMNH or ZMA (i.e., original ZMA catalog numbers retained). *Also as:* NBC (fossils). South Holland. Netherlands.

**1217. UU:** Universiteitsmuseum Utrecht, Universiteit Utrecht [University of Utrecht], Utrecht. *Note:* Universiteit Utrecht Zoological Museum (UZ) incorporated into RMNH. *Current as:* UU (fossils). *Also as:* UUGI (fossils, Geological Institute), UUN (fossils, Department of Earth Sciences). Utrecht. Netherlands.

**1218. AIM:** Auckland War Memorial Museum, Auckland. *Formerly:* Auckland Institute and Museum until 1996. *Includes:* herpetological collection of Joan Robb, University of Auckland (AUZ). *Current as:* AIM (fishes, herps; retained for consistency). Auckland. New Zealand.

**1219. AU:** The University of Auckland, Geological Collections, Auckland. *Current as:* AU (fossils). Auckland. New Zealand.

**1220. CMC:** Canterbury Museum, Christchurch. *Current as:* CMC (fishes). *Also as:* CM (herps, fossils), CM Zfr (fossils). Canterbury. New Zealand.

**1221. KA:** Edward Percival Field Station, Department of Zoology, University of Canterbury, Kaikoura. Canterbury. New Zealand.

**1222. KHM:** Kaikoura Historical Museum, Kaikoura. *Current as:* KHM (fossils). Canterbury. New Zealand.

**1223. NIWA:** National Institute of Water and Atmospheric Research, Christchurch. Canterbury. New Zealand.

**1224. WRM:** Whanganui Regional Museum, Whanganui [Wanganui]. Manawatu-Wanganui. New Zealand.

**1225. OMNZ:** Otago Museum, Dunedin. *Obsolete as:* OM. *Current as:* OMNZ (fishes, herps, fossils). Otago. New Zealand.

**1226. OU:** Geology Museum, Department of Geology, University of Otago, Dunedin. *Current as:* OU (fossils). Otago. New Zealand.

**1227. SMAG:** Southland Museum and Art Gallery, Invercargill. Southland. New Zealand.

**1228. WO:** Waitomo Museum of Caves, Waitomo Caves. *Current as:* WO (fossils). Waikato. New Zealand.

**1229. NMNZ:** Museum of New Zealand Te Papa Tongarewa, Wellington. *Formerly:* Colonial Museum founded in 1865, renamed Dominion Museum (DM) in 1907, then National Museum of New Zealand (1972–1992). *Includes:* collections from Victoria University of Wellington (VUW, VUZ) and Department of Scientific and Industrial Research, Ecology Division (ED). *Current as:* DM (fossils), NMNZ P. (fishes). Wellington. New Zealand.

**1230. NPC:** National Paleontological Collection, GNS Science, Lower Hutt. *Also known as:* GNS Science Paleontological Collection. *Note:* descended from New Zealand Geological Survey (NZGS, 1865–1990), DSIR Geophysics Division (1951–1990), Institute of Nuclear Sciences (1959–1992), DSIR Geology and Geophysics (1990–1992) and Institute of Geological and Nuclear Sciences (1992–2005). *Obsolete as:* NZGS. *Current as:* NPC (fossils). *Also as:* GNS (fossils). Wellington. New Zealand.

**1231. NZOI:** New Zealand Oceanographic Institute, Wellington. *Note:* currently National Institute of Water & Atmospheric Research (NIWA); fishes possibly sent to Museum of New Zealand Te Papa Tongarewa (NMNZ). Wellington. New Zealand.

**1232. VUW:** Victoria University of Wellington, Wellington. *Includes:* National Frozen Tissue Collection (NFTC). *Note:* herp collection formerly deposited in Department of Zoology (VUZ) transferred to Museum of New Zealand Te Papa Tongarewa (NMNZ). Wellington. New Zealand.

**1233. MHUL:** Museo Herpetológico de la Universidad Nacional Autónoma de Nicaragua-León, León. *Current as:* MHUL (herps). Nicaragua.

**1234. MNBH:** Musée National Boubou-Hama, Niamey. *Also known as:* Musée National du Niger, National Museum of Niger. *Obsolete as:* MNN (fossils). *Current as:* MNBH (fossils). Niger.

**1235. UI:** University of Ibadan, Faculty of Science, Zoological Institute, Ibadan. *Also as:* ZM/UI. Nigeria.

**1236. CMIZASDPRK:** Custody Museum, Institute of Zoology, Academy of Sciences, Pyongyang. *Also as:* MIZASP. North Korea.

**1237. HIFIRE:** Havforskninginstituttet [Institute of Marine Research], Bergen. *Current as:* HIFIRE (fishes). Hordaland. Norway.

**1238. ZMUB:** Universitetsmuseet i Bergen, Universitetet i Bergen, Bergen. *Formerly:* Bergens Museum, founded in 1825. *Obsolete as:* BMN. *Current as:* ZMUB (fishes, herps), ZMBN (invertebrates, birds). Hordaland. Norway.

**1239. ZMUO:** Zoologisk Museum [Robert Colletts hus], Universitetet i Oslo (UiO) [University of Oslo], Oslo. *Includes:* specimens from Zoologisk museum, Kristiania (ZMK). *Current as:* ZMUO (fishes, herps), PMO (fossils, Paleontological Museum). *Also as:* NHMO, UZMO. Oslo. Norway.

**1240. TMU:** Tromsø Museum, Universitetsmuseet, Universitetet i Tromsø—Norges arktiske universitet, Tromsø.

*Obsolete as:* TSZV, ZMUT. *Current as:* TMU (fishes). Troms. Norway.

**1241. NTNU:** Vitenskapsmuseet, Norges teknisk-naturvitenskapelige universitet i Trondheim, Trondheim. *Also known as:* Museum of Natural History and Archaeology, Norwegian University of Science and Technology. *Formerly:* Det Kongelige Norske Videnskabers Selskab (DKNVS), Museet (1926–1984); University of Trondheim until 1996. *Obsolete as:* VSM. *Current as:* NTNU-VM (vertebrates). Trøndelag. Norway.

**1242. OMMSFC:** Omani Aquarium and Marine Science and Fisheries Centre, Muscat. *Current as:* OMMSFC (fishes). *Also as:* MSFC (cetaceans). Oman.

**1243. ONHM:** Oman Natural History Museum, Al Khuwair, Muscat. *Current as:* ONHM (herps). Oman.

**1244. SQU:** Sultan Qaboos University, Al Khoudh, Muscat. *Current as:* SQU (herps). Oman.

**1245. QGM:** Museum of Earth Sciences, Quetta. *Also known as:* Quetta Geological Museum. *Note:* established ca. 1957 as Departmental Museum of Geological Survey of Pakistan; presumably includes fossils cited as GSP-UM (Geological Survey of Pakistan–University of Michigan collection, Quetta). *Assigned here:* QGM (fossils). Balochistan. Pakistan.

**1246. QMP:** The McMahon Museum, Quetta. *Also known as:* Quetta Museum (Wall 1911), but distinct from Quetta Museum established in 1971 with Directorate of Archaeology and Museums. *Note:* museum built in 1904–1906; named after Sir Arthus Henry McMahon in 1911–1912; destroyed by earthquake 31 May 1935. *Current as:* QMP (snakes). Balochistan. Pakistan.

**1247. GSP:** Geological Survey of Pakistan, Islamabad. *Current as:* GSP (fossils). *See also:* QGM. Capital Territory. Pakistan.

**1248. H-GSP:** Harvard-Geological Survey of Pakistan Project. *Note:* specimens to be deposited at Pakistan Museum of Natural History (PMNH). *Current as:* H-GSP (fossils). Capital Territory. Pakistan.

**1249. PMNH:** Pakistan Museum of Natural History, Islamabad. *Current as:* PMNH. Capital Territory. Pakistan.

**1250. GCM:** Government College University, Department of Zoology, Lahore. *Also as:* GCMNH. Punjab. Pakistan.

**1251. MSK:** Private collection of Muhammed Sharif Khan, Chenab Nagar [Rabwah]. Punjab. Pakistan.

**1252. PU:** University of the Punjab, Department of Zoology, Quaid-i-Azam Campus, Lahore. *Current as:* PUPC (fossils). Punjab. Pakistan.

**1253. CEMB:** Center of Excellence in Marine Biology, University of Karachi, Karachi. *Note:* uncertain whether collections are separate from Marine Reference Collection and Resource Centre (MRCC). *Current as:* CEMB-P (fishes). Sindh. Pakistan.

**1254. ZSP:** Zoological Museum, Zoological Survey Department of Pakistan (ZSD), Nishtar, Karachi. *Also known as:* Zoological Survey of Pakistan. Sindh. Pakistan.

**1255. IUG:** Islamic University of Gaza, Gaza City. *Current as:* BD/IUG (herps, Biology Department). Gaza Strip. Palestine.

**1256. PMNH:** Palestine Museum of Natural History, Bethlehem University, Bethlehem. *Note:* established in 2014. *Current as:* PMNH (herps). West Bank. Palestine.

**1257. UNACHI:** Universidad Autónoma de Chiriquí (UN-



ACHI), San José de David. *Current as*: MUPADI (fishes, Museo de Peces de Agua Dulce e Invertebrados), MHCH (herps, Museo Herpetologica de Chiriquí). Chiriquí. Panama.

**1258. CoZEM**: Colección Zoológica Dr. Eustorgio Méndez, Instituto Conmemorativo Gorgas de Estudios de la Salud (ICGES), Panama City. *Formerly*: Colección de Referencia del Laboratorio Conmemorativo Gorgas, founded in 1957. *Current as*: CoZEM (fishes, herps). Panamá. Panama.

**1259. MVUP**: Museo de Vertebrados, Universidad de Panamá, Panama City. *Obsolete as*: UP. Panamá. Panama.

**1260. STRI**: Smithsonian Tropical Research Institute, Balboa, Ancón. *Note*: houses and maintains herp collection of Circulo Herpetologico de Panama (CHP). Panamá. Panama.

**1261. KFRS**: Kanudi Fisheries Research Station, Konedobu. *Note*: associated with National Fisheries Authority (previously Department of Fisheries and Marine Resources), descended from Department of Primary Industry (DPI); station abandoned with some specimens transferred to University of Papua and New Guinea (UPNG). *Also as*: DPI, FO. Papua New Guinea.

**1262. PNGM**: Papua New Guinea National Museum and Art Gallery, Port Moresby. *Current as*: PNGM. *Also as*: PNGNM. Papua New Guinea.

**1263. UPNG**: University of Papua and New Guinea, Natural Sciences Resource Centre, Port Moresby. *Includes*: specimens salvaged from Kanudi Fisheries Research Station (DPI, FO, KFRS). *Current as*: UPNG (fishes, herps). Papua New Guinea.

**1264. MHNIB**: Museo de la Tierra Guaraní de Itaipu Binacional, Hernandarias. *Current as*: MHNIB (fishes). *Also as*: MAI (Museo Ambiental de Itaipú, herps). Alto Paraná. Paraguay.

**1265. CEBM**: Estación Biológica de la Reserva Natural del Bosque Mbaracayú. Canindeyú. Paraguay.

**1266. CZCEN**: Colección Zoológica, Facultad de Ciencias Exactas y Naturales (FACENA), Universidad Nacional de Asunción, San Lorenzo. *In error as*: CZFCEN. *Current as*: CZCEN (fishes, herps). *See also*: MSUNA. Central. Paraguay.

**1267. MNHNP**: Museo Nacional de Historia Natural del Paraguay, San Lorenzo [near Asunción]. *Obsolete as*: MHNP. *Current as*: MNHNP (fishes, herps). Central. Paraguay.

**1268. MSUNA**: Museo de Zoología “Francisco Schade”, Faculty of Agrarian Sciences, Universidad Nacional de Asunción, San Lorenzo. *See also*: CZCEN. Central. Paraguay.

**1269. IIBP**: Instituto de Investigación Biológica del Paraguay, Asunción. *Note*: includes herps from Colección Biológica Arnoldo de Winkelried Bertoni. Gran Asunción. Paraguay.

**1270. CZPLT**: Colección Zoológica Para la Tierra, Santa Rosa del Aguaray. *Current as*: CZPLT (herps). San Pedro. Paraguay.

**1271. MUSA**: Museo de Historia Natural de la Universidad Nacional de San Agustín, Arequipa. *Includes*: collection of Dr. Alfredo Corzo Masías from University of Arequipa Department of Zoology (UADZ). *Obsolete as*: U.A., UADZ. *Current as*: MUSA (herps). Arequipa. Peru.

**1272. MHNC**: Museo de Historia Natural del Cusco, Universidad Nacional de San Antonio Abad de Cusco. *Obsolete as*: MHNCP, UNSAAC. *Current as*: MHNC (herps). *Also as*: GZ (herps, Gabinete de Zoología). Cusco. Peru.

**1273. MUBI**: Museo de Biodiversidad del Perú, Cusco. *Current as*: MUBI. Cusco. Peru.

**1274. CORBIDI**: Centro de Ornitología y Biodiversidad, Lima. *Current as*: CORBIDI (herps). Lima. Peru.

**1275. IMARPE**: Instituto del Mar del Perú, Callao, Lima. *See also*: LCT-IMARPE (Laboratorio Costero de Tumbes). Lima. Peru.

**1276. INSDAV**: Instituto Nacional de Salud, Division de Animales Venenosos, Lima. *Current as*: INSDAV (herps). Lima. Peru.

**1277. MUSM**: Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Lima. *Also known as*: Museo de Historia Natural “Javier Prado” (MHNJP). *Obsolete as*: MHNJP, MHNSM, UNMSM. *Current as*: MUSM (fishes, herps, fossils). Lima. Peru.

**1278. URP**: Museo de Historia Natural “Vera Alleman H.”, Universidad Ricardo Palma, Santiago de Surco, Lima. *Current as*: URP (amphibians). Lima. Peru.

**1279. IIAP**: Instituto de Investigaciones de la Amazonía Peruana, Iquitos. *Current as*: GGU-IIAP (herps, Giuseppe Gagliardi collection), IIAP (fishes, herps). Loreto. Peru.

**1280. MZUNAP**: Museo de Zoología, Universidad Nacional de la Amazonía Peruana, Iquitos. *Obsolete as*: UNAP (fishes). *Current as*: MZUNAP. Loreto. Peru.

**1281. LCT-IMARPE**: Laboratorio Costero de Tumbes, Instituto del Mar del Perú, Tumbes. *Current as*: LCT-IMARPE (fishes). *See also*: IMARPE (Lima). Tumbes. Peru.

**1282. UPMIN**: University of the Philippines Mindanao, Davao, Mindanao Island. Davao. Philippines.

**1283. AQDM**: Aquaculture Department Museum of Aquatic Biodiversity, Southeast Asian Fisheries Development Center (SEAFDEC), Tigbauan, Panay Island. Iloilo. Philippines.

**1284. UPVMI**: Museum of Natural Sciences, College of Fisheries and Ocean Sciences, University of the Philippines Visayas, Miagao. *Current as*: UPVMI (fishes). Iloilo. Philippines.

**1285. UPLB**: University of the Philippines Los Baños, Animal Biology Division, Institute of Biological Sciences, Los Baños. *Current as*: UPLB (fishes). Laguna. Philippines.

**1286. BSMP**: Bureau of Science (BSM), Manila, Luzon. *Note*: completely destroyed Jan 1945 during World War II. Metro Manila. Philippines.

**1287. PNM**: National Museum of the Philippines, Manila, Luzon. *Obsolete as*: NMPH, PNMI. *Current as*: PNM (fishes, herps). *Also as*: NMCR (crustaceans). Metro Manila. Philippines.

**1288. STUM**: University of Santo Tomas (UST), Manila. Metro Manila. Philippines.

**1289. UPMISI**: Marine Science Institute, University of the Philippines Diliman, Quezon City. *Also as*: PIL (corals), PBRC (Philippine Biodiversity Resource Center, mollusks). Metro Manila. Philippines.

**1290. SU-RBG**: Rodolfo B. Gonzales Museum of Natural History, Biology Department, Silliman University, Dumaguete City. *Formerly*: Silliman University Biology Museum (SUBM). *Includes*: marine herps (e.g., seasnakes) transferred from SUML. *Obsolete as*: SUBM, SUP. *Current as*: SU-RBG (fishes, herps). *Also as*: SURBG. *See also*: SUAKCREM, SUML. Negros Oriental. Philippines.

**1291. SUAKCREM**: Silliman University Angelo King Center for Research and Environmental Management, Dumaguete. *Note*: limited collection of fishes and herps that may eventually be transferred to SU-RBG and SUML. *Current as*: SUAKCREM (fishes, herps). Negros Oriental. Philippines.

**1292. SUML**: Silliman University Marine Laboratories, Institute of Environmental and Marine Sciences, Dumaguete. *Also known as*: Silliman University Fish Collection. *Note*:

established as university research facility in 1974 and renamed Dr. Angel C. Alcala Environment and Marine Science Laboratories in 2009; some fishes transferred to PNM as types; marine herps transferred to SU-RBG. *Current as:* SUMLFI MUR (marine fishes). *See also:* SU-RBG, SUAKCREM. Negros Oriental. Philippines.

**1293. WPU-PPC:** Western Philippines University, Puerto Princessa City Campus, Puerto Princessa, Palawan Island. *Current as:* WPU-PPC (fishes). Palawan. Philippines.

**1294. ISEA:** Muzeum Przyrodnicze Instytutu Systematyki i Ewolucji Zwierząt (ISEZ), Polskiej Akademii Nauk [Institute of Systematics and Evolution of Animals, Polish Academy of Sciences], Kraków [Cracow]. *Formerly:* Institute of Systematic and Experimental Zoology (ZZSD) until 1989. *Current as:* ISEA (entomology, birds), ZZSiD (fossils). *Also as:* ISEZ, ZZS, ZZSD. Lesser Poland. Poland.

**1295. ZMJU:** Muzeum Zoologiczne Uniwersytetu Jagiellońskiego [Zoological Museum of the Jagiellonian University], Kraków [Cracow]. *Obsolete as:* KM (herps). *Current as:* ZMJU. Lesser Poland. Poland.

**1296. HTW:** Muzeum Geologiczne, Instytutu Nauk Geologicznych, Uniwersytet Wrocławski [Institute of Geological Sciences, University of Wrocław], Wrocław [Breslau]. *Also known as:* Henryk Teisseyre Geological Museum. *Note:* holotype of *Python euboicus* attributed by Römer (1870) to mineralogical museum (ZPWM) is apparently lost. *Current as:* HTW (fossils). *See also:* MNHUW (Recent fishes, herps), ZPAL (fossils). Mazovia. Poland.

**1297. IZPAN:** Muzeum i Instytut Zoologii, Polskiej Akademii Nauk [Museum and Institute of Zoology, Polish Academy of Sciences], Warszawa [Warsaw]. *Formerly:* Zoological Cabinet of predecessors to University of Warsaw including Royal University of Warsaw (1819–1831), Main School (1862–1869), and Imperial University of Warsaw (1869–1915); National Museum of Natural History, Zoology Department [Narodowe Muzeum Przyrodnicze, Dział Zoologiczny (NMPW)] (1919–1921); Polish State Museum of Natural History (1921–1928), renamed State Zoological Museum [Państwowe Muzeum Zoologiczne (PMZW)] in 1928; became part of the Zoological Institute of the Polish Academy of Sciences in 1952. *Includes:* Muzeum Zoologiczne Branickich (MZBW); part of Zoologische Sammlung zu Stettin [Szczecin] (ZSS) salvaged in 1945. *Obsolete as:* NMPW, PMZW, ZPPAN. *Current as:* IZPAN. *Also as:* MIZ (birds), MZPW (birds). *See also:* ZPAL (fossils). Mazovia. Poland.

**1298. MEPAN:** Muzeum Ewolucji, Polskiej Akademii Nauk [Museum of Evolution, Polish Academy of Sciences], Warszawa [Warsaw]. *Note:* public display part of both IZPAN and ZPAL; fluid-preserved fishes cited as MEPAN presumably at IZPAN. *See also:* IZPAN (fishes, herps), ZPAL (fossils). Mazovia. Poland.

**1299. MNHUW:** Muzeum Przyrodnicze Uniwersytetu Wrocławskiego [Museum of Natural History, University of Wrocław], Wrocław [Breslau]. *Also known as:* Władysław Rydzewski Museum of Natural History. *Formerly:* Zoologisches Museum der Universität Breslau [Zoological Museum Breslau]. *Includes:* collections of Johann Ludwig Christian Gravenhorst (1777–1857), although at least half destroyed during WWII. *Current as:* MNHUW (herps). *Also as:* MNHW, MPUW (birds), NMHW (fishes), UWZM (herps). *See also:* HTW (fossils). Mazovia. Poland.

**1300. MUZ PIG:** Muzeum Geologiczne Państwowego Instytutu Geologicznego [Geological Museum of the Polish

Geological Institute], Warszawa [Warsaw]. *Current as:* MUZ PIG (fossils). Mazovia. Poland.

**1301. MWGUW:** Muzeum Geologiczne im. Stanisława Józefa Thugutta, Wydział Geologii Uniwersytetu Warszawskiego [Faculty of Geology, University of Warsaw], Warszawa [Warsaw]. *Formerly:* Muzeum Wydziału Geologii (1961–2008). *Includes:* fossils associated with IGPUW (Institute of Geology). *Current as:* MWGUW (fossils). Mazovia. Poland.

**1302. MZBW:** Muzeum Zoologiczne Branickich [Branicki Zoological Museum], Warszawa [Warsaw]. *Note:* established in 1887; after WWI, transferred to National Museum of Natural History (NMPW), now Museum and Institute of Zoology (IZPAN), Warsaw. *See also:* IZPAN. Mazovia. Poland.

**1303. UPW:** Wrocław University of Environmental and Life Sciences, Wrocław [Breslau]. *Current as:* UPW (fossils). Mazovia. Poland.

**1304. ZPAL:** Instytut Paleobiologii, Polskiej Akademii Nauk [Institute of Paleobiology, Polish Academy of Sciences], Warszawa [Warsaw]. *Note:* some fossils stored at Wrocław University, Institute of Environmental Biology, Department of Paleozoology [Zakład Paleozoologii] and cited as ZPALWr (*Also as:* ZPALUWr, ZPUW, ZPW). *Current as:* ZPAL (fossils). *See also:* IZPAN (fishes, herps). Mazovia. Poland.

**1305. HML:** Hel Marine Station [formerly Laboratory], Institute of Oceanography, University of Gdańsk [Stacja Morska Instytutu Oceanografii Uniwersytetu Gdańskiego], Hel. *Also as:* HEL. Pomeranian. Poland.

**1306. MPT:** Muzeum Przyrody i Techniki [Museum of Nature and Technology (MNtS)], Starachowice. *Formerly:* Museum of History of Material Culture (MHkM). *Current as:* MPT.P (fossils). Świętokrzyskie. Poland.

**1307. ZSS:** Zoologische Sammlung zu Stettin, Szczecin [Stettin]. *Note:* collection damaged during WWII, remaining part transferred to IZPAN in 1945. West Pomeranian. Poland.

**1308. MCM:** Museu Carlos Machado, Ponta Delgada, São Miguel Island. *Current as:* MCM (fishes). Azores. Portugal.

**1309. UAç:** Universidade dos Açores [University of the Azores], Departamento de Ciências Agrárias (DCA), Angra do Heroísmo, island of Terceira, and Departamento de Oceanografia e Pescas (DOP), Horta, island of Faial. *Note:* fish specimens vouchered separately at DOP and Anatomy Laboratory of DCA; DOP restructured in 2015, split between Faculdade de Ciências e Tecnologia and new Okeanos R&D center in Horta. *Current as:* UAç-DCA (fishes, Dept. Ciências Agrárias), UAç-DOP (fishes, Dept. Oceanografia e Pescas). *Also as:* DOP/UA. Azores. Portugal.

**1310. MCUC:** Museu da Ciência da Universidade de Coimbra, Coimbra. *Formerly:* Museu de Zoologia (MZC). *Obsolete as:* MZC. *Current as:* MCUC (fossils), MCUC/ZOO (zoology). Coimbra. Portugal.

**1311. AVG:** Aquário Vasco da Gama, Lisboa [Lisbon]. *Includes:* Oceanographic Collection of D. Carlos I. *Current as:* AVG (fishes). Lisboa [Lisbon]. Portugal.

**1312. FCT-UNL:** Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa [New University of Lisbon], Costa de Caparica, Almada. *Note:* fossil collection originally associated with Centro de Estratigrafia e Paleobiologia (CEPUNL) established in 1975. *Current as:* FCT-UNL (fossils). *Also as:* CEPUNL (fossils, Centro de Estratigrafia e Paleobiologia). Lisboa [Lisbon]. Portugal.

**1313. ICT:** Instituto de Investigação Científica Tropical, Centro de Zoologia, Lisboa [Lisbon]. *Formerly:* Junta de Investigações Científicas do Ultramar (JICU) ca. 1973–79.

*Note:* collections housed at MUHNAC, but remain independent. *Obsolete as:* CZL. *Current as:* ICT (herps, birds). *Also as:* CZ-ICT. *See also:* MUHNAC. Lisboa [Lisbon]. Portugal.

**1314. INIP:** Instituto Nacional de Investigaçao das Pescas e do Mar, Algés, Oeiras. *Includes:* fishes formerly deposited at Centro de Biologia Piscatória, Lisboa. *Note:* IPIMAR and Instituto Nacional de Investigaçao Agrária (INIA) merged to become Instituto Nacional de Investigaçao Agrária e das Pescas (INIAP) in 2002, which merged with Laboratório Nacional de Investigaçao Veterinária (LNIV) to become Instituto Nacional de Recursos Biológicos (INRB I.P./L-IPIMAR) in 2006. Lisboa [Lisbon]. Portugal.

**1315. MACL:** Museum of the Academia das Ciências de Lisboa, Lisboa [Lisbon]. *Also known as:* Maynense Museum. *Includes:* remnants of historical collections at the Maynense Museum and Real Museu da Ajuda, Lisboa (e.g., Cretaceous fishes from Ceará, Brazil). *Note:* nearly all zoological and mineralogical material transferred to Museu de Escola Politécnica de Lisboa (now MUHNAC) in 1859. *Assigned here:* MACL. *See also:* MUHNAC. Lisboa [Lisbon]. Portugal.

**1316. MG:** Museu Geológico de Lisboa, Lisboa [Lisbon]. *Also known as:* Museu do Instituto Geológico e Mineiro (IGM). *Formerly:* Museu dos Serviços Geológicos. *Current as:* MG (fossils). *Also as:* MIGM (fossils). Lisboa [Lisbon]. Portugal.

**1317. ML:** Museu da Lourinhã, Lourinhã. *Note:* founded 24 June 1984; managed by non-profit, non-governmental organization Grupo de Etnologia e Arqueologia da Lourinhã (GEAL). *Current as:* ML (fossils). Lisboa [Lisbon]. Portugal.

**1318. MUHNAC:** Museu Nacional de História Natural e da Ciência, Universidade de Lisboa, Lisboa [Lisbon]. *Also known as:* Museu Bocage (MB) since 1904. *Formerly:* Museu de Escola Politécnica de Lisboa (1837–1911) which became Faculdade de Ciências da Universidade de Lisboa in 1911; Museu Nacional de História Natural (MNHN) de Lisboa (1926–2011). *Includes:* nearly all zoological material transferred from museum of Academia das Ciências de Lisboa (MACL) in 1859. *Note:* original collection destroyed by criminal fire 18 Mar 1978, but historical archives largely survived; ICT collections housed at MUHNAC, but remain independent; current Universidade de Lisboa established in 2012 as merger of former Universidade de Lisboa (est. 1911) and Universidade Técnica de Lisboa (established 1930). *Obsolete as:* BML, MB, MBL, MNHNUL. *Current as:* MUHNAC, MUHNAC/MB06 (cartilaginous fishes), MUHNAC/MB05 (bony fishes), MUHNAC/MB04 (amphibians), MUHNAC/MB03 (reptiles). *See also:* ICT, MACL. Lisboa [Lisbon]. Portugal.

**1319. SHN:** Laboratório de Paleontologia e Paleoecologia, Sociedade de História Natural Torres Vedras, Torres Vedras. *Current as:* SHN (fossils). Lisboa [Lisbon]. Portugal.

**1320. MHNf:** Museu de História Natural do Funchal, Departamento de Ciência da Câmara Municipal do Funchal, Funchal. *Formerly:* Museu Regional da Madeira (1929–1933), Museu Municipal (História Natural) do Funchal. *Also as:* MMF. Madeira. Portugal.

**1321. JCB:** Private collection of José C. Brito, Centro de Investigaçao em Biodiversidade e Recursos Genéticos, Instituto de Ciências Agrárias de Vairão (CIBIO), Universi-

dade do Porto, Porto. Portugal.

**1322. MHNcup:** Museu de História Natural e da Ciência da Universidade do Porto, Porto. *Formerly:* Instituto de Zoologia which incorporated the museum, Estação de Biologia Marinha and general laboratory of Universidade do Porto under the directorship of Augusto Nobre in 1921; Museu de História Natural da Universidade do Porto (MHNFCP). *Note:* Universidade do Porto established in 1911, descended from Academia Politécnica do Porto established in 1837. *Obsolete as:* MHN, MUP, MZP, MHNFCP. *Current as:* MHNcup/ICT (fishes), MHNcup/AMP (amphibians), MHNcup/REP (reptiles). Porto. Portugal.

**1323. MTCO:** Muzeul Țării Crișurilor [Muzeul Tarii Crisurilor; Cris Country Museum], Oradea. *Current as:* MTCO (fossils). *Also as:* TCM (fossils). Bihor. Romania.

**1324. FGGUB:** Faculty of Geology and Geophysics, Universitatea din București [University of Bucharest], București [Bucharest]. *Current as:* FGGUB (fossils). București [Bucharest]. Romania.

**1325. IACB:** L'Institut d'Anatomie et de Chirurgie [Institute of Anatomy and Surgery], București [Bucharest]. *Note:* established in late 1800s in Faculty of Medicine at University of Bucharest; deposition of holotype of *Glaucania algeriensis* Jacquet, 1896 not confirmed here, but presumably originally associated with IACB; holotype also questionably associated with Institutul National de Cercetare-Dezvoltare pentru Stiinta Biologica, Bucharest (INCDS) by Wallach et al. (2014). București [Bucharest]. Romania.

**1326. ISBB:** Institutul de Biologie București, București [Bucharest]. *Formerly:* Institutul de Biologie "Traian Săvulescu" (IBTS) established in 1960, part of Institutul Central de Biologie (ICEBIOL, 1973–1990), became Institutul de Biologie București within Academiei Române in 1990. *Obsolete as:* IBTS. *Current as:* ISBB. București [Bucharest]. Romania.

**1327. ISER:** Institutul Speologie "Emil G. Racoviță", București [Bucharest]. *Note:* founded in 1920 by Emil Racovita (1868–1947) in Faculty of Sciences at University of Cluj (now Babeș-Bolyai University); reorganized in 1956 with main headquarters in Bucharest and branch in Cluj-Napoca. *Current as:* ISER (biospeleological collection). *Also as:* ISB (fossils, paleontological collection). București [Bucharest]. Romania.

**1328. MINB:** Muzeul Național de Istorie Naturală "Grigore Antipa", București [Bucharest]. *Obsolete as:* MHNga, MIN G (herps), NHMB. *Current as:* MINB (fishes). *Also as:* GAMNH (birds), MGAB. București [Bucharest]. Romania.

**1329. EME:** Erdélyi Múzeum-Egyesület [The Transylvanian Museum Society (TMS)], Cluj-Napoca. *Note:* founded in 1841–1842. *Current as:* EME (fossils). Cluj-Napoca. Romania.

**1330. MZBBU:** Museum of Zoology, Universitatea Babeș-Bolyai [Babeș-Bolyai University], Cluj-Napoca. *Current as:* MZBBU (insects). *See also:* ISER (Institutul Speologie, Bucharest), UBB (fossils). Cluj-Napoca. Romania.

**1331. UBB:** Museum of Paleontology-Stratigraphy, Department of Geology, Universitatea Babeș-Bolyai [Babeș-Bolyai University], Cluj-Napoca. *Note:* established in 1959 via merger of Victor Babeș University (name adopted in 1948) and Bolyai University (name adopted in 1945); Victor Babeș University formerly known as Hungarian University of Cluj (1872–1881), Franz Joseph University



(1881–1919), Romanian University of Cluj (1919–1927), and King Ferdinand I University (1919–1948). *Includes:* Stratigraphic Collection of the Transylvanian Basin, *Also known as* Museum of the Transylvania Basin (MTB) and Transylvanian Basin Museum (TBM). *Obsolete as:* BBU, MTB, TBM (fossils). *Current as:* UBB MPS (fossils). *Also as:* MPS-BBU-CN (fossils). *See also:* ISER (Institutul Speologie, Bucharest), MZBBU (Museum of Zoology). Cluj-Napoca. Romania.

**1332. MCDRD:** Muzeul Civilizatiei Dacice si Romane, Deva. *Current as:* MCDRD (fossils). Hunedoara. Romania.

**1333. GIUI:** Geological Institute, University of Iași, Iași [Jassy, Iassy]. *Also known as:* Alexandru Ioan Cuza University. *Current as:* GIUI (fossils). Iași [Jassy, Iassy]. Romania.

**1334. MNSTM:** Museum of Natural Sciences, Târgu Mureș. *Current as:* MNSTM (fossil sharks). Mureș. Romania.

**1335. MSNPN:** Muzeul de Științe Naturale Piatra-Neamț, Piatra Neamț. *Current as:* MSNPN (fossils). Neamț. Romania.

**1336. BNM:** Muzeul de Istorie Naturală Sibiu [Museum of Natural History Sibiu], Sibiu. *Includes:* Richard Breckner fossil collection. *Note:* part of Muzeul Național Brukenthal [Brukenthal National Museum]. *Current as:* BNM (entomology, fossils). Sibiu. Romania.

**1337. AENM:** Amur Natural History Museum of the Institute of Geology and Nature Management, Russian Academy of Sciences, Blagoveshchensk. *Obsolete as:* AEHM. *Current as:* AEHM (fossils). Amur Oblast. Russia.

**1338. RMBH:** Russian Museum of Biodiversity Hotspots, N. Laverov Federal Center for Integrated Arctic Research, Russian Academy of Sciences, Arkhangelsk. Arkhangelsk Oblast. Russia.

**1339. GIN:** Geological Institute of the Russian Academy of Sciences, Moscow. *Current as:* GIN (fossils). Central Federal District. Russia.

**1340. IEE:** A.N. Severtsov Institute of Ecology and Evolution, Russian Academy of Sciences, Moscow. *Also known as:* Institute of Animal Evolutionary Morphology and Ecology. *Note:* founded in 1934. *Current as:* IEE (fishes), IEMEM (herps). *Also as:* IPEE (fishes). Central Federal District. Russia.

**1341. IORAS:** P.P. Shirshov Institute of Oceanology, Russian Academy of Sciences, Moscow. *Obsolete as:* IOAN, IORAN, PPSIO. *Current as:* IORAS. *Also as:* IOM (fishes). Central Federal District. Russia.

**1342. PIN:** Orlov Paleontological Museum, Borissiak Paleontological Institute, Russian Academy of Sciences, Moscow. *Obsolete as:* PIAN. *Current as:* PIN (fossils). Central Federal District. Russia.

**1343. VNIRO:** Russian Federal Research Institute of Fisheries and Oceanography, Moscow. *Note:* founded in 1933 via merger of State Oceanographic Institute (GOIN) and All-Russian Research Institute of Marine Fishery (VNIIMORKh). *Current as:* VNIRO (fishes). Central Federal District. Russia.

**1344. ZMMU:** Zoological Museum of Mikhail V. Lomonosov, Moscow State University. *Formerly:* Natural History Cabinet of Moscow Imperial University (1791–1930). *Obsolete as:* MMGU, MMSU, ZMM, ZMMGU, ZMMSU. *Current as:* ZMMU (fishes, herps). Central Federal District. Russia.

**1345. IEC SB RAS:** Institute of the Earth's Crust, Siberian Branch of the Russian Academy of Sciences. *Formerly:*

Institute of Geology, East-Siberian Branch of the USSR Academy of Sciences founded in 1949; renamed East-Siberian Geological Institute (1957–1962). *Current as:* IEC SB RAS (fossils). Irkutsk Oblast. Russia.

**1346. ZMISU:** Zoological Museum of Irkutsk State University, Irkutsk. Irkutsk Oblast. Russia.

**1347. AtlantNIRO:** Atlantic Scientific Research Institute of Marine Fisheries and Oceanography, Kaliningrad. *Current as:* AtlantNIRO (fishes). Kaliningrad Oblast. Russia.

**1348. MMBI:** Murmansk Marine Biological Institute, Russian Academy of Sciences, Dal'nie [Dalnie] Zelentsy settlement. *Note:* founded in 1935. *Current as:* MMBI (fishes). Murmansk Oblast. Russia.

**1349. PINRO:** Nikolai M. Knipovich Polar Research Institute of Marine Fisheries and Oceanography, Murmansk. *Formerly:* State Oceanographic Institute of the USSR (SOI, 1929–1933), descended from the Floating Marine Research Institute founded in 1921. *Current as:* PINRO (fishes). Murmansk Oblast. Russia.

**1350. CCMGE:** Chernyshev Central Museum of Geological Exploration, St. Petersburg [formerly Leningrad]. *Also known as:* F.N. Chernyshev Central Scientific Research and Geological Exploration Museum. *Formerly:* Central Geological Museum (1930–1935). *Note:* closely associated with All-Russian Geological Institute, formerly All-Union Geological Institute (VSEGEL, 1939–1992), descended from Central Geological Survey Scientific Research Institute (TsNIGRI, 1929–1939). *Obsolete as:* AHCCCP. *Current as:* CCMGE (fossil vertebrates). *Also as:* CNIGR, TsNIGR, TsNIGRI (fossils). Northwestern Federal District. Russia.

**1351. MGRI:** Russian State Geological Prospecting University, Moscow. *Formerly:* Moscow Geological Prospecting Institute, descended from Moscow Mining Academy founded in 1918. *Current as:* MGRI (fossils). Northwestern Federal District. Russia.

**1352. MSPGU:** Zoologicheskij Muzej, Sankt-Peterburgskij Gosudarstvennyj Universitet [St. Petersburg State University (SPSU)], St. Petersburg [formerly Leningrad]. *Obsolete as:* MLSU. *Current as:* MSPGU (herps). Northwestern Federal District. Russia.

**1353. ZISP:** Zoologicheskii Institut, Rossiiskoi Akademii Nauk [Zoological Institute, Russian Academy of Sciences], St. Petersburg [formerly Leningrad]. *Formerly:* Musée Zoologique de l'Académie Impériale des Sciences de Saint Pétersbourg. *Obsolete as:* AIS, ZIAN, ZIAS, ZIL. *Current as:* ZISP (fishes, herps, fossils). *Also as:* ZIN (fishes), ZIN PH (fossils, paleoherpetological collection). Northwestern Federal District. Russia.

**1354. ISEA:** Institute of Systematics and Ecology of Animals, Siberian Branch of the Russian Academy of Sciences, Novosibirsk. *Current as:* ISEA (herps). Novosibirsk Oblast. Russia.

**1355. MIMB:** Museum of A.V. Zhirmunsky Institute of Marine Biology, Far East Branch of the Russian Academy of Sciences, Vladivostok. *Current as:* MIMB (fishes, herps). Primorsky Krai. Russia.

**1356. TINRO:** Marine Museum of Pacific Fisheries Research Center, Vladivostok. *Also known as:* Pacific Scientific Research Institute of Marine Fisheries and Oceanography. *Obsolete as:* MT. *Current as:* TINRO (fishes, herps). *Also as:* TINRO-center, TINRO-tsentr. Primorsky Krai. Russia.

**1357. ZMFESU:** Zoological Museum of Far Eastern State

University (FESU), Vladivostok. *Current as*: ZMFESU (fishes, herps). *Also as*: DVGU. Primorsky Krai. Russia.

**1358. KGU**: Kalmytskiy gosudarstvennyy universitet [Kalmyk State University], Elista. *Current as*: KGU (fishes). Republic of Kalmykia. Russia.

**1359. SGU**: Saratov Chernyshevsky State University, Saratov. *Current as*: SGU (fossils). Saratovskaya Oblast. Russia.

**1360. SNP**: Sochi National Park, Scientific Department, Sochi. *Includes*: collections of fishes, amphibians and reptiles began in 1977 by Boris Tuniyev and formerly stored at Caucasian State Nature Biosphere Reserve (CSBR, CSNBR, SD CSNBR). *Obsolete as*: CSBR, CSNBR, SD CSNBR (Scientific Department). *Current as*: SNP (fishes, herps). Southern Federal District. Russia.

**1361. EMKSU**: Eversmann Zoology Museum, Kazan State University, Kazan [Kasan]. Tatarstan. Russia.

**1362. ZMTU**: Zoological Museum of Tomsk State University, Tomsk. *Formerly*: Siberian Imperial University (founded in 1888). *Note*: first herpetological collections received in 1890. *Current as*: ZMTU (fishes, herps). *Also as*: DVZeE TSU (Department of Vertebrate Zoology and Ecology, Institute of Biology). Tomsk Oblast. Russia.

**1363. YKM**: I.A. Goncharov Ulianovskiy Regional Studies Museum, Ulyanovsk. *Current as*: YKM (fossils). Ulyanovsk Oblast. Russia.

**1364. VGI**: Volga Humanitarian Institute, Volzhsky. *Note*: branch of Volgograd State University. *Current as*: VGI (fossils). Volgograd Oblast. Russia.

**1365. VPM**: Volgograd Provincial Museum, Volgograd. *Also known as*: Volgograd Regional Museum. *Current as*: VPM (fossils). Volgograd Oblast. Russia.

**1366. AIC**: Adel A. Ibrahim Collection, Ha'il University, Ha'il. *Current as*: AIC (herps). Saudi Arabia.

**1367. KAU**: King Abdulaziz University Marine Museum, Jeddah. *Current as*: KAU (fishes). *Also as*: KAUMM (fishes temporarily housed at SMF, Frankfurt am Main). Saudi Arabia.

**1368. SNMNH**: The National Museum, Department of Natural History, Riyadh. *Also known as*: Saudi National Museum Natural History. Saudi Arabia.

**1369. TUZC**: Taif University Zoological Collection, Taif. Saudi Arabia.

**1370. SNB**: Département de Géologie, Faculté des Sciences et Techniques, Université Cheikh Anta Diop de Dakar [University of Dakar], Dakar. *Current as*: SNB (fossils). Senegal.

**1371. IFAN**: Institut Fondamental d'Afrique Noire, Dakar. *Formerly*: Institut Français d'Afrique Noire (1938–1966). *Current as*: IFAN (fishes, herps). Senegal.

**1372. IRD**: Institut de Recherche pour le Développement (ORSTOM), Hann, Dakar. *Note*: includes herps deposited by Jean-François Trape (Coll. JFT). *Current as*: IRD (herps). Senegal.

**1373. DPFMGB**: Department of Paleontology, Faculty of Mining and Geology, University of Belgrade, Belgrade. *Obsolete as*: GIU (fossils, Geology Institute). *Current as*: DPFMGB (fossils). *See also*: IBISS. Belgrade. Serbia.

**1374. IBISS**: University of Belgrade, Institute for Biological Research "Siniša Stanković", National Institute of Republic of Serbia, Belgrade. *Also known as*: Institut za biološka istraživanja "Siniša Stanković". *Includes*: herps collected by Milutin Radovanovic (1900–1968), transferred

from Natural History Museum in Belgrade (NHMBEO); lizards collected by Vojislav Vasić in Afghanistan. *Current as*: IBISS (herps). *See also*: DPFMGB (fossils). Belgrade. Serbia.

**1375. NHMBEO**: Prirodnjački muzej, Belgrade. *Also known as*: Natural History Museum in Belgrade. *Note*: founded in 1895 as Jestastvenički muzej srpske zemlje [Natural Science Museum of Serbian Land]. *Includes*: osteological collection of amphibians and reptiles. *Current as*: NHMBEO (fossils). Belgrade. Serbia.

**1376. BIKU**: Department [Institute] of Biology and Ecology, Faculty of Mathematics and Natural Sciences, University of Kragujevac, Kragujevac. *Current as*: BIKU (fishes). *Also as*: BIK (Biological Institute Kragujevac), FSUK (fishes, Faculty of Sciences). Šumadija. Serbia.

**1377. ZRC**: Lee Kong Chian Natural History Museum (LCKNHM), National University of Singapore. *Formerly*: Raffles Museum of Biodiversity Research (RMBR, 1998–2014) which housed the Zoological Reference Collection (ZRC) of the National Museum of Singapore (NMS, SNM; est. 1965), descended from the original Raffles Museum (established 1878). *Includes*: collections of the former National University of Singapore (NUS, USDZ) and Nanyang University. *Obsolete as*: LCKNHM, NMS, NUS, RM, RMBR, SNM, USDZ, ZRCS. *Current as*: ZRC (fishes, herps). Singapore.

**1378. CU**: Comenius University, Bratislava. *Current as*: CU-RY (fishes), DE (herps, Department of Ecology), KGP (fossils, Department of Geology and Palaeontology), PRIF UK (Prírodovedecká Fakulta [Faculty of Natural Sciences]). Bratislava. Slovakia.

**1379. LFRH**: Laboratory of Fishery Research and Hydrobiology, Slovak Academy of Agricultural Sciences, Bratislava. *Also as*: LFRHB. Bratislava. Slovakia.

**1380. SNM**: Slovak National Museum [Slovenské národné múzeum], Natural Science Museum, Bratislava. *Formerly*: Bratislava Museum (BM), partially destroyed during WWII on 9 Sep 1944. *Obsolete as*: BM. *Current as*: SNM. *Also as*: SNMB. Bratislava. Slovakia.

**1381. LU**: Univerza v Ljubljani [University of Ljubljana], Ljubljana. *Current as*: LU (fishes). *Also as*: DBUL (Department of Biology), OBL (herps, Oddelek za Biologijo). Slovenia.

**1382. PZC**: Private collection of Primož Zupančič, Ljubljana. Slovenia.

**1383. SMNH**: Prirodoslovni muzej Slovenije [Slovenian Museum of Natural History], Ljubljana. *Current as*: SMNH (fishes). *Also as*: ML (herps). Slovenia.

**1384. AMG**: Albany Museum, Grahamstown. *Note*: herp collection transferred to Port Elizabeth Museum (PEM) in 1993; fish collection transferred to South African Institute for Aquatic Biodiversity (SAIAB). *Also as*: AM, A.M. (herps), AMSA/P. Eastern Cape. South Africa.

**1385. ELM**: East London Museum, East London. Eastern Cape. South Africa.

**1386. JDV**: Private collection of J.D. Visser, Jeffreys Bay. *Also known as*: JV. Eastern Cape. South Africa.

**1387. KMK**: Amathole [Amatola] Museum, King William's Town. *Formerly*: Kaffrarian Museum (1884–1999). *Note*: herp collections transferred to Port Elizabeth Museum (PEM). Eastern Cape. South Africa.

**1388. PEM**: Port Elizabeth Museum, Bayworld complex, Port Elizabeth. *Note*: founded in 1856. *Includes*: herp

collections from Albany Museum (AMG), Kaffarian Museum (KMK) and Cape Nature Conservation, Jonkershoek. *Current as:* PEM (herps), PEM R (reptiles). Eastern Cape. South Africa.

**1389. SAIAB:** South African Institute for Aquatic Biodiversity, Grahamstown. *Formerly:* Rhodes University, J.L.B. Smith Institute of Ichthyology (RUSI). *Includes:* fish collections from Albany Museum, Grahamstown (AMG) and KwaZulu-Natal Museum (NMSA; on permanent loan). *Obsolete as:* RUSI. *Current as:* SAIAB (fishes, herps). Eastern Cape. South Africa.

**1390. NMB:** National Museum, Bloemfontein. *Obsolete as:* NMBO. *Current as:* NMB (fishes), NMB R (reptiles). *Also as:* NMQR (fossils). Free State. South Africa.

**1391. BP:** Evolutionary Studies Institute, University of the Witwatersrand, Johannesburg. *Formerly:* Bernard Price Institute (BPI) for Palaeontological Research until 2013. *Current as:* BP (fossils). *Also as:* BPI (fossils). *See also:* WUM. Gauteng. South Africa.

**1392. DNMMNH:** Ditsong National Museum of Natural History, Pretoria [Tshwane]. *Formerly:* Transvaal Museum (TM, TMP), Northern Flagship Institution. *Note:* fish types at AMG. *Obsolete as:* TMP, TMSA. *Current as:* DNMMNH. *Also as:* TM (fossils). Gauteng. South Africa.

**1393. WUM:** University of the Witwatersrand, Johannesburg. *See also:* BP. Gauteng. South Africa.

**1394. AJL:** Private collection of Angelo J. Lambiris, Hillcrest. *Note:* to be incorporated into Durban Natural Science Museum (DNSM). KwaZulu-Natal. South Africa.

**1395. DNSM:** Durban Natural Science Museum, Durban. *Also known as:* Durban Museum (DM). *Note:* founded in 1887, managed by the eThekweni Municipality. *Obsolete as:* DM. *Current as:* DNSM (fishes, herps). KwaZulu-Natal. South Africa.

**1396. DSP:** FitzSimons' Snake Park, Durban. KwaZulu-Natal. South Africa.

**1397. EKZNW:** Ezemvelo KZN Wildlife collections, Durban. *Note:* provincial agency established in 1994 via merger of the Natal Parks Board (NPB) formed in 1947 and KwaZulu Directorate of Nature Conservation formed in 1972. *Obsolete as:* NPB. *Current as:* EKZNW. KwaZulu-Natal. South Africa.

**1398. NMSA:** KwaZulu-Natal Museum (KZN), Pietermaritzburg. *Formerly:* Natal Museum. *Note:* entire fish collection on permanent loan to SAIAB. *Obsolete as:* NM (although apparent on labels for ca. 8000 herp specimens), NMP. *Current as:* NMSA (all collections), NMSA HRP (herps). KwaZulu-Natal. South Africa.

**1399. ORI:** Oceanographic Research Institute, South African Association for Marine Biological Research (SAAMBR), Durban. KwaZulu-Natal. South Africa.

**1400. UKZN:** University of KwaZulu-Natal, Durban. *Note:* formed in 2004 after merger of University of Natal (UND) and University of Durban-Westville (UDW); small vertebrate collection used mainly for teaching purposes (research specimens generally transferred to other museums). *Also as:* UND. KwaZulu-Natal. South Africa.

**1401. LRC:** Private collection of L. Raw, Merrivale. *Current as:* LRC (herps). KwaZulu-Natal. South Africa.

**1402. KNP:** Skukuza Biological Reference Collection, Kruger National Park, Transvaal. *Note:* founded in the 1950s. Mpumalanga. South Africa.

**1403. AACRG:** African Amphibian Conservation Re-

search Group, North-West University, Potchefstroom. *Current as:* AACRG (amphibians). North West. South Africa.

**1404. MMK:** McGregor Museum, Kimberley, Cape Province. *Also known as:* Alexander McGregor Memorial Museum. *Obsolete as:* K.M. and MM (herps). *Current as:* MMK (herps). Northern Cape. South Africa.

**1405. SAM:** Iziko South African Museum, Cape Town. *Note:* founded in 1825. *Current as:* SAM (fishes, herps, fossils). *Also as:* SAMC (fishes), SAM-K (fossils). Western Cape. South Africa.

**1406. SUM:** Stellenbosch University, John R. Ellerman Museum of Zoology, Stellenbosch. Western Cape. South Africa.

**1407. NIFS:** National Institute of Fisheries Science, Busan [formerly Pusan]. *Formerly:* National Fisheries Research and Development Institute (NFRDI; 2002–2015). *Includes:* some poorly-preserved fishes from National Fisheries Research and Development Agency (NFRDA), predecessor to NFRDI; fish collection of Keitaro Uchida. *See also:* JIFRI. Busan. South Korea.

**1408. PKU:** Pukyong National University, Department of Marine Biology, Busan [formerly Pusan]. *Current as:* PKU (fishes). Busan. South Korea.

**1409. DESRI:** Daegu Education and Science Research Institution, Daegu. *Current as:* DESRI (fossils). Daegu. South Korea.

**1410. KPE:** Kyungpook National University, Daegu [Taegu]. *Current as:* BEKU (fishes, Department of Biology, Teacher's College), KPE (fossils, Earth Science Department). Daegu. South Korea.

**1411. KIGAM:** Geological Museum of Korea Institute of Geoscience and Mineral Resources, Yuseon-gu. *Current as:* KIGAM (fossils). Daejeon. South Korea.

**1412. NSMK:** National Science Museum of Korea, Daejeon. *Includes:* presumably some fishes from Korean Institute of Freshwater Biology (KIFB). *Current as:* NSMK. *Also as:* NSM. Daejeon. South Korea.

**1413. KIOLK:** Korean Institute for Ocean Life, Gapyeong. *Note:* listed among fish collections in Korea by Kim (2004), but no such institute found in Gapyeong. Gyeonggi. South Korea.

**1414. FSIU:** Laboratory of Fisheries, Department of Ocean Science, College of Natural Sciences, Inha University, Incheon. Incheon. South Korea.

**1415. NIBR:** National Institute of Biological Resources, Korean Ministry of the Environment, Incheon. *Note:* established in 2007. *Current as:* NIBR-P (fishes), NIBRAM (amphibians). Incheon. South Korea.

**1416. NIER:** National Institute of Environmental Research, Incheon. Incheon. South Korea.

**1417. SUBC:** Seowon University, Department of Biology, Cheongju. *Formerly:* Cheongju College of Education or Cheongju Normal University, descended from Cheongju Women's Junior College founded in 1968; reorganized into Seowon College in 1988 and promoted to Seowon University in 1992. *Obsolete as:* BCU, BCUE (Cheongju Normal University), SUC. *Current as:* SUBC (fishes). North Chungcheong. South Korea.

**1418. SLIC:** Suk Laboratory Ichthyology Collection, Department of Life Sciences, Yeungnam University, Gyeongsan. *Current as:* SLIC (fishes). North Gyeongsang. South Korea.

**1419. CNUC:** Chonbuk National University, College of Natural Science, Jeonju [Chonju]. *Obsolete as:* CNU, CNUCK,



CUB, CUBK. *Current as:* CNUC (fishes). North Jeolla. South Korea.

**1420. KNU:** Kunsan National University, Gunsan [Kunsan]. *Current as:* BKNU (fishes, Department of Biology), KNUM (fishes, Department of Marine Living Resources). North Jeolla. South Korea.

**1421. CGRB:** Conservation Genome Resources Bank for Korean Wildlife, College of Veterinary Medicine, Seoul National University. *Current as:* CGRB. *See also:* SNU. Seoul. South Korea.

**1422. EWNHM:** Ewha Womens University, Natural History Museum, Seoul. *Includes:* fish types donated by Sang-Rin Jeon. *Current as:* EWNHM (fishes). *Also as:* EWU (amphibians). Seoul. South Korea.

**1423. KIFB:** Korean Institute of Freshwater Biology, Seoul. *Note:* institution cited by Ki-Chul Choi (1910–2002), professor at Seoul National University from 1948–1976, apparently defunct; majority of fish collection perhaps donated to National Science Museum of Korea (NSMK); some fish specimens transferred to Sang-myung University (SMU). Seoul. South Korea.

**1424. SMU:** Sang-myung University, College of Natural Sciences, Life Science, Seoul. *Formerly:* Sang-myung Women's University (SMWU, 1986–1996). *Includes:* some fishes from Korean Institute of Freshwater Biology (KIFB). *Current as:* SMU. Seoul. South Korea.

**1425. SNU:** Seoul National University, Seoul. *Formerly:* Keijo Imperial University (KIU), Kyōngsōng University or Kyongseong Imperial University. *Note:* historical collections, including fishes deposited by Tamezo Mori in the Laboratory of the Premedical Department, destroyed during Korean War (1950–1953). *See also:* CGRB. Seoul. South Korea.

**1426. SUC:** Soonchunhyang University, Collection of Department of Life Science and Biotechnology, Asan. *Current as:* SUC (fishes). South Chungcheong. South Korea.

**1427. GSNU:** Laboratory of Marine Bio Education & Research Center, College of Marine Science, Gyeongsang National University, Tongyeong Campus, Inpyeong-dong, Tongyeong [Tongyoung]. *Note:* laboratory apparently associated with Institute of Marine Industry. *Current as:* GSNU (fishes). South Gyeongsang. South Korea.

**1428. JIFRI:** Jinhae Inland Fisheries Research Institute, National Institute of Fisheries Science (NIFS), Changwon. *Note:* city of Jinhae merged into Changwon in 2010. *See also:* NIFS. South Gyeongsang. South Korea.

**1429. MHNUSC:** Museo de Historia Natural da Universidade de Santiago de Compostela, Santiago de Compostela. *Also known as:* Museum Luis Iglesias de Ciencias Naturais. *Current as:* MHNUSC (fishes). A Coruña. Spain.

**1430. VLS:** Private collection of Víctor López Seoane (1832–1900). *Note:* no longer extant; some specimens donated to MNHN, NHMUK, ZISP and other museums. A Coruña. Spain.

**1431. MCNA:** Museo de Ciencias Naturales de Álava, Vitoria-Gasteiz. *Current as:* MCNA (fishes, herps, fossils). Álava. Spain.

**1432. MUPE:** Museo Paleontológico de Elche, Elche. *Current as:* MUPE (fossils). Alicante. Spain.

**1433. EEZA:** Estación Experimental de Zonas Áridas, Almería. *Formerly:* Instituto de Aclimatación de Almería. *Current as:* EEZA (herps). Almería. Spain.

**1434. CEP:** Centro de Experimentación Pesquera, Museo-Acuario, Gijón. Asturias. Spain.

**1435. UNIOVI:** Departamento de Biología de Organismos y Sistemas, Facultad de Biología, Universidad de Oviedo, Oviedo. *Formerly:* Departamento de Zoología y Ecología, Facultad de Ciencias. *Assigned here:* UNIOVI. Asturias. Spain.

**1436. CRARC:** Centre de Recuperació d'Amfibis i Rèptils de Catalunya, Masquefa. Barcelona. Spain.

**1437. CRBA:** Universitat de Barcelona, Facultat de Biologia, Centre de Recursos de Biodiversitat Animal, Barcelona. *Includes:* Gabinete de Historia Natural de la Universidad de Barcelona established in 1847; zoological collections formerly held in Universitat de Barcelona Department of Biologia Animal (DBAUB; formerly Zoologia, DZV) and Institut de Recerca de la Biodiversitat (IRBio). *Current as:* CRBA (fishes, herps). *Also as:* DBAUB, UBMZ, DZV (herps). Barcelona. Spain.

**1438. IBE:** Institut de Biologia Evolutiva, Barcelona. *Note:* jointly operated by Consejo Superior de Investigaciones Científicas and Universitat Pompeu Fabra (CSIC-UPF). *Current as:* IBE (herps). *Also as:* IBES. Barcelona. Spain.

**1439. ICP:** Institut Català de Paleontologia “Miquel Crusafont”, Universitat Autònoma de Barcelona, Cerdanyola del Vallès. *Formerly:* Institut de Paleontologia de Sabadell (IPS), Museo Provincial de Paleontología de Barcelona. *Current as:* ICP (fossils). *Also as:* IPS, IPSN (fossils). *See also:* UAB (fishes). Barcelona. Spain.

**1440. IIPB:** Institut de Ciències del Mar (ICM) de Barcelona, Departament de Biologia Marina i Oceanografia, Barcelona. *Formerly:* Instituto de Investigaciones Pesqueras (IIP) de Barcelona (1977/8–1987), descended from laboratory and headquarters of Instituto de Investigaciones Pesqueras established in Barcelona in 1957, itself descended from Sección de Biología Marina (established 1949) of Instituto de Biología Aplicada established in 1943 by Consejo Superior de Investigaciones Científicas (CSIC) and originally associated with zoology laboratory at Universitat de Barcelona. *Note:* fish collection formally institutionalized in 1982. *Obsolete as:* IBAB (fishes). *Current as:* IIPB (fishes), AFORO-ICM (otoliths). *Also as:* ICM, CBR (Colecciones Biológicas de Referencia). Barcelona. Spain.

**1441. MCNB:** Museu de Ciències Naturals de Barcelona, Barcelona. *Formerly:* Museu de Zoologia (MZB) and Museu de Geologia (MGB), combined under new name (MCNB) in 2000. *Includes:* Museu Martorell [Municipal Museum of Barcelona (MMB)], built in 1878, currently houses geology and palaeontology collections. *Obsolete as:* MMB (fossils), MZB (herps), MZBA (birds), MZBE (amphibians). *Current as:* MCNB (fishes, herps). *Also as:* MGB (fossils), MGB MGC (fossils, Museu Martorell). Barcelona. Spain.

**1442. MCSBCN:** Colegio La Salle de Bonanova, Museo de Ciencias Naturales, Barcelona. *Current as:* MCSBCN (fishes). Barcelona. Spain.

**1443. MGCB:** Museu de Ciències Naturals de Granollers [Granollers Museum of Natural Sciences], Col·lecció de Biodiversitat, Granollers. *Current as:* MGCB. Barcelona. Spain.

**1444. MMC:** Museu de les Mines de Cercs [Cercs Mine Museum], Sant Corneli. *Current as:* MMC (fossils). Barcelona. Spain.

**1445. MSCB:** Museu Geològic del Seminari Conciliar de Barcelona, Barcelona. *Also known as:* Museu Geològic del Seminari de Barcelona [Museo Geológico del Seminario de Barcelona (MGSB)]. *Obsolete as:* MGSB (fossils). *Current as:* MSCB (fossils). Barcelona. Spain.

**1446. UAB:** Universitat Autònoma de Barcelona, Bellaterra, Cerdanyola del Vallès. *Note:* university distinct from Uni-

versitat de Barcelona. *Current as*: UAB (fishes). *See also*: ICP (fossils). Barcelona. Spain.

**1447. SOG**: Sociedad de Oceanografía de Guipúzcoa, Museo, Gipuzkoa. *Current as*: SOG-Mu. Basque. Spain.

**1448. UPV/EHU**: Universidad del País Vasco [Euskal Herriko Unibertsitatea; The University of the Basque Country], Bilbao. *Current as*: UPV/EHU (fossils). Biscay. Spain.

**1449. MDS**: Museo de Dinosaurios de Salas de los Infantes, Burgos. *Includes*: collection of Club de Arqueología de Salas de los Infantes (C.A.S.) donated in 2001. *Obsolete as*: PS (fossils, Paleontológico de Salas). *Current as*: MDS (fossils). Burgos. Spain.

**1450. IEOST**: Instituto Español de Oceanografía, Centro Oceanográfico de Santander, Santander. Cantabria. Spain.

**1451. CMP**: Museo de la Valltorta [Valltorta Museum], Tírig [Tirig]. *Current as*: CMP-MS (fossils from Mas de la Parreta Quarry-Mas de Sabater, Morella, Spain). *Also as*: VM (fossils). Castellón. Spain.

**1452. MMO**: Monestir de Montserrat, Monistrol de Montserrat. *Also known as*: Santa Maria de Montserrat Abbey. *Current as*: MMO (herps). Catalonia. Spain.

**1453. MHNAE**: Museo de Historia Natural, Instituto Aguilar y Eslava, Cabra. *Current as*: MHNAE (fishes, herps). Córdoba. Spain.

**1454. MCCM**: Museo de las Ciencias de Castilla-La Mancha, Cuenca. *Includes*: Las Hoyas collection. *Current as*: MCCM (fossils), HUE (fossils, Lo Hueco collection). Cuenca. Spain.

**1455. ARAN**: colección de la Sociedad de Ciencias Aranzadi, San Sebastián. *Current as*: ARAN (herps), GA (fossils, Sección de Geología). Gipuzkoa. Spain.

**1456. BGG**: Basque Government official repository institution for the District of Guipuzkoa, San Sebastián. *Current as*: BGG (fossils). Gipuzkoa. Spain.

**1457. CRTLA**: Centre de Reproducció de Tortugues de l'Albera, Garriguella. Girona. Spain.

**1458. MDEIE**: Museu Darder, Espai d'Interpretació de l'Estany, Banyoles. *Current as*: MDEIE (fishes, herps). Girona. Spain.

**1459. UGR**: Colecciones zoológicas, Departamento de Zoología, Facultad de Ciencias, Universidad de Granada, Granada. *Note*: presumably includes specimens associated with Departamento de Biología, Animal y Ecología (DBAG), now Departamento de Zoología. *Current as*: URG, UGR-Zool. Granada. Spain.

**1460. IPE**: Instituto Pirenaico de Ecología, Jaca. *Current as*: IPE (herps). Huesca. Spain.

**1461. ETSIM**: Departamento de Zoología y entomología, Escuela Técnica Superior de Ingenieros de Montes [Universidad Politécnica de Madrid], Madrid. *Also as*: UPM. Madrid. Spain.

**1462. IFIE**: Instituto Forestal de Investigaciones y Experiencias, Madrid. Madrid. Spain.

**1463. MGM**: Museo GeoMinero, Instituto Geológico y Minero de España (IGME), Madrid. *Current as*: MGM (fossils). *Also as*: MG-IGME, MG-VF. Madrid. Spain.

**1464. MNCN**: Museo Nacional de Ciencias Naturales, Consejo Superior de Investigaciones Científicas (CSIC), Madrid. *Note*: founded in 1771 as Gabinete Real de Historia Natural [Royal Cabinet of Natural History] by King Carlos III with the acquisition of Pedro Franco Dávila's cabinet. *Includes*: Unidad de Zoología Aplicada (UZA) herp collection. *Current as*: MNCN (fishes, herps), MNCN-PV (fossils). *Also as*: MNÇN. Madrid. Spain.

**1465. RCAXII**: Real Colegio Alfonso XII Agustinos, San Lorenzo de El Escorial. *Current as*: RCAXII (fishes, herps). Madrid. Spain.

**1466. UPUAM**: Unidad de Paleontología, Universidad Autónoma de Madrid, Madrid. *Current as*: UPUAM (fossils). Madrid. Spain.

**1467. UZA**: Unidad de Zoología Aplicada, Madrid. *Note*: collections no longer extant; herp, bird and mammal collections donated to MNCN by the Comunidad Autónoma de Madrid (CAM). Madrid. Spain.

**1468. VBCM**: Universidad Complutense de Madrid, Cátedra de Zoología de Vertebrados. *Also known as*: Museo de Anatomía Comparada de Vertebrados. *Current as*: VBCM (fishes). Madrid. Spain.

**1469. CFM-IEOMA**: Colecciones de Fauna Marina del Centro Oceanográfico de Málaga, Instituto Español de Oceanografía, Fuengirola. *Current as*: CFM-IEOMA. Málaga. Spain.

**1470. MZNA**: Museo de Ciencias Naturales de la Universidad de Navarra, Pamplona. *Current as*: MZNA (fishes, herps). Navarre. Spain.

**1471. IEOV**: Instituto Español de Oceanografía (IEO), Centro Oceanográfico de Vigo, Vigo. *Note*: founded in 1917. *Current as*: IEOV. *See also*: LV. Pontevedra. Spain.

**1472. LV**: Instituto de Investigaciones Mariñas (IIM), Vigo. *Formerly*: Laboratorio de Vigo (LV) established in 1951 and associated with Instituto de Investigaciones Pesqueras de Barcelona; became independent as Instituto de Investigaciones Pesqueras de Vigo in 1978; renamed Instituto de Investigaciones Mariñas in 1986. *See also*: IEOV. Pontevedra. Spain.

**1473. MCNUS**: Museo de Ciencias Naturales, Universidad de Salamanca, Salamanca. *Includes*: Sala de las Tortugas [Chelonian Room], founded in 1988. *Current as*: MCNUS (fossils). *Also as*: STUS (fossils). Salamanca. Spain.

**1474. COC**: Centro Oceanográfico de Canarias, Instituto Español de Oceanografía, San Andrés, Island of Tenerife, Canarias [Canary Islands]. Santa Cruz de Tenerife. Spain.

**1475. DZUL**: Departamento de Zoología, Universidad de La Laguna, San Cristóbal de La Laguna, Island of Tenerife, Canarias [Canary Islands]. *Current as*: CCML (Colección Ictiologica, Departamento de Ciencias Marinas), DZUL (herps). *Also as*: ZLU (herps), MZUL (arachnids). Santa Cruz de Tenerife. Spain.

**1476. TFMC**: Museo de Ciencias Naturales de Tenerife, part of Museo de la Naturaleza y el Hombre, Santa Cruz de Tenerife, Canarias [Canary Islands]. *Formerly*: Museo Insular de Ciencias Naturales (MCNSC) founded in 1951. *Current as*: TFMC (fishes, herps). *Also as*: TFMC-VP, TFMCVP (fishes). Santa Cruz de Tenerife. Spain.

**1477. ULPGC**: Universidad de Las Palmas de Gran Canaria, Canarias [Canary Islands]. *Note*: fish specimens/tissues associated with Instituto Canario de Ciencias Marinas (ICCM). *Current as*: ULPGC (fishes). *Also as*: DB.ULPGC, DBULPGC (herps, fossils, Departamento de Biología). Santa Cruz de Tenerife. Spain.

**1478. CET**: Centro de Estudios Tropicales, Sevilla [Seville]. *Current as*: CET (herps). Sevilla. Spain.

**1479. EBD**: Estación Biológica de Doñana, Consejo Superior de Investigaciones Científicas (CSIC), Sevilla [Seville]. *Current as*: EBD (fishes, herps). Sevilla. Spain.

**1480. MGUS**: Museo Geológico, Universidad de Sevilla, Sevilla [Seville]. *Current as*: MGUS (fossils). Sevilla. Spain.

**1481. MTTE**: Museo de las Tierras del Ebro, Amposta.

Tarragona. Spain.

**1482. CLH:** Museo Paleontológico de Galve, Teruel. *Current as:* CLH (fossils). *Also as:* CL, MPG (fossils). Teruel. Spain.

**1483. CPT:** Museo Aragonés de Paleontología, Fundación Conjunto Paleontológico de Teruel-Dinópolis (FCPT-D), Teruel. *Also known as:* Museo Paleontológico de Aragón. *Note:* foundation created by Gobierno de Aragón [Government of Aragon] in February 2004. *Current as:* CPT (fossils). *Also as:* MOAL (Molina Alto fossil collection). Teruel. Spain.

**1484. CLS-MHLP:** Colegio La Salle de Paterna, Museo de Ciencias Naturales “Hermano León”, Paterna. *Also known as:* Museo de Ciencias Naturales de Paterna. Valencia. Spain.

**1485. MPV:** Museo de Ciencias Naturales, València. *Formerly:* Museo Paleontológico Municipal de València. *Current as:* MPV (fossils). Valencia. Spain.

**1486. UVDZ:** Universitat de València, València. *Current as:* MGVU (fossils, Museo de Geología), UVDZ (fishes, Departamento de Zoología). Valencia. Spain.

**1487. MPZ:** Museo de Paleontología de Zaragoza, Zaragoza. *Also known as:* Museo Paleontológico de la Universidad de Zaragoza. *Includes:* fossils on loan from Diputación General de Aragón [Directorate General of Cultural Heritage of the Government of Aragon (GAL)]. *Note:* established in 1984–1985 in association with the Departamento de Paleontología, Universidad de Zaragoza (DPZ); MPZ now part of Museo de Ciencias Naturales de la Universidad de Zaragoza (MCNUZ) founded in 2013. *Current as:* MPZ (fossils). Zaragoza. Spain.

**1488. UPZM:** University of Peradeniya, Department of Zoology Museum, Peradeniya. *Current as:* UPZM (herps). Central Province. Sri Lanka.

**1489. BRT:** Blue Resources Trust Ichthyology Collection, Marine Research and Consultancy, Kalkudah. *Current as:* BRT-I (fishes). Eastern Province. Sri Lanka.

**1490. DWC:** Department of Wildlife Conservation, National Wildlife Research and Training Center, Girithale. *Current as:* DWC (herps). North Central Province. Sri Lanka.

**1491. WCSG:** Wildlife Conservation Society of Galle, Galle. Southern Province. Sri Lanka.

**1492. NARA:** National Aquatic Resources Research and Development Agency, Colombo. Western Province. Sri Lanka.

**1493. NMSL:** The National Museum of Sri Lanka, Colombo. *Also known as:* National Museum of Colombo (NMC). *Includes:* fishes and herps formerly deposited at Wildlife Heritage Trust of Sri Lanka, Colombo (WHT). *Obsolete as:* CMS, NMC. *Current as:* NMSL (fishes, herps), NMSL WHT (ex Wildlife Heritage Trust). Western Province. Sri Lanka.

**1494. SNHMK:** Sudan Natural History Museum, Khartoum. *Formerly:* University of Khartoum Natural History Museum (UKS) which incorporated collections from Gordon Memorial College in 1958. *Current as:* SNHMK. Khartoum. Sudan.

**1495. NZCS:** National Zoological Collection of Suriname, Anton de Kom University of Suriname, Paramaribo. *Includes:* collections formerly at SMP (Surinaams Museum, Paramaribo) from 1981–1988. *Current as:* NZCS (fishes, herps). Suriname.

**1496. MZLU:** Zoologiska museet, Lunds universitet [Museum of Zoology, Lund University], Lund. *Obsolete as:* MZUL, ZILU, ZML, ZMLU, ZMUL. *Current as:* MZLU (herps). Skåne. Sweden.

**1497. NRM:** Naturhistoriska riksmuseet [Swedish Museum of Natural History], Departments of Zoology and Paleontology, Stockholm. *Formerly:* Departments of Vertebrate Zoology and Palaeozoology until 2013. *Includes:* collections formally transferred from Kungliga Vetenskapsakademien (KVA) in

1848 including alcohol preserved specimens originally from Museum Adolphi Friderici Regis (MAFR); over 95% of the collections from Zoologiska institutionen, Stockholms Universitet (ZIUS). *Note:* NRM founded in 1819 and administered by Kungliga Vetenskapsakademien [Royal Swedish Academy of Sciences] (KVA) from 1819–1965. *Obsolete as:* NHR, NHRM, NHRS, NRMS, NRS, SMNH, SMS. *Current as:* NRM (fishes, herps), NRM-PZ C. (fossil Cyclostomata), NRM-PZ P. (fossil Pisces), NRM-PZ B. (fossil Batrachia), NRM-PZ R. (fossil Reptilia). *See also:* MAFR, ZIUS. Stockholm. Sweden.

**1498. ZIUS:** Zoologiska institutionen, Stockholms Universitet, Stockholm. *Formerly:* Stockholms högskola (1878–1960), Zootomiska Institutet (ZI). *Note:* over 95% of collections transferred to Naturhistoriska riksmuseet (NRM). *See also:* NRM. Stockholm. Sweden.

**1499. PMU:** Uppsala Universitet, Evolutionsmuseet, Paleontologi [Uppsala University, Museum of Evolution, Palaeontology]. *Formerly:* Paleontological Museum of Uppsala University. *Includes:* fossil collections of Magnus Bromell, Charles Sternberg, Carl Wiman and Otto Zdansky. *Current as:* PMU (fossils). *See also:* UUZM (fishes, herps). Uppsala. Sweden.

**1500. UUZM:** Uppsala Universitet, Evolutionsmuseet [Uppsala University, Museum of Evolution], Uppsala. *Formerly:* Uppsala University Zoological Museum. *Includes:* specimens donated from Museum Adolphi Friderici Regis (MAFR) in 1745; historical collections (1739–1750) received from Kungliga Vetenskapsakademien [Royal Swedish Academy of Sciences] (KVA). *Obsolete as:* EM, UUMZ, ZIU, ZIUU, ZMU, ZMUU. *Current as:* UUZM (fishes & herps, Zoology section). *See also:* PMU (fossils), MAFR. Uppsala. Sweden.

**1501. GNM:** Göteborgs Naturhistoriska Museum, Göteborg [Gothenburg]. *Obsolete as:* GNHM, NHMG, NMG. *Current as:* GNM (fishes, herps). Västra Götaland. Sweden.

**1502. JA:** Private collection of Jonae Alströmer (1685–1761). *Note:* donated to Carl Linnaeus and eventually deposited at Naturhistoriska riksmuseet (NRM) and Uppsala Universitet, Evolutionsmuseet (UUZM). Sweden.

**1503. MAFR:** Museum Adolphi Friderici Regis. *Also known as:* Museum Adolpho-Fridericianum; Museum principis (MP). *Note:* personal collections kept separately by King Adolf Fredrik (1710–1771) at Ulriksdal and his wife Queen Lovisa Ulrika (1720–1782) at Drottningholm, including type specimens of Carl Linnaeus (some donated to UUZM in 1745); collections united at Drottningholm in 1773 (Museum Drottningholmense); generally, the king's collection (essentially specimens in alcohol) was transferred to Kungliga Vetenskapsakademien [Royal Swedish Academy of Sciences] (KVA) in 1801 and the queen's collection was transferred to Uppsala Universitet (UUZM) in 1803; KVA collections formally transferred to Naturhistoriska riksmuseet (NRM) in 1848. *Also as:* MDR, MP. *See also:* NRM, UUZM. Sweden.

**1504. NMB:** Naturhistorisches Museum Basel [Musée d'Histoire Naturelle de Bâle], Basel. *Note:* founded in 1821. *Includes:* Eugen Kramer collection (Sammlung Kramer; SK). *Obsolete as:* MH, MHNB, NHMB. *Current as:* NMB. *Also as:* NMBA. Basel-Stadt. Switzerland.

**1505. NMBE:** Naturhistorisches Museum der Burgergemeinde Bern, Bern. *Obsolete as:* NHM. *Current as:* NMBE. Bern. Switzerland.

**1506. MHNf:** Musée d'Histoire Naturelle de Fribourg, Université de Fribourg, Fribourg [Freiburg]. *Current as:*



MHNF (fossils). Fribourg, Switzerland.

**1507. MHNG:** Muséum d'histoire naturelle, Genève [Geneva]. *Includes:* part of private collection of Jacques Géry (GSC). *Obsolete as:* MNG. *Current as:* MHNG. Genève, Switzerland.

**1508. CMK:** Private collection of Maurice Kottelat, Delémont [previously as Cornol]. *Current as:* CMK. *See also:* ZSM/CMK. Jura, Switzerland.

**1509. MJSN:** Jurassica Museum, Porrentruy. *Formerly:* Musée jurassien des sciences naturelles. *Current as:* MJSN (fossils). Jura, Switzerland.

**1510. EAWAG:** Eidgenössische Anstalt für Wasserversorgung, Abwasserreinigung und Gewässerschutz [Swiss Federal Institute of Aquatic Science and Technology], Kastanienbaum, Lucerne, Switzerland.

**1511. LCFM:** Musée d'histoire naturelle, La Chaux-de-Fonds. *Also as:* MHNC, MHNCF. Neuchâtel, Switzerland.

**1512. MHNN:** Museum d'Histoire Naturelle de Neuchâtel, Neuchâtel. *Note:* includes Musée Zoologique de Neuchâtel (MZN). *Current as:* MHNN (herps). *Also as:* MHNNL (birds), MZN (herps). Neuchâtel, Switzerland.

**1513. NMS:** Naturmuseum Solothurn, Solothurn. *Current as:* NMS (fossils). Solothurn, Switzerland.

**1514. MCSN:** Museo cantonale di storia naturale, Lugano. *Current as:* MCSN (fossils). *Also as:* MCSNL (fossils). Ticino, Switzerland.

**1515. MCZL:** Musée cantonal de zoologie, Lausanne. *Current as:* MCZL (fishes). *Also as:* MZL (birds). Vaud, Switzerland.

**1516. MGL:** Musée cantonal de géologie, Lausanne. *Note:* hosted by Université de Lausanne. *Current as:* MGL (fossils). Vaud, Switzerland.

**1517. PIMUZ:** Paläontologisches Institut und Museum der Universität Zürich, Zürich [Zurich]. *Current as:* PIMUZ (fossils). *Also as:* PIMUT (fossils). *See also:* ZMZ. Zürich, Switzerland.

**1518. RK:** Private collection of Rene Kindlimann, Uster. *Note:* collection with public access. *Current as:* RK (fossils). Zürich, Switzerland.

**1519. SMA:** Sauriermuseum Aathal [Aathal Dinosaur Museum], Aathal, Seegräben. *Current as:* SMA (fossils). Zürich, Switzerland.

**1520. ZMZ:** Zoologisches Museum der Universität Zürich, Zürich [Zurich]. *Obsolete as:* SH, ZMUZ. *Current as:* ZMZ. *See also:* PIMUZ (fossils). Zürich, Switzerland.

**1521. EK:** Private collection of Eugen Kramer (1921–2004). *Note:* status unknown. Switzerland.

**1522. NTHUB:** National Tsing Hua University, Department of Life Science, Hsinchu. Hsinchu County, Taiwan.

**1523. NSYU:** National Sun Yat-sen University, Institute of Marine Biology, Kaohsiung. *Current as:* NSYU (fishes). *Also as:* NSYSU. Kaohsiung City, Taiwan.

**1524. FRIP:** Taiwan Fisheries Research Institute, Keelung City. *Note:* descended in part from Freshwater Aquaculture Experiment Station, Hsiaoli and Marine Aquaculture Experiment Station, Taiwan. *Obsolete as:* TFRI (occupied in entomology by Taiwan Forestry Research Institute, Taipei). *Current as:* FRIP. *See also:* TFRI-TT. Keelung City, Taiwan.

**1525. NMMST:** National Museum of Marine Science and Technology, Keelung City. *Current as:* NMMSTP (fishes). *Also as:* NMSMP. Keelung City, Taiwan.

**1526. NTOU:** National Taiwan Ocean University, College of Life Sciences, Institute of Marine Biology, Keelung City.

*Note:* maintained separately from TOU-AE collection at same institution. *Current as:* NTOU P, NTOUP (fishes). Keelung City, Taiwan.

**1527. TOU-AE:** National Taiwan Ocean University, Laboratory of Aquatic Ecology, Department of Aquaculture, Keelung City. *Note:* maintained separately from NTOU collection at same institution. *Current as:* TOU-AE (fishes). Keelung City, Taiwan.

**1528. MTP:** Fish Collection, Matsu [Mazu] Islands, Lienchiang [Lianjiang] County, Fujian Province. Lienchiang County, Taiwan.

**1529. TESRI:** Taiwan Endemic Species Research Institute, Chichi Township. *Note:* established 1 July 1992. *Current as:* TESRI (herps). Nantou County, Taiwan.

**1530. CUP:** Catholic University Peking, New Taipei City [Xinbei]. *Note:* fossil herps incorporated into Field Museum of Natural History (FMNH PR). New Taipei City, Taiwan.

**1531. NMMB:** National Museum of Marine Biology and Aquarium (NMMBA), Checheng. *Note:* currently houses fishes transferred from Tonghai [Tunghai] University (THUP) in 2004. *Obsolete as:* NMMBA, NMMBAP, NMMBP. *Current as:* NMMB-P (fishes). Pingtung County, Taiwan.

**1532. NCHUZOO:** National Chung Hsing University, Taichung. *Current as:* NCHUZOO (herps). Taichung City, Taiwan.

**1533. NMNS:** National Museum of Natural Science, Taichung. *Includes:* some herps from Tonghai [Tunghai] University (THUP), but apparently not type specimens (e.g., *Takydromus hsuehslranensis*). *Current as:* NMNS (herps, fossils), NMNSF (fishes). Taichung City, Taiwan.

**1534. THUP:** Tonghai [Tunghai] University, Science College, Department of Life Science, Systematics and Evolutionary Biology Laboratory [formerly Department of Zoology], Taichung City. *Note:* fishes transferred to National Museum of Marine Biology & Aquarium (NMMB) in 2004; disposition of herps unknown, although some non-type specimens deposited at National Museum of Natural Science (NMNS). *Also as:* TURL (herps). Taichung City, Taiwan.

**1535. ASIZ:** Biodiversity Research Museum, Chinese Academy of Sciences [Academia Sinica], Nankang, Taipei City. *Note:* administered by Biodiversity Research Center (BRCAS). *Obsolete as:* ASIZT (Institute of Zoology). *Current as:* ASIZ P (fishes), ASIZ AM (amphibians) ASIZ R (reptiles). Taipei City, Taiwan.

**1536. BSRT:** Bureau of Scientific Researches of the Governor-General of Taiwan [Formosa], Taihoku [Taipei City]. *Note:* no longer extant; collection assembled by Masamitsu Oshima (1884–1965) who was *Also associated* with the Bureau of Civil Engineering and later with the Museum of the Institute of Science, Government of Formosa (ISFM, ISM, MISGF); status of herps cited from “Bureau of Scientific Researches” by Oshima (1910) unknown except holotype of *Psammodynastes compressus* possibly extant at National Museum of Nature and Science, Tokyo (NSMT). *See also:* MST, NTM. Taipei City, Taiwan.

**1537. MST:** Medical School of the Governor-General of Taiwan [Formosa], Taihoku [Taipei City]. *Note:* established in 1899; renamed Medical College of the Governor-General of Taiwan in 1919 and Taihoku Medical College in 1922; status of herp collection cited by Oshima (1910) unknown. *See also:* BSRT, NTM. Taipei City, Taiwan.

**1538. NTM:** National Taiwan Museum, Zhongzheng

District, Taipei City. *Formerly*: Taiwan Governor Museum [Also known as Taiwan Governor-General Office Museum, Museum of the Formosan Government, Formosan Museum] established in 1908 by the colonial government of Japan and fully completed in 1915; Taiwan Provincial Museum (1949–1999). *Note*: status of herp specimens cited from “Formosan Museum” by Oshima (1910) unknown. *Obsolete as*: TM, TME, TMRL. *Current as*: NTM (herps), NTMP (fishes). *See also*: BSRT, MST. Taipei City. Taiwan.

**1539. NTNUB**: National Taiwan Normal University, Department of Life Science [formerly Department of Biology until 2003], College of Science, Taipei City. *Formerly*: Taihoku College (1922); Taiwan Provincial College (1946); Taiwan Provincial Normal University established in 1955. *Obsolete as*: TNUB. *Current as*: NTNUB. Taipei City. Taiwan.

**1540. NTUM**: National Taiwan University Museums, Institute of Zoology, Taipei City. *Formerly*: Taihoku Imperial University (1928–1945), Institute of Zoology, Taipei. *Obsolete as*: NTU. *Current as*: NTUM (fishes, herps, fossils). *Also as*: NTUMA (amphibians). Taipei City. Taiwan.

**1541. TARI**: Taiwan Agricultural Research Institute, Taichung City. *Note*: established under Japanese rule in 1895 as Agricultural Experiment Station, Office of the Governor-General of Taiwan [Formosa], Taihoku [Taipei City]; renamed Taiwan Agricultural Research Institute (TARI) in 1945; institute relocated to Taichung City in 1977. *Current as*: TARI. Taipei City. Taiwan.

**1542. TFRI-TT**: Taiwan Fisheries Research Institute, Taitung Branch museum. *See also*: FRIP. Taitung County. Taiwan.

**1543. EAMFRO**: East African Marine Fisheries Research Organization. *Note*: established in 1953; Zanzibar laboratories became Institute of Marine Sciences, University of Dar es Salaam, in 1978; Mombasa laboratories became Kenya Marine and Fisheries Research Institute (KMFRI) in 1979. *See also*: TAFIRI. Tanzania.

**1544. KMH**: Private collection of Kim M. Howell (herps). *Note*: deposited, at least in part, at University of Dar es Salaam (UDSM). Tanzania.

**1545. MUCE**: Mkwawa University College of Education, Department of Life Sciences, Iringa. *Note*: constituent college of the University of Dar es Salaam. *Assigned here*: MUCE. Tanzania.

**1546. NMT**: National Museum of Tanzania, Dar es Salaam. *Note*: developed from National Museum of Dar es Salaam. *Current as*: NMT (fossils). Tanzania.

**1547. OGM**: Olduvai Gorge Museum, Olduvai Gorge, Ngorongoro Conservation Area. Tanzania.

**1548. RRBP**: Rukwa Rift Basin Project. *Note*: code used by Tanzanian Antiquities Unit, Ministry of Natural Resources and Tourism, Dodoma. *Current as*: RRBP (fossils). Tanzania.

**1549. SHCP**: Wildlife Conservation Society, Southern Highlands Conservation Project [Programme], Mbeya. *Current as*: SHCP (herps). Tanzania.

**1550. SRI**: Serengeti Wildlife Research Centre, Serengeti National Park (SNP). *Formerly*: Serengeti Wildlife Research Institute (SWRI) until 1980. Tanzania.

**1551. TAFIRI**: Tanzania Fisheries Research Institute, Mwanza Centre on Lake Victoria. *Formerly*: station of East African Freshwater Fisheries Research Organization (EAF-FRO). *Current as*: TAFIRI (fishes). Tanzania.

**1552. UDSM**: University of Dar es Salaam, Dar es Salaam. *Note*: herpetological collection associated with Department

of Zoology and Wildlife Conservation. *Includes*: herps from private collection of Kim M. Howell (KMH). *Current as*: UDSM (herps). Tanzania.

**1553. ZMZ**: Zanzibar Museum, Zanzibar City. *Also known as*: Peace Memorial Museum, opened in 1925. Tanzania.

**1554. CUMZ**: Chulalongkorn University, Museum of Zoology, Bangkok. *Obsolete as*: CUB, CUB MZ, CUMZA (amphibians), CUZM. *Current as*: CUMZ (fishes, herps). Bangkok. Thailand.

**1555. KUMF**: Kasetsart University, Faculty of Agriculture, Museum of Fisheries, Bangkok. *Note*: separate from RLIKU (Research Laboratory of Ichthyology). *Current as*: KUMF (fishes). *See also*: ZMKU (herps). Bangkok. Thailand.

**1556. LBSWU**: Laboratory, Department of Biology, Srinakharinwirot University, Bangkok. *Current as*: LBSWU. Bangkok. Thailand.

**1557. MFLB**: Marine Fisheries Laboratory, Department of Fisheries, Bangkok. *Formerly*: Siam Department of Fisheries, Thailand Bureau of Fisheries. *Current as*: MFLB (fishes). Bangkok. Thailand.

**1558. NIFI**: National Inland Fisheries Institute, Fish Taxonomy Division, Bangkok. *Current as*: NIFI (fishes). Bangkok. Thailand.

**1559. QSMI**: Queen Saovabha Memorial Institute, Thai Red Cross Society, Bangkok. *Current as*: QSMI (herps). Bangkok. Thailand.

**1560. RLIKU**: Research Laboratory of Ichthyology, Kasetsart University, Bangkok. *Note*: curated by Prachya Musikasinthorn; separate from Kasetsart University Museum of Fisheries (KUMF). *Current as*: RLIKU. *See also*: ZMKU (herps). Bangkok. Thailand.

**1561. TF**: Bureau of Fossils Research and Geological Museum, Department of Mineral Resources (DMR), Ministry of Natural Resources and Environment, Ratchatewi, Bangkok. *Also known as*: Central Geological Museum, DMR Head Office. *Formerly*: Museum of Rocks and Minerals (1948–1976). *Note*: Department of Mineral Resources oversees several museums including Sirindhorn Museum (SM) and Phu Wiang Dinosaur Museum, Nai Muang, Khon Kaen. *Current as*: TF (fossils). *Also as*: PW (fossils). *See also*: SM. Bangkok. Thailand.

**1562. TISTR**: Thailand Institute for Scientific and Technological Research, Ministry of Science and Technology, Bangkok. Bangkok. Thailand.

**1563. ZMKU**: Zoological Museum Kasetsart University, Department of Zoology, Faculty of Science. *Includes*: questionably includes specimens cited as NRCT (National Research Council of Thailand), a government agency with headquarters on the university campus. *Current as*: ZMKU AM (amphibians), ZMKU R (reptiles). *See also*: KUMF, RLIKU (both fishes). Bangkok. Thailand.

**1564. MARNM**: Maejo Aquatic Resources Natural Museum, Maejo University, Nong Han. *Current as*: MARNM (fishes). Chiang Mai. Thailand.

**1565. SM**: Sirindhorn Museum, Sahat Sakhan. *Also known as*: Phu Kum Khao Dinosaur Museum; Sirindhorn Dinosaur Museum; Sahat Sakhan Dinosaur Research Centre, Department of Mineral Resources (DMR), Ministry of Natural Resources and Environment. *Current as*: SM (fossils). *Also as*: TF (Thai fossils generally held by Department of Mineral Resources with headquarters in Bangkok). *See also*: TF (fossils). Kalasin. Thailand.

**1566. PRC**: Paleontological Research and Education

Centre, Maha Sarakham University, Kantarawichai. *Current as*: PRC (fossils). Maha Sarakham. Thailand.

**1567. KZM**: Khorat Zoo Museum, Nakhon Ratchasima. *Current as*: KZM (herps). Nakhon Ratchasima. Thailand.

**1568. NRRU**: Collection of the Museum of Petrified Wood and Mineral Resources, Nakhon Ratchasima Rajabhat University, Nakhon Ratchasima. *Current as*: NRRU (fossils). Nakhon Ratchasima. Thailand.

**1569. WURC**: Walailak University Reference Collection, Tha Sala District. *Current as*: WURC (fishes). Nakhon Si Thammarat. Thailand.

**1570. THNHM**: Thailand Natural History Museum, National Science Museum (NSM), Technopolis, Klong Luang. *Includes*: specimens formerly vouchered as CTNRC or TNRC (Thai National Reference Collection); Robert F. Inger collection (herps). *Obsolete as*: NHMT, TNSM (Thailand National Science Museum). *Current as*: THNHM (fishes, herps). Pathum Thani. Thailand.

**1571. SHM**: Srisuk's House Museum, Khao Yoi. *Current as*: SHM (fossils). Petchaburi. Thailand.

**1572. PMBC**: Phuket Marine Biological Centre, Phuket. *Current as*: PMBC (fishes). Phuket. Thailand.

**1573. NICA**: National Institute of Coastal Aquaculture, Songkhla. Songkhla. Thailand.

**1574. PSUZC**: Prince of Songkla University, Zoological Collection. *Also known as*: The Fifty Year Anniversary of Princess Maha Chakri Sirindhorn Natural History Museum. *Current as*: PSUZC-RT (Reptile Section). Songkhla. Thailand.

**1575. UNMF**: Ubon Ratchathani Natural History Museum of Fisheries, Ubon Ratchathani University, Warin Chamrap. *Current as*: UNMF (fishes). Ubon Ratchathani. Thailand.

**1576. UL**: University of Lomé, Lomé. *Formerly*: Université du Bénin (1970–2001). *Includes*: herps deposited by Gabriel Hoinssoude Segniagbeto (Coll. GHS-W, coll. GHS-Togo). *Obsolete as*: UBL. *Current as*: UL. Togo.

**1577. CAREC**: Caribbean Epidemiology Centre, Federation Park. *Formerly*: Trinidad Regional Virus Laboratory (TRVL). *Current as*: CAREC (herps). Trinidad. Trinidad & Tobago.

**1578. CGM**: Coast Guard Museum, Chaguaramas. *Note*: collections of fishes and marine invertebrates by staff. *Current as*: CGM (fishes). Trinidad. Trinidad & Tobago.

**1579. IMA**: Institute of Marine Affairs, Chaguaramas. *Current as*: IMA. Trinidad. Trinidad & Tobago.

**1580. MALF**: Ministry of Agriculture, Lands and Fisheries, Fisheries Division, Port of Spain. *Note*: collection of marine fishes by staff. *Current as*: MALF (fishes). Trinidad. Trinidad & Tobago.

**1581. UWIZM**: University of the West Indies at St. Augustine, Zoology Museum. *Formerly*: Imperial College of Tropical Agriculture (1921–1960). *Current as*: UWIZM. Trinidad. Trinidad & Tobago.

**1582. WBTRS**: William Beebe Tropical Research Station, Arima Valley. *Also known as*: Simla. *Formerly*: New York Zoological Society's Tropical Research Station. *Obsolete as*: TRS. *Current as*: WBTRS. Trinidad. Trinidad & Tobago.

**1583. FST**: Ichthyological Collection, Faculté des Sciences de Tunis, Université Tunis El Manar, Tunis. *Current as*: FST (fishes). Tunisia.

**1584. ONM NG**: Musée de l'Office National Des Mines, Ministère de l'Industrie et de la Technologie, Tunis. *Obsolete as*: BM. *Current as*: ONM NG (fossils). Tunisia.

**1585. ZMADYU**: Zoology Museum of Adiyaman Üniversitesi [Adiyaman University], Adiyaman [Adiyaman]. *Current as*: ZMADYU (herps). Adiyaman [Adiyaman]. Turkey.

**1586. CGE**: Private collection of Fitnat Güler Ekmekçi, Hacettepe Üniversitesi [Hacettepe University], Ankara. *See also*: HUIC. Ankara. Turkey.

**1587. HUIC**: Hacettepe Üniversitesi [Hacettepe University], Faculty of Science, Department of Biology, Ichthyological Collection, Ankara. *Current as*: HUIC (fishes). *See also*: CGE. Ankara. Turkey.

**1588. METUGM**: Orta Doğu Teknik Üniversitesi [Middle East Technical University], Geology Museum. *Current as*: METUGM (fossils). Ankara. Turkey.

**1589. ZMADU**: Adnan Menderes Üniversitesi (ADÜ) [Adnan Menderes University], Zooloji Müzesi, Aydın [Aydın]. *Includes*: Kurtuluş Olgun Collection (KOC), Biological Department. *Current as*: ZMADU (fishes). Aydın [Aydın]. Turkey.

**1590. COMU-ZDEU**: Molecular Zootaxonomy Laboratory Collection, Çanakkale Onsekiz Mart University, Çanakkale. *Current as*: COMU-ZDEU (herps). *See also*: PRM (fishes). Çanakkale. Turkey.

**1591. PRM**: Piri Reis Marine Museum, Çanakkale Onsekiz Mart University (COMU), Çanakkale. *Current as*: PRM-PIS (fishes). *See also*: COMU-ZDEU (herps). Çanakkale. Turkey.

**1592. DUM**: Dicle Üniversitesi, Fen Fakültesi, zooloji müzesi [Dicle University, Faculty of Science, Zoological Museum], Diyarbakır [Diyarbakır]. Diyarbakır [Diyarbakır]. Turkey.

**1593. IFC-ESUF**: Inland Fishes Collection, Eğirdir Su ürünleri Fakültesi [Faculty of Fisheries], Süleyman Demirel Üniversitesi [Suleyman Demirel University], Isparta. *Current as*: IFC-ESUF (fishes). *See also*: SCFK-SDU. Isparta. Turkey.

**1594. SCFK-SDU**: Private collection of Fahrettin Küçük, Eğirdir Su ürünleri Fakültesi [Faculty of Fisheries], Süleyman Demirel Üniversitesi [Suleyman Demirel University], Isparta. *See also*: IFC-ESUF. Isparta. Turkey.

**1595. ZMUI**: İstanbul Üniversitesi Zooloji Müzesi [Zoology Museum of Istanbul University], Fatih, Istanbul. *Note*: founded in the 1920s. *Current as*: ZMUI (herps). *Also as*: IUSHM (fishes, Hydrobiology Museum). Istanbul. Turkey.

**1596. ESFM**: Ege Üniversitesi, Su Ürünleri Fakültesi [Ege University, Faculty of Fisheries], Bornova, İzmir [İzmir]. *Current as*: ESFM or ESFM-PISI (inland water fish collection, Faculty of Fisheries). *See also*: ZDEU (herps). İzmir [İzmir]. Turkey.

**1596.5. NHVUIC**: (see Addendum)

**1597. ZDEU**: Sistematik Zooloji, Ege Üniversitesi [Zoology Department, Ege University], Bornova, İzmir [İzmir]. *Note*: museum founded in 1961. *Obsolete as*: SZE (herps). *Current as*: ZDEU (herps). *See also*: ESFM (inland water fish collection, Faculty of Fisheries). İzmir [İzmir]. Turkey.

**1598. FFR**: Zoology Museum, Faculty of Fisheries, Recep Tayyip Erdoğan Üniversitesi (RTEU), Rize. *Formerly*: Rize University (2006–2012) which separated from Karadeniz Teknik Üniversitesi [Black Sea Technical University (KZL)] in 2006. *Current as*: FFR (fishes). Rize. Turkey.

**1599. ZMHRU**: Zoological Museum of Harran University [Harran Üniversitesi], Osmanbey Campus, Şanlıurfa [Urfa]. *Current as*: ZMHRU (herps). Şanlıurfa [Urfa]. Turkey.

**1600. KZL**: Department of Biology, Faculty of science,



Karadeniz Teknik Üniversitesi [Karadeniz Technical University], Trabzon. *Also known as:* Black Sea Technical University. *Current as:* KZL (herps). Trabzon. Turkey.

**1601. YYU-ZF:** Private collection of Mahmut Elp, Fisheries Faculty, Van Yüzüncü Yıl University, Van. Van. Turkey.

**1602. IZTA:** Institute of Zoology, Türkmenistanyň Ylmlar akademiýasy [Turkmen Academy of Sciences], Ashgabat. Turkmenistan.

**1603. MUZM:** Makerere University Zoology Museum, Kampala. *Current as:* MUZM (herps). Uganda.

**1604. CKRM:** Cherkasy Regional Museum, Cherkasy. *Current as:* CKRM. Cherkasy. Ukraine.

**1605. ZMCKU:** The Bohdan Khmelnytsky National University of Cherkasy, Cherkasy. *Also known as:* Cherkasy National University. *Current as:* ZMCKU. Cherkasy. Ukraine.

**1606. ZMNSU:** Zoological Museum, Nizhyn Gogol State University, Nížyn [Nizhyn]. *Current as:* ZMNSU. Chernihiv. Ukraine.

**1607. CHER:** Zoological Museum, Yurii Fedkovych Chernivtsi National University, Chernivtsi. *Current as:* CHER. Chernivtsi. Ukraine.

**1608. TNU:** V.I. Vernadsky Taurida National University, Simferopol. *Current as:* TNU. Crimea. Ukraine.

**1609. YugNIRO:** Southern Scientific Research Institute of Marine Fisheries and Oceanography, Kerch. *Formerly:* Azov-Black Seas Scientific Research Institute of Marine Fisheries and Oceanography (AzCherNIRO) until 1989. *Obsolete as:* AzCherNIRO. *Current as:* YugNIRO (fishes). Crimea. Ukraine.

**1610. ZMDU:** Zoological Museum, Oles Honchar Dnipro National University, Dnipro [ex Dnipropetrovsk]. *Also known as:* Dnipropetrovsk State University. *Current as:* ZMDU. Dnipropetrovsk. Ukraine.

**1611. ZMKRU:** Kryvyi Rih National University, Kryvyi Rih [Krivoy Rog]. *Current as:* ZMKRU. Dnipropetrovsk. Ukraine.

**1612. ZMPRU:** Vasyl Stefanyk Precarpathian National University, Ivano-Frankivsk. *Current as:* ZMPRU. Ivano-Frankivsk. Ukraine.

**1613. MNKhU:** Museum of Nature at V.N. Karazin Kharkiv National University [Karazin University], Kharkiv [Kharkov]. *Includes:* Zoological Cabinet of Imperial Kharkiv University (ZCIKU). *Obsolete as:* KSU (Kharkov State University), MNKhNU, MPKhU, ZCIKU, ZDKU. *Current as:* MNKhU. *Also as:* MNKNU (herps). Kharkiv. Ukraine.

**1614. ZMKNU:** Zoological Museum, Kherson State University, Kherson. *Current as:* ZMKNU. Kherson. Ukraine.

**1615. NMNHU:** National Museum of Natural History, National Academy of Sciences of Ukraine (NASU), Kyiv [Kiev]. *Includes:* M. Shcherbak Zoological Museum and V. Topachevsky Palaeontological Museum. *Note:* Zoological and Paleontological departments were part of Institute of Zoology, National Academy of Sciences of Ukraine (IZAN, now SIZK) from 1939–1998. *Obsolete as:* HHTM HAHY [NNPM NASU], IK, IZ, IZAN, IZANU, IZAS, IZASU, IZU, NASU, NMNH, NMNH-P, NNHMK, ZM NASU, ZMAU, ZIK, ZIKP, ZMNHMK, ZMUAS. *Current as:* NMNHU, NMNHU-Z (Department of Zoology, fishes, herps), NMNHU-P (fossils, Department of Paleontology). *See also:* SIZK. Kiev. Ukraine.

**1616. SIZK:** I.I. Schmalhausen Institute of Zoology, National Academy of Sciences of Ukraine, Kyiv [Kiev]. *Note:* Zoological museum established in 1919; from 1939–1998, Institute of Zoology (IZAN) included Zoological and

Paleontological departments that are now part of National Museum of Natural History, National Academy of Sciences of Ukraine (NMNHU). *Obsolete as:* IZAN (parasites). *Current as:* SIZK. *See also:* NMNHU. Kiev. Ukraine.

**1617. ZMKU:** Zoological Museum, Taras Shevchenko National University of Kyiv, Kyiv [Kiev]. *Also known as:* Kiev University Zoological Museum, Kyiv National University. *Current as:* ZMKU. Kiev. Ukraine.

**1618. ZMUD:** Zoological Museum, Stepan Demyanchuk International Economic and Humanities University, Kyiv [Kiev]. *Current as:* ZMUD. Kiev. Ukraine.

**1619. ZMLG:** Luhansk Taras Shevchenko National University, Starobilsk [ex Lugansk]. *Also known as:* University of Luhansk. *Current as:* ZMLG. Luhansk. Ukraine.

**1620. SNHM:** State Museum of Natural History, National Academy of Sciences of Ukraine, Lviv. *Current as:* SNHM. Lviv. Ukraine.

**1621. ZMD:** Ivan Franko National University of Lviv, Lviv. *Also known as:* The Benedict Dybowski Zoological Museum. *Current as:* ZMD. Lviv. Ukraine.

**1622. ZMLAU:** Zoological Museum, Lviv National Agrarian University, Dubliany. *Current as:* ZMLAU. Lviv. Ukraine.

**1623. ZMLVU:** Zoological Museum, Lviv National University of Veterinary Medicine and Biotechnology, Lviv. *Current as:* ZMLVU. Lviv. Ukraine.

**1624. ZMOU:** Zoological Museum, I. Mechnikov Odessa National University, Odessa. *Also known as:* Brauner Zoological Museum (BZM). *Obsolete as:* ONUZM. *Current as:* ZMOU. Odessa. Ukraine.

**1625. IMBR:** A.O. Kovalevsky Institute of Marine Biological Research, Russian Academy of Sciences, Sevastopol. *Formerly:* A.O. Kovalevsky Institute of Biology of the Southern Seas, Ukrainian Academy of Sciences (IBSS) from 1963–2014, descended from the Sevastopol Biological Station (SBS) founded in 1871. *Note:* questionably associated with the Sevastopol Experimental Design Bureau for Underwater Investigation (SEKPB) listed by Leviton and Gibbs (1988:281). Sevastopol. Ukraine.

**1626. ZMSPU:** Zoological Museum, Sumy State Pedagogical University, Sumy. *Current as:* ZMSPU. Sumy. Ukraine.

**1627. ZMTPU:** Ternopil Volodymyr Hnatyuk National Pedagogical University, Ternopil. *Current as:* ZMTPU. Ternopil. Ukraine.

**1628. ZMDONU:** Zoological Museum, Vasyl' Stus Donetsk National University, Vinnytsya [Vinnytsia]. *Current as:* ZMDONU. Vinnytsya [Vinnytsia]. Ukraine.

**1629. ZMVU:** Zoological Museum of Vinnytsya State Pedagogical University, Vinnytsya [Vinnytsia]. *Current as:* ZMVU. Vinnytsya [Vinnytsia]. Ukraine.

**1630. TMRS:** The Transcarpathian Museum of Regional Studies, Uzhhorod [Uzhgorod]. *Formerly:* Mukachiv Historical Regional Museum “Tyvodar Legotsky” (1924); “Prosvita” Regional Community Museum in Uzhgorod (1928). *Current as:* TMRS (fossils). Zakarpattia. Ukraine.

**1631. UZZM:** Zoological Museum, Uzhhorod National University, Uzhhorod [Uzhgorod]. *Also known as:* Zoological Museum of Uzhnu. *Obsolete as:* UzhNU, UZNU, ZMUZ, ZMUZU. *Current as:* UZZM. Zakarpattia. Ukraine.

**1632. ZMZNU:** Zaporizhzhya National University, Zaporizhia. *Current as:* ZMZNU. Zaporizhia. Ukraine.

**1633. ZMZHU:** Zhytomyr State University of Ivan Franko, Zhytomyr. *Current as:* ZMZHU. Zhytomyr. Ukraine.

**1634. ADIAS:** Abu Dhabi Islands Archaeological Survey

storage facility, Abu Dhabi. *Includes*: fossil collections made by Peter Whybrow and Andrew Hill. *Current as*: ADIAS (fossils). United Arab Emirates.

**1635. AUH:** Al Ain National Museum, Abu Dhabi Tourism and Culture Authority, Al Ain. *Also known as*: Al Ain Museum. *Formerly*: Abu Dhabi Authority for Culture and Heritage (merged into the Tourism and Culture Authority in 2012). *Current as*: AUH (fossils). United Arab Emirates.

**1636. SNHM:** Sharjah Natural History Museum, Sharjah. *Current as*: SNHM (cetaceans). United Arab Emirates.

**1637. AGT:** Alfred Gillett Trust Fossil Collection, Street, Somerset. *Current as*: AGT (fossils). England. United Kingdom.

**1638. BGS:** British Geological Survey, Keyworth, Nottingham. *Current as*: BGS (fossils). *Also as*: BGS GSM (fossils). England. United Kingdom.

**1639. BMAG:** Bristol Museum and Art Gallery, Bristol. *Current as*: BMAG (fishes, fossils), CBMAG (herps). *Also as*: BRSMG (fossils), BCMAG (birds). England. United Kingdom.

**1640. BMB:** Booth Museum of Natural History, Brighton. *Note*: established in 1874; part of Royal Pavilion & Museums, Brighton and Hove. *Includes*: geological collections formerly on display in the Geological Gallery of Brighton Museum (dismantled ca. 1947). *Current as*: BMB (fossils). *Also as*: BMNHB (fossils). England. United Kingdom.

**1641. BMT:** Birmingham Museums Trust, Birmingham. *Includes*: fossils originally accessioned into collections of Birmingham Museum and Art Gallery (BMAG) and now housed in the Thinktank Science Museum (TSM). *Current as*: BMT (fossils). England. United Kingdom.

**1642. BRSUG:** University of Bristol, Department of Earth Sciences, Bristol. *Current as*: BRSUG (fossils). England. United Kingdom.

**1643. CAMSM:** The Sedgwick Museum of Earth Sciences, University of Cambridge, Cambridge. *Current as*: CAMSM (fossils). *Also as*: SM (fossils). *See also*: UMZC. England. United Kingdom.

**1644. DCM:** The Dorset County Museum, Dorchester, Dorset. *Includes*: fossils from Corfe Castle Museum transferred in 1894. *Note*: much of non-type material transferred to NHMUK in 1958. *Current as*: DCM (fossils). *Also as*: DORCM (fossils). England. United Kingdom.

**1645. DJ:** Collection of Palaeontology, British Antarctic Survey, Cambridge. *Current as*: DJ (fossils). England. United Kingdom.

**1646. DZSWS:** The Wiltshire Museum, Devizes. *Formerly*: Wiltshire Heritage Museum; Devizes Museum. *Current as*: DZSWS (fossils). England. United Kingdom.

**1647. FPM:** Museum of Natural History and Pathological Anatomy, Fort Pitt, Chatham. *Also known as*: Natural History Museum of the Army Medical Department (Burton 1838). *Note*: human anatomical museum established in 1814, natural history specimens separated in 1829; cited as "Military medical Museum in Chatham" by Valenciennes (1839:47); museum relocated to Royal Army Medical Department (R.A.M.) at Royal Victoria Hospital in Netley ca. 1862 (no longer extant); some specimens (bearing R.A.M. labels) eventually transferred to NHMUK (see Carter & Dolan 1978). *Also as*: AMSC. England. United Kingdom.

**1648. HASMG:** Hastings Museum and Art Gallery, Hast-

ings. *Current as*: HASMG (fossils). England. United Kingdom.

**1649. HLM:** Holophusicon: The Leverian Museum, London. *Note*: natural history and ethnographic collection assembled by Ashton Lever (1729–1788); located first at Leicester House on Leicester Square (1775–1786), then Blackfriars Bridge where it was often known as the Museum Leverianum; auctioned in 1806 and purchased by several museums, including Naturhistorisches Museum, Wien (NMW). England. United Kingdom.

**1650. HM:** Great North Museum: Hancock, Newcastle upon Tyne. *Formerly*: Hancock Museum (1884–2006). *Current as*: HM (fossils). England. United Kingdom.

**1651. HMG:** Haslar Medical Museum, Royal Naval Hospital, Gosport. *Note*: collections transferred to Natural History Museum, London (NHMUK). England. United Kingdom.

**1652. IOS:** Institute of Oceanographic Sciences, Wormley, Godalming. *Includes*: Deacon Laboratory (IOSDL). *Note*: merged into Southampton Oceanography Centre and renamed National Oceanography Centre, Southampton (NOCS) in 1996; renamed Natural Environment Research Council (NERC) in 2005. England. United Kingdom.

**1653. KMAG:** Keswick Museum and Art Gallery, Keswick. England. United Kingdom.

**1654. LDHRN:** Horniman Museum and Gardens, London. *Includes*: fossils collected by Walter H. Bennett, acquired from Croydon Natural History & Scientific Society in 1989. *Current as*: LDHRN-NH (Natural History collection). *Also as*: NH (fossils). England. United Kingdom.

**1655. LEICT:** New Walk Museum and Art Gallery, Leicester. *Current as*: LEICT (fossils). England. United Kingdom.

**1656. LINN:** The Linnean Society of London, London. *Obsolete as*: LS, LSL. *Current as*: LINN. England. United Kingdom.

**1657. LIVCM:** World Museum, Liverpool. *Formerly*: Liverpool Museum. *Also as*: LIV, WML. England. United Kingdom.

**1658. LMR:** Lyme Regis Museum, Lyme Regis, Dorset. England. United Kingdom.

**1659. MAS:** Private collection of Malcolm A. Smith, London. *Note*: some herps transferred to Natural History Museum, London (NHMUK). England. United Kingdom.

**1660. MIWG:** Dinosaur Isle Museum, Sandown. *Formerly*: Museum of Isle of Wight Geology (MIWG). *Current as*: MIWG (fossils) or IWCMS (fossils from 1994 onwards, Isle of Wight County Museums Service). England. United Kingdom.

**1661. MJML:** Museum of Jurassic Marine Life, Ashfield, Kimmeridge, Dorset. England. United Kingdom.

**1662. MM:** Manchester Museum, University of Manchester, Manchester. *Current as*: MM (fossils). *Also as*: MANCH (fossils). England. United Kingdom.

**1663. NHMUK:** Natural History Museum, London. *Formerly*: British Museum (Natural History). *Includes*: Walter Rothschild collection housed separately in Tring; herps from the private collection of Malcolm A. Smith (MAS). *Obsolete as*: BM, NHM P (fossils), NHML. *Current as*: NHMUK (preferred for citing specimens as of 1 Jan 2011), NHMUK PV (paleovertebrate collections). *Also as*: BMNH. England. United Kingdom.

**1664. OUM:** Oxford University Museum of Natural

History, Oxford. *Includes*: natural history collections held separately by Ashmolean Museum and Anatomical Museum of Christ Church, Oxford, both transferred to OUM between 1860–1866. *Current as*: OUM. *Also as*: OUMNH (fossils), OUMNH.ZC. England. United Kingdom.

**1665. PETMG**: Peterborough Museum and Art Gallery, Peterborough. *Current as*: PETMG (fossils). England. United Kingdom.

**1666. PHGM**: Penlee House Gallery and Museum, Penzance. *Formerly*: Penzance Museum; Penzance Natural History and Antiquarian Society. England. United Kingdom.

**1667. RCSHC**: Royal College of Surgeons of England Museum, London. *Formerly*: Company of Surgeons (1745–1800). *Includes*: collection of John Hunter (1728–1793), also known as Hunterian Collection or Museum, purchased in 1799. *Note*: collections partially destroyed during WWII on 10 May 1941. *Obsolete as*: RCSOM. *Current as*: RCSHC (fossils, Hunterian Collection). *Also as*: RCS (fossils), RCSL (fishes), RCSM (herps). England. United Kingdom.

**1668. RNHG**: Royal Naval Hospital Gillingham, Medical Museum, Chatham, London. *Note*: erroneously cited as repository for paralectotype of *Carcharhinus falciformis* (Müller & Henle 1839) which was originally deposited at Museum of Natural History and Pathological Anatomy, Fort Pitt, Chatham (FPM). England. United Kingdom.

**1669. RUSM**: Royal United Service Museum, Royal United Services Institute, Whitehall, London. *Note*: status unknown, collection probably donated in part to Natural History Museum, London (NHMUK). England. United Kingdom.

**1670. SDM**: Museum in the Park, Stroud, Gloucestershire. *Formerly*: Stroud and District Museum (1983–2001), descended from the Cowle Museum. *Current as*: SDM (fossils). England. United Kingdom.

**1671. TTNCM**: Somerset County Museum, Taunton. *Also known as*: Museum of Somerset. *Current as*: TTNCM (fossils). England. United Kingdom.

**1672. UMZC**: University Museum of Zoology, University of Cambridge, Cambridge. *Note*: formed in 1877 via combination of collections of Museum of Comparative Anatomy (built in 1865) and Cambridge Philosophical Society (founded in 1819). *Obsolete as*: CUMZ (birds), UCFP (Faculty of Philosophy), UMCZ, ZMC. *Current as*: UMZC (fishes, herps). *See also*: CAMSM (fossils, Sedgwick Museum). England. United Kingdom.

**1673. UOP**: University of Portsmouth, Portsmouth. *Current as*: UOP (fossils). England. United Kingdom.

**1674. WARMS**: Warwickshire Museum, Warwick. *Current as*: WARMS (fossils). England. United Kingdom.

**1675. ZSL**: Zoological Society of London, London. *Note*: founded in 1825; collection dispersed in 1854 to Natural History Museum, London (NHMUK) and other local collections. England. United Kingdom.

**1676. BELUM**: The Ulster Museum, Department of Natural Sciences, Belfast. Northern Ireland. United Kingdom.

**1677. AUGD**: University of Aberdeen, Aberdeen. *Current as*: AUGD (fossils, Geology Department), AUZD (herps, Zoology Department). Scotland. United Kingdom.

**1678. DUNUC**: The D'Arcy Thompson Zoology Museum, Dundee College of Education collection, University of Dundee, Dundee. *Note*: founded in 1881 as University

College, Dundee; incorporated within University of St Andrews in 1897, regained independent status in 1967. *Includes*: fishes collected by Captain F.W. Hutton. *Current as*: DUNUC. Scotland. United Kingdom.

**1679. GLAHM**: The Hunterian Museum and Art Gallery, University of Glasgow, Glasgow. *Obsolete as*: GMNGZ, HMG. *Current as*: GLAHM (fishes, fossils). *See also*: RCSHC. Scotland. United Kingdom.

**1680. GSE**: British Geological Survey, Edinburgh. *Current as*: GSE (fossils). Scotland. United Kingdom.

**1681. NMSZ**: National Museums of Scotland, Edinburgh. *Formerly*: Edinburgh Museum of Science and Art opened in 1866, renamed Royal Scottish Museum (RSM) in 1904. *Includes*: private collection of T.S. Traill (TST). *Obsolete as*: RSM. *Current as*: NMSZ. *Also as*: NMS (herps, fossils), NMSE (birds). Scotland. United Kingdom.

**1682. RCSE**: Royal College of Surgeons of Edinburgh, Surgeons' Hall Museums, Edinburgh. Scotland. United Kingdom.

**1683. TST**: Private collection of T.S. Traill (herps). *Note*: incorporated into National Museums of Scotland (NMSZ). Scotland. United Kingdom.

**1684. NMWZ**: National Museum Cardiff, Amgueddfa Cymru [National Museum of Wales], Cardiff. *Current as*: NMWZ or NMW.Z (Zoology). *Also as*: NMWC (birds). Wales. United Kingdom.

**1685. VNHM**: Virtual Natural History Museum [website]. *Current as*: VNHM-ID (images of fossils). United Kingdom.

**1686. MHD**: Museo Histórico Departamental de Artigas, Artigas. *Current as*: MHD-P (fossils). Artigas. Uruguay.

**1687. MMC**: Museo Municipal de Colonia “Dr. Bautista Rebuffo”, Colonia del Sacramento. *Current as*: MMC (fossils). Colonia. Uruguay.

**1688. MMNP**: Museo Municipal de Nueva Palmira “Francisco Lucas Roselli”, Nueva Palmira. *Current as*: MMNP (fossils). Colonia. Uruguay.

**1689. MPAC**: Museo Paleontológico “Armando Calcatera”, Colonia del Sacramento. *Current as*: MPAC (fossils). Colonia. Uruguay.

**1690. CECN**: Centro de Estudios de Ciencias Naturales, Montevideo. *Note*: herp collection housed at Museo Nacional de Historia Natural, Montevideo (MHNM) since ca. 1996; specimens re-numbered, but also retain original CECN numbers too. *Current as*: CECN-A (amphibians) & CECN-R (reptiles). Montevideo. Uruguay.

**1691. CEDO**: Centro Educativo Don Orione, Departamento de Biología, Montevideo. *Note*: collection apparently closed, disposition of specimens unknown. Montevideo. Uruguay.

**1692. DHE**: Diversidad de los Humedales del Este. *Note*: collection began under Programa para la Conservación de la Biodiversidad y Desarrollo Sustentable de los Bañados del Este (PROBIDES) & United Nations Development Programme; amphibians currently housed at ZVC (specimens re-numbered, but also retain original DHE numbers). *Current as*: DHE-A (amphibians) & DHE-R (reptiles). Montevideo. Uruguay.

**1693. DINARA**: Dirección Nacional de Recursos Acuáticos, Montevideo. *Formerly*: Instituto Nacional de Pesca (INAPE). *Note*: antecedents include Instituto de Pesca, created in 1911 for scientific purposes, renamed Servicio de Oceanografía y Pesca under the Dirección de la Armada in 1933 and replaced by Industrias Loberas y Pesqueras del



Estado (ILPE) in 1976; fish collection transferred to Museo Nacional de Historia Natural (MHNM). Montevideo. Uruguay.

**1694. MHNM:** Museo Nacional de Historia Natural, Montevideo. *Formerly:* Museo de Historia Natural de Montevideo. *Includes:* herp collection transferred from Centro de Estudios de Ciencias Naturales (CECN) ca. 1996; fishes from Dirección Nacional de Recursos Acuáticos (DINARA, formerly Instituto Nacional de Pesca, INAPE). *Note:* temporarily merged with Museo Nacional de Antropología (MNA) in 2001 to form Museo Nacional de Historia Natural y Antropología (MUHINA, MUNHINA); MHNM and MNA re-established as independent museums in 2009. *Obsolete as:* MNHN, MNHMU, MNHNM, MNHNU, MUHINA, MUNHINA. *Current as:* MHNM (fishes, herps). Montevideo. Uruguay.

**1695. ZVC:** Colección de Zoología Vertebrados de la Facultad de Ciencias, Universidad de la República, Montevideo. *Includes:* amphibian collection from Diversidad de los Humedales del Este (DHE). *Obsolete as:* DZVU (Departamento Zoología Vertebrados), ZVCB, ZVCP, ZVCR. *Current as:* ZVC-P (fishes), ZVC-B (amphibians), ZVC-R (reptiles). Montevideo. Uruguay.

**1696. MPAB:** Museo Paleontológico "Alejandro Berro", Mercedes. *Current as:* MPAB (fossils). Soriano. Uruguay.

**1697. ALMNH:** Alabama Museum of Natural History, The University of Alabama, Tuscaloosa. *Includes:* vertebrate fossil collection from Geological Survey of Alabama (GSA). *Current as:* ALMNH PV (fossils). *Obsolete as:* AL, ALA, UAM, UAMNH, UNAL. *See also:* UA (fishes & herps administered separately by Department of Biological Sciences). Alabama. USA.

**1698. AMRL:** Alabama Marine Resources Laboratory, Dauphin Island. Alabama. USA.

**1699. AUM:** Auburn University Museum of Natural History, Auburn. *Formerly:* Alabama Polytechnic Institute (API). *Includes:* fish holotypes dual-accessioned at AUM and Center for the Study of Biological Diversity, University of Guyana (CSBD) to be repatriated to Guyana. *Obsolete as:* API, AU, AUNHMLC, UAA. *Current as:* AUM (fishes), AUFT (fish tissues), AUMP (fossils, Museum of Paleontology). Alabama. USA.

**1700. MSC:** McWane Science Center, Birmingham. *Includes:* Red Mountain Museum (RMM) collections. *Current as:* MSC (fossils). Alabama. USA.

**1701. SHCIC:** Spring Hill College Ichthyological Collection, Mobile. Alabama. USA.

**1702. UA:** Department of Biological Sciences, The University of Alabama, Tuscaloosa. *Includes:* fish collection assembled by Geological Survey of Alabama (GSA), Tuscaloosa. *Current as:* UAIC (fishes), UAHC (herps). *See also:* ALMNH (fossils). Alabama. USA.

**1703. UNOAL:** University of Northern Alabama, College of Arts and Sciences, Department of Biology, Florence. Alabama. USA.

**1704. USA:** University of South Alabama, College of Arts and Sciences, Department of Biological Sciences, Mobile. Alabama. USA.

**1705. UWAZ:** The University of West Alabama, Zoology Collection, Livingston, AL. *Current as:* UWAZ (fishes). *Also as:* UWA (fossils). Alabama. USA.

**1706. ABL:** Auke Bay Laboratory, Alaska Fisheries Science Center (AFSC), National Marine Fisheries Service

(NMFS), Division of National Oceanic and Atmospheric Administration (NOAA). *Formerly:* Northwest and Alaska Fisheries Center (NWAFC), descended from Northwest Fisheries Science Center (NWFSC). *Obsolete as:* NWAFC. *Also as:* ABML. Alaska. USA.

**1707. UAJ:** University of Alaska, Juneau. Alaska. USA.

**1708. UAM:** University of Alaska Museum of the North, Fairbanks. *Current as:* UAM (fishes, herps), UAMES (fossils, Earth Sciences Collection). Alaska. USA.

**1709. ASU:** Arizona State University, School of Life Sciences, Tempe. *Includes:* one-third of fish collection from University of Nevada, Las Vegas (UNLV). *Current as:* ASU. Arizona. USA.

**1710. MNA:** Museum of Northern Arizona, Flagstaff. *Current as:* MNA (fossils). Arizona. USA.

**1711. UAZ:** University of Arizona, Museum of Natural History, Tucson. *Obsolete as:* UA. *Current as:* UAZ (fishes, herps), UALP (fossils, Laboratory of Paleontology). Arizona. USA.

**1712. ASUMZ:** Arkansas State University Museum of Zoology, State University. *Note:* collections unified under Arkansas Center for Biodiversity Collections (ACBC) in 2016. *Current as:* ASUMZ (fishes, herps). Arkansas. USA.

**1713. ATFC:** Arkansas Tech University Fish Collection, Department of Biological Science, Russellville. Arkansas. USA.

**1714. SAU:** Southern Arkansas University, Department of Biology, Magnolia. *Formerly:* Southern State College. Arkansas. USA.

**1715. UAFMC:** University of Arkansas Collections Facility, Fayetteville. *Obsolete as:* ARK. *Current as:* UAFMC. Arkansas. USA.

**1716. WCC:** Westark Community College Fish Collection, Fort Smith. Arkansas. USA.

**1717. AHF:** Allan Hancock Foundation, University of Southern California. *Note:* Fish types transferred to LACM, non-type collection remains at AHF. California. USA.

**1718. CAS:** California Academy of Sciences, San Francisco. *Includes:* fishes from Department of Zoology, University of California, Berkeley (UCB teaching collection) and University of Nevada, Las Vegas (two-thirds of UNLV collection); specimens from George Vanderbilt Foundation (CAS-GVF) and Indiana University, Bloomington (CAS-IU); Stanford University (SU) collections of fishes (CAS-SU), amphibians (CAS-SUA) and reptiles (CAS-SUR). *Note:* during computerization, 100000 added to each SU catalog number (e.g., SU 12345 databased as CAS 112345), but may be cited as SU 12345 or CAS-SU 112345. *Current as:* CAS (fishes, herps, fossils). *Also as:* SU (Stanford University collections). California. USA.

**1719. CCBER:** University of California, Santa Barbara (UCSB), Cheadle Center for Biodiversity and Ecological Restoration. *Obsolete as:* UCSB. *Current as:* CCBER. California. USA.

**1720. CSF:** California State University, Fullerton. *Note:* historical specimens largely transferred to Natural History Museum of Los Angeles County (LACM) in 1986. California. USA.

**1721. CSLB:** California State University, Long Beach. *Note:* historical specimens largely transferred to Natural History Museum of Los Angeles County (LACM) in 1980s. *Also as:* CSULB. California. USA.

**1722. CSPU:** California State Polytechnic University,

Pomona. California. USA.

**1723. CSUC:** California State University, Chico Vertebrate Museum, Chico. *Current as:* CSUC. California. USA.

**1724. CSUN:** California State University, Northridge. *Current as:* CSUN (fishes, herps). *Also as:* REE-CSUN (Robert E. Espinoza herp collection). California. USA.

**1725. HSU:** Humboldt State University, Arcata. *Current as:* HSU (fishes), HSUVM (herps). California. USA.

**1726. LACM:** Natural History Museum of Los Angeles County, Los Angeles. *Includes:* fishes formerly at California State University, Fullerton (CSF), California State University, Long Beach (CSLB) and University of California at Los Angeles (UCLA; part of collection also to SIO); herps from Costa Rica Expeditions of Jay Savage (CRE); fossils from California Institute of Technology, Los Angeles (CIT). *Note:* The Robert J. Lavenberg Fish Collection formally named in 1998. *Obsolete as:* LACMNH. *Current as:* LACM (fishes, herps, fossils). California. USA.

**1727. LLU:** Loma Linda University, Department of Earth and Biological Sciences, Loma Linda. *Current as:* LLU (fossils). California. USA.

**1728. LSUHC:** La Sierra University Herpetological Collection, Riverside. *Current as:* LSUHC (herps). California. USA.

**1729. MLML:** Moss Landing Marine Laboratories, Moss Landing. California. USA.

**1730. MLZ:** Occidental College, Moore Laboratory of Zoology, Los Angeles. *Also as:* OC. California. USA.

**1731. MVZ:** Museum of Vertebrate Zoology, University of California, Berkeley. *Includes:* specimens donated by Milton Hildebrand, University of California, Davis (UCD, now MWFB); University of Nevada, Las Vegas (UNLV) herp collection transferred in 2009. *Note:* part of Berkeley Natural History Museums consortium (BNHM); fish collection associated with Department of Zoology, University of California, Berkeley (UCB) transferred to California Academy of Sciences (CAS). *Obsolete as:* UCMZ. *Current as:* MVZ (fishes, herps). *See also:* UCMP (fossils). California. USA.

**1732. MWFB:** Museum of Wildlife and Fish Biology, University of California, Davis. *Note:* historical collections donated in part by Milton Hildebrand to MVZ. *Obsolete as:* UCD. *Current as:* MWFB (fishes). *See also:* MVZ. California. USA.

**1733. NMFSLJ:** National Marine Fisheries Service La Jolla Laboratory, Ichthyoplankton Collection, La Jolla. *Current as:* NMFSLJ (fishes) & SWFSC (bar coded fish lots). California. USA.

**1734. RAM:** Raymond M. Alf Museum of Paleontology, Claremont. *Current as:* RAM (fossils). California. USA.

**1735. SBCM:** San Bernardino County Museum, Earth Science Division, Redlands. *Current as:* SBCM (herps & fossils). California. USA.

**1736. SBMNH:** Santa Barbara Museum of Natural History, Santa Barbara. *Current as:* SBMNH (herps). California. USA.

**1737. SCNHM:** Sierra College Natural History Museum, Rocklin. *Current as:* SCNHM VAF (fossils). California. USA.

**1738. SDNHM:** San Diego Natural History Museum, Balboa Park, San Diego. *Formerly:* San Diego Society of Natural History (SDSNH). *Includes:* Laurence M. Klauber private collection (LMK). *Obsolete as:* SDSNH. *Current as:* SDNHM (herps). California. USA.

**1739. SDSU:** San Diego State University Museum of Biodiversity, San Diego. *Also as:* REE-SDSU (Richard E.

Etheridge herp skeletal collection). California. USA.

**1740. SFSU:** San Francisco State University, Vertebrate Museum, San Francisco. California. USA.

**1741. SIO:** Scripps Institution of Oceanography, Marine Vertebrate Collection, University of California San Diego, La Jolla. *Includes:* fishes (mostly marine) transferred from UCLA in 2014 (part of UCLA fish collection also to LACM). *Note:* catalog number composed of year of accession (2 digits) followed by serial number (e.g., SIO 07-169). *In error as:* STO. *Current as:* SIO. California. USA.

**1742. SJSU:** San Jose State University, Museum of Vertebrate Zoology, San Jose. California. USA.

**1743. SSU:** Museum of Ectothermic Vertebrates, California State University, Sacramento. *Formerly:* Sacramento State College Museum of Natural History (SSCMNH). *Obsolete as:* CSUS, SSCMNH. *Current as:* SSU. California. USA.

**1744. UCLA:** University of California at Los Angeles, Los Angeles. *Note:* fish collection largely transferred to Natural History Museum of Los Angeles County (LACM) and Scripps Institution of Oceanography (SIO). California. USA.

**1745. UCMP:** University of California Museum of Paleontology, Berkeley. *Note:* part of Berkeley Natural History Museums consortium (BNHM). *Obsolete as:* MVP. *Current as:* UCMP (fossils). *See also:* MVZ (fishes, herps). California. USA.

**1746. VC:** Ventura College Fish Collection, Department of Biology, Ventura. California. USA.

**1747. BSFC:** National Ecology Research Center, Biology Survey, Fort Collins. Colorado. USA.

**1748. CSTC:** Colorado State Teachers College, Greeley. *Also known as:* State Normal School of Colorado. *Note:* institution currently known as University of Northern Colorado; status of collections unknown. Colorado. USA.

**1749. CSU:** Colorado State University, Colorado Cooperative Fish and Wildlife Research Unit, Fort Collins. *Note:* fishes distributed to various regional museums in 1980s–90s such as LFL (Larval Fish Laboratory). Colorado. USA.

**1750. DMNH:** Denver Museum of Nature and Science, Denver. *Formerly:* Denver Museum of Natural History, descended from Colorado Museum of Natural History. *Current as:* DMNH (fossils). Colorado. USA.

**1751. GSA:** Geological Society of America, Boulder. *Current as:* GSA (fossils). Colorado. USA.

**1752. LFL:** Larval Fish Laboratory Collection, Department of Fish, Wildlife and Conservation Biology, Warner College of Natural Resources, Colorado State University, Fort Collins. *Includes:* fishes from Colorado Cooperative Fish and Wildlife Research Unit (CSU). Colorado. USA.

**1753. MWC:** Museum of Western Colorado, Fruita. *Current as:* MWC (fossils). Colorado. USA.

**1754. UCM:** University of Colorado Museum of Natural History, Boulder. Colorado. USA.

**1755. UCONN:** University of Connecticut, Biodiversity Research Collections, Storrs. *Obsolete as:* UCS. *Current as:* UCONN. Connecticut. USA.

**1756. WUM:** Wesleyan University Museum, Middletown. Connecticut. USA.

**1757. YPM:** Yale University, Peabody Museum of Natural History, New Haven. *Includes:* Bingham Oceanographic Collection (BOC) added in 1959; fossil vertebrate collections of the Princeton University (YPM-PU) acquired in 1985. *Obsolete as:* PMNH. *Current as:* YPM ICH (fishes),

YPM HERA (amphibians), YPM HERR (reptiles), YPM VP (fossils). Connecticut. USA.

**1758. USFC:** United States Fish Commission. *Note:* established in 1871; reorganized as United States Bureau of Fisheries in 1903 which merged with the Bureau of Biological Survey to form the US Fish and Wildlife Service (USFWS) in 1940; Bureau of Commercial Fisheries transferred from USFWS to Department of Commerce and renamed National Marine Fisheries Service (NMFS) controlled by the National Oceanic and Atmospheric Administration in 1970; original USFC collections largely at US National Museum of Natural History (USNM). *See also:* USNM. District of Columbia. USA.

**1759. USNM:** Smithsonian Institution, National Museum of Natural History (NMNH), Washington. *Formerly:* Smithsonian Institution Museum (SIM), Department of Vertebrate Zoology. *Includes:* fishes from United States Fish Commission (USFC); some fossil type specimens from Bowling Green State University (BGSU); fossils from Florida Geological Survey (FGS). *Obsolete as:* SIM, USNH. *Current as:* USNM (fishes, herps, fossils). *Also as:* NMNH (herps). District of Columbia. USA.

**1760. FAU:** Florida Atlantic University, Department of Biological Sciences, Boca Raton. Florida. USA.

**1761. FGS:** Florida Geological Survey Geologic Collections, Tallahassee. *Note:* some fossils now at US National Museum of Natural History (USNM) and University of Florida (UF). *Current as:* FGS (fossils). Florida. USA.

**1762. FSBC:** Fish and Wildlife Research Institute (FWRI), Florida Fish and Wildlife Conservation Commission (FWC), St. Petersburg. *Note:* FWRI created in 2004 by integrating parts of the Division of Wildlife, Division of Freshwater Fisheries, and the Florida Marine Research Institute (FMRI); FMRI descended from Florida State Board of Conservation Marine Laboratory (FSBC) established in 1955 and administered by the Florida Department of Natural Resources (FDNR) from 1969–1993. *Includes:* Southeast Area Monitoring and Assessment Program (SEAMAP) Ichthyoplankton Archiving Center. *Obsolete as:* FDNR, SAC (SEAMAP Archiving Center), SEAMAP (pertains to locality data). *Current as:* FSBC (fishes), FWRI (tissues), SML (SEAMAP ichthyoplankton collection). Florida. USA.

**1763. FTU:** Florida Technological University, Orlando. Florida. USA.

**1764. GBERL:** Gulf Breeze Environmental Research Laboratory, Gulf Breeze. Florida. USA.

**1765. HBOM:** Harbor Branch Oceanographic Museum, Fort Pierce. *Current as:* HBOM (fishes). Florida. USA.

**1766. JU:** Jacksonville University, Fish Collection, Jacksonville. Florida. USA.

**1767. PBMNH:** Palm Beach Museum of Natural History, Wellington. *Current as:* PBMNH (fossils). Florida. USA.

**1768. PCHPC:** Peter C.H. Pritchard Collection hosted at the Chelonian Research Institute, Oviedo. *Current as:* PCHPC. *Also as:* PCHP. Florida. USA.

**1769. PMH:** Private collection of Mark Harris, F.F.C. Elasmobranch Studies, New Port Richey. *Current as:* PMH (fishes). Florida. USA.

**1770. SEFC:** Southeast Fisheries Science Center, National Marine Fisheries Service (NMFS), Virginia Key, Miami. *Formerly:* Tropical Atlantic Biological Laboratory (TABL). *Note:* TABL fish collection mostly transferred to University of Florida (UF) in 1972–1973 and 1995; specimens also at

The Academy of Natural Sciences of Philadelphia (ANSP) and US National Museum of Natural History (USNM). *See also:* UF. Florida. USA.

**1771. UCF:** University of Central Florida, Fish Collection, Orlando. Florida. USA.

**1772. UF:** University of Florida, Florida Museum of Natural History (FLMNH), Gainesville. *Formerly:* Florida State Museum (FSM) until 1988. *Includes:* fish collections transferred from Butler University, Indianapolis (BU, BUI), Florida State University, Tallahassee (FSU), Indian River Coastal Zone Museum, Harbor Branch Foundation, Fort Pierce (IRCZM), National Marine Fisheries Service, Gulf Coastal Fisheries Center, Panama City (NMFSPC), Tropical Atlantic Biological Laboratory (TABL), University of Miami, Coral Gables (UMIM, UMRC) and University of Miami Rosenstiel School of Marine and Atmospheric Science (UMML); fossils from Florida Geological Survey (FGS). *Note:* 200000 added to each UMML catalog number (e.g., UMML 12345 databased as UF 212345). *Obsolete as:* FLMNH, FNHM, FSM, UF-FSU. *Current as:* UF (fishes, herps, fossils). Florida. USA.

**1773. USF:** University of South Florida, Fish Collection, Tampa. *Note:* collection started by John C. Briggs in 1970s and continued by Philip Motta; Leviton et al. (1985:819) alternatively applied USF to University of South Florida, Department of Marine Science, St. Petersburg. Florida. USA.

**1774. UWF:** University of West Florida, Pensacola. Florida. USA.

**1775. CCK:** Columbus State University, Columbus. *Current as:* CCK (fossils, Cretaceous research collections). Georgia. USA.

**1776. GMNH:** Georgia Museum of Natural History, University of Georgia, Athens. *Includes:* D.S. Scott Ichthyology Collection. *Obsolete as:* UG, UGAMNH. *Current as:* GMNH (fishes, herps). Georgia. USA.

**1777. GSU:** Georgia Southern University, Georgia Southern Museum, Statesboro. *Includes:* herpetology collection transferred from Savannah Science Museum (SSM) in 1999. Georgia. USA.

**1778. BPBM:** The Bernice Pauahi Bishop Museum, Department of Zoology, Honolulu. *Includes:* fishes from National Marine Fisheries Service, Honolulu (NMFSSH), formerly Bureau of Commercial Fisheries, Honolulu (BCFH); fish types from University of Hawaii, Honolulu (UH). *Obsolete as:* BBM. *Current as:* BPBM (fishes, herps). Hawaii. USA.

**1779. UH:** University of Hawaii, Honolulu. *Note:* fish types largely transferred to BPBM, some to US National Museum of Natural History (USNM). Hawaii. USA.

**1780. IMNH:** Idaho Museum of Natural History, Idaho State University, Pocatello. *Includes:* nearly entire fish collection of The Philip L. Wright Zoological Museum (UMZM), donated in 2015. *Current as:* IMNH. Idaho. USA.

**1781. UIM:** University of Idaho, Museum of Natural History, Moscow. Idaho. USA.

**1782. BMR:** Burpee Museum of Natural History, Rockford. *Current as:* BMR (fossils). Illinois. USA.

**1783. CHAS:** Chicago Academy of Sciences, Chicago. *Note:* partially destroyed by fire Oct 1871. *Includes:* natural history collections of Northwestern University, Evanston (NWU), transferred ca. 1920–1925. *Obsolete as:* CA. *Current as:* CHAS. Illinois. USA.

**1784. FMNH:** Field Museum of Natural History, Chicago. *Formerly:* Chicago Natural History Museum (CNHM). *Includes:* fishes from University of Indiana (IU), fossil herps from



Catholic University Peking, China (CUP) and fossil collection of the University of Chicago Walker Museum (UC). *Obsolete as:* CNHM, FMNHG (fossil herps), FMNH P (fossil fishes, herps). *Current as:* FMNH (fishes, herps, geological slide collection), FMNH PF (fossil fishes), FMNH PR (fossil herps), FMNH UF (Walker Museum fossil fishes), FMNH UR (Walker Museum fossil herps). Illinois. USA.

**1785. GNHL:** The Grove National Historic Landmark, Glenview Park District. Illinois. USA.

**1786. INHS:** Illinois Natural History Survey, University of Illinois at Urbana-Champaign, Champaign. *Note:* descended in part from Illinois State Laboratory of Natural History (ISLNH). *Includes:* fish & herp collections of the University of Illinois Museum of Natural History (UIMNH; herps retain UIMNH catalog numbers); fish & herp collections from Southern Illinois University Carbondale (SIUC) and fish collections from Southern Illinois University Edwardsville (SIUE), Kentucky Department of Fish & Wildlife Resources, Frankfort (KFW), Murray State University, Kentucky (MSUKY) and University of Louisville, Kentucky (UL), all transferred from SIUC in July 2015. *Current as:* INHS (fishes, herps), UIMNH (herps from University of Illinois Museum of Natural History). Illinois. USA.

**1787. ISM:** Illinois State Museum, Springfield. Illinois. USA.

**1788. ISUC:** Illinois State University, Normal. *Current as:* ISUC (fishes, herps). *Also as:* ISU (birds & mammals). Illinois. USA.

**1789. IWU:** Illinois Wesleyan University, Bloomington. *Current as:* IWU (herps). Illinois. USA.

**1790. LUC:** Department of Biology, Loyola University Chicago, Chicago. *Current as:* LUC (teaching & research collection). *Also as:* LU D (fishes, developmental collection). Illinois. USA.

**1791. NIU:** Northern Illinois University, Dekalb. Illinois. USA.

**1792. UCRC:** University of Chicago Research Collection, Chicago. *Current as:* UCRC (fossils). *Also as:* UCPC (Paleontological Collection). Illinois. USA.

**1793. BU:** Butler University, Indianapolis. *Note:* historical fish collection (1874–1892) transferred in part to University of Florida (UF). *Also as:* BUI. Indiana. USA.

**1794. INSM:** Indiana State Museum, Indianapolis. *Current as:* INSM (herps, fossils). Indiana. USA.

**1795. ISU:** Indiana State University, Terre Haute. *Also as:* ISUVC (mammals). Indiana. USA.

**1796. IU:** Indiana University, Bloomington. *Note:* old zoological collection destroyed by fire in July 1883 or transferred primarily to California Academy of Sciences (CAS-IU), Field Museum of Natural History (FMNH), University of Michigan (UMMZ) and US National Museum of Natural History (USNM); fish collection of Shelby Gerking and others (1940s Indiana State surveys) transferred to Ohio State University (OSUM). *Also as:* IUM. Indiana. USA.

**1797. PUL:** Purdue University, Department of Forestry and Natural Resources, Lafayette. Indiana. USA.

**1798. DURC:** Drake University Research Collection, Des Moines. *Current as:* DURC (herps). Iowa. USA.

**1799. GC:** Grinnell College Biology Department, Fish Collection, Grinnell. Iowa. USA.

**1800. ISUA:** Iowa State University, Ames. *Formerly:* Iowa State College. *Current as:* ISUA (fishes, herps). *Also as:* ISC (herbarium). Iowa. USA.

**1801. SUI:** University of Iowa Museum of Natural History, Iowa City. *Formerly:* State University of Iowa. *Note:* much of Charles C. Nutting material transferred to US National Museum of Natural History (USNM). *Obsolete as:* MSUI. *Current as:* SUI (fossils), SUI.VERT (fishes, herps). Iowa. USA.

**1802. BC:** Bethel College, Newton. *Current as:* BC (herps). Kansas. USA.

**1803. FHSM:** Sternberg Museum of Natural History, Fort Hays State University, Hays. *Formerly:* Museum of the High Plains. *Obsolete as:* FHSC, MHP, SMNH. *Current as:* FHSM (fishes, herps, fossils). Kansas. USA.

**1804. KU:** University of Kansas Biodiversity Institute, Lawrence. *Formerly:* Museum of Natural History (retained for public unit of institute). *Obsolete as:* KUMNH, KUNHM (fishes), UKMNH (herps). *Current as:* KUI (fishes), KUIT (fish tissues), KUH (herps), KUVF (fossils). Kansas. USA.

**1805. WSU:** Wichita State University Fish Collection, Wichita. Kansas. USA.

**1806. EKU:** Eastern Kentucky University, Department of Biological Sciences, Branley A. Branson Museum of Zoology, Richmond. *Obsolete as:* EUK. *Current as:* EKU (fishes, herps). Kentucky. USA.

**1807. MOSU:** Morehead State University, Morehead. *Current as:* MOSU. Kentucky. USA.

**1808. TMCFS:** Thomas More College Field Station, California. *Includes:* fishes received from ORSANCO. *Current as:* TMCFS. Kentucky. USA.

**1809. UKEN:** University of Kentucky, Lexington. Kentucky. USA.

**1810. LSUM:** Louisiana State University Museum of Natural Science (LSUMNS), Baton Rouge. *Note:* part of Louisiana Museum of Natural History established in 1999. *Includes:* original herp collection (pre-1990) of Southeastern Louisiana University (SLU); 80% of herp collection from Tulane University Museum of Natural History (TU), transferred in 2011. *Obsolete as:* LSUZM (amphibians). *Current as:* LSUMG (Geology Collections, fossils), LSUMZ (Zoology Collections, fishes, herps). Louisiana. USA.

**1811. LSU:** Louisiana State University in Shreveport, Museum of Life Sciences, Shreveport. Louisiana. USA.

**1812. LTU:** Louisiana Tech University Museum of Vertebrate Zoology, Ruston. Louisiana. USA.

**1813. LWF:** Grand Isle Fisheries Research Lab, Louisiana Department of Wildlife and Fisheries, Grand Isle. *Formerly:* Lyle S. St. Amant Marine Biological Laboratory. Louisiana. USA.

**1814. NLU:** University of Louisiana at Monroe, Museum of Natural History, Monroe. *Formerly:* Northeast Louisiana University. *Also as:* NLM. Louisiana. USA.

**1815. NOAS:** New Orleans Academy of Science, New Orleans. *Note:* museum active from establishment in 1853 to 1861, but collections scattered during the Civil War; surviving botanical and geological specimens transferred to the original Tulane University Museum of Natural History (TU) ca. 1885. *Current as:* NOAS (fossils). Louisiana. USA.

**1816. SLU:** Southeastern Louisiana University, Vertebrate Museum, Hammond. *Includes:* 20% of herp collection from Tulane University Museum of Natural History (TU), transferred in 2011; fish and herp collections of University of New Orleans (UNOVC) to be acquired. *Note:* original herp collection moved to LSUMZ ca. 1990. *Current as:* SLU (fishes, herps). Louisiana. USA.

**1817. TU:** Royal D. Suttkus Fish Collection, Tulane

University Biodiversity Research Institute (TUBRI), Belle Chase. *Includes*: fishes formerly held by Systematics and Environmental Laboratory established in 1968 at the F. Edward Hebert Riverside Research Laboratories, Belle Chase, which became the new Tulane University Museum of Natural History (TUMNH) in 1976. *Note*: original TU Museum of Natural History established in 1885 and closed/disbanded from 1952 to 1957; in 2011, herp collection transferred to Louisiana State University Museum of Natural Science, Baton Rouge (LSUMZ, ca. 80%) and Southeastern Louisiana University (SLU, ca. 20%). *Current as*: TU (fishes). Louisiana. USA.

**1818. ULL**: University of Louisiana at Lafayette, Lafayette. *Formerly*: University of Southwestern Louisiana (USL). *Obsolete as*: USL. *Current as*: ULL (fishes, herps). Louisiana. USA.

**1819. UNOVC**: University of New Orleans vertebrate collection, Department of Biological Sciences, New Orleans. *Note*: fish and herp collections to be transferred to Southeastern Louisiana University (SLU). *Also as*: UNO. Louisiana. USA.

**1820. BCB**: Bowdoin College, Fish Collection, Brunswick. Maine. USA.

**1821. UMO**: University of Maine, Department of Zoology, Orono. *Includes*: Ira C. Darling Center Ichthyological Collection. Maine. USA.

**1822. UNE**: University of New England, Teaching and Research Fish Collection, Biddeford. *Formerly*: Saint Francis College. Maine. USA.

**1823. CBL**: Chesapeake Biological Laboratory, University of Maryland, Solomons. *Note*: part of fish collection transferred by Frank Schwartz to UNC-IMS (specimens now at North Carolina Museum of Natural Sciences, NCSM), remainder of CBL fish collection to Virginia Institute of Marine Science (VIMS). Maryland. USA.

**1824. CMM**: Calvert Marine Museum, Solomons. *Current as*: CMM-V (fossils). Maryland. USA.

**1825. WCB**: Woman's College of Baltimore, Towson. *Note*: renamed Goucher College in 1910; fossil collection assembled by Arthur Bibbins transferred on permanent loan to US National Museum of Natural History (USNM) in 1916. *Obsolete as*: GC (fossils). *Assigned here*: WCB (fossils). Maryland. USA.

**1826. BSNH**: Boston Society of Natural History [now Boston Museum of Science]. *Note*: extant specimens now at Museum of Comparative Zoology (MCZ). Massachusetts. USA.

**1827. BU**: Boston University Collection, Boston. *Note*: some fishes at Gray Museum (GMWH). Massachusetts. USA.

**1828. EIS**: Essex Institute, Salem. *Note*: founded in 1848; natural history collections no longer extant; some herps at Museum of Comparative Zoology (MCZ). Massachusetts. USA.

**1829. GMWH**: Gray Museum, Marine Biological Laboratory Fish Collection, Woods Hole. *Includes*: part of Boston University Collection (BU). Massachusetts. USA.

**1830. MCZ**: Museum of Comparative Zoology, Harvard University, Cambridge. *Includes*: collections of the Boston Museum which had been given to the Boston Society of Natural History (BSNH) in 1893 and 1899; Woods Hole Oceanographic Institution fish collection (WHOI). *Obsolete as*: MCZH. *Current as*: MCZ (fishes, herps), MCZ-VP (fossils). Massachusetts. USA.

**1831. MNHC**: Massachusetts Natural History Collections, University of Massachusetts, Amherst. *Includes*: collection transferred from Massachusetts Board of Agriculture, Boston, in 1866. *Obsolete as*: UMA. *Current as*: MNHC. Massachusetts. USA.

**1832. UMD**: University of Massachusetts Dartmouth, Fish Collection, North Dartmouth. *Formerly*: Southeastern Massachusetts University (SMU). Massachusetts. USA.

**1833. USBCF**: United States Bureau of Commercial Fisheries, Biological Laboratory, Woods Hole. *Note*: original collection now mostly at US National Museum of Natural History (USNM). *Also as*: USBF. Massachusetts. USA.

**1834. GRPM**: Grand Rapids Public Museum, Grand Rapids. Michigan. USA.

**1835. MSUM**: Michigan State University Museum, East Lansing. *Obsolete as*: MSU, MSUF. *Current as*: MSUM (fishes), MSUVP (fossils). Michigan. USA.

**1836. UMMP**: University of Michigan Museum of Paleontology, Ann Arbor. *Includes*: some fossil type specimens from Bowling Green State University (BGSU). *Obsolete as*: UM. *Current as*: UMMP (fossils). *See also*: UMMZ (Recent fishes, herps). Michigan. USA.

**1837. UMMZ**: University of Michigan Museum of Zoology, Ann Arbor. *Obsolete as*: MZUM. *Current as*: UMMZ (fishes, herps). *See also*: UMMP (fossils). Michigan. USA.

**1838. JFBM**: James Ford Bell Museum of Natural History, University of Minnesota, Minneapolis. *Current as*: JFBM (fishes, herps). *See also*: UMVP (fossils). Minnesota. USA.

**1839. SMMP**: Science Museum of Minnesota, St. Paul. *Current as*: SMMP. *Also as*: SMM (fossils). Minnesota. USA.

**1840. UMVP**: University of Minnesota, Department of Earth Sciences, Vertebrate Paleontology Collections, Minneapolis. *Note*: paleontology collections transferred to Cincinnati Museum Center (CMC) in 2018. *Current as*: UM, UMVP (fossils). *See also*: JFBM (Recent fishes, herps). Minnesota. USA.

**1841. GCRL**: Gulf Coast Research Laboratory, The University of Southern Mississippi, Ocean Springs. *Note*: some specimens moved to University of Southern Mississippi (USM). *Also as*: GCRLM. Mississippi. USA.

**1842. MMNS**: Mississippi Museum of Natural Science, Jackson. *Formerly*: Fannye A. Cook Memorial Museum. *Note*: some Cook fish specimens at FMNH, USNM, AMNH. *Current as*: MMNS (fishes, herps). Mississippi. USA.

**1843. MSU**: Mississippi State University, Mississippi State. Mississippi. USA.

**1844. UMS**: University of Mississippi, Oxford. Mississippi. USA.

**1845. USM**: University of Southern Mississippi, Department of Biological Sciences, Museum of Ichthyology, Hattiesburg. *Also as*: USMS, USMI. Mississippi. USA.

**1846. ASSL**: Academy of Science of St. Louis, St. Louis. Missouri. USA.

**1847. JH**: Private collection of Julius Hurter, St. Louis. Missouri. USA.

**1848. MDC**: Missouri Department of Conservation, Columbia. Missouri. USA.

**1849. NEMS**: Northeastern Missouri State University, Department of Zoology, Kirksville. Missouri. USA.

**1850. STL**: St. Louis University, St. Louis. *Current as*: STL (fishes). Missouri. USA.

**1851. UMKC**: University of Missouri, Kansas City. Missouri. USA.

**1852. UMOC**: University of Missouri, Museum of Zoology, Columbia. *Obsolete as*: UMoMZ. Missouri. USA.

**1853. FLBS**: Flathead Lake Biological Station, Lake County. *Current as*: FLBS (fishes). Montana. USA.

**1854. MOR**: Museum of the Rockies, Bozeman. *Note*:

affiliated with Montana State University. *Current as:* MOR (fossils). *See also:* MSUB (Biology Department). Montana. USA.

**1855. MSUB:** Montana State University, Biology Department, Bozeman. *See also:* MOR. Montana. USA.

**1856. UMZM:** Philip L. Wright Zoological Museum, University of Montana, Missoula. *Note:* nearly all fish specimens donated to Idaho Museum of Natural History (IMNH) in 2015. *Obsolete as:* MV, UMM. *Current as:* UMZM. Montana. USA.

**1857. UNO:** University of Nebraska at Omaha, Omaha. Nebraska. USA.

**1858. UNSM:** University of Nebraska State Museum, Lincoln. *Obsolete as:* UN. *Current as:* UNSM (fishes, fossils). *Also as:* SNR-UNL (School of Natural Resources teaching and research collections). Nebraska. USA.

**1859. BSN:** Biological Society of Nevada. *Note:* listed in error as Biological Survey of Nevada in Gilbert 1998:4; location and status of collections unknown. Nevada. USA.

**1860. LVNHM:** Las Vegas Natural History Museum, Las Vegas. *Current as:* LVNHM (fossils). Nevada. USA.

**1861. UNLV:** University of Nevada, Las Vegas, Paradise. *Also as:* MBM (Marjorie Barrick Museum); LVT (tissue collection). *Note:* herp collection transferred to Museum of Vertebrate Zoology, University of California (MVZ) in 2009; two-thirds of fish collection transferred to California Academy of Sciences (CAS) and one third to Arizona State University (ASU). Nevada. USA.

**1862. UNR:** Museum of Natural History, University of Nevada, Reno. *Note:* limited number of fishes transferred to California Academy of Sciences (CAS). *Obsolete as:* UNRB, UNMB. *Current as:* UNR (fishes, herps), UNMMPC (fossils, W.M. Keck Earth Science and Mineral Engineering Museum). Nevada. USA.

**1863. DCM:** Dartmouth College Museum, Fish Collection, Hanover. New Hampshire. USA.

**1864. NJSM:** New Jersey State Museum, Trenton. *Includes:* fossils from Geological Survey of New Jersey (GSNJ). *Current as:* NJSM (fossils). New Jersey. USA.

**1865. NMFC:** Newark Museum, Fish Collection, Newark. New Jersey. USA.

**1866. PU:** Princeton University, Princeton. *Note:* fossil vertebrate collections transferred to Yale Peabody Museum (YPM) in 1985. *Current as:* PU. New Jersey. USA.

**1867. SHML:** Sandy Hook Marine Laboratory, National Marine Fisheries Service, Highlands. *Note:* destroyed by fire in 1985; rebuilt as James J. Howard Marine Sciences Laboratory. New Jersey. USA.

**1868. ENMU:** Eastern New Mexico University, Portales. New Mexico. USA.

**1869. GR:** Ruth Hall Museum of Paleontology, Ghost Ranch, Abiquiu. *Current as:* GR (fossils). New Mexico. USA.

**1870. MDM:** Mesalands Dinosaur Museum and Natural Sciences Laboratory, Tucumcari. New Mexico. USA.

**1871. MSB:** Museum of Southwestern Biology, Department of Biology, University of New Mexico, Albuquerque. *Includes:* fishes from US Geological Survey (USGS), Fort Collins (historically cited as BS/FC and now recataloged with MSB numbers). *Obsolete as:* UNM (but still in use for herp specimen tags). *Current as:* MSB (fishes, herps). New Mexico. USA.

**1872. NMMNH:** New Mexico Museum of Natural History and Science, Albuquerque. *Includes:* fossils transferred from Department of Earth and Planetary Sciences, University of

New Mexico, Albuquerque (UNM) and New Mexico Bureau of Geology and Mineral Resources, Socorro (NMBGMR). *Current as:* NMMNH P (fossils). New Mexico. USA.

**1873. NMSU:** New Mexico State University, University Park. New Mexico. USA.

**1874. WNMU:** Western New Mexico University, Silver City. New Mexico. USA.

**1875. AMNH:** American Museum of Natural History, New York. *Includes:* herp collection from Texas A&M University-Kingsville (formerly Texas A&I University, TAI, TAIC), type specimens from Vanderbilt Marine Museum (VMM); fossils belonging to the Republic of Mali transferred from Stony Brook University in 2019 (CNRST-SUNY). *Current as:* AMNH. *Also as:* F:AM (fossils, Frick Collection), AMNH FF (fossil fishes), AMNH FR (fossil herps). New York. USA.

**1876. BSGLC:** Buffalo State Great Lakes Center, Buffalo. New York. USA.

**1877. CAD-SBU:** Cheikh Anta Diop–Stony Brook University Collection, Department of Anatomical Sciences, Stony Brook University, Stony Brook. *Current as:* CAD-SBU (fossil fishes). *See also:* CNRST-SUNY (fossils). New York. USA.

**1878. CUMV:** Cornell University Museum of Vertebrates, Ithaca. *Current as:* CUMV. *Also as:* CU (retained on specimen labels). New York. USA.

**1879. LINHM:** Long Island Natural History Museum, Levittown. *Note:* fossil collection assembled by Bryn J. Mader, Department of Biological Sciences and Geology, Queensborough Community College, Bayside. *Current as:* LINHM (fossils). New York. USA.

**1880. LNHNH:** New York Academy of Sciences, New York. *Formerly:* Lyceum of Natural History. *Note:* historical collections apparently lost, possibly burned in dock fire during the Civil War. New York. USA.

**1881. NYSM:** New York State Museum, Albany. *Formerly:* New York State Geological and Natural History Survey (1836–1870); *Also as:* “State Collection” in early references to specimens collected during 1836–1840 surveys and now lost. *Current as:* NYSM. New York. USA.

**1882. NYZS:** New York Zoological Society, New York. *Note:* renamed Wildlife Conservation Society in 1993 and based at the Bronx Zoo; some fishes from historical collection now at American Museum of Natural History (AMNH), California Academy of Sciences (CAS) and US National Museum of Natural History (USNM). New York. USA.

**1883. UR:** Department of Earth and Environmental Sciences, University of Rochester, Rochester. *Current as:* UR (fossils). New York. USA.

**1884. VMM:** Suffolk County Vanderbilt Museum, Centerport. *Formerly:* Vanderbilt Marine Museum. *Note:* most type specimens transferred to American Museum of Natural History (AMNH). New York. USA.

**1885. APPZ:** Appalachian State University, Boone. *Note:* part of herp collection transferred to North Carolina Museum of Natural Sciences (NCSM) in 2014. *Obsolete as:* ASUC. *Current as:* APPZ (fishes, herps). North Carolina. USA.

**1886. DPC:** Duke University, Duke Lemur Center, Division of Fossil Primates, Durham. *Current as:* DPC (fossils). *See also:* DU. North Carolina. USA.

**1887. DU:** Duke University, Vertebrate Collection, Durham. *Note:* fishes transferred to The Academy of Natural Sciences of Philadelphia (ANSP) and North Carolina Museum of Natural Sciences (NCSM). *Also as:* DUF, DU F (fishes). *See also:* DPC. North Carolina. USA.



**1888. NCSM:** North Carolina Museum of Natural Sciences, Raleigh. *Formerly:* North Carolina State Museum. *Includes:* fishes from Duke University (DU), University of North Carolina at Chapel Hill, Institute of Marine Sciences (UNC/UNC-IMS, including fishes formerly at CBL, GSMNP and West Virginia University) and Western Carolina University; fish collection assembled by Rudy Arndt at Stockton State College, NJ, transferred ca. 2002; fishes and herps from the Charleston Museum (ChM); herps from Appalachian State University (APPZ). *Current as:* NCSM (fishes, herps, fossils). North Carolina. USA.

**1889. SNCBSH:** State of North Carolina Biological Station, Highlands. North Carolina. USA.

**1890. UNC:** University of North Carolina at Chapel Hill, Institute of Marine Sciences, Morehead City. *Note:* fishes transferred to North Carolina Museum of Natural Sciences (NCSM) in 1996. *Also as:* UNC-IMS. North Carolina. USA.

**1891. UNCC:** University of North Carolina at Charlotte, Zoological Museum, Charlotte. North Carolina. USA.

**1892. UNCG:** University of North Carolina at Greensboro, Greensboro. North Carolina. USA.

**1893. UNCW:** University of North Carolina Wilmington, Department of Biological Sciences, Wilmington. North Carolina. USA.

**1894. NDSFC:** North Dakota State Fossil Collection, North Dakota Heritage Center, Bismarck. *Current as:* NDSFC (fossils). North Dakota. USA.

**1895. PTRM:** Pioneer Trails Regional Museum, Bowman. *Current as:* PTRM (fossils). North Dakota. USA.

**1896. SRST:** Standing Rock Sioux Tribe Institute of Natural History, Fort Yates. *Note:* established in 2014, originated as Standing Rock Paleontology Program in 2007. *Current as:* SRST (fossils). North Dakota. USA.

**1897. BGSU:** Department of Geology, Bowling Green State University, Bowling Green. *Note:* fossil type specimens transferred to US National Museum of Natural History (USNM), Orton Geological Museum, Ohio State University (OSU) and University of Michigan Museum of Paleontology (UMMP). *Current as:* BGSU (fossils). Ohio. USA.

**1898. CMC:** Museum of Natural History and Science, Cincinnati Museum Center, Cincinnati. *Formerly:* Cincinnati Museum of Natural History (CMNH) of the Cincinnati Society of Natural History. *Note:* all natural history collections consolidated into The Geier Collections and Research Center in 2001. *Includes:* University of Cincinnati paleontology collection transferred in 1998; fossil collection of Earth Sciences Department, University of Minnesota, transferred in 2018. *Obsolete as:* CMNH, MCSNH, MNHSC. *Current as:* CMC VP (fossils). Ohio. USA.

**1899. CMNH:** Cleveland Museum of Natural History, Vertebrate Zoology, Cleveland. Ohio. USA.

**1900. DATM:** Dayton Museum of Natural History, Dayton. Ohio. USA.

**1901. OCM:** Oberlin College, Faculty of Arts and Sciences, Department of Biology, Museum, Oberlin. Ohio. USA.

**1902. ORSANCO:** Ohio River Valley Water Sanitation Commission Ichthyological Reference Collection, Cincinnati. *Note:* some fishes transferred to Thomas More College Field Station, California (TMCFS). Ohio. USA.

**1903. OSU:** Orton Geological Museum, School of Earth Sciences, Ohio State University, Columbus. *Includes:* some fossil type specimens from Bowling Green State University (BGSU). *Current as:* OSU (fossils). *Also as:* OGM (fossils). *See*

*also:* OSUM (Recent fishes, herps). Ohio. USA.

**1904. OSUM:** Museum of Biological Diversity, Ohio State University, Columbus. *Includes:* fish collection of Shelby Gerking and others (1940s Indiana State surveys) from Indiana University (IU) and Indiana Biological Survey (INBS) fish collection assembled by Tom Simon. *Obsolete as:* OSM. *Current as:* OSUM (fishes, herps). *See also:* OSU (fossils). Ohio. USA.

**1905. OUV:** Ohio University, Vertebrate Collection, Athens. Ohio. USA.

**1906. OWU:** Ohio Wesleyan University, Delaware. Ohio. USA.

**1907. UCC:** University of Cincinnati, Cincinnati. *Note:* paleontology collection transferred to Cincinnati Museum Center (CMC) in 1998. Ohio. USA.

**1908. WSU-LC:** Wright State University, Celina. *Current as:* WSU-LC (fossils). Ohio. USA.

**1909. OMNH:** University of Oklahoma, Sam Noble Oklahoma Museum of Natural History, Norman. *Formerly:* Stovall Museum. *Obsolete as:* OKMNH, UOK, UOMNH, UOMZ. *Current as:* OMNH (fishes, herps), OMNH VP (fossils). *Also as:* SNOMNH. Oklahoma. USA.

**1910. OSUS:** Oklahoma State University, Department of Zoology, Stillwater. *Formerly:* Oklahoma Agricultural and Mechanical College. *Obsolete as:* OAM, OSUMZ. *Current as:* OSUS (fishes). Oklahoma. USA.

**1911. UCO:** University of Central Oklahoma, Edmond. *Current as:* UCO (fishes, herps). Oklahoma. USA.

**1912. UTT:** University of Tulsa, Fish Collection, Tulsa. Oklahoma. USA.

**1913. OS:** Oregon State University, Corvallis. *Includes:* all fishes formerly at Oregon State University, School of Oceanography (OSUO). *Obsolete as:* OSU, OSCMNH. *Current as:* OS (fishes), OSUMNH (herps). Oregon. USA.

**1914. UO:** University of Oregon Museum of Natural and Cultural History, Eugene. *Obsolete as:* UOMNH. *Current as:* UO (fossils). Oregon. USA.

**1915. ANSP:** The Academy of Natural Sciences of Philadelphia, Philadelphia. *Also known as:* Academy of Natural Sciences of Drexel University (for marketing purposes). *Includes:* paleontological collection of the American Philosophical Society transferred in the late 1840s; specimens from Wistar Institute (WIAP), Commercial Museum of Philadelphia (CMP), Duke University (DU) and Delaware Museum of Natural History (DMNH); private collections of Charles Lucien Bonaparte and Edward Drinker Cope. *Current as:* ANSP (fishes, herps, fossils). Pennsylvania. USA.

**1916. CM:** Carnegie Museum of Natural History, Pittsburgh. *Note:* fishes transferred mostly to FMNH, CAS and CUMV ca. 1952. *Obsolete as:* CMNH. *Current as:* CM (herps, fossils). Pennsylvania. USA.

**1917. ESUP:** East Stroudsburg University, East Stroudsburg. *Current as:* ESUP (fishes, herps). Pennsylvania. USA.

**1918. EUP:** Edinboro University of Pennsylvania, Department of Biology and Health Services, Edinboro. *Current as:* EUP (herps). Pennsylvania. USA.

**1919. LU:** Lehigh University, Bethlehem. *Note:* most fluid-preserved and skeletal specimens of amphibians and non-avian reptiles transferred to American Museum of Natural History (AMNH) in 2013. Pennsylvania. USA.

**1920. PCM:** Philadelphia Commercial Museum, Philadelphia. *Note:* renamed Philadelphia Civic Center Museum in

1952; completely closed in 1994; extant fishes (mostly from Philippines) transferred to ANSP in 1917; some PCM herp specimens also at ANSP. Pennsylvania. USA.

**1921. PM:** Charles Willson Peale's Philadelphia Museum, Philadelphia. *Note:* closed in 1846 with half of collection sold to the Boston Museum in 1850 and later transferred to the Museum of Comparative Anatomy (MCZ) in 1914. Pennsylvania. USA.

**1922. PSU:** Pennsylvania State University, University Park. Pennsylvania. USA.

**1923. PSUA:** Pennsylvania State University at Altoona, Altoona. *Also as:* PSUaa. Pennsylvania. USA.

**1924. SMP:** The State Museum of Pennsylvania, Harrisburg. *Also known as:* State Museum of Paleontology. *Current as:* SMP VP (fossils). Pennsylvania. USA.

**1925. WFI:** Wagner Free Institute of Science, Philadelphia. *Note:* institution extant, but disposition of some historical specimens unknown (e.g., holotype of *Trachemys euglypha*). Pennsylvania. USA.

**1926. WIAP:** Wistar Institute, Philadelphia. *Formerly:* Wistar Institute of Anatomy. *Note:* some historical specimens (e.g., Borneo fishes) now at ANSP. Pennsylvania. USA.

**1927. YC:** York College Fish Collection, York. Pennsylvania. USA.

**1928. MZUPRRP:** Museo Zoológico, University of Puerto Rico, Rio Piedras. *Note:* collection separate from University of Puerto Rico, Mayagüez (UPRM). *Obsolete as:* UPRRP. *Current as:* MZUPRRP. Puerto Rico. USA.

**1929. UPRM:** University of Puerto Rico, Mayagüez. *Note:* collection separate from Museo Zoológico, University of Puerto Rico, Rio Piedras (MZUPRRP). *Current as:* UPRM (fishes, herps), UPRMP (fossils, Department of Geology Paleontology Collection). *Also as:* UPR. Puerto Rico. USA.

**1930. NMFSN:** National Marine Fisheries Service, Northeast Fisheries Center Fish Collection, Narraganset. Rhode Island. USA.

**1931. URIZ:** University of Rhode Island, Department of Zoology, Kingston. Rhode Island. USA.

**1932. CHM:** Charleston Museum, Charleston. *Note:* most fishes and herps transferred to North Carolina Museum of Natural Sciences (NCSM), but small collection of regional specimens retained. *Incorrect as:* CMR. *Obsolete as:* CR. *Also as:* CHM (ChM preferred). South Carolina. USA.

**1933. CUSC:** Clemson University, Department of Biological Sciences, Vertebrate Collections, Clemson. South Carolina. USA.

**1934. GMBL:** Grice Marine Biological Laboratory, Charleston. South Carolina. USA.

**1935. SCMRRI:** South Carolina Marine Resources Research Institute, Charleston. *Obsolete as:* SCMRI. South Carolina. USA.

**1936. USC:** University of South Carolina, Belle W. Baruch Institute for Marine and Coastal Sciences, Columbia. South Carolina. USA.

**1937. BHI:** Museum at Black Hills Institute of Geological Research, Inc., Hill City. *Current as:* BHI (fossils). South Dakota. USA.

**1938. NHFC:** Natural Heritage Fish Collection, Department of Natural Resource Management, South Dakota State University, Brookings. *Current as:* NHFC (fishes). South Dakota. USA.

**1939. SDSM:** South Dakota School of Mines, Museum of Geology, Rapid City. *Current as:* SDSM (fossils). South Dakota.

USA.

**1940. USDOM:** University of South Dakota, W.H. Over Museum, Vermillion. South Dakota. USA.

**1941. APSU:** Austin Peay State University, Museum, Clarksville. *Current as:* APSU (fishes). Tennessee. USA.

**1942. ETMNH:** East Tennessee State University and General Shale Brick Natural History Museum and Gray Fossil Site. *Current as:* ETMNH (fossils). *See also:* ETVP. Tennessee. USA.

**1943. ETVP:** Vertebrate Paleontology Laboratory, Department of Geosciences, East Tennessee State University, Johnson City. *Note:* fossil collection includes skeletons of Recent herps. *Current as:* ETVP (fossils). *See also:* ETMNH. Tennessee. USA.

**1944. GSMNP:** Great Smoky Mountains National Park, Natural Resource Collection [scientific study series], Gatlinburg. *Note:* beginning in 1967, specimens transferred to various institutions on indefinite loan, including University of North Carolina (UNC; fishes now at North Carolina Museum of Natural Sciences, NCSM), Hiwassee College (herps, recalled ca. 1973), Cincinnati Museum of Natural History (CMC, herps) and US National Museum of Natural History (USNM). *Obsolete as:* GRSM. *Current as:* GSMNP. Tennessee. USA.

**1945. MSUMZ:** University of Memphis, Museum of Zoology, Memphis. *Formerly:* Memphis State University. Tennessee. USA.

**1946. UT:** University of Tennessee, Department of Zoology, Knoxville. *Current as:* UT (fishes, David A. Etnier Ichthyological Collection; herps). Tennessee. USA.

**1947. UTMCV:** University of Tennessee at Martin, Fish Collection, Martin. Tennessee. USA.

**1948. ASNHC:** Angelo State Natural History Collection, Angelo State University, San Angelo. *Current as:* ASNHC (herps). Texas. USA.

**1949. FWM:** Fort Worth Museum of Science and History, Fort Worth. *Obsolete as:* FWMNH. Texas. USA.

**1950. HMNS:** Houston Museum of Natural Science, Houston. *Note:* Recent herp collection transferred to Texas A&M University, College Station (TCWC). *Current as:* HMNS (fossils). Texas. USA.

**1951. MBI:** Marine Biomedical Institute, University of Texas Medical Branch at Galveston, Galveston. Texas. USA.

**1952. MUVP:** Midwestern University Vertebrate Paleontology Collection, Snyder. *Current as:* MUVP (fossils). Texas. USA.

**1953. MWSU:** Midwestern State University, Wichita Falls. *Note:* fish collection transferred to University of Texas at Austin (TNHC); herp collection transferred to Texas A&M University, College Station (TCWC). *Also as:* MU (herps). Texas. USA.

**1954. NC:** Navarro College, Biology Department, Corsicana. Texas. USA.

**1955. NNTRC:** National Natural Toxins Research Center, Texas A&M University-Kingsville. Texas. USA.

**1956. PMNS:** Perot Museum of Nature and Science, Dallas. *Formerly:* Dallas Museum of Natural History (DMNH). *Obsolete as:* DMNH. *Current as:* PMNS (fishes, herps). Texas. USA.

**1957. SMBU:** Strecker Museum, Mayborn Museum Complex, Baylor University, Waco. *Includes:* Bryce C. Brown Collection (BCBC). *Obsolete as:* BU, SM. *Current as:* SMBU (fishes, herps). Texas. USA.

**1958. SMPSMU:** Shuler Museum of Paleontology, Southern Methodist University, Dallas. *Current as:* SMPSMU (fossils). *Also as:* SMP, SMU (fossils). Texas. USA.

**1959. SRSU:** Sul Ross State University, Alpine. *Also known*

as: The University of the Big Bend. Texas. USA.

**1960. TAMUG:** Texas A&M University at Galveston, Department of Marine Biology, Galveston. *Current as:* TAMUG (fishes). *See also:* TCWC. Texas. USA.

**1961. TCU:** Texas Christian University Collection, Fort Worth. *Assigned here:* TCU. Texas. USA.

**1962. TCWC:** Biodiversity Research and Teaching Collections (BRTC), Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station. *Formerly:* Texas Cooperative Wildlife Collection. *Includes:* Texas A&M University Systematic Collection of Marine Organisms, Department of Oceanography (TAMU/DO); herp collections from Midwestern State University (MWSU), University of North Texas, Witte Museum (WMSA) and Houston Museum of Natural Science (HMNS). *Obsolete as:* BRTC (herps). *Current as:* TCWC (fishes, herps). *See also:* TAMUG. Texas. USA.

**1963. TNHC:** University of Texas Biodiversity Collections (UTBC), University of Texas at Austin. *Formerly:* Texas Natural History Collections administered by Texas Memorial Museum (TMM) and Texas Natural Science Center (TNSC). *Includes:* collections from Lamar University, Beaumont (fishes), Midwestern State University, Wichita Falls (MWSU; fishes), Museum of Texas Tech University, Lubbock (TTU; fishes, herps), Texas A&M University-Kingsville [formerly Texas A&I University (TAIC; fishes)], Texas State University, San Marcos (TSUSM), University of Texas at Brownsville (fishes, herps), University of Texas Marine Science Institute, Port Aransas (UTMSI) and Southern Illinois University Edwardsville (SIUE; herps) as well as private herp collections of Tom C. Scanlon (TCS) and Ralph W. Axtell (RWA). *In error as:* UTA. *Obsolete as:* TNHM. *Current as:* TNHCI (fishes), TNHCH (herps). Texas. USA.

**1964. TSUSM:** Texas State University, San Marcos. *Formerly:* Southwest Texas State Normal School, later Southwest Texas State University. *Note:* uncataloged teaching collection extant, research collection unknown; some fish specimens transferred to University of Texas at Austin (TNHC). Texas. USA.

**1965. TTU:** Museum of Texas Tech University, Lubbock. *Note:* fish and herp collections transferred to University of Texas at Austin (TNHC). *Current as:* NSRL (tissue collection, Natural Science Research Laboratory), TTU P (fossils). Texas. USA.

**1966. UTA:** University of Texas at Arlington, Department of Biology. *In error as:* University of Texas at Austin (Schleip & O'Shea 2010). *Obsolete as:* UTADC (herps). *Current as:* UTA-A (amphibians). *Also as:* UTACV (Collection of Vertebrates). Texas. USA.

**1967. UTEP:** University of Texas at El Paso, Biodiversity Collections, El Paso. *Formerly:* Museum of Arid Land Biology (MALB), Department of Biological Sciences, Texas Western College. *Obsolete as:* MALB. *Current as:* UTEP (fishes, herps, fossils). Texas. USA.

**1968. WMSA:** Witte Museum, San Antonio. *Formerly:* Witte Memorial Museum (1926–1984). *Note:* herp collection transferred to Texas A&M University, College Station (TCWC). *Obsolete as:* WMM. *Current as:* WMSA. Texas. USA.

**1969. BYU:** Brigham Young University, Monte L. Bean Life Science Museum, Provo. *Current as:* BYU. *Also as:* MLBM (fishes). Utah. USA.

**1970. CEUM:** College of Eastern Utah Prehistoric Museum, Price. *Current as:* CEUM (fossils). *Also as:* CEU (fossils). Utah. USA.

**1971. DINO:** Dinosaur National Monument, US National Park Service, Uintah County. *Current as:* DINO (fossils). Utah. USA.

**1972. TPII:** Museum of Ancient Life, Lehi. *Current as:* TPII (fossils). Utah. USA.

**1973. UMNH:** The Natural History Museum of Utah (NHMU), University of Utah, Salt Lake City. *Formerly:* Utah Museum of Natural History. *Obsolete as:* UU, UUV, UUZM. *Current as:* UMNH (fishes, herps), UMNH VP (fossils). Utah. USA.

**1974. GMU:** George Mason University, Vertebrate Collection, Fairfax. Virginia. USA.

**1975. ODU:** Old Dominion University, Department of Biology, Norfolk. Virginia. USA.

**1976. RC:** Roanoke College, Biology Department, Salem. Virginia. USA.

**1977. UR:** University of Richmond, Department of Biology. *Note:* fish collection transferred to Virginia Institute of Marine Science (VIMS) in 1993. Virginia. USA.

**1978. VCU:** Virginia Commonwealth University, Richmond. *Note:* fish collection transferred to Virginia Institute of Marine Science (VIMS). Virginia. USA.

**1979. VIMS:** Virginia Institute of Marine Science, Gloucester Point. *Includes:* fishes formerly cataloged at Chesapeake Biological Laboratory, University of Maryland, Solomons (VIMS-CBL), University of Richmond, Virginia (VIMS-UR) and Virginia Commonwealth University (VCU), all assigned new VIMS catalog numbers. *Current as:* VIMS (fishes, Nunnally Ichthyological Collection). Virginia. USA.

**1980. VISR:** Virginia Institute for Scientific Research, Allen T. Gwathney Laboratory on University of Richmond campus, Richmond. *Note:* collection no longer extant; some fishes transferred to The Academy of Natural Sciences of Philadelphia (ANSP). Virginia. USA.

**1981. VMNH:** Virginia Museum of Natural History, Martinsville. *Current as:* VMNH (fossils). Virginia. USA.

**1982. AFSC:** Alaska Fisheries Science Center, National Marine Fisheries Service, Seattle. *Note:* fish and otolith collection largely transferred to Burke Museum (UW). Washington. USA.

**1983. CRCM:** Charles R. Conner Museum, Washington State University, Pullman. *Obsolete as:* WSU. *Current as:* CRCM. Washington. USA.

**1984. CWS:** Central Washington State University, Department of Biology, Ellensburg. *Formerly:* Central Washington State College (CWSC), 1961–1977. Washington. USA.

**1985. PLU:** Pacific Lutheran University, Parkland. Washington. USA.

**1986. PSM:** Slater Museum of Natural History, University of Puget Sound, Tacoma. *Obsolete as:* CPS, UPS. *Current as:* PSM. Washington. USA.

**1987. SOUA:** Southern Oregon University, Ashland. *Formerly:* Southern Oregon College (SOC, 1956–1975), Southern Oregon State College (1975–1979). Washington. USA.

**1988. UWBM:** University of Washington, Burke Museum of Natural History and Culture, Seattle. *Includes:* fishes and otoliths collected by the Alaska Fisheries Science Center (AFSC). *Obsolete as:* BMUW, MNHW, UW, UWF, UWFC. *Current as:* UW (fishes), UWBM (herps). Washington. USA.

**1989. WVBS:** West Virginia Biological Survey collection at Marshall University, Huntington. West Virginia. USA.

**1990. MPM:** Milwaukee Public Museum, Vertebrate Zoology, Milwaukee. *Current as:* MPM. Wisconsin. USA.

**1991. UWGB:** Richter Museum of Natural History, University of Wisconsin, Green Bay. Wisconsin. USA.

**1992. UWM:** University of Wisconsin, Zoology Depart-



ment, Milwaukee. Wisconsin. USA.

**1993. UWSP:** University of Wisconsin-Stevens Point, Museum of Natural History, Stevens Point. Wisconsin. USA.

**1994. UWZM:** University of Wisconsin Zoological Museum, Madison. *Obsolete as:* UWZS, USW. *Current as:* UWZM. Wisconsin. USA.

**1995. PALEON:** Glenrock Paleontological Museum, Glenrock. *Current as:* PALEON (fossils). Wyoming. USA.

**1996. SC:** Sheridan College, Sheridan. *Current as:* SC (fossils). Wyoming. USA.

**1997. UWGM:** University of Wyoming Geological Museum, Laramie. *Current as:* UWGM (fossils). *Also as:* UW (fossils). *See also:* UWYMV (Recent fishes, herps). Wyoming. USA.

**1998. UWYMV:** University of Wyoming, Museum of Vertebrates, Laramie. *Obsolete as:* UWL. *See also:* UWGM (fossils). Wyoming. USA.

**1999. WYDICE:** Wyoming Dinosaur Center, Thermopolis. *Current as:* WYDICE (fossils). *Also as:* WDC (fossils). Wyoming. USA.

**2000. CG:** Private collection of Chapman Grant (1887–1983). *Note:* status unknown. USA.

**2001. EHT:** Private collection of Edward H. Taylor. *Note:* specimens deposited primarily at CAS, CM, FMNH, KU & UIMNH. USA.

**2002. HM:** HerpMapper Project (launched Sep 2013, global in scope); unique HM numbers catalog observations submitted by citizen scientists to online database ([www.herpMapper.org](http://www.herpMapper.org)) and have been cited in publications (e.g., Herpetological Review). USA.

**2003. NPS:** National Park Service, US Department of the Interior. *Note:* specimens collected on lands administered by the US National Park Service are the property of NPS, but may be deposited *on loan* at a non-NPS repository that meets federal requirements. The non-NPS repository may assign its own catalog numbers and should cross reference them to NPS catalog numbers; NPS catalogs lots using unique combination of 4-letter abbreviation (specific to NPS Unit where specimens were collected) and up to 6 digit number (e.g., UPDE 123456 refers to a specimen lot from the Upper Delaware Scenic and Recreational River). Such specimens should be cited using both the NPS and non-NPS repository catalog numbers (e.g., ANSP 187723 [NPS UPDE 2153]). USA.

**2004. RNMT:** Republican Nature Museum, Tashkent. *Also known as:* Uzbekistan State Museum of Nature. *Note:* established in 1876 as Tashkent Museum. *Assigned here:* RNMT. Uzbekistan

**2005. IFUT:** Institute of Flora and Fauna Genofond [Gene Pool], Academy of Sciences of Uzbekistan, Tashkent. *See also:* IZANUZ. Uzbekistan.

**2006. IZANUZ:** Institute of Zoology, Academy of Sciences of Uzbekistan, Tashkent. *Obsolete as:* ANUZ (fossils). *Current as:* IZANUZ (fossils). *See also:* IFUT. Uzbekistan.

**2007. MSGU:** Samarkandskij gosudarstvennyj universitet [Samarkand State University], Museum of Department of Zoology, Samarkand. *Current as:* MSGU (herps). Uzbekistan.

**2008. NUUZ:** Museum of Zoology, National University of Uzbekistan named after Mirzo Ulugbek, Tashkent. *Formerly:* Central Asian State University (1923–1960), V.I. Lenin Tashkent State University (1960–1990). *Current as:* NUUZ (birds). Uzbekistan.

**2009. TASU:** Tashkent State University, Tashkent. *Current as:* TASU (birds). Uzbekistan.

**2010. MAC-PAY:** Ministerio de Agricultura y Cría, Instituto

Nacional de Investigaciones Agrícolas (INIA), Estación Experimental Amazonas, Puerto Ayacucho. *Current as:* MAC-PAY. *See also:* INIA, MAC-APU. Amazonas. Venezuela.

**2011. MAC-APU:** Ministerio de Agricultura y Cría, Instituto Nacional de Investigaciones Agrícolas (INIA), Estación Experimental Apure, San Fernando de Apure. *See also:* INIA, MAC-PAY. Apure. Venezuela.

**2012. EBRG:** Ministerio del Ambiente y de los Recursos Naturales Renovables (MARN), Museo de la Estación Biología de Rancho Grande, Maracay. *Obsolete as:* DISCA, MARNR. *Current as:* EBRG (fishes, herps). Aragua. Venezuela.

**2013. MIZA:** Museo del Instituto de Zoología Agrícola Francisco Fernández Yépez, Universidad Central de Venezuela, Maracay Campus, Maracay. *Obsolete as:* UCV. *Current as:* MIZA (herps). *See also:* MBUCV. Aragua. Venezuela.

**2014. CIR-EDHIG:** Estación de Investigaciones Hidrobiológicas de Guayana, Fundación La Salle de Ciencias Naturales, Campus Guayana, San Félix, Ciudad Guayana. *Obsolete as:* CRI-EDHIG. *Current as:* CIR-EDHIG (fishes). Bolívar. Venezuela.

**2015. MMK:** Museo de la Misión de Kavanayen, Kavanayen. Bolívar. Venezuela.

**2016. FCLR:** Fundación Científica Los Roques, Caracas. Distrito Federal. Venezuela.

**2017. IVO:** Serpentario del Instituto Venezolano de Ofidología, Caracas. Distrito Federal. Venezuela.

**2018. MACLPI:** Ministerio de Agricultura y Cría, Sección de Pesca Interior y Piscicultura, Caracas. *Note:* indicated for type specimens of fishes described by Fernández-Yépez, but repository no longer extant. Distrito Federal. Venezuela.

**2019. MBUCV:** Museo de Biología de la Universidad Central de Venezuela, Caracas. *Note:* founded in 1949; collections relocated to Instituto de Zoología y Ecología Tropical (IZET) in 1965; separate collections denoted by Roman numerals such as I (mammals), II (birds), III (reptiles), IV (amphibians) and V (fishes). *Current as:* MBUCV (fishes, herps), MBUCV-V (fishes), MBUCV-IV (amphibians), MBUCV-III (reptiles). *See also:* MIZA. Distrito Federal. Venezuela.

**2020. MCN-USB:** Museo de Ciencias Naturales, Universidad Simón Bolívar, Caracas. *Current as:* MCN-USB (fossils). Distrito Federal. Venezuela.

**2021. MCNC:** Museo de Ciencias Naturales, Los Caobos (Plaza Morelos), Caracas. *Obsolete as:* MCN (fossils). *Current as:* MCNC (fishes, herps, fossils). Distrito Federal. Venezuela.

**2022. MHNLS:** Museo de Historia Natural La Salle, Fundación La Salle de Ciencias Naturales, Caracas. *Formerly:* Museo de Ciencias Naturales. *Note:* established in 1940 as part of Sociedad de Ciencias Naturales La Salle (SCNLS) in Colegio La Salle de Tienda Honda, Caracas. *Obsolete as:* SCN, MNHLS. *Current as:* MHNLS (fishes, herps). *See also:* CRI-EDHIG (Campus Guayana). Distrito Federal. Venezuela.

**2023. AMU-CURS:** Colección de Paleontología de Vertebrados de la Alcaldía Bolivariana de Urumaco, Urumaco. *Also known as:* Museo Paleontológico de Urumaco (MPU). *Current as:* AMU-CURS (fossils). Falcón. Venezuela.

**2024. UNEFM:** Centro de Investigaciones Antropológicas, Arqueológicas, Paleontológicas (CIAAP), Universidad Nacional Experimental Francisco de Miranda, Coro. *Current as:* UNEFM (fossils). *Also as:* UNEFM-CIAAP, UNEFM-PF (fossils). Falcón. Venezuela.

**2025. CPUCLA:** Colección Regional de Peces, Universidad Centroccidental Lisandro Alvarado (UCLA), Barquisimeto. Lara. Venezuela.

**2026. CVULA:** Universidad de los Andes, Colección de

Vertebrados, Mérida. *Note:* separate from ULABG at same institution. *Obsolete as:* ULAM. *Current as:* CVULA. *Also as:* CV-ULA (herps). Mérida. Venezuela.

**2027. ULABG:** Universidad de Los Andes, Laboratorio de Biogeografía, Collection of Amphibians and Reptiles, Mérida. *Note:* separate from CVULA at same institution. *Obsolete as:* ULAM. *Current as:* ULABG (herps). Mérida. Venezuela.

**2028. IVIC:** Instituto Venezolano de Investigaciones Científicas, San Antonio de los Altos. *Current as:* IVIC (fossils), OR (fossils, “El Breal de Orocuá” collection). Miranda. Venezuela.

**2029. MMM:** Museo Marino de Margarita, Boca del Río, Isla Margarita. *Note:* founded in 1994. *Current as:* MMM-CI (fishes, colección ictiológica), MMM-CI-E (fishes, colección de exhibición). Nueva Esparta. Venezuela.

**2030. MOBR:** Museo Oceanológico Hermano Benigno Román, Estación de Investigaciones Marinas de Margarita (EDIMAR or EIMM), Fundación La Salle de Ciencias Naturales, Isla de Margarita. *Obsolete as:* FLSM, EIMM, MOBR-EDIMAR. *Current as:* MOBR. Nueva Esparta. Venezuela.

**2031. UDONECI:** Universidad de Oriente, Núcleo de Nueva Esparta, Centro de Investigaciones Científicas, Porlamar, Isla Margarita. *Also as:* UDOV. Nueva Esparta. Venezuela.

**2032. MCNG:** Museo de Ciencias Naturales de UNELLEZ, Guanare. *Also known as:* Museo de Zoología. *Current as:* MCNG. Portuguesa. Venezuela.

**2033. MMUDO:** Museo del Mar [Museo Marino de Cumaná], Universidad de Oriente, Cumaná. *Obsolete as:* UDO, UOIO. *Current as:* MMUDO. Sucre. Venezuela.

**2034. INIA:** Ministerio de Agricultura y Cría, Instituto Nacional de Investigaciones Agrícolas (INIA), Estación Local El Lago, Maracaibo. *Current as:* INIA (fishes). *See also:* MAC-APU, MAC-PAY. Zulia. Venezuela.

**2035. MBLUZ:** Museo de Biología de la Universidad del Zulia, Maracaibo. *Obsolete as:* BLUZ. *Current as:* MBLUZ (fishes, herps), MBLUZ-P (fossils). Zulia. Venezuela.

**2036. AFY:** Private collection of Agustín Fernández-Yépez. *Note:* extant fishes at Field Museum of Natural History (FMNH), Museo de Biología de la Universidad Central de Venezuela (MBUCV), Museo de Historia Natural La Salle (MHNLS). Venezuela.

**2037. RIA1:** Research Institute for Aquaculture no. 1 [Vien Nghien curu Nuoi trong Thuy san 1], Dinh Bang, Tu Son. *Formerly:* Dinh Bang Research Station. *Includes:* fish types of Nguyen & Doan 1969. *Obsolete as:* ARI, NCNTTSI, RIAH (Research Institute for Aquaculture at Hanoi, code used by Roberts & Catania 2008 but not maintained by RIA1 staff). *Current as:* RIA1 (fishes). Bac Ninh. Vietnam.

**2038. CTU:** Can Tho University, Can Tho. *Current as:* CTU (fishes). Can Tho. Vietnam.

**2039. HNUE:** Hanoi National University of Education, Museum of Biology, Hanoi. *Also known as:* Hanoi University of Pedagogy, Truong Dai hoc Su pham or University of Su Pham. *Includes:* fishes described by Nguyen Huu Duc. *Note:* small fish and herp collection separate from Vietnam National University, Hanoi (VNUH). *Current as:* HNUE (fishes, herps). *Also as:* HUE. Hanoi. Vietnam.

**2040. IEBR:** Institute of Ecology and Biological Resources, Vietnam Academy of Science and Technology (VAST), Cau Giay District, Hanoi. *Formerly:* National Center for Natural Science and Technology (NCST) of Vietnam. *Current as:* IEBR. *See also:* VNMN. Hanoi. Vietnam.

**2041. LSNUI:** Laboratoire des Sciences Naturelles, Université-Indochinoise, Hanoi, Vietnam. *Note:* no longer extant,

specimens now in Museum national d’Histoire naturelle, Paris (MNHN). Hanoi. Vietnam.

**2042. VNMN:** Vietnam National Museum of Nature, Vietnam Academy of Science and Technology (VAST), Cau Giay District, Hanoi. *Current as:* VNMN (fishes, herps). *See also:* IEBR. Hanoi. Vietnam.

**2043. VNUF:** Department of Wildlife, Faculty of Forest Resources and Environmental Management, Vietnam National University of Forestry, Xuan Mai, Chuong My. *Also known as:* Vietnam Forestry University (VFU). *Obsolete as:* VFU. *Current as:* VNUF (herps). Hanoi. Vietnam.

**2044. VNUH:** Vietnam National University, Hanoi. *Includes:* Department of Vertebrate Zoology, University of Tong-Hop (DVZUT), *Also known as:* Zoology Museum, University of Hanoi (LZUH, ZMUH), merged into VNUH in 1993. *Obsolete as:* CRES (Center for Natural Resources and Environmental Studies), HNUV, LZUH, NUH, VUNH, DVZUT, ZMUH. *Current as:* VNUH (fishes, herps). *Also as:* ZMVNU (mammals). Hanoi. Vietnam.

**2045. ITBCZ:** Institute of Tropical Biology (ITB) Collection of Zoology, Vietnam Academy of Science and Technology (VAST), Ho Chi Minh City [ex Saigon]. *Obsolete as:* ITBMZ. *Current as:* ITBCZ (herps). *See also:* SIEZC. Ho Chi Minh City. Vietnam.

**2046. RIA2:** Research Institute for Aquaculture no. 2 [Vien Nghien curu Nuoi trong Thuy san 2], Ho Chi Minh City [ex Saigon]. Ho Chi Minh City. Vietnam.

**2047. SIEZC:** Department of Zoology, Southern Institute of Ecology (SIE), Vietnam Academy of Science and Technology (VAST), District 1, Ho Chi Minh City [ex Saigon]. *Note:* established in 2012 to expand Center for Biodiversity and Development (CBD) formerly based at the Institute of Tropical Biology (ITB). *Current as:* SIEZC (herps). *See also:* ITBCZ. Ho Chi Minh City. Vietnam.

**2048. TDHSP:** Truong Dai Hoc Su Pham [Ho Chi Minh City Pedagogical University], Zoological Collection, Ho Chi Minh City [ex Saigon]. Ho Chi Minh City. Vietnam.

**2049. UNS:** University of Natural Sciences, Vietnam National University, Ho Chi Minh City [ex Saigon]. *Current as:* UNS (herps). Ho Chi Minh City. Vietnam.

**2050. OIM:** National Oceanographic Museum of Vietnam, Institute of Oceanography [Vien Hai Duong Hoc], Vietnam Academy of Science and Technology (VAST), Nha Trang. *Current as:* OIM-E (fishes). *Also as:* ION. Khánh Hòa. Vietnam.

**2051. RIA3:** Research Institute for Aquaculture no. 3 [Vien Nghien curu Nuoi trong Thuy san 3], Nha Trang. *Current as:* RIA3 (fishes). Khánh Hòa. Vietnam.

**2052. VUP:** Vinh University, Vinh. *Formerly:* Pedagogical University of Vinh (1962–2001). *Current as:* VUP (fishes, herps). *Also as:* CQ (herps from Chau Quang village), VUM (Vinh University Museum). Nghệ An. Vietnam.

**2053. PNKB:** Science Research Centre collection, Phong Nha-Ke Bang National Park, Bo Trach. *Current as:* PNKB (herps). Quang Binh. Vietnam.

**2054. TBU-PAR:** Tay Bac University, Faculty of Biology and Chemistry, Son La. *Current as:* TBU-PAR (herps). Son La. Vietnam.

**2055. NHCY:** Natural History Collection of Yemen, Sana’a. *Note:* specimens curated at Senckenberg Museum, Frankfurt (SMF). *Current as:* NHCY (fishes, amphibians). Yemen.

**2056. NMZL:** Livingstone Museum, Livingstone. *Formerly:* David Livingstone Memorial Museum established in 1934; Rhodes-Livingstone Museum until 1966. *Obsolete as:* LM.

*Current as:* NMZL (herps). *Also as:* NMZ (National Museum of Zambia). Zambia.

**2057. UNZA:** University of Zambia, Lusaka. *Current as:* UNZA (fishes). Zambia.

**2058. CRP:** Private collection of Mr. Parry, Harare [Salisbury]. Zimbabwe.

**2059. NMZB:** Natural History Museum of Zimbabwe, Bulawayo. *Formerly:* Rhodesia Museum (RM, 1902–1935), National Museum of [Southern] Rhodesia (1936–1980), National Museum, Salisbury, Rhodesia (NMSR). *Includes:* collections from Umtali Museum (UM, UMZ) and Queen Victoria Memorial Museum (QVMS), Harare [Salisbury]. *Obsolete as:* NHMZ, NMBZ, NMSR, NZM, QG, RM. *Current as:* NMZB (herps). Zimbabwe.

**2060. PM:** Peterhouse Museum, Marondera. *Current as:* PM (herps). Zimbabwe.

#### ADDENDUM

Four additional institutional codes became available as this article was in production, bringing the total number of codes

listed to 2,064. To avoid renumbering the entire list, these codes are listed below as the midpoint of the two adjacent index numbers where the code would have appeared in the listing (e.g., 193.5 belongs between index numbers 193 and 194).

**193.5. CICMG:** Coleção Ictiológica do Centro Federal de Educação Tecnológica de Minas Gerais (CEFET-MG), Belo Horizonte. *Current as:* CICMG (fishes). Minas Gerais. Brazil.

**220.5. COPPE-UFRJ:** Instituto Alberto Luiz Coimbra de Pós-Graduação e Pesquisa em Engenharia, Universidade Federal do Rio de Janeiro, Rio de Janeiro. *Formerly:* Coordenação dos Programas de Pós-Graduação e Pesquisa de Engenharia. *Current as:* COPPE-UFRJ (fossils). Rio de Janeiro. Brazil.

**268.5. MUGEO:** Museu Geológico Valdemar Lefèvre, São Paulo. *Current as:* MUGEO (fossils). São Paulo. Brazil.

**1596.5. NHVUIC:** Ichthyological Collection, Nevşehir Hacı Bektaş Veli Üniversitesi [Hacı Bektaş Veli Nevşehir University], Nevşehir [ex Neapolis and Muşkara]. *Current as:* NHVUIC (fishes). *Also as:* NUIC. Nevşehir [Nevşehir]. Turkey.