

# Annotated Checklist of the Freshwater Fishes of Kenya (excluding the lacustrine haplochromines from Lake Victoria)

Authors: Seegers, Lothar, De Vos, Luc, and Okeyo, Daniel O.

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# ANNOTATED CHECKLIST OF THE FRESHWATER FISHES OF KENYA

(excluding the lacustrine haplochromines from Lake Victoria)

#### **Lothar Seegers**

Hubertusweg, 11, D 46535 Dinslaken, Germany L.Seegers@t-online.de

#### Luc De Vos<sup>1</sup>

National Museums of Kenya, Department of Ichthyology P.O. Box 40658, Nairobi, Kenya Africa Museum Tervuren, Vertebrate Section B-3080 Tervuren, Belgium

# Daniel O. Okeyo

University of Fort Hare
Private Bag X1314, Alice 5700, South Africa.
dokeyo@ufh.ac.za

#### **ABSTRACT**

A checklist of the freshwater fishes of Kenya is presented. Pending more accurate information on their status, the lacustrine Lake Victoria haplochromines have been omitted from the list. Currently 206 species belonging to 38 families are known from Kenyan fresh waters. With at least 50 species, Cyprinidae are by far the largest fish family in the country followed by Cichlidae, Mochokidae, Mormyridae and Characidae, respectively represented by 28, 15, 15 and 12 species. At least 18 fish species were introduced, deliberately or after escaping from fish farms or breeding stations. The list includes the distribution of each species in Kenya, common English names and local names in various African indigenous languages as well as annotations referring to introductions, distribution, taxonomic status of the species and older records from literature.

## INTRODUCTION

This annotated checklist provides an updated overview of the currently known freshwater fish species of Kenya. It also includes several coastal and estuarine fish species that have been found in fresh or brackish waters in the lower reaches of eastward flowing rivers. Some of these marine species may even breed in freshwater. It is likely that more coastal and

<sup>&</sup>lt;sup>1</sup> Dr. Luc De Vos sadly and suddenly passed away in June 2003.

estuarine fish species will be recorded in the future, since many of these areas are currently poorly explored. Some potential additions include a few cartilaginous species [e.g. the bullshark (Carcharinidae) and the small tooth sawfish (Pristidae)] and representatives of snake eels (Ophichthidae), gobiids (Gobiidae), flagtails (Kuhliidae), grunters (Haemulidae), scats (Scatophagidae), moonies (Monodactylidae) and seabreams (Sparidae).

This annotated checklist is mainly based on reference collections of Kenyan fishes housed in various natural history museums: Zoologisches Museum der Humboldt Universität, Berlin; Zoologisches Institut und Museum der Universität, Hamburg; the Natural History Museum, London; the National Museums of Kenya, Nairobi; Muséum National d'Histoire Naturelle, Paris; Musée Royal de l'Afrique Centrale, Tervuren. The FishBase website, (http://www.fishbase.org/search.cfm) already lists the majority of Kenyan material housed in several of these museums. Lists of museum material from Kenya can be obtained from the first author upon request. In a few cases species are listed, based on reliable records from the literature or from local fishermen. The checklist is particularly useful for fish biologists, fisheries officers and land and water-use managers of the catchment area.

The need for an updated annotated checklist is evident: the only previously published checklist on freshwater fish of Kenya by Copley (1941) is incomplete, outdated and uses antiquated or erroneous nomenclature. For example, the haplochromines reported in Copley's list do not necessarily occur in Kenyan waters. Copley (1941) lists fish species, which at that time were described from Lake Victoria and which were not verified *per se* to occur in Kenyan waters of the lake. Additional records on Kenyan freshwater fishes by Copley (1952; 1958), Whitehead (1959; 1960), Mann (1966; 1968) and Campbell *et al.* (1986) are also incomplete, outdated or sometimes doubtful. Those records therefore need critical examination.

More recently, Skelton (1994) published a species list of the coastal rivers, Tana and Galana, and Okeyo (1998) published one on Athi-Galana-Sabaki. Both lists, however, are incomplete and often inaccurate. A national checklist of freshwater fishes of Kenya, appearing in FishBase 2000 (Froese & Pauly, 2000) is merely based on data from the literature and is also often inaccurate. For example, the 320 Kenyan freshwater fish species recorded in FishBase 2000 include more than 110 Lake Victoria haplochromines. This number is taken from a simple listing of all Lake Victoria Haplochromis reported by Van Oijen et al. (1991). Given that only six percent (6%) of Lake Victoria lies in Kenya and bearing in mind that not all the haplochromines have a lake-wide distribution, there is little doubt that the list of fishes of Kenya in FishBase 2000 is too extensive for this group. So far, only a limited number of haplochromine species have been reported from Kenyan waters and reliable records of other species are scarce. The haplochromines in the Kenyan part of Lake Victoria were not monitored in detail prior to the Nile perch upsurge. Besides, it is far from well-known which species are still present in Kenyan waters of the lake after the dramatic ecological changes in the lake during the last decades. Pending more accurate information on their past and present status, the lacustrine Lake Victoria haplochromines as well as those from Lake Kanyaboli, a satellite lake of Lake Victoria, have been omitted from the present annotated checklist.

# HYDROGRAPHY OF KENYA

Kenya is a large country with a surface area of approximately 570,000 km<sup>2</sup>. The western and central parts of Kenya consist of highland plateaus, which are divided from north to south by

the Great Rift Valley. Kenya's hydrography (figure 1) is dominated by a series of lakes, rivers, floodplains and swamps. According to Vanden Bossche & Bernacsek (1990) the major Kenyan lakes fall into two main groups:

- a) Lake Victoria: Kenya possesses 6% of Lake Victoria, most of which has a depth of less than 20 m.
- b) The Rift Valley lakes: the larger Rift Valley lakes are Lake Turkana (an interior basin, interconnected with the river Nile in ancient times), Lake Baringo, Lakes Bogoria, Nakuru and Elmenteita (three salt lakes without autochthonous fish except for Lake Bogoria which has fish in some of its affluents) and Lakes Naivasha and Magadi. Three small international water bodies (Lakes Jipe and Chala, and the Amboseli swamps) are shared between Kenya and Tanzania. Many other small lakes are dotted around the country, and there are several on the lower floodplains of the Tana and Sabaki rivers.



Figure 1. Hydrography of Kenya.

The riverine drainage systems of Kenya are largely influenced by the Great Rift Valley and six major drainage basins are evident:

- Lake Victoria: the lake basin is a multi-river basin containing eight rivers of significant size (Sio, Nzoia, Yala, Nyando, Sondu, Miriu, Migori and Mara Rivers). These rivers drain nearly half of Kenya's runoff, carrying it westward into Lake Victoria. Their catchment comprises the area west of the Rift Valley, delineated by Mount Elgon in the North.
- 2) Rift Valley: an area with its own internal drainage, discharging northwards into or draining in the direction of Lake Turkana (Kerio, Turkwell, Suguta Rivers) and southwards into Lake Natron (Southern Ewaso Nyiro), with several sub-drainage rivers and lakes.
- 3) Athi River: the southern catchment east of the Rift Valley, draining from the central highlands to the Indian Ocean. It is the second largest eastward flowing river of Kenya, rising near Nairobi. Its major affluents are the Nairobi and the Tsavo Rivers. Below the confluence of the Athi and the Tsavo Rivers, the river is called Galana. Its lower course is called the Sabaki.
- 4) Tana River: the largest river of Kenya draining eastward from Mount Kenya to the Indian Ocean. The river system passes through most of Kenya's agro-climatic zones from humid and cold areas on Mount Kenya and the Aberdares, to very arid and very hot zones over much of the lower Tana. The cold upper reaches of the Tana River (above 1,500 m) were stocked with trout in colonial times. Further downstream the upper Tana is impounded by dams at five sites (Masinga, Kamburu, Gitaru, Kindaruma and Kiambere) which have produced increasing amounts of tilapias and common carp (escaped from Sagana fish farm) and mudfish, *Clarias gariepinus* (Jumbe, 1997). The fish communities of the lower courses (below the rapids at Kora) seem to be fairly undisturbed. They are subjected to large seasonal fluctuations in the amount of water carried to the Indian Ocean, normally with peaks in November and May. From Garissa to the sea the river meanders across a broad floodplain where ox-bows, cut-offs and associated river forms are common. The river enters the Indian Ocean at Kipini, southwest of Lamu.
- 5) Northern Ewaso Nyiro: the largest but driest catchment in Kenya. This river drains the northern flanks of Mount Kenya and the Aberdare Mountains. In former and much wetter times, the Northern Ewaso Nyiro was an affluent of the lower Juba River, but today it ends in the Lorian Swamps where it dries up. In exceptional floods, flows continue into Somalia.
- 6) Pangani drainage: this river drains the southern and southeastern flanks of the Kilimanjaro. The largest part of this drainage is situated in Tanzania; parts of the upper Pangani drainage including the Lumi River and the eastern half of Lake Jipe, however, are located in Kenya. Lake Chala (a small isolated crater Lake shared with Tanzania) might have an underground connection with the Pangani system.

#### THE KENYAN ICHTHYOFAUNA

The checklist contains 206 species belonging to 88 genera and 38 families (appendix 1, figures 2–20) and gives a fairly accurate picture of the freshwater fish diversity currently known from Kenya. At least 18 species (*Anguilla anguilla*, *Oncorhynchus mykiss*, *Salmo* 

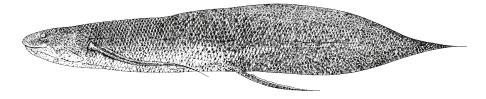


Figure 2. PROTOPTERIDAE: Protopterus aethiopicus aethiopicus.

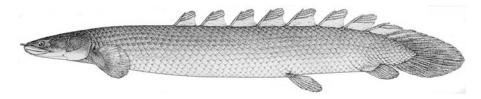


Figure 3. POLYPTERIDAE: Polypterus senegalus senegalus.

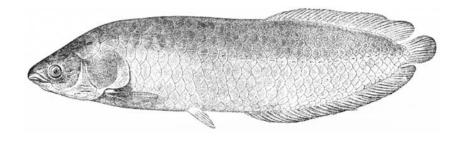


Figure 4. OSTEOGLOSSIDAE: Heterotis niloticus (after Boulenger, 1909).

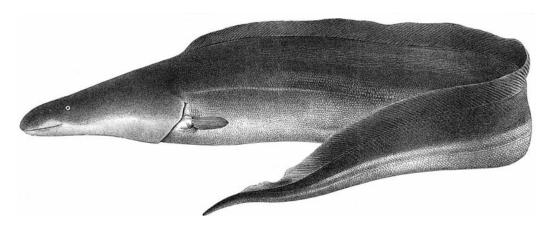


Figure 5. GYMNARCHIDAE: Gymnarchus niloticus (after Boulenger, 1909).

trutta, Salvelinus fontinalis, Carassius carassius, Ctenopharyngodon idella, Cyprinus carpio, Gambusia affinis, Poecilia reticulata, Oreochromis andersonii, O. leucostictus, O. macrochir, certain strains of O. niloticus, Tilapia rendalli, Haplochromis spec. "Chala", Lepomis cyanellus, L. macrochirus and Micropterus salmoides) were introduced into the country, deliberately or accidentally escaping from fish farms. Four of them (Anguilla anguilla, S. fontinalis, L. cyanellus and L. macrochirus) apparently did not establish as self-sustaining populations in natural waters after their introduction. It is currently unknown if four other introduced species (Carassius carassius, Ctenopharyngodon idella, O. andersonii and O. macrochir) are established in the wild. Therefore they are all listed with a query.

The list indicates the current known distribution of each species in Kenya, common (English) fish names and local fish names in various African indigenous languages. In several cases the English names are newly proposed. Local fish names are extracted from Copley (1941, 1952, 1958) and Hopson & Hopson (1982) or obtained from local fishermen during fieldwork. Some additional local names for Lake Turkana fishes were provided by J. Malala (KMFRI, Kenya Marine and Fisheries Research Institute, Kalokol, Turkana). Currently information on local fish names is scarce and much more data should be obtained.

Where available, the list gives annotations referring to introductions, distribution and taxonomic status of the species. Reference is given to older records, sometimes based on misidentifications or using antiquated names. Annotations related to the use of antiquated binominal combinations do not go back in the past earlier than the list of Kenyan fishes published by Copley (1941). Older antiquated binomina published before Copley's list, are not recorded. For the large tilapiines we follow the nomenclature as proposed by Trewavas (1983). For more details on this group the reader is referred to this authoritative work.

The present checklist is not final: the taxonomic status of several Kenyan fishes is currently unresolved and several species from Kenyan waters still await a formal description. More surveys are required to discover more about fish communities in various hydrographic systems of Kenya.

For instance, the genus *Barbus* (Cyprinidae) is restricted to a small number of species mainly inhabiting the European ichthyographic region including Northeast Africa. Most of the African species which are currently included in the genus, taxonomically do not appear to be closely related to the genus *Barbus sensu strictu*. However, no attempts have yet been made for an adequate nomenclature of the African forms. We therefore follow Berrebi *et al.* (1996) and use in this paper the term '*Barbus*' for the cyprinid fish species which were previously considered as *Barbus*.

The taxonomic status of some small barbus from Kenya is currently unresolved, a few of which are under description. 'Barbus' usambarae Lönnberg, 1907, described from the Pangani drainage near Tanga (Tanzania) might occur in Kenyan waters but so far has not been collected there. 'Barbus' serengetiensis Farm, 2000, a small species from affluent rivers in the Serengeti (Mara River system, Tanzania), also might occur in the Kenyan part of the Mara drainage. 'Barbus' profundus Greenwood, 1970 is known from deeper waters of Lake Victoria in Uganda and Tanzania but the species might also occur in Kenyan waters, which however needs confirmation.

Like the small 'Barbus', the taxonomy of the large 'Barbus' is not completely resolved either, despite a revision of the East and Central African forms by Banister (1973).

The taxonomy of several labeos (Cyprinidae, genus *Labeo*) is very confused. Besides, one or two undescribed species occur in coastal stretches of Kenya rivers.

The taxonomy of Nile perches (Centropomidae, genus *Lates*) from Lakes Victoria and Turkana needs revision.

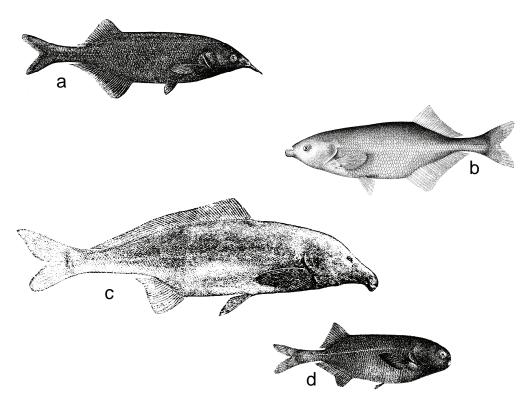


Figure 6. MORMYRIDAE: a. Gnathonemus longibarbis (after Boulenger, 1909), b. Marcusenius victoriae; c. Mormyrus kannume (after Boulenger, 1909); d. Pollimyrus nigricans (after Boulenger, 1909).

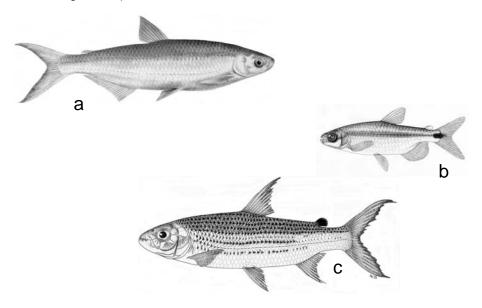


Figure 7. ALESTIDAE: a. Alestes dentex (after Boulenger, 1909), b. Brycinus sadleri c. Hydrocynus vittatus.

Two unidentified mormyrids (Mormyridae, genus *Marcusenius*) currently known from scientific collections, are probably new for science and need to be described. The taxonomy of the genus *Mormyrus* is largely unresolved and tentative.

Various suckermouth populations (Mochokidae, genus *Chiloglanis*) from Kenyan waters need further taxonomic study to establish their exact status. Some *Synodontis* species (*e.g.* the group "*S. zanzibaricus*") also need detailed investigation.

A riverine haplochromine species from the Migori River, Lake Victoria system, known from scientific collections, still has to be described formally. The same is probably true for an unidentified *Haplochromis* species from Lake Amboseli. We use the generic name *Haplochromis* for the species of this group pending more in-depth studies of the haplochromines. The taxonomic status of the haplochromines from Lakes Chala and Jipe (Pangani drainage) is still under investigation.

The taxonomic status of a peculiar species of *Nothobranchius* (family Aplocheilidae) from Lake Victoria is uncertain.

Two lampeyes (family Aplocheilichthyidae, genus *Aplocheilichthys*) from Lake Baringo and Lake Naivasha respectively, although not formally described, are listed under the names A. spec. "Baringo" and A. spec. "Naivasha". The taxonomic status of the species from Lake Baringo (whose population is currently threatened by competition with the introduced guppy) is not yet fully resolved. The species from Lake Naivasha has now become extinct even before a scientific description has been published.

Brycinus macrolepidotus Valenciennes in Cuvier & Valenciennes, 1849, Neobola bottegoi Vinciguerra, 1895 and Andersonia leptura Boulenger, 1900 have been reported from the delta of the Omo River system, the only permanent tributary of Lake Turkana on Ethiopian territory (see Hopson & Hopson, 1982, Howes, 1984) but they seem to be absent from Lake Turkana as a whole. Since their presence in Kenyan waters of the Turkana system is uncertain and requires confirmation, they are not listed here.

Some species with present uncertain taxonomic status are indicated with "aff." (from the Latin "affinitas"), e.g. Protopterus aff. amphibius or Leptoglanis aff. rotundiceps. This suggests a close affinity or possible conspecific status with the nominal species reported.

Several records of fish previously listed from Kenya are erroneous and consequently omitted from the present checklist. For example a Kenyan record of Polypterus ansorgii Boulenger, 1910 in FishBase 2000 (Froese & Pauly, 2000) is based on a misinterpretation of a locality in West Africa. Records in FishBase 2000 of Chelaethiops congicus (Nichols & Griscom, 1917) and Alestopetersius leopoldianus (Boulenger, 1899) from Kenya, based on information retrieved from Cloffa 1, are erroneous; the former species was not reported from Kenya in Cloffa 1, while the latter was erroneously recorded from Lake Victoria by Paugy (1984). A record of Anguilla bengalensis bengalensis (Gray, 1831) from Kenya in FishBase 2000 (Froese & Pauly, 2000) is unsubstantiated. Records of Nothobranchius taeniopygus Hilgendorf, 1891 from western Kenya by Wourms (1965) and from southwestern Kenya by Huber (1996) are based on misidentifications. Aplocheilichthys loati (Boulenger, 1901) reported from Kenya in FishBase 2000 (Froese & Pauly, 2000) based on data from Huber (1996) so far has not been positively identified from Kenyan waters. Records from the Galana (Lower Athi) by Skelton (1994) of the fish species Marcusenius livingstonii (Boulenger, 1899), Barbus innocens Pfeffer, 1896, B. laticeps Pfeffer, B. quadripunctatus Pfeffer, 1896, Brycinus imberi (Peters, 1852), Synodontis maculipinna Norman, 1922, Aplocheilichthys kongoranensis (Ahl, 1924), Nothobranchius foerschi Wildekamp, 8 Berkenkamp, 1979, N. janpapi Wildekamp, 1977, N. lourensi Wildekamp, 1977 and N. steinforti Wildekamp, 1977 are unsubstantiated. The reference sources quoted

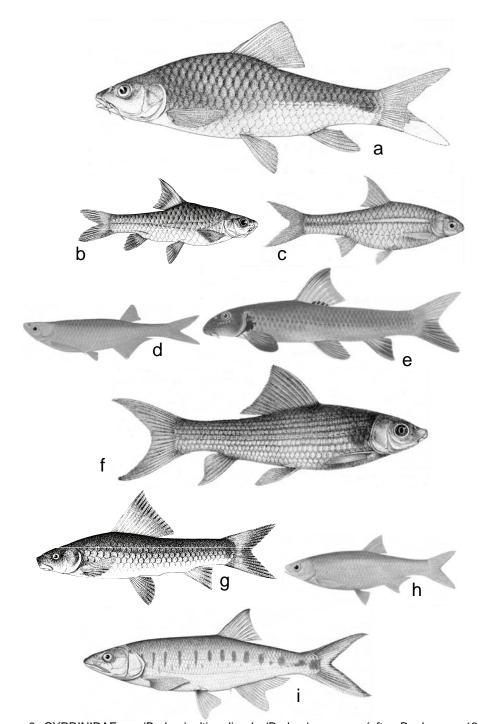


Figure 8. CYPRINIDAE: a. 'Barbus' altianalis; b. 'Barbus' cercops (after Boulenger, 1909); c. 'Barbus' magdalenae (after Boulenger, 1911); d. Chelaethiops bibie; e. Garra dembeensis (after Boulenger, 1911), f. Labeo horie, g. Labeo victorianus; h. Leptocypris niloticus (after Boulenger, 1911); i. Raiamas senegalensis.

by Skelton for listing those species in fact do not mention their presence in the Galana. A record of an introduction of the sailfin molly *Poecilia latipinna* (LeSueur, 1821) and records of *Carcharhinus leucas* (Müller & Henle, 1839), *Pristis microdon* (Latham, 1794), *Hippichthys cyanospilus* (Bleeker, 1854), *Kuhlia rupestris* (Lacepède, 1802), *Monodactylus argenteus* (Linnaeus, 1758), *Scatophagus tetracanthus* (La Cepède, 1802), *Mugil cephalus* (Linnaeus, 1758), *Butis butis* (Hamilton, 1822) and *Acentrogobius simplex* (Sauvage, 1880) by Okeyo (1998) are unsubstantiated and need confirmation.

The goldfish *Carassius auratus* (Linnaeus, 1758) is currently used for aquaculture purposes in Sagana fish farm (upper Tana River system). So far the species is not established in the wild but there is always the risk of it escaping from the farm like other species have done in the past.

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#### REFERENCES

- Banister, K.E. (1973). A revision of the large *Barbus* (Pisces, Cyprinidae) of East and Central Africa. Studies on African Cyprinidae Part II. *Bulletin of the British Museum* (*Natural History*), *Zoology* **26**(1): 1–148.
- Berrebi, P., M. Kottelat, P. Skelton & P. Rab (1996). Systematics of *Barbus*: state of the art and heuristic comments. *Folia Zoologica* **45**(Suppl. 1): 5–12.
- Bigorne, R. (1987). Le genre *Mormyrops* (Pisces, Mormyridae) en Afrique de l'Ouest. *Revue d' Hydrobiologie Tropicale* **20**(2): 145–164.
- Boulenger, G.A. (1898). A revision of the genera and species of fishes of the family Mormyridae. *Proceedings of the Zoological Society, London:* 775–821.
- Boulenger, G.A. (1903). Description of four new species of *Barbus* discovered by Mr. A. Blayney Percival in East Africa. *Annals and Magazine of Natural History* (7) **11** (61): 52–54.
- Boulenger, G.A. (1909). Catalogue of the fresh-water fishes of Africa in the British Museum (Natural History). Printed by order of the Trustees. London 1: 1–373.
- Boulenger, G.A. (1911). Catalogue of the Fresh-Water Fishes of Africa in the British Museum (Natural History), London 2: 1–529.
- Boulenger, G.A. (1915). Catalogue of the fresh-water fishes of Africa in the British Museum (Natural History). Printed by order of the Trustees. London 3: 1–526.
- Boulenger, G.A. (1916). Description of three new cyprinid fishes from East Africa. *Annals and Magazine of Natural History* (8) **17** (99): 244–245.

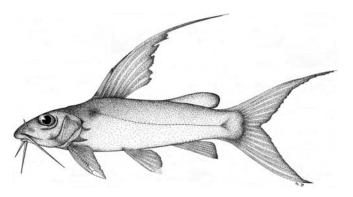


Figure 9. CLAROTEIDAE: Chrysichthys auratus.

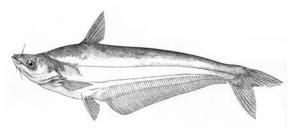


Figure 10. SCHILBEIDAE: Schilbe uranoscopus.



Figure 11. AMPHILIIDAE: Amphilius uranoscopus.

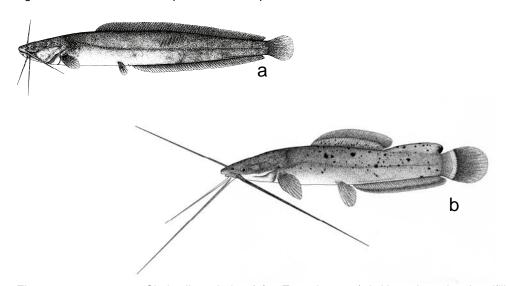


Figure 12. CLARIIDAE a. Clarias liocephalus (after Teugels, 1986), b. Heterobranchus longifilis.

- Campbell, K., C. Coe & M. Saunders (1986). A survey of fishes of the Tana River at Kora and a checklist of fishes of the Tana River. In M. Coe & N.M. Collins (eds.), *An Ecological Inventory of the Kora National Reserve, Kenya*. Royal Geographical Society, London. Pp. 175–188.
- Copley, H. (1938). Recent additions to fish exhibits in the Museum. *Journal of the East Africa Natural History Society* **13**: 191–192.
- Copley, H. (1941). A short account on the freshwater fishes of Kenya. *Journal of the East Africa Natural History Society* **16**(1): 1–24.
- Copley, H. (1952). The Game Fishes of Africa. Witherby, London.
- Copley, H. (1953). The introduction of the American Brook Trout (*Salvelinus fontinalis*) to Kenya. *Journal of the East Africa Natural History Society* **22**: 35–36.
- Copley, H. (1958). Common freshwater fishes of East Africa. Witherby, London.
- Coulter, G.W., B.R. Allanson, M.N. Bruton, P.H. Greenwood., R.C. Hart, P.B.N. Jackson & A.J. Ribbink (1986). Unique qualities and special problems of the African great lakes. *Environmental Biology of Fishes* 17: 161–183.
- De Vos, L., (1995). A systematic revision of the African Schilbeidae (Teleostei, Siluriformes). With an annotated bibliography. *Annales du Musée royal de l'Afrique Centrale, Sciences Zoologiques* **271**: 1–450.
- De Vos, L. (2001a). Rediscovery of the giant catfish *Pardiglanis tarabinii* (Siluriformes: Claroteidae). *Ichthyological Exploration of Freshwaters* **12**(3): 213–214.
- De Vos, L. (2001b). *Synodontis manni* (Teleostei: Siluroidea: Mochokidae), a new catfish from the Lower Tana River, Kenya. *Ichthyological Exploration of Freshwaters* **12**(1): 41–50.
- De Vos, L. & D.F.E. Thys van den Audenaerde (1990). Petits *Barbus* (Pisces, Cyprinidae) du Rwanda. *Revue d' Hydrobiologie Tropicale* **23**(2): 141–159.
- Froese, R. & D. Pauly (eds.), (2000). FishBase 2000: concepts, design and data sources. ICLARM, Los Baños, Laguna, Philippines.
- Gee, J.M. (1969). A comparison of certain aspects of the biology of *Lates niloticus* (Linné) in endemic and introduced environment in East Africa. In L.E. Obeng (ed.), *Man-made Lakes: The Accra Symposium*. Ghana Universities Press, Accra. Pp. 251–259.
- Golubtsov, A.S. & P.B. Berendzen (1999). Morphological evidence for the occurrence of two electric catfish (*Malapterurus*) species in the White Nile and Omo-Turkana systems (East Africa). *Journal of Fish Biology* **55**: 492–505.
- Goudswaard, K. & F. Witte (1997). The catfish fauna of Lake Victoria after the Nile perch upsurge. *Environmental Biology of Fishes* **49**: 21–43.
- Greenwood, P.H. (1966). The Fishes of Uganda. The Uganda Society, Kampala.
- Hamblyn. E.L. (1962). A note on Lake Rudolf. East African Freshwater Fishery Research Organization, Annual Report 1961: 46–47 (Appendix H).
- Hartley, J. (1984). A guide to Lake Naivasha. Evans Brother, Nairobi.
- Hilgendorf, F.M. (1905). Fische von Deutsch und Englisch Ost-Afrika. Gesammelt von Oscar Neumann, 1893–1895. *Zoologische Jahrbücher* **22**(4): 405–420.
- Hopson, A.J. & J. Hopson (1982). The fishes of Lake Turkana with a description of three new species: *Alestes ferox* sp. nov., *Alestes minutus* sp. nov. (Pisces, Characidae) and *Barbus turkanae* sp. nov. (Pisces, Cyprinidae). In A.J. Hopson (ed.), *Lake Turkana*. Overseas Development Administration, London. Pp. 283–347.
- Howes, G.J. (1984). A review of the anatomy, taxonomy, phylogeny and biogeography of the African neoboline cyprinid fishes. *Bulletin of the British Museum (Natural History)*, *Zoology* **47**(3): 151–185.

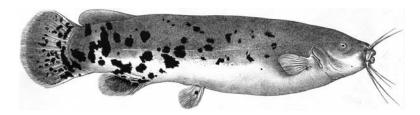


Figure 13. MALAPTERURIDAE: Malapterurus electricus (after Boulenger, 1911).





Figure 14. MOCHOKIDAE: Synodontis serpentis.

Figure 15. APLOCHEILICHTHYIDAE: Aplocheilichthys bukobanus (after Boulenger, 1915).



Figure 16. MASTACEMBELIDAE: Mastacembelus frenatus.

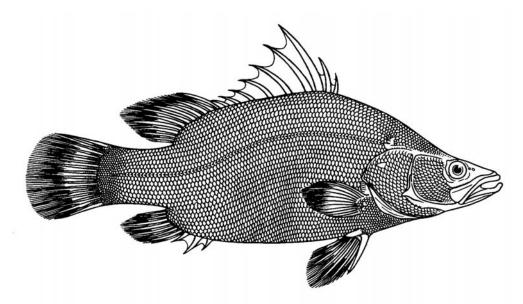


Figure 17. CENTROPOMIDAE: Lates (Lates) niloticus.

- Huber, J.H. (1996). Killi-Data. Updated Checklist of Taxonomic Names, Collecting Localities and Bibliographic References of Oviparous Cyprinodont Fishes (Atherinomorpha, Pisces). Société Française d'Ichtyologie, Muséum National d'Histoire Naturelle, Paris, France.
- Huber, J.H. (1999). Updates to the phylogeny and systematics of the African lampeye schooling Cyprinodonts (Cyprinodontiformes: Aplocheilichthyinae). *Cybium* **23**(1): 53–77.
- Jumbe, J.J. (1997). The status of Tana River Dam fisheries twenty years after dam construction. In K. Remane (ed.) African Inland Fisheries, Aquaculture and the Environment, FAO and United Nations. Fishing New Books. Pp. 33-44.
- Lévêque, C. & R. Bigorne (1983). Révision des *Leptocypris* et *Raiamas* (Pisces, Cyprinidae) de l'Afrique de l'Ouest. *Revue d'Hydrobiologie Tropicale* **16**(4): 373–393.
- Lévêque, C. & J. Daget (1984). Cyprinidae. In J. Daget, J.-P. Gosse & D.F.E. Thys van den Audenaerde (eds.), *Checklist of the Freshwater Fishes of Africa* Vol. 1. MRAC-ORSTOM. Pp. 217–342.
- Lever, C. (1996). Naturalized Fishes of the World. Academic Press.
- Loiselle, P.V. (1979). A revision of the genus *Hemichromis* Peters, 1858 (Teleostei: Cichlidae). *Annales du Musée Royal de l'Afrique Centrale, Sciences Zoologiques*, sér. In 8°, Tervuren **228**: 1–124.
- Mann, M.J. (1964). Report on a fisheries survey of Lake Rudolf, Kenya. East African Freshwater Fisheries Organization, Annual Report 1962/63: 53–62 (Appendix G).
- Mann, M.J. (1966). A preliminary report on a survey of fisheries of the Tana River, Kenya. East African Freshwater Fisheries Organization, Annual Report 1965: 36–43.
- Mann, M.J. (1968). A note on a second survey of the fisheries of the Tana River, Kenya. East African Freshwater Fisheries Organization, Annual Report 1967: 38–41.
- Mann, M.J. (1971). Some taxonomical notes on the fish fauna of the Baringo area. *The African Journal of Tropical Hydrobiology and Fisheries* 1(1): 25–34.
- Maugé, L. A. (1986). Gobiidae. In J. Daget, J.-P. Gosse & D.F.E. Thys van den Audenaerde (eds.), Checklist of the freshwater fishes of Africa, Vol. 2. MRAC-ORSTOM. Pp. 358–388.
- Mo, T. (1991). Anatomy, relationships and systematics of the Bagridae (Teleostei: Siluroidei) with a hypothesis of siluroid phylogeny. *Theses zoologicae* 17: 1–216.
- Muchiri, S. M. & P. Hickley (1991). The fishery of Lake Naivasha, Kenya. In I.G. Cowx, (ed.), *Catch Effort Sampling Strategies: Their Application in Freshwater Fisheries Management*. Blackwell Scientific Publications, Oxford. Pp. 382–392.
- Mugo, J. & D. Tweddle (1999). Preliminary survey of the fish and fisheries of the Nzoia, Nyando and Sondu Miriu rivers, Kenya. Lake Victoria Fisheries Research Project, Technical Document no. 6: 106–125.
- Ochumba, P.B.O. & J.O. Manyala (1992). Distribution of fishes along the Sondu-Miriu River of Lake Victoria, Kenya with special reference to upstream migration, biology and yield. *Aquaculture and Fisheries Management* 23: 701–719.
- Okeyo, D.O. (1998). Updating names, distribution and ecology of riverine fish of Kenya in the Athi-Galana-Sabaki River drainage system. *Naga, the ICLARM Quarterly* **21**(1): 44–53.
- Paugy, D. (1984). Characidae. In J. Daget, J.-P. Gosse & D.F.E. Thys van den Audenaerde (eds.), *Checklist of the Freshwater Fishes of Africa*, Vol. 1. MRAC-ORSTOM. Pp. 170–183.
- Reid, G.M. (1985). A Revision of African Species of *Labeo* (Pisces: Cyprinidae) and a redefinition of the genus. *Theses Zoologicae* **6**: 1–322.
- Seegers, L. (1996). The Fishes of the Lake Rukwa Drainage. Annales du Musée Royal de l'Afrique Central, Sciences Zoologiques 287: 1-407.

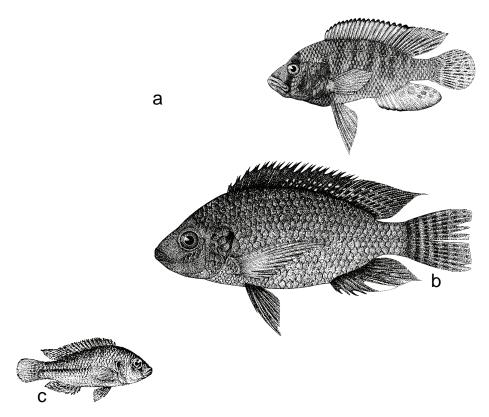


Figure 18. CICHLIDAE: a. Astatoreochromis alluaudi (after Boulenger, 1915), b. Oreochromis niloticus (after De Vos et al., 1990), c. Pseudocrenilabrus multicolor (after Boulenger, 1915).

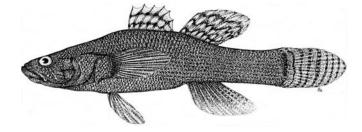


Figure 19. ELEOTRIDAE: Eleotris fusca.

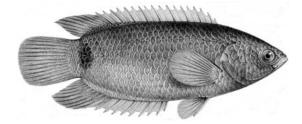


Figure 20 ANABANTIDAE: Ctenopoma muriei.

- Seegers, L. (1998). Der Jadesee.1. Die Cichliden des Lake Turkana in Kenya. *Aquarium Heute* **16**(4): 182–188.
- Seegers, L. & H. Tichy (1999). The *Oreochromis alcalicus* flock (Teleostei: Cichlidae) from Lake Natron and Magadi, Tanzania and Kenya, with descriptions of two new species. *Ichthyological Exploration of Freshwaters* **10**(2): 97–146.
- Skelton, P.H. (1994). Diversity and distribution of freshwater fishes in East and Southern Africa. *Annales du Musée Royal de l'Afrique Central, Sciences Zoologiques*, **275**: 95–131.
- Skorepa, V. (1992). Note on the East-African barbel, *Barbus intermedius* (Cyprinidae, Osteichthyes) from Kito Pass, Northern Kenya. *Acta Societas Zoologia Bohemoslov.* **56**: 57–62.
- Ssentongo, G.W. (1974). On the fishes and fisheries of Lake Baringo. *The African Journal of Tropical Hydrobiology and Fisheries* **3**(1): 95–106.
- Ssentongo, G.W. (1996). Report on the present Fisheries situation of Lake Baringo. Unpublished Report, FAO Fisheries Department, Rome.
- Stewart, D.J. (1977). Geographic variation of *Barbus radiatus* Peters, a widely distributed African cyprinid fish. *Environmental Biology of Fishes* 1(2): 113–125.
- Teugels, G.G. (1986). A systematic revision of the African species of the genus *Clarias* (Pisces; Clariidae). *Annales du Musée Royal de l'Afrique Centrale, Sciences zoologiques*, **247**: 1–199.
- Trewavas, E. (1973). On the cichlid fishes of the genus *Pelmatochromis* with proposal of a new genus for *P. congicus*; on the relationship between *Pelmatochromis* and *Tilapia* and the recognition of *Sarotherodon* as a distinct genus. *Bulletin of the British Museum* (*Natural History*), *Zoology* **25**(1): 1–26.
- Trewavas, E. (1983). *Tilapiine fishes of the genera* Sarotherodon, Oreochromis *and* Danakilia. British Museum (Natural History), London.
- Vanden Bossche, J.P. & G.M. Bernacsek (1990). Source Book for the Inland Fishery Resources of Africa, Vol. 1. CIFA Technical Paper 18/1, FAO, Rome.
- Van Oijen, M.J.P., J. Snoeks, P.H. Skelton, C. Maréchal & G.G. Teugels (1991). Haplochromis. In J. Daget, J.-P. Gosse, G.G. Teugels & D.F.E. Thys van den Audenaerde (eds.), Checklist of the Freshwater Fishes of Africa, Vol. 4, MRAC-ORSTOM. Pp. 100–184.
- Vareschi, E. (1979). The ecology of Lake Nakuru (Kenya). II. Biomass and spatial distribution of fish. *Oecologia* (Berlin) 37: 321–335.
- Welcomme, R.L. (1967). Observations on the biology of the introduced species of *Tilapia* in Lake Victoria. *Revue Zoologique et Botanique Africaine* **76**(3–4): 249–279.
- Welcomme, R.L. (1988). International introductions of inland aquatic species. *FAO Fisheries Technical Paper* **294**: 1–318.
- Whitehead, P.J.P. (1959). Note on a collection of fishes from the Tana River below Garissa, Kenya. *East African Agricultural Journal* **23**: 167–171.
- Whitehead, P.J.P. (1960). The river fisheries of Kenya. Part II –The Lower Athi (Sabaki) River. *East African Agricultural Journal* **25**(4): 259–265.
- Whitehead, P.J.P. (1962). The relationship between *Tilapia nigra* (Günther) and *T. mossambica* Peters in the eastern rivers of Kenya. *Proceedings of the Zoological Society. London* **138**: 605–637.
- Wildekamp, R.H. (1994). The *Nothobranchius* species from Uganda, with description of a new polymorphic species (Cyprinodontiformes: Aplocheilidae). *Ichthyological Exploration of Freshwaters* **5**(3): 193–206.

- Wildekamp, R. H. (1995). A World of Killies. Atlas of the Oviparous Cyprinodontiform Fishes of the World. Vol. II. American Killifish Association.
- Woodhouse, G.W. (1912). The fish in Lake Magadi. *Journal of the East Africa and Uganda Natural History Society* **2**: 95–97.
- Worthington, E.B. & C.K. Ricardo (1936). Scientific results of the Cambridge expedition to the East African lakes, 1930–1. No. 15. The fish of Lake Rudolf and Lake Baringo. *The Journal of the Linnean Society of London-Zoology* **39**(267): 353–389.
- Wourms, J.B. (1965). Comparative observations on the early embryology of *Nothobranchius taeniopygus* (Hilgendorf) and *Aplocheilichthys pumilus* (Boulenger), with special reference on the problem of naturally occurring embryonic diapauses in Teleost fishes. East African Freshwater Fisheries Research Organisation, Annual Report 1964 68–73 (Appendix H).

Appendix 1. Annotated checklist of freshwater fishes of Kenya, indicating the currently known distribution, common English names and local names in various indigenous African languages. SL indicates standard length; TL indicates total length.

#### Species, common and local names Distribution in Kenya, annotations and maximum known length PROTOPTERIDAE-African Lungfishes (3 species) Protopterus aethiopicus aethiopicus Lake Victoria drainage, Lake Kanyaboli and Lake Turkana; Heckel, 1851 (Fig. 2) introduced into Lake Baringo in 1974; records of this species Marbled lungfish from elsewhere in Kenya are based on misidentifications; first "Mamba" (Swahili, Luo, L. Victoria), record for Lake Turkana where the species seems to be very "Kamongo" (Luo, Lake Victoria) rare: currently there are only 3 records from the lake (KMFRI "Monye" (Luo, Lake Kanyaboli) station, Kalokol, Turkana); 200 cm TL. Protopterus aff. amphibius (Peters, Northern Ewaso Nyiro, lower parts of coastal drainages (Lower 1844) Tana River and Lower Galana-Sabaki); also reported from Kenyan lungfish Lake Jilore (Sabaki system) which is now dry; taxonomic status "Nyangoro" (Pokomo, Lower Tana), of the Kenyan populations uncertain; most likely it is a species "Ngumbi" (Giriama, Lower Tana), distinct from Protopterus amphibius; 45 cm TL "Talakute" (Swahili), "Mamba" (Swahili) Protopterus aff. annectens (Owen, 1839) Lower Tana River; also reported as Protopterus annectens Tana lungfish annectens; the taxonomic status of the Kenyan populations is "Mamba" (Swahili and Pokomo, Lower unclear; 100 cm TL Tana), "Tonzi" (Giriama, Lower Tana) POLYPTERIDAE-Bichirs (2 species) Polypterus bichir bichir Geoffroy Saint-Lake Turkana basin; also reported as Polypterus bichir; 68 cm TL Hilaire, 1802 Nile bichir "Nagir" (Turkana, Lake Turkana) Polypterus senegalus senegalus Cuvier, Lake Turkana basin; also reported as Polypterus senegalus; 1829 (Fig. 3) 50.5 cm TL Gray bichir "Nagiri", "Nagir" (Turkana, Lake Turkana) OSTEOGLOSSIDAE-Bonytongues (1 species) Heterotis niloticus (Cuvier, 1829) (Fig. 4) Lake Turkana; 98 cm SL African bonytongue "Dese" (Turkana, Lake Turkana) MORMYRIDAE-Snoutfishes, Elephant-snout fishes (15 species) Gnathonemus longibarbis (Hilgendorf, Lake Victoria basin; 36 cm TL 1888) (Fig. 6a) Longnose stonebasher "Ondhuri", "Obobo" (Luo, Lake Victoria), "Bobo" (Lake Victoria) Hippopotamyrus grahami (Norman, Endemic to Lake Victoria basin; also reported as Marcusenius grahami (antiquated binomen); 20 cm TL Graham's stonebasher "Kuumpi" (Lake Victoria) Hyperopisus bebe (La Cepède, 1803) Lake Turkana system; currently no specimens of this species are known from scientific collections from Lake Turkana, but local fishermen have confirmed the presence of Hyperopisus bebe in the northern part of the lake; the name of the author of this species (La Cepède), is spelled in various ways in literature (e.g. Lacépède, Lacepède or Lacepede); however, the title page of Volume 5 of his work of 1803 gives the spelling La Cepède; for this reason the name of this author is spelled here in this way; 51 cm SL Marcusenius aff. macrolepidotus (Peters, Sabaki drainage, lower Tana drainage; the specific status of the 1852) Kenyan populations is uncertain; 13.5 cm SL.

Species, common and local names	Distribution in Kenya, annotations and maximum known length
Tana-bulldog "Mbelewele" (Pokomo, Lower Tana)	
Marcusenius victoriae (Worthington, 1929) (Fig. 6b) Victoria stonebasher	Lake Victoria basin; also reported as <i>Gnathonemus victoriae</i> (old binomen); <i>Gnathonemus rheni</i> Fowler, 1936 described from Lake Victoria (Ugandese waters) is most likely a junior synonym of <i>Marcusenius victoriae</i> (see Greenwood, 1966); 26 cm TL
Marcusenius spec. "Malindi" Sabaki stonebasher	Sabaki drainage; undescribed species
Marcusenius spec. "Turkwell" Turkana stonebasher	Turkwell River (Turkana drainage); undescribed species
Mormyrops anguilloides (Linnaeus, 1758) Cornish Jack  Mormyrus bernhardi Pellegrin, 1926	Northern Ewaso Nyiro system; previously reported as <i>Mormyrops deliciosus</i> (Leach, 1818), a junior synonym of <i>M. anguilloides</i> (see Bigorne, 1987); the taxonomic position of this Kenyan population is uncertain: the species might be identical with <i>M. citernii</i> Vinciguerra, 1913 described from the Juba system in Somalia; an uncertain record of <i>M. anguilloides</i> from the Athi River basin discussed by Okeyo (1998) is unsubstantiated; 100 cm TL Endemic to Athi River system; validity doubtful; possibly a junior
Bernhard's elephant-snout fish	synonym of Mormyrus hildebrandti; 19 cm SL
Mormyrus hildebrandti Peters, 1882 Hildebrandt's elephant-snout fish	Endemic to Athi River system (including Tsavo drainage and Mzima Springs); sometimes misspelled as <i>Mormyrus hildebrandi</i> ; the tentative synonymy of <i>M. hildebrandti</i> with <i>M. kannume</i> by Boulenger (1898) is dubious and not followed here; 20 cm SL
Mormyrus kannume Forsskål, 1775 (Fig. 6c) Elephant-snout fish "Mkale", "Lomakale" (Turkana, Lake Turkana), "Shubule" (Samburu, North Ewaso Nyiro), "Suma", "Aduoyo" (Luo, Lake Victoria)	Lake Victoria drainage; Lake Turkana basin: Lake Kamnarok (Kerio system), River Turkwell, Omo delta; Northern Ewaso Nyiro; records of the Tana and Athi systems are dubious and probably refer to a different species; the status of the North Ewaso Nyiro populations is uncertain and also needs further study; 100 cm TL
Mormyrus tenuirostris Peters, 1882 Athi elephant-snout fish "Mwana hamari" (Pokomo, Lower Tana) "Tangu" (Athi River)	Athi and Tana River systems; 33.2 cm SL.
Petrocephalus catostoma catostoma (Günther, 1866) Churchill "Abobo", "Obobo" (Luo, Lake Victoria)	Lake Victoria drainage; also reported as <i>Petrocephalus degeni</i> Boulenger, 1906, a junior synonym; 15.0 cm FL
Petrocephalus catostoma tanensis Whitehead & Greenwood, 1959 Tana-churchill "Kiawara" (Pokomo, Lower Tana)	Tana River (middle and lower courses) endemic to the Tana system; 15.2 cm TL
Pollimyrus nigricans (Boulenger, 1906) (Fig. 6d) Dark stonebasher "Abobo" (Luo, Lake Victoria)	Lake Victoria basin; also reported as <i>Marcusenius nigricans</i> (antiquated binomen); 10 cm TL
GYMNARCHIDAE-Gymnarchids (1 specie	es)
Gymnarchus niloticus Cuvier, 1829 Aba (Fig. 5) "Lowarayame" (Turkana, Lake Turkana)	Lake Turkana basin (northern part); 151 cm TL

#### L. Seegers, L. De Vos & D.O. Okeyo 30 Species, common and local names Distribution in Kenya, annotations and maximum known length MEGALOPIDAE-Tarpons (1 species) Megalops cyprinoides (Broussonet, Coast; entering lagoons and estuaries, also ascending rivers; 1782) Lower Tana and Sabaki Rivers, lower courses of small coastal Oxeye tarpon, Indo-Pacific tarpon rivers; 35 cm TL "Tazanda" (Pokomo, Lower Tana) ANGUILLIDAE-Eels (4 species) Anguilla anguilla ? (Linnaeus, 1758) Lake Victoria system; introduced in the catchment (escaped some European eel years ago from fish farms in Uganda); normally not reproducing and thus expected not to survive in the wild in the future; 150 cm TL Anguilla bengalensis labiata Peters, 1852 Eastward flowing rivers (Athi and Tana drainages); an eel which African mottled eel, Spotted eel is found in Mzima Springs (Tsavo West National Park, Tsavo "Mukunga", "Mkunga", "Fiyoka" River system) most likely belongs to this species; migratory (Pokomo, Lower Tana) "Panga", species, breeds in the ocean; previously also reported under "Mkonge" (Swahili) the names Anguilla labiata and A. nebulosa labiata; 145 cm TL Anguilla bicolor bicolor McClelland, 1845 Tana River (Copley, 1958); possibly also occurring in other Shortfin eel eastward flowing rivers; currently not in collections from "Mukunga", "Mkunga" (Pokomo, Lower Kenyan rivers; migratory species, breeds in the ocean; Anguilla unicolor, reported by Copley (1941) from the Athi river is most Tana) likely a lapsus for this species or can be considered as a nomen nudum; 64 cm TL Anguilla mossambica Peters, 1852 Athi and Tana River systems (Copley, 1941, 1958); migratory Longfin eel, African longfin eel species, breeds in the ocean; 120 cm TL "Mukunga", "Mkunga" (Pokomo, Lower Tana) CLUPEIDAE-Herrings, Clupeids, Sardines (1 species) Pellona ditchela Valenciennes in Cuvier Marine species occasionally entering lower reaches of eastward & Valenciennes, 1847 flowing rivers (Tana and Sabaki); 16 cm SL Indian pellona

Lower part of Sabaki River (Whitehead, 1960); marine species

CHANIDAE-Milkfishes (1 species)

Chanos chanos (Forsskål, 1775)

entering estuaries and rivers; 100 cm TL

CYPRINIDAE-Cyprinids (50 species) 'Barbus' altianalis Boulenger, 1900

(Fig. 8a) Ripon Falls barb "Kasinja", "Odhadho", "Fwani", "Sire" (Luo, Lake Victoria)

Lake Victoria drainage; also reported from Lake Victoria under several synonymous names: Labeo rüppellii Pfeffer, 1896, Barbus radcliffii Boulenger, 1903, B. lobogenys Boulenger, 1906, B. bayoni Boulenger, 1911, B. pietschmanni Lohberger, 1922, B. hollyi Lohberger, 1922 and B. altianalis radcliffii Boulenger, 1903; records from the latter species from the Tana (see Mann, 1966, 1967) are based on misidentifications; 'Barbus' procathopus Boulenger 1916 was originally discribed from "The Amala River, entering the east side of Lake Baringo."; Banister (1973) stated that this species is a junior synonym of 'B.' intermedius australis; it appears however that the type locality of B. procathopus is erroneous: the Amala River is not in the Baringo area but refers to a tributary of the Mara River, Lake Victoria system; De Vos et al. (work in progress) therefore pointed out that B. procatopus is a junior synonym of 'B.' altianalis; 90 cm TL

'Barbus' apleurogramma Boulenger, 1911 East African redfinned barb "Adel" (Luo, Lake Victoria)

Lake Victoria basin, Lake Kanyaboli, Amboseli swamps, Athi River system (including Mzima springs, Tsavo drainage); Barbus amboseli Banister, 1980, a junior synonym of B. apleurogramma (De Vos & Seegers, work in progress), was listed with a query from the Tana River by Skelton (1994); as currently known, the species does not occur in the Tana River system; 4.5 cm SL

'Barbus' bynni (Forsskål, 1775) Nile barb "Momwara", "Toto Chibule" (Turkana, Lake Turkana) "Kisinya" (Lunyoro) "Arite" (El Molo, Lake Turkana)

'Barbus' cercops Whitehead, 1960 (Fig. 8b) Luambwa barb

'Barbus' intermedius Rüppell, 1835 Ethiopia barb "Libili", "Fwani" (Baringo)

'Barbus' jacksoni Günther, 1889 Jackson's barb

'Barbus' kerstenii Peters, 1868 Kersten's barb, Redspot barb Distribution in Kenya, annotations and maximum known length

Lake Turkana; also reported as *Barbus meneliki* Pellegrin, 1905 and *B. bynni rudolfianus* Worthington, 1932, both junior synonyms; 82 cm TL

Lake Victoria drainage, Southern Ewaso Nyiro system; the status of the Southern Ewaso Nyiro population needs to be examined in detail; also reported from Lake Victoria drainage as *Barbus trispilopleura* Boulenger, 1902, a misidentification; 6 cm SL

Northern Ewaso Nyiro, Lake Baringo drainage, Lake Bogoria system (affluent rivers), Lake Turkana basin (Turkwell River system, Kerio River system), Suguta drainage; Records of *B. gregorii* (a junior synonym of *B. intermedius*) from the Tana system (Boulenger, 1911) are based on wrong collection localities (see Mann, 1971 and Banister, 1973); the taxonomic status of the Kenyan populations is not yet fully settled; previously also recorded under the synonymous *names Barbus gregorii* Boulenger, 1902, *B. plagiostomus* Boulenger, 1902 and *B. erlangeri* Boulenger, 1903.

According to Skorepa (1992) the distinction of two subspecies, B. intermedius intermedius Rüppell, 1835, widely distributed throughout Southern Ethiopia and Northern Kenya and B intermedius australis Banister, 1973 only occuring in the Baringo drainage, as proposed by Banister (1973) is unjustified. Consequently the subspecific nomenclature is not applied here. Banisters subspecies 'B.' intermedius australis is in fact a junior synonym of 'B.' gregorii and the correct name for the Baringo subspecies should have been 'B.' intermedius gregorii. 'Barbus' procathopus Boulenger 1916 was originally discribed from "The Amala River, entering the east side of Lake Baringo." Banister (1973) stated that this species is a junior synonym of 'B.' intermedius australis. It appears however that the type locality of *B. procathopus* is erroneous: the Amala River is not in the Baringo area but refers to a tributary of the Mara River, Lake Victoria system. De Vos et al. (work in progress) therefore pointed out that B. procatopus is a junior synonym of 'B.' altianalis. Banister (1973) assumed that the year of publication of B. intermedius was 1837. Lévêque & Daget (1984) however mentioned 1836 as date of publication while Daget et al. (1986) gave the year 1835 as publication date. In fact Rüppell published the first description of the species in separates which are dated 1835 on the title page as was reported by Banister (1973: 47). Therefore, in agreement with articles 21.2 and 21.8 of the International Code of Zoological Nomenclature (1999), the year 1835 is the correct date of Rüppell's publication; 48.9 cm SL

Pangani drainage, Lake Victoria basin, Athi River system; also reported under the name *Barbus nummifer* Boulenger, 1904, a junior synonym; 11.6 cm SL

Pangani drainage, Lake Victoria basin, Lake Kanyaboli, Athi and Tana River systems, Northern and Southern Ewaso Nyiro Systems; this group needs revision: several populations currently included in this species might represent distinct taxa; previously also reported as *Barbus lumiensis* Boulenger, 1903, *B. minchini* Boulenger, 1906 and *B. akeleyi* Hubbs, 1918, all junior synonyms; previous subspecific distinction (*B. kerstenii kerstenii* and *B. kerstenii luhondo* Pappenheim & Boulenger, 1914) is currently not maintained (see De Vos & Thys van den Audenaerde, 1990); 7.5 cm SL

Species, common and local names	Distribution in Kenya, annotations and maximum known length
•	Upper Pangani drainage; this group needs revision; several populations from outside of Kenya, currently included in this species, might represent distinct taxa; records of this species from Lake Baringo (Mann, 1971; Ssentongo, 1974) are based on misidentifications; 8.2 cm TL
<i>'Barbus' loveridgii</i> Boulenger, 1916 Loveridge's barb	Lake Victoria basin; this species was described from the "Amala river, entering the east side of Lake Baringo" (Boulenger, 1916, p. 245), a doubtful locality undoubtedly referring to a tributary of the Mara River in Western Kenya, Lake Victoria system (Seegers & De Vos, work in progress); 6.6 cm SL
<i>'Barbus' magdalenae</i> Boulenger, 1906 (Fig. 8c) Bunjako barb	Endemic to Lake Victoria basin; 6.6 cm SL
'Barbus' mariae Holly, 1929 Rhino-fish "Domo" (Kamba, Athi River) "Kasinja" (Athi River) "Koovo" (Tana River) "Matonzi", "Kambale" (M'Kamba)	Athi and Tana river systems (upper courses); specific status uncertain; according to Banister (1973) <i>Barbus matris</i> Holly, 1928 described from the Athi River is probably a senior synonym of <i>B. mariae</i> ; possibly both nominal species are junior synonyms of <i>B. oxyrhynchus</i> Pfeffer, 1889; Copley (1938) recorded this species under the name <i>B. rhinoceros</i> , a nomen nudum; 34.2 cm TL
'Barbus' mimus Boulenger, 1912 Ewaso Nyiro barb	Northern Ewaso Nyiro and Tana river system; 5.5 cm TL
'Barbus' neumayeri Fischer, 1884 Neumayer's barb	Northern and Southern Ewaso Nyiro drainages, Athi and Tana river systems, Lake Victoria basin, Lake Turkana system; also recorded from affluents of Lake Bogoria drainage (Mann, 1971); also reported under the names <i>Barbus percivali</i> Boulenger, 1903, <i>B. nairobiensis</i> Boulenger, 1911 and <i>B. luazomela</i> Lönnberg, 1911, all junior synonyms; the <i>B. neumayeri</i> group needs revision; 10.3 cm SL
'Barbus' nyanzae Whitehead, 1960 Nyanza barb "Adel", "Kandhira" (Luo, Lake Victoria)	Endemic to Lake Victoria basin; 6 cm SL
'Barbus' oxyrhynchus Pfeffer, 1889 Pangani barb "Domo" (Kamba) "Okejoo" (Tana River) "Mtonzi", "Kambale", "Kuyu" (Athi River) "Kasimba" (Meru, Tana River) "Kasimba" (Athi River) "Ningu" (Kikuyu, Upper Tana system)	Upper Pangani drainage, Athi and Tana river systems (upper and middle courses), Northern Ewaso Nyiro; recorded under various synonymous names: <i>Barbus tanensis</i> Günther, 1894, <i>B. hindii</i> Boulenger, 1902, <i>B. perplexicans</i> Boulenger, 1902, <i>B. labiatus</i> Boulenger, 1911, <i>B. krapfi</i> Boulenger, 1911, <i>B. athi</i> Hubbs, 1918, <i>B. babaulti</i> Pellegrin, 1926, <i>B. nairobi</i> Holly, 1928 and <i>B. donyensis</i> Holly, 1929; <i>Barbus copleyae</i> (a nomen nudum) reported from the Athi River by Copley (1941) most likely refers to <i>B. oxyrhynchus</i> ; a record by Copley (1941) of <i>B. gregorii</i> (non Boulenger) from the Tana River is a misidentification for 'B.' oxyrhynchus; the taxonomic status of various Kenyan populations is not yet fully settled; 36.9 cm SL
'Barbus' paludinosus Peters, 1852 Straightfin barb	Distribution: Lake Victoria basin, Athi and Tana River systems, Northern and Southern Ewaso Nyiro basins, Upper Pangani system, Amboseli swamps, Lake Naivasha and affluents. Also reported under the names <i>Barbus taitensis</i> Günther, 1894, <i>B. amphigramma</i> Boulenger, 1903, <i>B. macropristis</i> Boulenger, 1904, <i>B. thikensis</i> Boulenger, 1905 and <i>B. helleri</i> Hubbs, 1918 all are junior synonyms; Muchiri & Hickley (1991) report that <i>B amphigramma</i> was introduced in Lake Naivasha; in contrast, they also mention that the species is a natural invader in the lake from inflowing rivers; Lever (1996) imprecisely quotes Muchiri & Hickley by reporting that <i>B. amphigramma</i> was introduced into rivers near Lake Naivasha from Tanzania in 1982; obviously <i>B. paludinosus</i> is naturally distributed in the Lake Naivasha system; 11.4 cm SL 13.0 cm TL

Species, common and local names	Distribution in Kenya, annotations and maximum known length
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'Barbus' quadripunctatus Pfeffer, 1896 Fourspotted barb	Pangani drainage; 3.5 cm TL
<i>'Barbus' radiatus</i> Peters, 1853 Beira barb, Redeye barb	Lake Victoria basin, Tana River system; also reported under the names <i>Barbus doggetti</i> Boulenger, 1904 and <i>B. radiatus radiatus</i> , junior synonyms (subspecific distinction rejected by Stewart, 1977); 9.6 cm TL
'Barbus' sexradiatus Boulenger, 1911 Kavirondo barb	Lake Victoria drainage; a dubious species only known from the holotype; 5.6 cm SL
'Barbus' aff. stigmatopygus Boulenger, 1903 Mid spot barb	Lake Turkana drainage (Turkwell, Kerio and Kalakol Rivers); doubtful identification; the taxonomic status of the Kenyan populations is not yet fully settled; also recorded from Lake Turkana drainage as <i>Barbus werneri</i> Boulenger, 1905, a junior synonym; 2.4 cm TL
'Barbus' toppini Boulenger, 1916 East-Coast barb "Shaa" (Giriama, Lower Tana)	Lower Tana and Sabaki drainages, Northern Ewaso Nyiro; the status of the Northern Ewaso Nyiro population is uncertain; 4.0 cm TL
<i>'Barbus' turkanae</i> Hopson & Hopson, 1982 Lake Turkana barb	Endemic to Lake Turkana; 4.2 cm SL
'Barbus' venustus Bailey, 1980 Red Pangani barb	Endemic to Pangani drainage (including lake Jipe); 3 cm SL
'Barbus' viktorianus Lohberger, 1929 Victoria barb	Lake Victoria basin; a dubious species only known from two type specimens; 7.1 cm ${\sf TL}$
<i>'Barbus' yongei</i> Whitehead, 1960 Nzoia barb "Adel" (Luo, Lake Victoria)	Endemic to Lake Victoria drainage; 5.6 cm SL
<i>'Barbus' zanzibaricus</i> Peters, 1868 Zanzibar barb "Kihalahala" (Pokomo, Lower Tana), "Shaa" (Giriama, Lower Tana)	Coastal rivers, including Sabaki and Lower Tana, Northern Ewaso Nyiro system; this species represents a polymorphic group which needs revision; also reported as <i>Barbus argyrotaenia</i> Boulenger, 1912, a junior synonym; 9.7 cm TL
<i>'Barbus'</i> spec. "Baringo" Baringo barb	Lake Baringo system, affluents of Lake Bogoria, Turkwell River system (Lake Turkana drainage); previously reported as <i>Barbus lineomaculatus</i> , a misidentification (Mann, 1971; Ssentongo, 1974, 1996); undescribed small barbus currently under description (De Vos <i>et al.</i> , work in progress); 6,2 cm SL, 8 cm TL
'Barbus' spec. "Nzoia 1"	Probably endemic to Nzoia River system (Lake Victoria basin, Kenya); undescribed small <i>Barbus</i> reported by Mugo & Tweddle (1999).
'Barbus' spec. "Nzoia 2"	Probably endemic to Nzoia River system (Lake Victoria basin, Kenya); undescribed small <i>Barbus</i> reported by Mugo & Tweddle (1999).
<i>'Barbus</i> ' spec. "Pangani" Taveta barb	Probably endemic to the Upper Pangani drainage: N'joro Springs, Lumi River system; closely related to 'Barbus' apleurogramma; most likely an undescribed small Barbus, currently under description (Seegers, work in progress).
Chelaethiops bibie (De Joannis, 1835) (Fig. 8d) Lake Turkana sardine	Distribution: Lake Turkana; 5.5 cm TL
Ctenopharyngodon idella ? (Valenciennes in Cuvier & Valenciennes, 1844) Grass carp	Distribution: Tana and Athi river systems (?). Uncertain if this species established in the wild; native range: China and Eastern Siberia. Introduced in 1969 from Japan into Kenya for aquaculture and weed control (Welcomme, 1988); 150 cm TL
Carassius carassius ? (Linnaeus, 1758) Crucian carp	According to Welcomme (1988) introduced to Kenya; unknown if established in the wild; 64 cm TL

Species, common and local names	Distribution in Kenya, annotations and maximum known length
Cyprinus carpio Linnaeus, 1758 Common carp	Tana River (upper courses, dams), Lake Naivasha: introduced; Native range: Japan, China, Central Asia; introduced from Uganda to Kenya in 1969 for aquaculture; has invaded dams and some parts of rivers where it replaced indigenous tilapias as dominant species (Welcomme, 1988); 120 cm SL
Garra dembeensis (Rüppell, 1835) (Fig. 8e) Dembea stone lapper "Ningu" (Kikuyu, Upper Tana system)	Lake Victoria drainage, Northern Ewaso Nyiro, Pangani drainage, Athi and Tana basins; also recorded as <i>Garra</i> sp., <i>Discognathus johnstonii</i> Boulenger, 1901 and <i>D. hindii</i> Boulenger, 1905 (two junior synonyms) and as <i>D. dembeensis</i> (antiquated binomen); 8.5 cm SL
Labeo cylindricus Peters, 1852 Redeye labeo "Livuli" (Lake Baringo)	Pangani drainage, Athi River system (including Tsavo drainage), Galana system, Upper Tana, Northern Ewaso Nyiro basin, Lake Baringo system, Lake Bogoria drainage (affluents), Turkwell and Kerio system (Turkana drainage), Suguta drainage; might occur as a rare straggler to Lake Turkana; Boulenger (1903) reported this species from the Lumi River (Pangani drainage) as <i>Labeo montanus</i> (Günther, 1889), a junior synonym; 40 cm TL
Labeo gregorii Günther, 1894 Gregori's labeo "Chika" (Pokomo, Lower Tana), "Kasimu", "Mkizi" (Giriama, Galana), "Nungu" (Meru, Middle Tana)	Athi and Tana River systems (lower reaches); 23.1 cm TL
Labeo horie Heckel, 1846 (Fig. 8f) Assuan labeo "Chibule", "Chubule" (Turkana, Lake Turkana), "Kara" (El Molo, Lake Turkana)	Lake Turkana; the taxonomic status of the Turkana population is not yet fully settled; misspelled as <i>Labeo lorii</i> by Hamblyn (1962) and as <i>L. hourie</i> by Mann (1964); some <i>Labeo</i> specimens from Lake Turkana drainage housed in collections in the British natural history museum are doubtfully identified as <i>L. niloticus</i> (Forsskål, 1775), but most likely belong to the species <i>L. horie</i> ; 57 cm TL
Labeo aff. mesops Günther, 1868 Tana labeo	Tana drainage (middle and lower courses); the taxonomic status of the Tana population is uncertain; Reid (1985) lists this fish as <i>Labeo mesops</i> , a dubious identification; 39 cm TL
Labeo percivali Boulenger, 1912 Ewaso Nyiro labeo	Northern Ewaso Nyiro; originally described from the Northern Ewaso Nyiro under the name <i>Labeo percivali</i> , which, according to Reid (1985), is a slender inland form of <i>L. bottegi</i> Vinciguerra, 1897 from the Juba system in Somalia; this is a doubtfull synonymy which we prefer not to follow here; 19 cm TL
Labeo trigliceps Pellegrin, 1926 Nairobi labeo	Endemic to the Athi River system; the taxonomic status of this species is uncertain; Reid (1985) suspects the types of <i>Labeo trigliceps</i> to be aberrant specimens of <i>L. cylindricus</i> ; 49 cm TL
Labeo victorianus Boulenger, 1901 (Fig. 8g) Victoria labeo "Ningu" (Luo, Lake Victoria)	Endemic to Lake Victoria drainage; 32.5 cm TL
Labeo spec. "Baomo" Red tail labeo "Kuwu", "Kuvu" (Pokomo)	Possibly endemic to the lower Tana system; an undescribed species recently collected near Baomo
Labeo spec. "Mzima" Mzima labeo	Mzima Springs (Tsavo River system); unidentified species under study.
Leptocypris niloticus (De Joannis, 1835) (Fig. 8h) Nile minnow	Lake Turkana; also reported as <i>Barilius niloticus</i> (old binomen); 9.5 cm TL
Neobola fluviatilis (Whitehead, 1962) Athi sardine	Galana-Sabaki Rivers, Lower Tana; also recorded as Engraulicypris fluviatilis (old binomen); 7.3 cm TL

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Species, common and local names	Distribution in Kenya, annotations and maximum known lengtl
Neobola stellae (Worthington, 1932) Lake Turkana minnow	Distribution: endemic to Lake Turkana; also recorded as Engraulicypris stellae (old binomen); 2.3 cm SL
Raiamas senegalensis (Steindachner, 1870) (Fig. 8i) Senegal minnow	Turkwell drainage (Lake Turkana system); also reported from Lake Turkana basin as <i>Raiamas loati</i> (Boulenger, 1901), a junior synonym (see Lévêque & Bigorne, 1983); 24.5 cm TL
Rastrineobola argentea (Pellegrin, 1904) Lake Victoria sardine "Omena" (Luo, Lake Victoria), "Dagaa" (Swahili, Lake Victoria)	Endemic to Lake Victoria drainage; also recorded as Engraulicypris argenteus (old name); 8 cm TL
DISTICHODIDAE-Distichodines (1 specie	s)
Distichodus niloticus (Linnaeus in Hasselquist, 1762) Nile distichodus "Gwolo", "Golo" (Turkana, Lake Turkana), "Gala" (El Molo, Lake Turkana)	Lake Turkana; 83 cm TL
CITHARINIDAE-Citharines (1 species)	
Citharinus citharus intermedius Worthington, 1932 Lake Turkana citharine "Gage", "Gej", "Agurt", "Gech" (Turkana, Lake Turkana), "Yoot" (El Molo, Lake Turkana)	Lake Turkana; also reported as <i>Citharinus citharis</i> Geoffroy Saint-Hilaire, 1809; 58 cm SL
ALESTIDAE-African Characins (12 specie	es)
Alestes baremoze (De Joannis, 1835) Egyptian robber "Lelete", "Delete", "Juse", "Dorobela" (Turkana, Lake Turkana), "Nyele" (El Molo, Lake Turkana)	Lake Turkana; 43 cm TL
Alestes dentex (Linnaeus, 1758) (Fig. 7a) Nile robber "Lelete", "Delete", "Juse", "Dorobela" (Turkana, Lake Turkana), "Nyele" (El Molo, Lake Turkana)	Lake Turkana; 55 cm TL
<i>Brycinus affinis</i> (Günther, 1894) Redfin robber "Nkwakwa" (Pokomo, Lower Tana)	Eastward flowing coastal rivers including Galana-Sabaki and Tana River (lower courses); a record of <i>Brycinus affinis</i> from the upper reaches of the Athi system by Okeyo (1998) is unsubstantiated; also reported as <i>Alestes affinis</i> (old name) reported from Athi and Tana drainages as <i>A. nurse</i> by Cople (1941), a misidentification; 14.7 cm SL
Brycinus ferox (Hopson & Hopson, 1982) Large-toothed Lake Turkana robber	Endemic to Lake Turkana; also reported as <i>Alestes ferox</i> (old binomen); 81 mm SL.
Brycinus jacksonii (Boulenger, 1912) Victoria robber "Osoga", "Soga" (Luo, Lake Victoria), "Nsoga" (Luhya, Lake Victoria)	Lake Victoria drainage; also reported as <i>Alestes jacksonii</i> (old name); reported from Lake Victoria as <i>A. nurse</i> by Copley (1941), a misidentification; 27 cm SL.
<i>Brycinus minutus</i> (Hopson & Hopson, 1982) Dwarf Lake Turkana robber	Endemic to Lake Turkana; also reported as <i>Alestes minutus</i> ( name); 3.3 cm SL
Brycinus nurse nana (Pellegrin, 1935) Turkana nurse tetra	Lake Turkana; also reported from Lake Turkana under the old name <i>Alestes nurse</i> (Rüppell, 1832); Lake Turkana specime of this species are noticeably smaller (12 cm fork length (FL than specimens from other populations, which grow up to 2 mm SL; therefore, the Turkana population was described as distinct subspecies; 12 cm FL.

Species, common and local names	Distribution in Kenya, annotations and maximum known length
Brycinus sadleri (Boulenger, 1906) (Fig. 7b) Sadler's robber "Osoga", "Soga" (Luo, Lake Victoria), "Nsoga" (Luhya, Lake Victoria)	Lake Victoria drainage; also reported from Lake Victoria as Alestes nurse, a misidentification; 13,8 cm TL
Hydrocynus forskahlii (Cuvier, 1819) Elongate tigerfish "Lokel" (Turkana, Lake Turkana), "Koris" (El Molo, Lake Turkana)	Lake Turkana; also recorded from Lake Turkana as <i>Hydrocyon</i> forskahlii (erroneous generic name) and sometimes misspelled as <i>H. forskali</i> or <i>H. forskalii</i> ; 78 cm SL
Hydrocynus vittatus (Castelnau, 1861) (Fig. 7c) Tigerfish "Lokel" (Turkana, Lake Turkana), "Koris" (El Molo, Lake Turkana)	Lake Turkana system; also reported from Lake Turkana as Hydrocyon lineatus Bleeker, 1863 (or Hydrocynus lineatus), a junior synonym; this species was reported from Lake Turkana by Worthington & Ricardo (1936); according to Hopson & Hopson (1982) in the Turkana basin this species is principally riverine and ecological changes in the lake have tended to inhibit incursions of H. vittatus into the lake; 70 cm SL
Micralestes aff. elongatus Daget, 1957 Elongated Turkana robber	Lake Turkana; the taxonomic status of this Turkana population is unclear; previously also listed as <i>Micralestes acutidens</i> (Peters, 1852) by Hopson & Hopson (1982), a misidentification; 6 cm TL
<i>Rhabdalestes tangensis</i> (Lönnberg, 1907) Pangani robber	Pangani drainage; <i>Rhabdalestes leleupi</i> Poll, 1967 is a junior synonym of this species; also listed as <i>Petersius tangensis</i> Lönnberg, 1907 (old binomen); records of this species from the Tana basin are dubious and based on misidentifications; 6 cm SL
BAGRIDAE-Bagrid Catfishes (3 species)	
Bagrus bajad (Forsskål, 1775) Black Nile catfish "Lorok", "Loruk", "Lorogo", "Lorongo" (Turkana, Lake Turkana), "Loruk" (El Molo, Lake Turkana)	Lake Turkana; 72 cm SL
Bagrus docmak (Forsskål, 1775) Sudan catfish "'Lisi", "Loruk" (Turkana, Lake Turkana), "Lisi" (El Molo, Lake Turkana), "Sewu", "Seu" (Luo, Lake Victoria)	Lake Turkana, Lake Victoria basin; also reported as <i>Bagrus degeni</i> Boulenger, 1906, which, according to Greenwood (1966) is a junior synonym of <i>B. docmak</i> , often misspelled as <i>B. docmac</i> . A record of " <i>B. docmac</i> " from the Athi River by Copley (1941) most likely refers to <i>B. urostigma</i> ; 110 cm TL
Bagrus urostigma Vinciguerra, 1895 Somalia catfish	Northern Ewaso Nyiro, Lower Tana; status uncertain; maybe identical with <i>Bagrus orientalis</i> Boulenger, 1902 from east coast rivers in Tanzania; a record of " <i>B. docmac</i> " from the Athi River by Copley (1941) probably refers to this species; 72 cm TL
CLAROTEIDAE-Clarotid Catfishes (4 spe	cies)
Auchenoglanis occidentalis (Valenciennes in Cuvier & Valenciennes, 1840) Giraffe catfish "Bulubulich", "Lokorikibon" (Turkana, Lake Turkana), "Tikir" (El Molo, Lake Turkana)	Lake Turkana system; 48 cm SL
Chrysichthys auratus (Geoffroy Saint- Hilaire, 1809) (Fig. 9) Golden Nile catfish "Lochakolong" (Turkana, Lake Turkana)	Lake Turkana; 30 cm TL
Clarotes laticeps (Rüppell, 1829) Wideheaded catfish "Mpumi" (Pokomo, Lower Tana),	Northern Ewaso Nyiro, Dawa River (Juba system), Galana- Sabaki, Tsavo drainage, Lower Tana; the taxonomic status of the Kenyan populations is uncertain and needs detailed study;

#### Freshwater fishes of Kenya Species, common and local names Distribution in Kenya, annotations and maximum known length "Pongwe" (Athi River), "Ngogo" (Giriama, 80 cm TL Galana River) Pardiglanis tarabinii Poll, Lanza & Sassi, Lower Tana; previously only known from the Juba system in 1972 Somalia, this species was recently rediscovered in the Lower Somalian giant catfish Tana (De Vos, 2001a); taxonomic status unclear; 87.6 cm TL, "Mpumi Hwahwa" (Pokomo, Lower 75 cm SL Tana) SCHILBEIDAE-Butter Catfishes, Glass Catfishes (3 species) Parailia somalensis (Vinciguerra, 1897) Lower Tana River system; also reported as Physailia somalensis tanensis Whitehead, 1962, a junior synonym and as Physailia Somalia glass catfish "Mpawa Rukanga" (Pokomo, Lower somalensis (old binomen); reported as Physailia sp. by Tana) Whitehead (1959); 6.9 cm TL Schilbe intermedius Rüppell, 1832 Galana-Sabaki, Lower Tana, Northern Ewaso Nyiro, Dawa River Silver catfish, Butter catfish (Juba system), Lake Victoria drainage; populations from the "Mpawa" (Pokomo, Lower Tana), Northern Ewaso Nyiro, the Juba system and the Galana-Sabaki

Schilbe uranoscopus Rüppell, 1832 (Fig. 10) Egyptian butter catfish

"Sire", "Rawa" (Luo, Lake Victoria),

"Kakonje" (Giriama, Galana River),

"Kissengo" (Swahili)

"Naili", "Nail" (Turkana, El Molo, Lake Turkana)

1995); 60.5 cm TL Lake Turkana, River Turkwell; 36 cm SL

#### AMPHILIIDAE-Mountain Catfishes (3 species)

Amphilius jacksonii Boulenger, 1912 Marbled mountain catfish

Amphilius uranoscopus (Pfeffer, 1889) (Fig. 11)

Stargazer mountain catfish

Leptoglanis aff. rotundiceps (Hilgendorf, 1905) Sand catlet

Lake Victoria drainage (affluent rivers); about 15 cm TL

and Tana Rivers consistently show a small adipose fin;

specimens from the Victoria basin do not have an adipose:

previously also reported under the name Schilbe mystus (Linnaeus, 1758), a misidentification, and as Eutropius depressirostris (Peters, 1852), a junior synonym (see De Vos,

Southern Ewaso Nyiro drainage (I. Payne, pers. comm.), Pangani drainage, Athi and Tana River systems, Lake Victoria basin (affluent rivers); also reported as Amphilius grandis Boulenger, 1905 and A. oxyrhinus Boulenger, 1912, both junior synonyms; 16.7 cm SL, 19.5 cm TL

Lake Victoria drainage (affluent rivers); the taxonomic status of the Victoria populations is unclear; records of Leptoglanis rotundiceps from the Tana River drainage are dubious (see Mann, 1967); 3.7 cm TL

#### CLARIIDAE-Airbreathing catfishes (7 species)

Clariallabes petricola Greenwood, 1956 Victoria snake catfish

Clarias alluaudi Boulenger, 1906 Alluaud's catfish "Oludhe" (Luo, Lake Victoria)

Clarias gariepinus (Burchell, 1822)

Sharptooth catfish, Common catfish, Mudfish "Kopito" (Samburu, Northern Ewaso Nyiro), "Kopito", "Obito", "Singre" (Turkana, Lake Turkana), "Lokate" (El Molo, Lake Turkana), "Nisu" (Pokomo, Lower Tana), "Mumi", "Sombi", "Dera" (Luo, Lake Victoria), "Ongala" (Luo, Lake Kanyaboli), "Singri", "Singre" (Lake Baringo), "Kambali" (Swahili,

Lake Victoria drainage; 8.4 cm SL

Lake Victoria drainage; doubtfully distinguished from Clarias werneri: 23 cm TL

Lake Victoria drainage, Lake Kanyaboli, Lake Turkana system, Suguta River, Lake Bogoria drainage, Lake Baringo system, eastward flowing river basins (Tana, Athi, ...), Northern and Southern Ewaso Nyiro Rivers, Dawa River (Juba system); previously also recorded as Clarias mossambicus Peters, 1852 and C. lazera Valenciennes in Cuvier & Valenciennes. 1840, both junior synonyms; erroneously reported from Lake Victoria under the name C. anguillaris by Copley (1941), a misidentification; 150 cm TL

Species, common and local names	Distribution in Kenya, annotations and maximum known length
Athi River), "Macharufu" (Meru, Tana River system)	
Clarias liocephalus Boulenger, 1898 (Fig. 12a) Smoothhead catfish "Nduri" (Luo, Lake Kanyaboli)	Lake Victoria basin, Lake Kanyaboli; also found in Nairobi dam (Upper Athi River) where it was probably introduced; previously also reported as <i>Clarias carsonii</i> Boulenger, 1903, a junior synonym of <i>C. liocephalus</i> ; Hilgendorf (1905) described <i>C. neumanni</i> from the Southern Ewaso Nyiro but it was noted by the collector of the types (O. Neumann) that the type locality of the species might be incorrect and that the types might originate from Lake Manyara system; Teugels (1986) synonymised <i>C. neumanni</i> with <i>C. liocephalus</i> without examining the types of <i>C. neumanni</i> ; he eroneously reported that the types from this species are housed in the Nairobi Museum; records of <i>C. liocephalus</i> from the Southern Ewaso Nyiro (erroneously attributed to the Tana River drainage by Teugels, 1986) are based on wrong localities; 32 cm TL
Clarias werneri Boulenger, 1906 Werner's catfish	Lake Victoria basin; doubtfully distinguished from <i>Clarias alluaudi</i> ; 23 cm TL
Heterobranchus longifilis Valenciennes in Cuvier & Valenciennes, 1840 (Fig. 12b) Vundu "Labe" (Turkana)	Lake Turkana (north end); currently no specimens of this species in scientific collections from Lake Turkana, but local fishermen have confirmed the presence of the vundu in the northern part of the lake; 100 cm TL
Xenoclarias eupogon (Norman, 1928) Lake Victoria deepwater catfish	Endemic to Lake Victoria drainage; also reported as <i>Clarias eupogon</i> (antiquated binomen) and as <i>Xenoclarias holobranchus</i> Greenwood, 1958 (junior synonym); Goudswaard & Witte (1997) report that this species may have become extinct due to predation by Nile perch and other recent ecological impacts; 20 cm SL
MALAPTERURIDAE-Electric catfishes (1	species)
Malapterurus electricus (Gmelin, 1789) (Fig. 13) Electric catfish "Lasali", "Losali" (Turkana, El Molo, Lake Turkana)	Lake Turkana, River Turkwell River; sometimes misspelled as <i>Malopterurus electricus</i> ; Golubtsov & Berendzen (1999) reported the presence of two electric catfishes ( <i>Malapterurus electricus</i> and <i>M. minjiriya</i> Sagua, 1987) in the Omo system, the only permanent tributary of Lake Turkana; consequently it needs confirmation which <i>Malapterurus</i> species occur(s) in Lake Turkana; 122 cm SL
ARIIDAE-Sea Catfishes (1 species)	
Arius africanus Playfair & Günther,1866 African sea catfish	Lower courses of Sabaki and Tana Rivers; coastal species, mostly in freshwater; 45 cm TL
MOCHOKIDAE-Squeakers and Suckermo	ouths (15 species)
Chiloglanis brevibarbis Boulenger, 1902 Short barbelled suckermouth	Athi and Tana River systems; Copley (1941) reported this species under the name <i>Chiloglanis athiensis</i> , a <i>nomen nudum</i> status uncertain; very close to <i>C. deckenii</i> ; the Kenyan <i>Chiloglanis</i> populations need detailed taxonomic study; 6.1 cm TL
Chiloglanis deckenii Peters, 1868 Pangani suckermouth	Pangani drainage; 5.0 cm TL
Chiloglanis spec. "Kerio" Kerio suckermouth	Kerio River system (Lake Turkana drainage); status uncertain; very close to <i>Chiloglanis niloticus</i> ; the Kenyan <i>Chiloglanis</i> populations need detailed taxonomic study
Chiloglanis spec. "Northern Ewaso Nyiro" Chanler Falls suckermouth	Northern Ewaso Nyiro (below Chanler Falls); status uncertain; very close to <i>Chiloglanis niloticus</i> ; the Kenyan <i>Chiloglanis</i> populations need detailed taxonomic study

Species, common and local names	Distribution in Kenya, annotations and maximum known length
Chiloglanis somereni Whitehead, 1958 Someren's suckermouth	Lake Victoria drainage (affluent rivers); 10 cm SL
Mochokus niloticus De Joannis, 1835 Dwarf Nile catfish	Lake Turkana system; 6.5 cm TL
Synodontis afrofischeri Hilgendorf, 1888 Marbled Victoria squeaker "Okoko" (Luo, Lake Victoria)	Lake Victoria drainage; dubious records of <i>Synodontis</i> afrofischeri from the Tana and Athi Rivers are based on misidentifications of <i>S. serpentis</i> ; 17.7 cm TL
Synodontis frontosus Vaillant, 1895 Sudan squeaker "Lour kasicou" (Turkana, Lake Turkana), "Pua" (El Molo, Lake Turkana)	Lake Turkana system; according to Hopson & Hopson (1982) in the Turkana basin this species is principally riverine and ecological/hydrological changes in the lake currently have tended to inhibit incursions of <i>Synodontis frontosus</i> into the lake; 34.2 cm TL
Synodontis geledensis Günther, 1896 Geledi squeaker	Northern Ewaso Nyiro; 30.7 cm TL
Synodontis manni De Vos, 2001 Feather-barbelled squeaker "Njigu" (Pokomo, Lower Tana)	Possibly endemic to the Lower Tana River; reported by Mann (1968) from the Lower Tana River as a closely related species to <i>Synodontis clarias</i> from West Africa (see De Vos, 2001b); 21.6 cm SL, 28.8 cm TL
Synodontis schall (Schneider in Bloch & Schneider, 1801) Nile squeaker "Tirr" (Turkana, Lake Turkana), "Tikir" (El Molo, Lake Turkana)	Lake Turkana; records of this species from the Athi and Tana Rivers (Copley, 1952; 1958; Mann, 1968) are misidentifications probably refering to <i>Synodontis zanzibaricus</i> ; 43 cm TL
Synodontis serpentis Whitehead, 1962 (Fig. 14) Tana squeaker "Ningo wa yuvu" (Pokomo, Lower Tana). "Kikorokoro" (Giriama, Lower Tana)	Galana-Sabaki and lower Tana River systems; 12.4 cm TL
Synodontis victoriae Boulenger, 1906 Lake Victoria squeaker "Okoko" (Luo, Lake Victoria)	Lake Victoria drainage; records of <i>Synodontis victoriae</i> from the Tana River (Copley, 1941; Mann, 1966; 1968) are misidentifications and probably refer to <i>S. zanzibaricus</i> ; 29 cm TL
Synodontis zanzibaricus Peters, 1868 East coast squeaker "Ingorongo" (Samburu, North Ewaso Nyiro). "Ningo" (Pokomo, Lower Tana) "Kikorokoro" (Giriama, Lower Tana)	Pangani drainage, Galana-Sabaki, Lower Tana River, Northern Ewaso Nyiro; taxonomic status uncertain; <i>Synodontis punctulatus</i> Günther, 1894 and <i>S. leopardus</i> Pfeffer, 1894, reported from Tanzania and Somalia, might be junior synonym of this species (Seegers, 1996); also reported by Whitehead (1959, 1962) and Mann (1966, 1968) from the Tana and Northern Ewaso Nyiro Rivers as <i>S. zambezensis</i> Peters, 1852 a misidentification; 31.1 cm TL
Synodontis spec. "Lower Tana" Ocellated Tana squeaker	Lower Tana drainage; one specimen of this undescribed Synodontis was collected by S. Engelhardt from the lower Tan drainage and exported to Germany; more specimens need to be collected for study.
SALMONIDAE-Trouts (3 species)	
Oncorhynchus mykiss (Walbaum, 1792) Rainbow trout	Well established and self-sustaining in streams all over the Aberdare Mountains, Mount Kenya and mount Elgon; first introduced into Kenya from South Africa and UK around 1910 for angling and aquaculture; native range: rivers and streams of the Pacific Ocean drainages of Northern Asia and North America; also reported under the synonymous names Salmo irideus Gibbons, 1855, and S. gairdneri (Richardson, 1936) an as Parasalmo mykiss (Walbaum, 1792), an old binomen; 120 cm TL

Species, common and local names	Distribution in Kenya, annotations and maximum known length
Salmo trutta Linnaeus, 1758 Brown trout	Well established and self-sustaining in a few selected streams on the Aberdare mountains and mount Kenya, and also in the Maron River on the Cherengani Hills; Introduced on many occasions from UK for sport fishing since about 1910, but now largely replaced by rainbow trout; native range: Europe and Western Asia; also in Atlas mountains in North Africa; 29 cm TL
Salvelinus fontinalis ? (Mitchill, 1815) Brook trout, American brook char(r), American brook trout, Speckled trout	According to Welcomme (1988) this species was introduced in 1969 into Kenya from UK for sport fishing in the hope that it would breed in lakes with no inflowing stream; Copley (1953) mentions introduction of the species from UK in 1949, but reports that the importation in natural waters (Lake Höhnel on Mount Kenya) was a failure; unlikely that any still survive in Kenya; native range: Northeastern North America; 86 cm SL
APLOCHEILICHTHYIDAE-Topminnows of	r Lampeyes (6 species)
Aplocheilichthys bukobanus (Ahl, 1924) (Fig. 15) Victoria lampeye "Mande" (Luo, Lake Kanyaboli)	Lake Victoria drainage, Lake Kanyaboli; Huber (1999) suggested to use the name <i>Lacustricola bukobanus</i> for this species; also reported as <i>Aplocheilichthys meyburgi</i> Meinken, 1971 and <i>Micropanchax ericae</i> Meinken, 1971 (junior synonyms of <i>A. bukobanus</i> ); also reported as <i>Cynopanchax bukobanus</i> (old binomen); records from Lake Victoria drainage under the names <i>Haplochilus pumilus</i> Boulenger, 1906 or <i>Aplocheilichthys pumilus</i> are misidentifications; 5 cm TL
Aplocheilichthys jeanneli (Pellegrin, 1935) Omo lampeye	Endemic to Lake Turkana basin; also reported as Haplochilichthys jeanneli (old binomen); 3 cm TL
Aplocheilichthys rudolfianus (Worthington, 1932) Turkana lampeye	Endemic to Lake Turkana basin; also reported as Haplochilichthys rudolfianus (old binomen); 3 cm TL
Aplocheilichthys spec. "Baringo" Baringo lampeye	Lake Baringo drainage (possibly endemic); the taxonomic status of this species is uncertain; it appears to be close to <i>Aplocheilichthys maculatus</i> Klausewitz, 1957 from the coastal area around Dar es Salaam in eastern Tanzania; this Baringo species is apparently declining and might be under threat of extinction due to competition with the introduced guppy ( <i>Poecilia reticulata</i> ); reported as <i>A.</i> aff. <i>maculatus</i> by Wildekamp (1995)
<i>Aplocheilichthys</i> spec. "Naivasha" Naivasha lampeye	Lake Naivasha; apparently extinct since the 1970s or 1980s due to competition or predation by introduced fishes; status uncertain: the Naivasha lampeye has been reported under the names <i>Haplochilichthys antinorii</i> and <i>Aplocheilichthys antinorii</i> (Vinciguerra, 1883) but differs from this species.
Pantanodon stuhlmanni (Ahl, 1924) Eastcoast lampeye	Lower reaches of rivers and brooks of the eastcoast drainage close to the sea, including salt pans; also reported as Pantanodon podoxys Myers, 1955, a junior synonym according to Seegers (1996); also recorded under the old name Aplocheilichthys stuhlmanni; 1.8 cm TL
APLOCHEILIDAE-Annual killifishes (12 sp	pecies)
Nothobranchius bojiensis Wildekamp & Haas, 1992 Boji Plains nothobranch	Endemic to Northern Uwaso Nyiro drainage where it is found in seasonal waters of the Boji plains, northeast of Merti; 4.9 cm SL
Nothobranchius elongatus Wildekamp, 1982 Elongate nothobranch	Seasonal waters of the southeastern coastal drainage, to the north west of Mombasa near Kaloleni; 5.5 cm TL
Nothobranchius interruptus Wildekamp & Berkenkamp, 1979 Kikambala nothobranch	Seasonal pools and waters of the southeastern coastal drainage near Kikambala, about 15 km north of Mombasa; 6.5 cm TL

Species, common and local names	Distribution in Kenya, annotations and maximum known length
Nothobranchius jubbi Wildekamp & Berkenkamp, 1979 Blue nothobranch	Seasonal pools northwards of Malindi and in the lower Tana drainage; <i>Nothobranchius cyaneus</i> Seegers, 1981 from eastern Kenya is considered as a synonym of <i>N. jubbi</i> ; a record of <i>N. guentheri</i> (Pfeffer, 1893) from the Tana River by Mann (1968) most likely is a misidentification for <i>N. jubbi</i> since <i>N. guentheri</i> is confined to Zanzibar island; 6 cm TL
Nothobranchius melanospilus (Pfeffer, 1896) Blackspotted nothobranch	Seasonal ponds and waters of the southeastern coastal area of Kenya, Umba and northwards to the Ramisi drainage; 7 cm TL
Nothobranchius microlepis (Vinciguerra, 1897) Small scaled nothobranch	Seasonal pools of the lower to middle Tana drainage; 8 cm TL
Nothobranchius palmqvisti (Lönnberg, 1907) Pangani nothobranch	Seasonal ponds and waters of the southeastern coastal area of Kenya, Umba and northwards to the Ramisi drainage; 5 cm TL
Nothobranchius patrizii (Vinciguerra, 1927) Somali nothobranch	Seasonal pools of the lower Tana; 5 cm TL
Nothobranchius robustus Ahl, 1935 Red Victoria nothobranch	Seasonal pools of the Lake Victoria drainage, near Ahero and in the Sio River floodplain near Busia; 5.5 cm TL
Nothobranchius ugandensis Wildekamp, 1994 Uganda nothobranch	Seasonal pools in the Sio River floodplain near Busia; Wildekamp (1994) attributes a population from seasonal pools of the lower Sio River near Busia to this species; a record of <i>Nothobranchius taeniopygus</i> Hilgendorf, 1891 by Wourms (1965) refers to this species; 5 cm TL
Nothobranchius willerti Wildekamp, 1992 Mnanzini nothobranch	Lower Tana River system in the coastal plains of eastern Kenya; 4 cm TL
Nothobranchius spec. "Lake Victoria" Blue Victoria nothobranch	Seasonal pools near Lake Victoria between Ahero and Kisumu; taxonomic status uncertain
POECILIIDAE-Livebearers (2 species)	
Gambusia affinis holbrooki (Girard, 1859) Eastern mosquito fish	Athi and Tana river systems, Lake Victoria drainage (affluent rivers); maybe also in Lake Naivasha where Muchiri & Hickley (1991) reported the establishment of a <i>Gambusia</i> sp. (presumably <i>G. affinis</i> ) before 1977; Introduced for mosquito control in Kenya probably in the early sixties (Mann, 1966); native range: North America in the Atlantic drainage and on peninsular Florida as far west as Alabama; reported as <i>G. affinis</i> from the Sondu Miriu River system (Lake Victoria drainage) by Mugo & Tweddle (1999); also reported valid as <i>G. holbrooki</i> in FishBase (Froese & Pauly, 2000); 3.5 cm TL
Poecilia reticulata Peters, 1859 Guppy, Million fish	Introduced in many waters in Kenya: Athi and Tana river systems, Lake Baringo, Upper Pangani drainage (including Lake Jipe), Lake Naivasha, Northern Ewaso Nyiro, Lake Victoria drainage; according to Welcomme (1988) introduced in 1950 from Uganda to Kenya for mosquito control; Lever (1996) reports the year 1956 as time of introduction; probably also introduced by aquarists; also reported as <i>Lebistes reticulatus</i> (antiquated name); native range: West Indies and northern South America from western Venezuela to Guyana; the guppy may be the cause of decline of several indigenous lampeyes probably because of competition; 3.5 cm TL
SYNGNATHIDAE-Pipefishes (2 species)	
Hippichthys (Hippichthys) spicifer (Rüppell, 1838) Bellybarred pipefish, Blue spotted pipefish	Coastal species; enters lower reaches of rivers. Lower Sabaki (Whitehead, 1960); 17 cm SL

Distribution in Kenya, annotations and maximum known length

Microphis (Belonichthys) fluviatilis (Peters, 1852) Freshwater pipefish

Coastal species; enters lower reaches of rivers. Lower Sabaki (Whitehead, 1960); 20 cm SL

#### MASTACEMBELIDAE-Spinyeels (1 species)

Mastacembelus frenatus (Boulenger, 1901) (Fig. 16)

Longtail spinyeel

"Okunga" (Luo, Lake Victoria)

Lake Victoria drainage; records by Copley (1952; 1958) from the Athi River system might refer to this species, most likely there are no mastacembelids in the Tana system despite records by Copley (1952; 1958); also reported under the generic names Caecomastacembelus and Afromastacembelus; here included in Mastacembelus (Vreven, work in progress); also reported as Mastacembelus victoriae Boulenger, 1903, a junior synonym; the taxonomic status of mastacembelids from the Athi River drainage needs investigation; 33 cm TL

#### CENTROPOMIDAE-Nile perches (2 species)

Lates (Lates) longispinis Worthington, 1929

Turkana perch

"Iji" (Turkana, Lake Turkana), "Jinte" (El Molo, Lake Turkana)

Lates (Lates) niloticus (Linnaeus, 1758) (Fig. 17)

Nile perch

"Iji", "Idji" (Turkana, Lake Turkana), "Jinte" (El Molo, Lake Turkana), "Mbuta" (Luo, Lake Victoria), "Mputa" (Luhya, Lake Victoria)

Endemic to Lake Turkana; taxonomic status uncertain; previously also reported as Lates niloticus longispinis; 27.5 cm TL

Lake Turkana; introduced into Lake Victoria; the taxonomic status of the Lake Victoria populations is uncertain; Lates was introduced to Lake Victoria in the late 1950s and early 1960s (Coulter et al., 1986) from the shallow waters of Lake Albert and Lake Turkana (Gee, 1969); although not necessarily conspecific with L. niloticus, the Lake Victoria Lates have always been referred to as L. niloticus; according to Hartley (1984) an unpublished introduction of L. niloticus took place in Lake Naivasha in the early 1970s and since the early 1980's several perch have been caught; no information available as to its present status but probably the species did not establish in the lake; Mann (1966) reports the appearance of L. niloticus escaped from Sagana Fish Culture Farm into the Middle Tana after exceptional floods at the end of 1961; apparently the species has not established in the Tana; previously Turkana populations of Nile Perch have been recorded as Lates niloticus rudolfianus Worthington, 1932; 180 cm TL

#### AMBASSIDAE-Glassies (1 species)

Ambassis gymnocephalus (La Cepède, 1802)

Bald glassy

"Dodosi" (Digo, South Coast)

Coastal species; enters lower parts of rivers; Ramisi and Umba Rivers; 16 cm TL

#### TERAPONIDAE-Thornfishes (1 species)

Terapon jarbua (Forsskål, 1775) **Thornfish** 

Coastal and mangrove species; entering lower parts of rivers; 30 cm SI

#### LUTJANIDAE-Snappers (1 species)

Lutjanus argentimaculatus (Forsskål, 1775)

River snapper

"Unga" (Digo, South Coast)

CICHLIDAE-Cichlids (28 species)

Alcolapia alcalicus (Hilgendorf, 1905) Natron tilapia

Coast; enters lower parts of coastal rivers (e.g. Ramisi River)

Lake Natron drainage, Shombole swamps; previously also reported as Tilapia alcalica and Oreochromis (Alcolapia) alcalica alcalica; specific rank according to Seegers & Tichy (1999); 7.7 cm SL

Species, common and local names	Distribution in Kenya, annotations and maximum known length
Alcolapia grahami (Boulenger, 1912) Lake Magadi tilapia	Lake Magadi. Introduced in Lake Nakuru in 1953, 1959 and 1962 (Vareschi, 1979); possibly also introduced in Lake Elmenteita; also reported under the old names <i>T. grahami</i> and <i>Oreochromis (Alcolapia) alcalicus grahami</i> ; specific rank according to Seegers & Tichy (1999); reported as <i>Tilapia mossambica</i> (non Peters, 1852) by Woodhouse (1912), a misidentification; 12.7 cm SL
Astatoreochromis alluaudi (Pellegrin, 1904) (Fig. 18a) Alluaud's haplo "Hamaga" (Luo, Lake Kanyaboli)	Lake Victoria drainage, Lake Kanyaboli. Introduced into waters near Nairobi (upper Athi system); 16.3 cm SL
Ctenochromis pectoralis Pfeffer, 1893 Lake Chala haplo	Pangani drainage (including lake Jipe),Tsavo basin (Mzima Springs); the status of the population of Mzima Springs is uncertain. It might be distinct from <i>Ctenochromis pectoralis</i> known from the Pangani drainage; 6.3 cm TL
Haplochromis aff. Bloyeti (Sauvage, 1883) Bloyet's haplo	Pangani drainage (including Lake Jipe); taxonomic status uncertain; 6.1 cm SL
Haplochromis (Thoracochromis) macconneli Greenwood, 1974 McConnel's haplo	Endemic to Lake Turkana; 7.7 cm SL
Haplochromis (Astatotilapia) nubilus (Boulenger, 1906) Blue Victoria mouthbrooder "Furu", "Fulu" (Luo, Swahili, Lake Victoria)	Endemic to Lake Victoria system (both lake and rivers); 8.6 cm SL
Haplochromis (Thoracochromis) rudolfianus Trewavas, 1933 Lake Rudolf haplo	Endemic to Lake Turkana; 5.8 cm SL
Haplochromis (Thoracochromis) turkanae Greenwood, 1974 Turkana haplo	e Endemic to Lake Turkana; 8.6 cm SL
Haplochromis spec. "Amboseli" Amboseli haplo	Amboseli swamps; undescribed species under study
Haplochromis spec. "Chala" Pangani haplo	Lake Chala (Pangani drainage); taxonomic status uncertain; according to local fishermen from Lake Chala, this haplochromine species was introduced in the crater lake in the 1970s together with tilapiine species; those introduced species probably originated from Lake Babati (South of Lake Manyara) in Tanzania
Haplochromis spec. "Migori" Migori haplo	Migori River (endemic to Lake Victoria drainage); undescribed species under study
Hemichromis exsul (Trewavas, 1933) Turkana jewel cichlid	Lake Turkana; listed as <i>Hemichromis bimaculatus</i> Gill, 1862 by Trewavas (1973) and by Hopson & Hopson (1982) and as <i>H. letourneuxi</i> by Loiselle (1979); according to Seegers (1998) the Lake Turkana population probably is a distinct species endemic to the lake; previously also reported under the antiquated binomen <i>Pelmatochromis exsul</i> ; 10 cm SL
Oreochromis andersonii ? (Castelnau, 1861) Three-spotted tilapia	Unknown if established in natural waters; introduced in Kenya in 1980 from Botswana (Motiti Pan, an extension of the Okavango drainage) by I. Parker for aquaculture purposes; about a thousand juvenile tilapiines (which later proved to be a mixture of <i>Oreochromis andersonii</i> , <i>O. macrochir</i> and <i>Tilapia rendalli</i> ) were introduced in a dam at Nairobi; it is possible some specimens found their way from the dam to Nairobi River system; 34.4 cm SL

Graham's tilapia

"Ngege" (Swahili, Luhya, Luo), "Osamo" (Luo, Lake Victoria), "Dwela" (Luo, Lake Kanyaboli)

Oreochromis hunteri Günther, 1889 Lake Chala tilapia

Oreochromis jipe (Lowe-McConnell, 1955) Jipe tilapia

1955)

Korogwe tilapia

Oreochromis leucostictus (Trewavas, 1933) Blue spotted tilapia

"Odede" (Luo, Lake Kanyaboli)

Oreochromis mossambicus (Peters, 1852) Mozambique tilapia "Para Para" (Digo, South Coast)

Oreochromis macrochir? (Boulenger, 1912)

Longfin tilapia

Oreochromis niloticus (Linnaeus, 1758) Nile tilapia (Fig. 18b)

"Ngege" (Swahili, Luhya, Luo, Lake Victoria and Lake Kanyaboli) "Nyamami" (Luo, Lake Victoria)

Oreochromis niloticus baringoensis Trewavas, 1983

Baringo tilapia "Sopore", "Sibore" (Lake Baringo)

Suguta tilapia

1933)

Turkana tilapia

"Kokine", "Rogene" (Turkana, Lake Turkana), "Sigir orok (El Molo, Lake Turkana)

Distribution in Kenya, annotations and maximum known length

Oreochromis esculentus (Graham, 1928) Lake Victoria drainage, Lake Kanyaboli; introduced into several dams and waters, including the Pangani system (Lake Jipe); currently the species seems under threat of extinction in the Lake Victoria drainage; previously also reported as Tilapia esculenta (antiquated binomen); 25.3 cm SL

> Endemic to Lake Chala; also reported as Tilapia hunteri and T. (Oreochromis) hunteri (old names); 25.3 cm SL

Pangani drainage (including lake Jipe); previously also reported as Tilapia jipe, T. (Sarotherodon) jipe, T. (Oreochromis) jipe and S. jipe (antiquated names); the nominal species Tilapia girigan Lowe-McConnell, 1955 and T. pangani Lowe-McConnell, 1955 (as well as the subspecies Oreochromis pangani pangani and O. pangani girigan) are likely to be junior synonyms of O. jipe and considered as such here; 34.5 cm SL

Oreochromis korogwe (Lowe-McConnell, Pangani drainage; maybe also in Lake Chala; this species is known from the Pangani River in Tanzania and might also be present in the Kenyan part of the system; possibly introduced in Lake Chala but identifications of Oreochromis korogwe from this lake need confirmation; 16.1 cm SL

> Lake Victoria basin, Lake Kanyaboli, Lake Naivasha, some dams in the country (introduced); according to Welcomme (1967, 1988) and Lever (1996) this species was introduced in 1953 or 1954 from Lake Albert (Uganda) into Kenyan waters of Lake Victoria; it has also established in Lake Naivasha; also reported as Tilapia leucosticta (antiquated name); 32 cm TL

In more or less brackish water of the lower course of the Ramisi River (South Coast); status uncertain, most likely introduced; 28 cm SL, 35 cm TL.

Unknown if established in natural waters; can be found in ponds according to Lever (1996); according to Welcomme (1988) and Lever (1996) this species was introduced into Kenya from Zambia probably in 1955 for aquaculture and started reproducing in ponds; culture has been abandonded; 27.1 cm

Lake Victoria drainage, Lake Kanyaboli (introduced); Welcomme (1967) reports introductions of this species in Kenyan waters of Lake Victoria in 1957; the introduced strain possibly belongs to the subspecies Oreochromis niloticus eduardianus (Boulenger, 1912); also reported as Tilapia nilotica (antiquated name); a record of T. nilotica from the Northern Ewaso Nyiro by Copley (1941) was not discussed in Trewavas (1983), but probably refers to a misidentification for O. spilurus spilurus; 39.5 cm SL

Endemic to Lake Baringo drainage and hot springs near Lake Bogoria (next to Lake Bogoria Lodge); previously also reported as Tilapia nilotica; 24.6 cm SL

Oreochromis niloticus sugutae Trewavas, Endemic to Suguta River system; 17.1 cm SL

Oreochromis niloticus vulcani (Trewavas, Endemic to Lake Turkana drainage; previously also reported as Tilapia vulcani and T. nilotica (old names); used for aquaculture purposes at Sagana fish farm (upper Tana River drainage); 25.6 cm SL

Oreochromis spilurus niger (Günther, 1894)

Athi River tilapia

"Ngege" (Athi River, Meru Tana River system), "Pali" (Athi River),

"Kiparapara", "Kina" (Athi River)

Distribution in Kenya, annotations and maximum known length

Natural distribution: the Athi River and its tributaries above Lugard's Falls, upper tributaries of the Tana River; introduced in many dams and river systems; according to Trewavas (1983), in Kenya in the 1930s, the areas of Oreochromis spilurus spilurus and O. s. niger were fairly well-marked, although stocking had been going on since the 1920s; it is now difficult to find a stream in which a pure population of O. spilurus niger exists without admixture of O. spilurus spilurus; introduced in Lake Naivasha in 1926 where it now has disappeared probably due to competition with the more recently introduced tilapiines; also introduced in Lake Nakuru (which later dried up temporarily which made the species disappear there); also reported as O. niger, Tilapia nigra, T. spilurus nigra, T. nigra nigra, T. nilotica var. athiensis Boulenger, 1916, T. athiensis Hubbs, 1918, O. athiensis (junior synonyms) and as T. browni (non Nichols, 1923); for more details see Trewavas (1983); 29 cm SL

Oreochromis spilurus percivali (Boulenger, 1912) Buffalo Springs tilapia

Oreochromis spilurus spilurus (Günther, 1894)

Sabaki tilapia

"Ntuku" (Pokomo, Lower Tana),

"Kiparapara" (Giriama, Lower Tana),

"Para Para" (Digo, South Coast)

Hot springs in the upper Northern Ewaso Nyiro above Chanler's Falls; taxonomic status uncertain; also reported as *Tilapia* percivali; 12.7 cm SL

Coastal rivers of Kenya from the Mwena River near the Tanzania border to the Sabaki-Galana below Lugard's Falls; pools and lakes in the Athi flood-plain and coastal lagoons near its mouth, including the warm and saline Lake Chem Chem; Lower and Middle Tana, Northern Ewaso Nyiro; introduced in many dams and river systems (including Lake Kamnarok, Kerio drainage, Lake Turkana system); records from the Southern Ewaso Nyiro system (see Trewavas, 1983) are unsubstantiated: the species does not occur in this system; originally described as *Chromis spilurus*; also reported as *Tilapia spilurus spilurus*, *T. nigra spilurus* and *T. nyirica* Lönnberg, 1911 (synonyms); records of *T. mossambica* by Copley (1958) and Whitehead (1962) are misidentifications for *O. spilurus*; see Trewavas (1983) for more details; 19.2 cm SL

Oreochromis variabilis (Boulenger, 1906)
Victoria tilapia
"Mbiru" (Luo, Lake Victoria)

Midiru" (Luo, Lake Victoria)

Pseudocrenilabrus multicolor victoriae Seegers, 1990 (Fig. 18c) Dwarf Victoria mouthbrooder "Ajuoga" (Luo, Lake Kanyaboli)

Sarotherodon galilaeus galilaeus (Linnaeus, 1758) Galilaea tilapia "Kokine", "Nanyang" (Turkana, Lake Turkana), "Yerigo" (El Molo, Lake Turkana)

Tilapia rendalli (Boulenger, 1896)

Redbreast tilapia

Endemic to Lake Victoria drainage; also reported as *Tilapia variabilis* (antiquated name); this species is strongly declining or has disappeared in many areas of the Lake Victoria drainage; 26.7 cm SL

Lake Victoria basin, Lake Kanyaboli; introduced into the upper Athi and upper Tana systems; 7.7 cm TL

Lake Turkana; previously also reported as *Tilapia galilaea* and as *Sarotherodon galilaeus*; sometimes misspelled as *T. galileae*; 34 cm SL

Introduced in Lake Victoria; also introduced elsewhere in the country and now present in many water systems and dams all over the country, e.g. Pangani drainage (including Lake Jipe), Lake Chala and Athi/Sabaki drainage; also introduced in the Tana River system (Mann, 1966; 1968); according to Welcomme (1988) and Lever (1996) introduced from an unrecorded source into Kenya in 1955 for stocking; native range: West and Central Africa; also reported as *Tilapia melanopleura* Boulenger, 1911, a junior synonym; 25 cm TL

Species, common and local names	Distribution in Kenya, annotations and maximum known length
Tilapia zillii (Gervais, 1848) Redbelly tilapia "Kokine", "Loroto" (Turkana, Lake Turkana), "Kido" (El Molo, Lake Turkana)	Lake Turkana (natural); introduced into Lake Victoria system, Lake Naivasha and Tana River; according to Welcomme (1967 1988) introduced in 1953-1955 from Lake Albert into Kenyan waters of Lake Victoria to fill a vacant niche; introduced into Lake Naivasha in 1955; Mann (1968) reported established 'wild populations of <i>Tilapia zillii</i> in the Tana River; 30.5 cm TL
MUGILIDAE-Mullets (2 species)	
Liza macrolepis (Smith, 1849) Large-scale mullet "Kampango" (Giriama, Galana River),	Marine species; enters lower courses of eastward flowing rivers; Lower Sabaki-Galana; 60 cm SL
<i>Valamugil buchanani</i> Bleeker, 1853 Bluetail mullet	Coast; ascending rivers; Lower Sabaki-Galana; 100 cm TL
CENTRARCHIDAE-Sunfishes and Fresh	water Basses (3 species)
Lepomis cyanellus ? Rafinesque 1819 Green sunfish	Unsuccessful introduction; according to Lever (1996) not established in natural waters; native range: east central North America; according to Welcomme (1988) introduced into Kenya from U.S.A. 31 cm TL
<i>Lepomis macrochirus</i> <b>?</b> Rafinesque, 1819 Bluegill	According to Welcomme (1988) introduced into Kenya from U.S.A.; introduced into some dams but also reported from Tanariver system after introduction (Mann, 1968); unsuccessful introduction in Kenya: bluegills apparently failed to establish viable populations in natural waters (Lever, 1996); native range: eastern and central North America from the Great Lakes including the Mississippi drainage southwards to the Rio Grande drainage in northeastern Mexico; 41 cm TL
Micropterus salmoides (La Cepède, 1802) Largemouth bass, Black bass, Green bass	Various natural and artificial still waters and dams, Lake Naivasha (introduced); recently probably also established in affluent rivers of Lake Victoria (Ochumba & Manyala, 1992); Welcomme (1988) reports introduction in 1929 into Kenya from U.S.A. for angling; according to Lever (1996) the introduced stock came from Europe; Copley (1941) reports the year 1928 for introduction in Lake Naivasha; according to Mann (1966), this species escaped from ponds at Sagana fish farm during the exceptionally high floods of end 1961 into the middle Tana; the species probably did not establish in the Tana River; native range: east and southern U.S.A. and North Mexico; 97 cm TL
ELEOTRIDAE-Sleepers (1 species)	
Eleotris fusca (Schneider in Bloch & Schneider, 1801) (Fig. 19) Dusky sleeper, Brown gudgeon "Vumbika" (Digo, South Coast)	Coast; entering brackish and fresh water of eastward flowing rivers; Tana, Sabaki and Ramisi Rivers (lower parts); 26 cm TL
GOBIIDAE-Gobies (4 species)	
Awaous aeneofuscus (Peters, 1852) Freshwater goby	Enters lower reaches of eastward flowing rivers; Lower Tana, Sabaki-Galana; also in Mzima Springs (Tsavo system); also reported as <i>Gobius (Awaous) aeneofuscus</i> (antiquated name); 26 cm SL
Glossogobius giuris (Hamilton, 1822) Tank goby, Bar-eyed goby, Flathead goby "Chokole" (Pokomo, Lower Tana), "Jumburu" (Giriama, Lower Tana), "Kijumburu" (Giriama, Galana River)	Tana and Sabaki-Galana drainages (lower reaches); also in lower courses of smaller eastward flowing rivers; 42 cm TL
Oligolepis acutipennis (Valenciennes in Cuvier & Valenciennes, 1837) Sharptail goby	Coast; entering estuaries and lagoons (Maugé, 1986); Lower Sabaki drainage; 15 cm TL

Species, common and local names	Distribution in Kenya, annotations and maximum known length
Stenogobius kenyae Smith, 1959 East African rivergoby, African rivergoby	Sabaki-Galana (lower reaches); 12 cm TL
ANABANTIDAE-Labyrinth fishes (2 species)	
Ctenopoma muriei (Boulenger, 1906) (Fig. 20) Ocellated labyrinth fish "Sia" (Luo, Lake Kanyaboli)	Lake Victoria drainage (swamps), Lake Kanyaboli; also reported as <i>Anabas muriei</i> (old name); 10 cm TL
Ctenopoma spec. "Ochumbae" Ochumba's labyrinth fish	Lake Victoria drainage (swamps); a small <i>Ctenopoma</i> currently under description (L. Kaufman <i>et al.</i> , work in progress)
TETRAODONTIDAE-Puffers (1 species)	
Tetraodon lineatus Linnaeus, 1758 Nile puffer "Lokwi" (Turkana, Lake Turkana), "Tuwate" (El Molo, Lake Turkana)	Lake Turkana; also reported as <i>Tetraodon fahaka</i> Rüppell, 1829, an objective synonym of <i>T. lineatus</i> ; 43 cm TL