



The Journal of Herpetology After 50 Years Plus: A Brief History (1958–2016) 1

Author: Adler, Kraig

Source: Journal of Herpetology, 50(1) : 2-11

Published By: Society for the Study of Amphibians and Reptiles

URL: <https://doi.org/10.1670/15-173>

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

The Journal of Herpetology After 50 Years Plus: A Brief History (1958–2016)¹

KRAIG ADLER

Cornell University, Department of Neurobiology and Behavior, Ithaca, New York 14853–2702 USA; E-mail: kka4@cornell.edu

ABSTRACT.—The *Journal of Herpetology* (*JH*), which reached its 50th volume in 2016, had an unusual start. Its predecessor publication was founded in 1958 by high school students as the *Journal of The Ohio Herpetological Society* (*JOHS*), which was sponsored by an amateur organization. The scope of the journal as well as that of the society soon became broader than Ohio or even North America. In 1967 OHS transformed into the Society for the Study of Amphibians and Reptiles (SSAR), which today is the largest professional herpetological society in the world. The journal was re-named *Journal of Herpetology* in 1968 and the volumes numbered again from 1. The journal, like SSAR, grew rapidly in size and professionalism. In 2009, *JH* was selected as one of the “100 most influential journals in biology and medicine worldwide over the last 100 years.” Originally, taxonomy–systematics (37%), ecology (20%), behavior (16%), physiology (8%), and genetics (4%) predominated as topics in *JH*; today, ecology (28%), conservation (19%), behavior (16%), taxonomy–systematics (13%), and physiology (9%) predominate. The *JH* is now the most-popular scientific journal in the world for biologists to publish on amphibians and reptiles. In this historical essay, I discuss major events in the development of the journal and list (in an Appendix) the editorial teams that collectively have helped shape *JH*.

RESUMEN.—El “*Journal of Herpetology*” (*JH*), el cual llegó a su volumen número 50 en 2016, tuvo un inicio poco usual. Su publicación predecesora fue fundada en 1958 por estudiantes de educación media superior, los cuales la nombraron el “*Journal of The Ohio Herpetological Society*” (*JOHS*), una organización amateur. El alcance de la revista así como el de la sociedad muy pronto se expandieron más allá de los límites de Ohio e incluso de Norteamérica. En 1967 la OHS se transformó en la “Society for the Study of Amphibians and Reptiles” (SSAR), que actualmente es la organización herpetológica profesional más grande del mundo. La revista se rebautizó “*Journal of Herpetology*,” en 1968 y los volúmenes se numeraron nuevamente desde el 1. La revista así como la SSAR crecieron rápidamente en tamaño y profesionalismo. En 2009, el *JH* fue seleccionado como una de “las 100 revistas más influyentes en biología y medicina a nivel mundial en los últimos 100 años.” Originalmente, la taxonomía/sistemática (37%), ecología (20%), comportamiento (16%), fisiología (8%) y genética (4%) fueron en orden de importancia los temas predominantes en el *JH*; mientras que ahora lo son: ecología (28%), conservación (19%), comportamiento (16%), taxonomía/sistemática (13%) y fisiología (9%). El *JH* es actualmente la revista científica más popular en el mundo entre los biólogos que publican sobre anfibios y reptiles. Los eventos más importantes en el desarrollo de la revista se discuten y se da una lista de los cuerpos editoriales en un Apéndice.

Among the world’s leading journals of vertebrate biology, perhaps none had so inauspicious a start as the *Journal of Herpetology* (*JH*) because the unpolished nature of its predecessor serial (*Journal of The Ohio Herpetological Society* [*JOHS*]) provided scant evidence of what was to come. The existing North American herpetological journals at that time (1958)—*Copeia* and *Herpetologica*—were founded and edited by senior biologists with both institutional support and professional reputations. By contrast, *JOHS* and the Ohio society itself were founded by high school seniors with neither professional training nor standing, much less any institutional support. As a result, the history of *JOHS* and *JH*, as well as their sponsoring society, stands apart from the history of these and other professional journals and organizations. The year 2016, therefore, represents a milestone event for *JH* with the publication of volume 50.

This essay is not intended to be a history of the Society, which already has been recorded (Moriarty and Bartholomew, 2007). To understand how *JOHS* and *JH* developed and why, however, one also must know some relevant points about the Society. These are included in this essay.

The *JH* did not appear de novo. There was a natural transformation of *JOHS* into *JH*, as a direct comparison of the last issue of *JOHS* with the first issue of *JH* demonstrates. Moreover, the editorial policies, scope of content, funding mechanism, and physical appearance of the earliest issues of *JH* had already been established with *JOHS*.

JOURNAL OF THE OHIO HERPETOLOGICAL SOCIETY

The Ohio Herpetological Society (OHS) was officially founded in Columbus, Ohio, in January 1958 (Fig. 1). Both OHS and *JOHS* were established by Kraig Adler and David M. Dennis, students at Columbus-area high schools, to formalize a network of amateur herpetologists throughout the State of Ohio with whom they had been corresponding and interacting. The earliest surviving document leading up to the formation of OHS is a handwritten notice addressed to this group by Adler, dated 30 October 1957 and labeled “Vol. I, No. 1,” which announced plans for a newsletter; this notice was never issued. The Society’s first official publication, originally called the *Trimonthly Report*, was edited by Adler and published about three months later on 20 January 1958 (Fig. 2A)—it already showed advancement over the plans laid down in October. This five-page, typewritten issue contained three articles and a page of news notes at the end. The lead article concerned how to find and collect reptiles in Shawnee State Forest along the Ohio River (Fig. 2B). The second paper was on the feeding habits of a snail-eating snake from Borneo. The last contained best practices for keeping captive reptiles healthy. Therefore, the scope of the journal already included local and international subjects as well as husbandry.

The OHS officers and editors never had a regular senior adviser to guide them, although Roger Conant, author of “Reptiles of Ohio” and then living in Philadelphia, provided occasional counsel. Hence, they were left largely to their own interests, ambitions, and dreams to develop the Society and its publications without any limitations. Before 1958, these officers had known about the national herpetological societies and their

¹Invited paper.

DOI: 10.1670/15-173



FIG. 1. First Annual Meeting of The Ohio Herpetological Society. Meeting held at the Toledo Zoological Park and Museum of Science in Toledo, Ohio (22 June 1958). Several early society officers are pictured, including those responsible for the journal: Kraig Adler, editor (person 12 from left; at rear) and David M. Dennis, vice-chairman for publications (person 5 from right; at rear).

journals and had them as models, but they were unaware that regional societies existed. In fact, at that time there were six other state- or city-based amateur societies (Rothman, 1958), and all of them were better developed than the OHS.

IMPROVEMENTS AND SOME MISTAKES

The topical scope of the journal was broad but its appearance was amateurish, reflecting the inexperience of the editors and their limited finances (OHS dues in 1958 were US\$0.70). During the early years, most articles were written by the Society's officers and editors because few outside that group were willing to submit articles. *Copeia* and *Herpetologica* were the models for *JOHS*, but the quality of those journals was unattainable for many years. Nevertheless, OHS chipped away at making

improvements as their funds and abilities allowed. During 1958, the officers could not afford a permanent form of printing. Kraig Adler had to print the text pages using an old ditto machine contributed by his grandfather, a printing method then used in schools for short print runs and temporary uses. One notable amateur herpetologist who joined OHS in 1958, Laurence M. Klauber, the author of books on rattlesnakes, provided encouragement through a series of small donations. By the next year, OHS was using offset lithography; these issues—re-titled the *Journal of The Ohio Herpetological Society*—were printed by a cousin of David Dennis on a press in his home. Dennis was in charge of assembling each issue and hosted “stapling parties” in the basement of his parents’ home. After folding and saddle-stapling each copy, they inserted the issues into mailing envelopes and applied address labels and

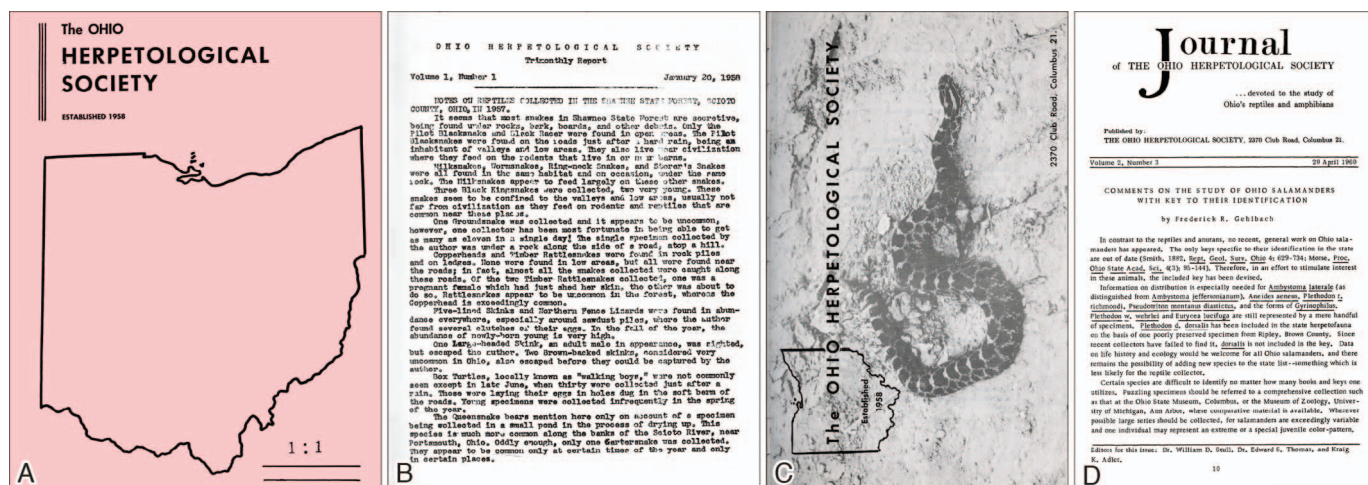


FIG. 2. Early journals of The Ohio Herpetological Society. (A–B): Cover and title page of the first issue (vol. 1, no. 1, published 20 January 1958); cover with outline of the State of Ohio drawn by David M. Dennis; text printed on a ditto machine. Format size 8.5 × 11 inches. (C–D): Cover and title-page of first special-focus issue (vol. 2, no. 3, April 1960); study of Ohio salamanders with illustrated key by Frederick Gehlbach. Note underlining of Latin names. The image of *Sistrurus catenatus* appeared on issues of volume 2 (1959–1960); format size of volumes 2 and 3 was 5.5 × 8.5 inches.



FIG. 3. Re-designed issues of the society's scientific journals. (A): Cover of major re-designed *Journal of The Ohio Herpetological Society* (vol. 4, nos. 1–2, September 1963); enlarged issue (64 pages in length and 7×10 -inch format) with new society colors and frog logo. (B): Cover of first volume of *Journal of Herpetology* (vol. 1, nos. 1–4, March 1968 [published April 26]), new cover design but with same elements. (C): Modern journal format established (vol. 16, no. 1, March 1982); new cover design as well as text pages. (D): Page dimensions of journal increased to 8.5×11 inches in 2011 (the current format size). This image of *Tomistoma schlegelii* appeared on all of the 2013 covers.

postage stamps. The work crew varied from issue to issue but involved the local OHS officers including Kraig Adler, David Dennis, Stephen Tilley, and Barry Valentine plus any other OHS members who happened to be visiting Columbus at the time. Membership during those earliest years reached about 100, so a personalized method like this for producing and mailing journals was perfectly satisfactory—not that there was really any affordable alternative!

The first commercial success of OHS was Frederick Gehlbach's paper in *JOHS* on the study of Ohio's salamanders, with an illustrated key to species (1960; Fig. 2C–D). Copies were sold for teaching use at several colleges and universities in Ohio. Many early papers by members reported new records to fill in distributional gaps noted in the available books on the frogs and reptiles of Ohio by Charles F. Walker and Roger Conant, respectively. Some editorial mistakes were made. One manuscript on predation of a dusky salamander by an owl, which would be quickly accepted today for *SSAR's Herpetological Review (HR)*, was rejected. The writer, a snake enthusiast and future evolutionary biology star, Stephen Jay Gould, was then a student at Ohio's Antioch College. Inexperience had its costs.

Membership soon doubled from the early levels due primarily to the establishment in 1961 of a new series of OHS publications called *Facsimile Reprints in Herpetology* (Moriarty and Bartholomew 2007). This was the Society's first unique series, as other herpetological societies, including regional ones, also had journals and newsletters. Herpetologists outside Ohio especially wanted the *Reprints*; some wanted only the *Reprints*, but OHS wisely refused to allow cherry-picking. With added income and wider distribution, *JOHS* became more sophisticated in content and appearance and the size increased. Use of acid-free paper for permanence was instituted in 1962, despite nearly doubling the paper cost. Italics for Latin names of organisms was used first in 1962 to replace underlining, which gave the journal a more professional look. Today it is an easy matter to substitute italics with a simple tap on the keyboard, but OHS editors had to use a changeable "font ball" on a special IBM Selectric typewriter or, more typically, cut out an italicized version of each name and glue it over the Roman one, then

photograph each page and eliminate any shadows around the affixed labels.

A MAJOR UPGRADE FOR *JOHS*

The pivotal issue of *JOHS* was published in September 1963 and contained 12 articles on 64 pages, the largest issue to date by far and with a larger page size than before (Fig. 3A). Included in this issue were papers on the anatomy of a colubrid snake from Java; the first field observations on the newly described, fossorial Red Hills Salamander (*Phaeognathus hubrichti*); and a comparative study on the gross anatomy of digestive tracts in North American salamanders. This issue was the first to use the calling frog as the society's logo and also the first to use the color combination of light blue, black, and white—the Society's official colors—as still used on the covers of *JH* today, 53 years later. This was the first issue not personally assembled in Ohio by OHS officers and editors; instead, it was printed and bound by a professional photolithographic printer—Cushing-Malloy, Inc. of Ann Arbor, Michigan. This also was the last issue edited by Adler, who by then was a second-year graduate student at the University of Michigan.

The next editors of *JOHS*, in sequence, were also students, at the University of Dayton (James A. MacMahon) and The Ohio State University (Corson Jay Hirschfeld). The percentage of papers in *JOHS* dealing with amphibians and reptiles outside the State of Ohio, and indeed even outside the United States, continued to grow. The first new taxa to be published—two Panamanian frogs—appeared in 1964. The *JOHS* published some of the earliest papers by a cohort of students who went on to herpetological careers, among them Kraig Adler, Joseph Collins, David Dennis, Frederick Gehlbach, Donald Hahn, Harold Heatwole, John Lynch, C. J. (Jack) McCoy, and Stephen Tilley. By 1966, the last year of *JOHS*, membership exceeded 300 and the scope of the journal was clearly that of a national and even international journal. The final issue of *JOHS* contained a major paper by a Soviet herpetologist, Ilya Darevsky (discoverer of natural parthenogenesis in reptiles), who previously had published only in Russian and German. His 38-page paper on parthenogenetic *Lacerta* included the description of a new species of unisexual lizard, which was accompanied by the first

color plate ever issued in the Society's journal. Color plates were rare in scientific journals at that time and were especially costly for a small society like OHS. Darevsky's color plate required a fund-raising campaign, which was acknowledged by him in his paper as "the Friends of the Society."

The regular appearance of important papers in *JOHS* by authors from throughout the world, and the fact that the annual meetings of OHS were by then being held outside the state of Ohio, were unmistakable signals to the American herpetological community that the officers and editors of OHS, despite their youth, had ambitions far beyond the borders of Ohio. Originally the cofounders had no plan for OHS to be anything but a state-centered society, but as it grew OHS moved seemingly inexorably to become something more consequential. The name of OHS and its journal had to change, but the exact timing had to be carefully planned.

TRANSFORMATIONS: PROGRESS AND A CRISIS

Formal announcement that OHS would morph into a new kind of organization became public at the Society's 9th annual meeting held in August 1966 at the Carnegie Museum of Natural History in Pittsburgh, Pennsylvania, although the new name—Society for the Study of Amphibians and Reptiles—did not become official until two months later. The new name of the journal (*Journal of Herpetology* [*JH*]) was decided upon in 1967, but only after months of heated debate. The Society officers also decided that *JH* would begin the sequencing of volumes again with number 1.

Whereas these decisions to change the name of the Society and its technical journal were made after long and careful deliberations, the publication of the first volume of the newly named journal did not happen on schedule. In fact, there was no Society journal at all in 1967! This was a great embarrassment to SSAR, for this was the first year under its new name. The last editor of *JOHS* had been preoccupied with SSAR's new news-journal, *Herpetological Review*, in 1967 and had only formatted a few articles for the inaugural issue of *JH*. Although his editorship had formally ended, he refused to give up *JH* to the new editor until a delegation of officers, led by the Society's new president, N. Bayard Green, met with him in January 1968. After firm negotiations by Green, all editorial materials were soon delivered to the Society. The new editor, J. P. Kennedy, a professor of anatomy at the University of Texas Dental Branch in Houston, did not yet have a mechanism established for composing and formatting the journal, so Green asked Kraig Adler to produce volumes 1 and 2 of *JH*. Green declined to publicize this emergency arrangement for fear it would be misconstrued to mean that the transition to SSAR was in jeopardy.

Adler, by then a finishing graduate student at Michigan, edited the remaining manuscripts and hired Patricia Zug to keyboard and format the issues, which then were printed by Cushing-Malloy. Volume 1 was issued late in April 1968 as a single, 121-page issue (Fig. 3B). The *JH* had to continue to play catch-up and volume 2 was published in two issues in June and December 1968. This volume included Arden Brame's major review of the Neotropical plethodontid genus *Oedipina*, a new frog from Bolivia by José Ceí, new species of Mexican *Anolis* by Hobart Smith, Ilya Darevsky's paper on triploid progeny in *Lacerta*, Sherman Minton on herps in suburban areas, and a paper by Margaret Stewart on Malawi reptiles. Altogether there were 32 titles representing authors from six countries. Both *JH*

and SSAR had weathered the criticism caused by the nonappearance of the journal in 1967 and the redefinition of the Society into a new entity.

PROBLEMS WITH THE EARLY DEVELOPMENT OF *JH*

Cushing-Malloy could not provide typesetting and formatting at an affordable cost, so Pat Kennedy was forced to move *JH* to a different printer in Ann Arbor—Braun-Brumfield, Inc. Unfortunately, their work was not of the high quality produced by Cushing-Malloy, but SSAR did not have the resources to contract a better printer. Moreover, Braun-Brumfield could not produce reprints at a competitive price, so SSAR issued separates instead. This meant that each issue had to be overprinted and the needed articles separated, stapled, and sent to authors. James Christiansen, assistant publications secretary, was in charge of this operation. Kennedy was the first to establish an international editorial board and served as editor for a record 12 years. The SSAR recognized his role in establishing *JH* by naming the annual prize for best student paper in the journal in his honor.

Although journal pagination continued to climb during the 1970s and the first volume with four separate issues appeared in 1973, the poor overall quality of the *JH* operation continued to trouble the Society. The printer, who did not specialize in academic journals, could not produce the level of quality that was wanted, especially for the illustrations, and many potential authors published their works elsewhere. The incredibly poor reproductions of Samuel McDowell's highly detailed drawings in his classic trilogy on the snakes of New Guinea and the Solomons in the 1970s was a particularly egregious and embarrassing example.

This was an obstacle to the growing reputation of SSAR and for the overall quality of its operations. Nevertheless, membership grew rapidly (from 858 in 1970 to 2,125 in 1980). The SSAR wanted to move *JH* to a quality printer that specialized in scientific journals, and thus preliminary discussions were held with Harold Allen, president of Allen Press, Inc. (Lawrence, Kansas), as early as 1969. Not until 1981, however, did SSAR have a budget or the confidence to afford the cost of keeping *JH* at Allen Press for the long term.

A MODERN FORMAT FOR *JH*

Rodolfo Ruibal, professor of zoology at the University of California at Riverside, had become editor of *JH* in 1980 and was eager to make the move to Allen Press. The timing was propitious because in 1982, SSAR was planning to celebrate its 25th anniversary with a special meeting and genomics symposium in Raleigh, North Carolina. The idea to make the shift to Allen Press and completely re-design *JH* coincident with the anniversary year was too good to miss. Ruibal, together with Kraig Adler (SSAR president during the silver anniversary year), designed the new format for *JH* (Fig. 3C–D). For the cover, they decided to use an illustration of an amphibian or reptile that would change annually so that issues within a given volume could be easily identified. David Dennis had been asked to create the official giveaway poster for the 25th anniversary meeting, featuring the watercolor of a Gila monster (*Heloderma suspectum*), so Adler conscripted this drawing for the new cover as a way of tying in the re-design of *JH* with the anniversary year and meeting. In addition, Allen Press could produce proper reprints of

papers, and *JH* appeared at regular intervals. The overall appearance of *JH* was greatly improved and professionalized with the move to Allen Press, where *JH* continues to be printed to this day. The modern identity of *JH* had finally become established.

AMERICAN OR INTERNATIONAL? EXCLUSIVE OR INCLUSIVE?

Why was the term “American” not added to the Society’s name and to its journal title when OHS was re-named in 1967? Why was membership not then restricted to professionals when the Society became SSAR? Remember that all the Society officers and editors were involved in re-naming the organization and its publications and were members of a regional society, the OHS. Half of them still were college students; yet it was this group that made the key decision to become a *United States-based international society open to all persons* and not an American one restricted to professional herpetologists. This brash decision had enormous consequences for the Society’s future and for *JH* and the Society’s other publications. This decision came to define the character and global role of the SSAR.

In large part, this decision already had been made during the OHS years because of practices that had been established. The society had been founded by amateurs who were teenagers, so clearly nonprofessionals were welcome in SSAR. This was not an automatic decision, however, for there are professional herpetological societies that have not welcomed even serious amateurs (Adler and Gans, 1984). In its first year, OHS had had members who were not from Ohio or even from the United States, and the journal itself included many articles on foreign topics. Perhaps the most-dramatic early example occurred in 1961, when capture of a living specimen of the Earless Monitor Lizard (*Lanthanotus borneensis*) was announced in the journal *Nature* to great fanfare. Less well known but significant in the present context, the same two authors published their behavioral observations on this animal in the 1961 volume of *JOHS* because one of them, Neville S. Haile, who lived in Borneo, had been a member of OHS since 1958.

Both OHS and SSAR have always been open to all persons with herpetological interests and prides itself in making bold and forward-looking decisions. It was the first national or international herpetological society to have a woman as its president—Margaret M. Stewart in 1979. In 2010 Erin Muths became the first woman to regularly edit *JH*, although Lynne Houck was interim editor in 1988. The SSAR’s Board of Directors has had a seat specifically dedicated to a non-U.S. member continuously since Tim Halliday (UK) was first elected to it in 1984; this seat is currently held by Alison Cree (New Zealand). The Society had a non-U.S. president in 2001–2002 (David Green, Canada) and will do so again in 2017–2018 (Richard Shine, Australia). Non-U.S. meetings have been held in Brazil, Canada (twice), Mexico (twice), and the UK. The SSAR has taken its obligations to the international herpetological community seriously. In particular, its quarterly scientific journal, *JH*, is broadly international in its content and in the membership of its editorial board and associate editors (see Appendix).

FURTHER DEVELOPMENT OF *JH*: EDITORS AND APPEARANCE

Since the end of Rudy Ruibal’s editorship in 1988, a series of outstanding editors and co-editors together with managing

editors, associate editors, and members of various editorial boards (see Appendix), as well as hundreds of reviewers, have worked ceaselessly to improve *JH*. Publication lags—sometimes as long as two years or more—were a perennial problem in the 1980s and 1990s, which the editors worked hard to reduce, although the main cause was insufficient funding to increase the number of pages in *JH*. Beginning with Ruibal’s editorship, a special effort was made to encourage submissions from authors outside the United States and especially in Latin America, with the goal of making *JH* a truly international journal. The editors who led these and other changes are: Samuel Sweet (1988–1992), Richard Seigel (1993–2000), Brian Sullivan (2001–2005), Geoffrey Smith (2006–2008), Matthew Parris (2009), Erin Muths and Gad Perry (2010–2013), and Paul Bartelt and Tiffany Doan (2014–present). (For portraits of all editors, see Fig. 4.) Following Ruibal’s lead, Sam Sweet and subsequent editors gave their highest priority to attracting the best research and providing the authors with efficient and helpful editorial services.

It must also be recorded that there were many other volunteers who served in other editorial posts (e.g., managing editor, index editor, interim editor, etc.), quietly and sometimes for long periods, and they added immeasurably to the overall standards of *JH*. The longest terms of office were those by James Vial (7 years), Paul Andreadis (9 years so far), and William Parker (a phenomenal 16 years spanning the terms of four consecutive editors). Some Editors were also assisted by their spouses. Society officers, especially the treasurers and presidents, have provided budgetary and policy advice for the journal. There has been widespread pride among the Society’s officers for the achievements made by *JH*.

Many changes have been made in the journal’s general appearance. Following the move of *JH* to Allen Press in 1982, there were immediate improvements in production quality. Many noted artists contributed drawings of herps for the cover including David Dennis, Julian Lee, Samuel McDowell, Robert Stebbins, Linda Trueb, and E. O. Z. Wade; illustrations from the best classical works in herpetology have also been used. In more-recent years, there has been a tendency to use color photographs instead of drawings. Coated paper (glossy finish) was first used in *JH* in 2002; this allows photographs to be reproduced more finely and accurately. The move to electronic submission for manuscripts and for the peer-review process was initiated by Brian Sullivan (assisted by his wife, Elizabeth) in 2002 and fully implemented via AllenTrack by Geoffrey Smith in 2006 during their tenures as editor. For 2007, SSAR’s 50th Anniversary Year, the journal covers were gold-colored and had color photos of herps on the front cover for the first time. The page size of *JH* was changed in 2011 by Erin Muths and Gad Perry, from the 7 × 10-inch format used since 1963 to the current 8.5 × 11 inches. The latter is a more economical size and provides more flexibility for display of text and illustrations. Moreover, the larger format allows SSAR to post both of its quarterly serials (*JH* and *HR*) together for additional cost savings.

In 2013, both *JH* and *HR* became full-color journals with color photographs throughout each issue. (Both serials had regularly published some color photographs beginning in 2009 with financial support from Thomas Beauvais, an amateur herpetologist in Ann Arbor, Michigan.) Also in 2013, the Pinnacle site at Allen Press began posting accepted manuscripts before the issues were printed and shipped. This site also allows the



FIG. 4. Editors of the society's scientific journals. The year provided for each portrait (given in brackets) approximates the person's term as editor. *Journal of The Ohio Herpetological Society*—(A): Kraig Adler, term 1958–1963 [photo 1958]. (B): James A. MacMahon, 1964 [1967]. (C): Corson Jay Hirschfeld, 1965–1967 [1967]. *Journal of Herpetology*—(D): J. P. Kennedy, 1968–1979 [1967]. (E): Rodolfo Ruibal, 1980–1988 [1980s]. (F): Samuel S. Sweet, 1988–1992 [1992]. (G): Richard A. Seigel, 1993–2000 [2000]. (H): Brian K. Sullivan, 2001–2005 [2005]. (I): Geoffrey R. Smith, 2006–2008 [about 2006]. (J): Matthew Parris, 2009 [2009]. (K): Erin Muths, 2010–2013 [2014]. (L): Gad Perry, 2010–2013 [2011 or 2012]. (M): Paul Bartelt, 2014–present [2015]. (N): Tiffany Doan, 2014–present [2010].



FIG. 5. "Top 100 Journals" award to *Journal of Herpetology*. (A): Gold seal of the Special Libraries Association (2009). (B): SSAR president Brian Crother flanked by journal editor, Matthew Parris (at left) and SSAR board of directors member, Kevin de Queiroz, display the award certificate recognizing the journal's inclusion among the "100 Most Influential Journals of Biology and Medicine over the Last 100 Years."

posting of digital-only support materials such as videos of behavior, audio recordings, extra photographs, and large data sets.

IMPROVEMENTS IN THE QUALITY OF *JH*

Quality of content does not improve automatically or overnight. It takes dedicated and consistent attention, over many decades, to editorial details and budget, choice of experts to review manuscripts, encouragement of authors to submit their best work, and willingness to innovate and try new approaches. Many exciting new taxa have been described and named in *JH* including the Australian Filesnake (*Acrochordus arafurae*), the only live-bearing frog from the Western Hemisphere (*Eleutherodactylus jasper* of Puerto Rico), a new Fiji iguana (*Brachylophus vitiensis*), a spectacular red-footed Brazilian bufonid (*Melanophryniscus admirabilis*), the Guatemalan Beaded Lizard (*Heloderma horridum charlesbogerti*), the first salamander discovered in Laos (*Laotriton laoensis*), and an Indian ranid in which amplexus has been lost (*Nyctibatrachus petraeus*). Many others were illustrated in color on the covers of *JH* for 2007, the Society's 50th Anniversary Year.

Beginning in 1994, Rich Seigel introduced departments to the "Contents" cover of each issue: Behavior, Conservation, Ecology, Morphology, Physiology, and Systematics. In 2009, Matt Paris began a new department for major reviews by

senior experts when he invited Richard Goris to write a summary of current research on the infrared organs of snakes (Goris, 2011). Later called "Long-Term Perspectives," other authors have included Martha Crump, Whitfield Gibbons, Harold Heatwole, Richard Shine, and Marvalee Wake. In 2011, Erin Muths and Gad Perry began clusters of papers on single themes (examples: Herpetology in Asia, Feeding Ecology, Biology of Turtles, Invasive Species) as well as papers on policy issues. In 2012 they added a map to the Contents cover to show the countries from which studies in each issue originated. Despite these many changes over the years, the editors of *JH* have continued the familiar SSAR cover design, including the color scheme and frog logo, which have become Society traditions and are now essential elements in branding the organization's public image.

TRENDS AMONG TOPICS AND AUTHORS IN *JH*

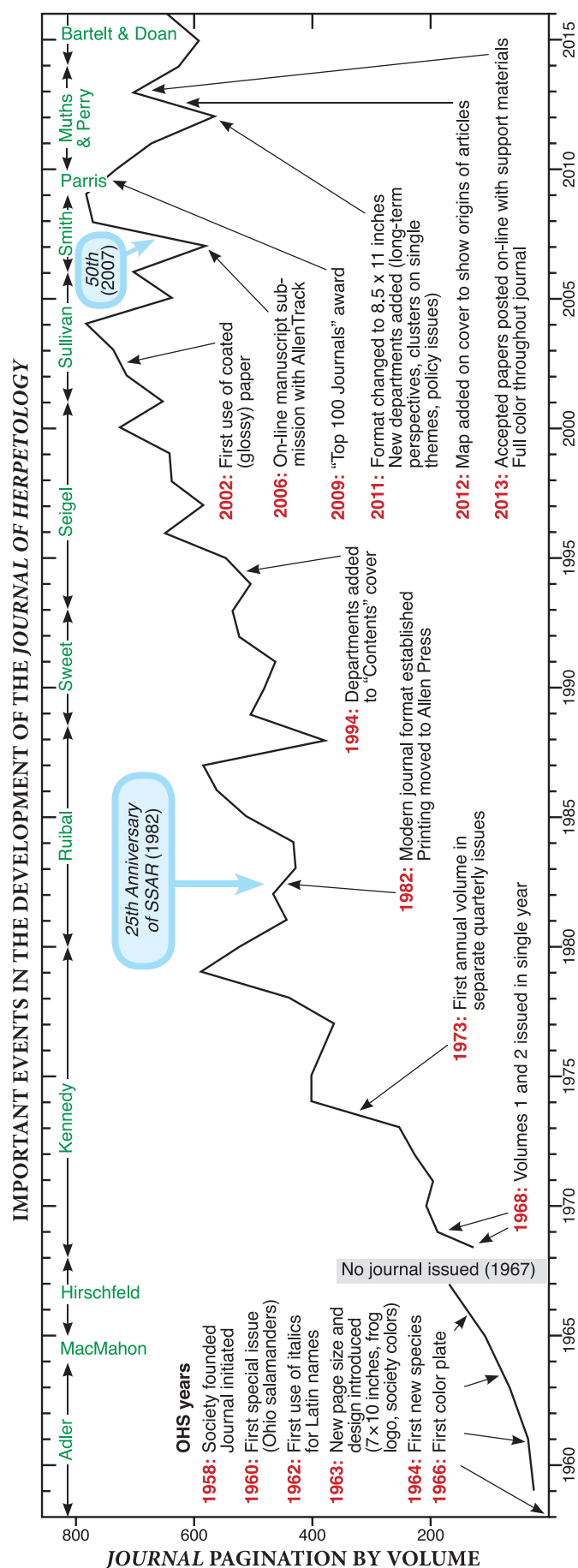
There have been important changes in the topical content of *JH* from its inception in 1968. Whereas papers on taxonomy (including systematics) predominated in the late 1960s, the leading topic in the late 1970s had shifted to behavior and by the early 1980s it shifted again, to ecology, which has stayed first ever since. The changes in emphasis in *JH* are reflected in the following lists of the top five topics. (Each sample represents three consecutive volumes.)

1968–1969	2011–2013
Taxonomy (37%)	Ecology (28%)
Ecology (20%)	Conservation (19%)
Behavior (16%)	Behavior (16%)
Physiology (8%)	Taxonomy (13%)
Genetics (4%)	Physiology (9%)

The most-obvious differences over this 50-year span have been the decrease in emphasis on taxonomy and the dramatic appearance of one topic—conservation—that did not even exist as an area of interest in the 1960s. These shifts are partly attributable to real changes in the interests of herpetologists over this span, as indicated by the rising attention to conservation. The shifts sometimes also reflect the appearance of new journals that divert authors away from *JH*. For example, the new journal *Zootaxa*, begun in 2001, now attracts a large number of papers in animal taxonomy.

Interestingly, the topical trends have been otherwise for *JH*'s sister journal, *Herpetologica* (Heatwole, 2015). Taxonomy has been the primary area for authors publishing in *Herpetologica* throughout the entire existence of that journal, every year from 1936 to the present time. In the late 1960s, taxonomy accounted for about 37% of all papers in *Herpetologica*, as it also did for *JH*. Today, the top five areas for *Herpetologica* are the same as those for *JH*, but are in a different order: taxonomy (35%), ecology (27%), behavior (10%), conservation (9%), and physiology (8%), with taxonomy occupying a much larger share of papers than for the same subject in *JH* (35% vs. 13%). During the same three years of comparison (2011–2013), *Copeia*'s top five were: ecology (38%), taxonomy (20%), behavior (18%), conservation (17%), and physiology (4%), a distribution that is more similar to that of *JH*.

As for the proportion of *JH* authors who are based in the United States versus those who are not, the journal has become substantially more international. Besides the traditional major sources of papers from overseas (Australia, Brazil, Canada, Japan, and western Europe), in recent years



there have been papers from authors in Argentina, China, Colombia, Ecuador, Egypt, Guatemala, India, Iran, Israel, Laos, Mexico, New Zealand, Poland, Romania, Russia, Serbia, South Africa, Taiwan, Turkey, and Vietnam among many other countries. The percentage of authors based outside the United States has increased nearly five-fold over the past 50 years and in these last years has now reached parity with United States-based authors. (Each sample covers three consecutive volumes.)

1968–1969	2012–2014
U.S. 106 authors (88.3%)	U.S. 468 authors (50.3%)
Non-U.S. 14 authors (11.7%)	Non-U.S. 462 authors (49.7%)

The comparable figures for *Copeia* (herpetological papers only) and *Herpetologica* during the latter time period (2012–2014) are as follows:

<i>Copeia</i>	<i>Herpetologica</i>
U.S. 288 authors (64.1%)	U.S. 184 authors (40.4%)
Non-U.S. 161 authors (35.9%)	Non-U.S. 272 authors (59.6%)

By this measure, at least, *JH* is more international than is *Copeia*, but less so than *Herpetologica*. Even more remarkable are the absolute numbers of both U.S.-based and non-U.S.-based authors who publish in the three journals: the numbers in these two categories for *JH* (468 and 462, respectively) are approximately equal to the combined numbers for *Copeia* and *Herpetologica* (472 and 433). It seems that *JH* has now become the most-popular scientific journal in the world for biologists to publish on amphibians and reptiles.

A HIGH HONOR FOR *JH*

In 2009, *JH* received an especially high honor from an independent body, the Special Libraries Association (SLA), on the occasion of their centennial. The journal was chosen as one of the "100 most influential journals of biology and medicine worldwide over the last 100 years," according to the award certificate (Fig. 5). Among the others chosen were *Animal Behaviour*, *Ecology*, *Nature*, *New England Journal of Medicine*, *Proceedings of the Royal Society*, *Science*, and *The Lancet*. The SSAR was represented at the awards ceremony in Washington, DC, by Roy McDiarmid, SSAR past-president, and Kevin de Queiroz, a member of the Society's board of directors. Selections were made by poll of the members of the Life Sciences Division of SLA. Given its humble beginnings in Ohio, *JH*'s progress over the 51 intervening years up to this award was all the more remarkable and is a tribute to *JH*'s innovative and hard-working editors and their editorial teams. The development of the journal has been marked by regular advances and innovations (Fig. 6).

Acknowledgments.—I thank D. Dennis and S. Tilley, who have detailed knowledge of *JOHS* and *OHS*, for their comments.

FIG. 6. Events in the development of the *Journal of Herpetology*, 1958–2015. Changes in pagination by volume over 58 years (graphed as total pages at end of each year) includes the nine years of the journal's precursor, *Journal of The Ohio Herpetological Society*. The terms of the various editors are displayed across the top of the figure.

Copies of my manuscript were sent for review to all former and present editors of the journal. I thank those who responded with comments or questions (P. Bartelt, T. Doan, J. P. Kennedy, E. Muths, W. Parker, G. Perry, R. Seigel, G. Smith, B. Sullivan, and S. Sweet). I thank H. Heatwole for sharing his topical content data for *Herpetologica*. O. Flores V. translated the abstract into Spanish.

LITERATURE CITED

- ADLER, K., AND C. GANS. 1984. *Amphibia-Reptilia* and the Societas Europaea Herpetologica. *Herpetological Review* 15:64–65.
- GORIS, R. C. 2011. Infrared organs of snakes: an integral part of vision. *Journal of Herpetology* 45:2–14.
- HEATWOLE, H. 2015. Pristine wilderness to crippled ecosystems: a foray through more than half a century of herpetology. *Journal of Herpetology* 49:333–342.
- MORIARTY, J. J., AND B. BARTHOLOMEW. 2007. Society for the Study of Amphibians and Reptiles: a fifty year history 1958 to 2007. *Herpetological Circular* 36:1–60.
- R[OTHMAN], M. N. 1958. Other societies. *Bulletin of the Philadelphia Herpetological Society* 6(3):8–9.

Accepted: 5 November 2015.

APPENDIX 1

SSAR Journal Editors, Managing Editors, Index Editors, Associate Editors, and Editorial Boards

Key to Abbreviations—AE: Associate Editor. EB: Editorial Board. IE: Index Editor. ME: Managing Editor. All persons are listed who served during each editor's term. Every effort has been made to make these lists complete, but the author and editors apologize for any inadvertent omissions.

Journal of The Ohio Herpetological Society

1958–1963: Kraig Adler, editor

Vice-chair Publ.: David Dennis

AE: Lowell Orr, Barry Valentine (1963).

IE: Kraig Adler (1958–1962), Joseph Collins (1963).

1964: James A. MacMahon, editor

AE: Lowell Orr, Barry Valentine.

IE: Joseph Collins.

1965–1967: Corson Jay Hirschfeld, editor

IE: John Condit.

EB: Arden Brame, Robert Gordon, J. P. Kennedy, Arnold Kluge, Lowell Orr, Hobart Smith, Barry Valentine, Robert Webb.

Journal of Herpetology

1968–1979: J. P. Kennedy, editor

ME: Kraig Adler (1968).

IE: Kraig Adler (1968), George Zug (1968–1969), Ray Burkett (1970–1971), Harry Greene (1972–1973), June Moreland (1974–1979).

EB: Albert Blair, Bayard Brattstrom, Donald Broadley, Gordon Burghardt, Robert Bustard, Jonathan Campbell, José Cei, John Cloudsley-Thompson, Joseph Collins, Roger Conant, William Dunson, Carl Ernst, Gary Ferguson, Henry Fitch, Richard Franz, Thomas Frazetta, Fredric Frye, Hajime Fukada,

Robert Gordon, Stanley Gorham, George Gorman, Harry Greene, Allen Greer, Tim Halliday, Laurence Hardy, Harold Heatwole, Robert Henderson, Barry Hinderstein, D. R. Horton, Konrad Klemmer, Arnold Kluge, Raymond Laurent, Hague Lindsay Jr., Murray Littlejohn, Bertha Lutz, Harry McDonald, Eviatar Nevo, David Pettus, George Pisani, Peter Pritchard, William Pyburn, Stanley Salthe, Hans Schneider, Albert Schwartz, David Sever, Hobart Smith, Margaret Stewart, James Templeton, Gordon Thurow, Garth Underwood, Barry Valentine, Jaime Villa, Marvalee Wake, Robert Webb, Heinz Wermuth, Yehudah Werner, Ernest Williams, George Zug.

1980–1988: Rodolfo Ruibal, editor

ME and IE: Stanley Salthe (1980–1983), James Vial (1984–1988).

AE: Paul Hertz, Thomas Jenssen, Samuel Sweet.

EB: Robin Andrews, Roger Avery, James Bacon, Bayard Brattstrom, David Chiszar, Justin Congden, David Crews, William Dunson, Carl Gans, Louis Guillelte Jr., Paul Hertz, Lynne Houck, Raymond Huey, Thomas Jenssen, L. O. Larsen, Linda Maxson, Samuel McDowell, Georges Pasteur, George Rabb, Richard Shine, Hobart Smith, Jaime Villa, Marvalee Wake.

1988–1992: Samuel S. Sweet, editor

Interim E: Lynne Houck (1988).

ME and IE: James Vial (1988–1990), William Parker (1991–1992).

AE: Lynne Houck, Thomas Jenssen, Douglas Ruby, Richard Seigel, Brian Sullivan.

EB: Roger Avery, David Chiszar, Justin Congden, David Crews, Ellen Dawley, William Dunson, Lynne Houck, L. O. Larsen, Linda Maxson, Samuel McDowell, Allan Muth, Georges Pasteur, Douglas Rossman, Richard Shine, Hobart Smith, Jaime Villa.

1993–2000: Richard A. Seigel, editor

ME and IE: William Parker.

AE: Stephen Adolph, Roger Anderson, Aaron Bauer, Rafael de Sá, Kenneth Dodd, John Fauth, Julian Lee, John Lynch, Alicia Mathis, Henry Mushinsky, James Petranka, Douglas Ruby, David Sever, Geoffrey Smith, Brian Sullivan, Paul Verrell, Erik Wild.

EB: Stephen Adolph, Roger Avery, Dirk Bauwens, Daniel Beck, Ellen Censky, David Chiszar, Justin Congden, David Crews, Brian Crother, Ellen Dawley, Kenneth Dodd, Peter Ducey, William Dunson, Diana Hews, L. O. Larsen, Samuel McDowell, Allan Muth, Georges Pasteur, James Petranka, James Platz, Douglas Rossman, Richard Shine, Paul Verrell, Dawn Wilson.

2001–2005: Brian K. Sullivan, editor

ME and IE: William Parker.

AE: Stephen Adolph, Stephen Busack, Rafael de Sá, Ken Dodd, Sharon Downes, Peter Ducey, John Fauth, Don Forester, Brent Graves, David Holtzman, Andrew Price, David Sever, Geoffrey Smith, Paul Verrell, Howard Whiteman, Martin Whiting, Erik Wild.

EB: Roger Avery, Dirk Bauwens, Daniel Beck, David Chiszar, Justin Congden, Brian Crother, Ellen Dawley, Maureen Donnelly, Peter Ducey, William Dunson, Michael Harvey, Diana Hews, L. O. Larsen, Allan Muth, James Petranka, James Platz, Douglas Rossman, Richard Shine, John Wiens, Dawn Wilson.

2006–2008: Geoffrey R. Smith, editor**ME:** William Parker (2006).**AE:** Paul Andreadis, Sarah Bouchard, Russell Burke, Tiffany Doan, Peter Ducey, David Holtzman, Edgar Lehr, Marc Mazerolle, Walter Meshaka Jr., Matthew Parris, Gad Perry, Jennifer Pramuk, John Rowe, Travis Ryan, Brian Sullivan, Howard Whiteman, Erik Wild, Frederic Zaidan III.**IE:** William Parker (2006), Paul Andreadis (2007–2008).**EB:** Roger Avery, Dirk Bauwens, David Chiszar, Brian Crother, Ellen Dawley, William Dunson, Diana Hews, Allan Muth, James Petranka, James Platz, Douglas Rossman, Richard Shine, Paul Verrell, Howard Whiteman, John Wiens, Dawn Wilson.**2009: Matthew Parris, editor****AE:** Russell Burke, Tiffany Doan, Edgar Lehr, Marc Mazerolle, Walter Meshaka Jr., Gad Perry, John Rowe, Travis Ryan, Frederic Zaidan III.**IE:** Paul Andreadis.**EB:** Dirk Bauwens, David Chiszar, Brian Crother, Ellen Dawley, William Dunson, Diana Hews, Allan Muth, James Petranka, James Platz, Douglas Rossman, Richard Shine, Paul Verrell, Howard Whiteman, John Wiens, Dawn Wilson.**2010–2013: Erin Muths and Gad Perry, co-editors****Special Acting E:** Geoffrey Smith (2010–2011).**AE:** Paul Bartelt, Ximena Bernal, Jon Bielby, Phil Bishop, Xavier Bonnet, Rafe Brown, Tracey Brown, Russell Burke, Stephen Corn, Tiffany Doan, Nancy FitzSimmons, Jennifer

Gillette, Brian Greene, James Harris, Tibor Hartel, Marc Hayes, Toby Hibbitts, Hinrich Kaiser, Nancy Karraker, Edgar Lehr, Marc Mazerolle, Frank Mazzotti, Walter Meshaka Jr., D. B. Miles, Hidetoshi Ota, John Rowe, Travis Ryan, Glenn Shea, Geoffrey Smith, Philip Smith, Stephen Tilley, Tony Tucker, James Watling, Erik Wild, Frederic Zaidan III.

IE: Paul Andreadis.**EB:** Dirk Bauwens, David Chiszar, Brian Crother, David Cundall, Ellen Dawley, William Dunson, Diana Hews, Joseph Mendelson, Allan Muth, James Petranka, James Platz, Douglas Rossman, Richard Shine, Paul Verrell, Gregory Watkins-Colwell, Howard Whiteman, John Wiens, Dawn Wilson.**2014–present: Paul E. Bartelt and Tiffany Doan, co-editors****Outgoing Co-E:** Erin Muths, Gad Perry.**AE:** Neil Bernstein, Phil Bishop, Xavier Bonnet, Rafe Brown, Tracey Brown, Russell Burke, David Chapple, Stephen Corn, Rafael de Sá, Jennifer Gillette, Evan Campbell Grant, Brian Greene, James Harris, Hinrich Kaiser, Nancy Karraker, Edgar Lehr, Timothy Lewis, Marc Mazerolle, Frank Mazzotti, Rockwell Parker, Graham Reynolds, John Rowe, Christopher Salice, Stephen Tilley, Reid Tingley, Tony Tucker, James Watling, Erik Wild.**IE:** Paul Andreadis.**EB:** Brian Crother, David Cundall, William Dunson, David Green, Diana Hews, Joseph Mendelson, James Petranka, Richard Shine, Brian Sullivan, Gregory Watkins-Colwell, John Wiens, Dawn Wilson.