The Newsletter of the Herpetologists'League

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HL 1999

Annual Meeting

HL's 47th
annual meeting will be held 24-30 June 1999 at The Pennsylvania State University in State College, Pennsylvania. This is a joint meeting with ASIH and SSAR, so there should be plenty of conversation in the corridors to keep you occupied between the formal presentations!

In addition to contributed papers and posters, topical symposia include: Variation in lizard social behavior: individuals, population, and species; An *Anolis*
symposium; a Symposium in honor of Dr. Richard Etheridge; and a Forum on the biology and conservation of North American turtles of the genus *Clemmys*.

A spectacular muti-media presentation is being organized by Dave Dennis and Eric Juterbock for an evening session. The multi-screen slide shows include: *Herpetologists Past and Present, Herpetological Namesakes, Herps of the West*, and the visually stunning *Amphibians of the Appalachians*.

The HL Distinguished Herpetologist lecture will be by Jonathan A. Campbell, Professor of Biology at the University of Texas at Arlington. His lecture is titled: *Herpetologist in the Mist: My life among the guerillas*.

The preregistration deadline is April 23rd.
You can get additional information via HL's website: http://www.inhs.uiuc.edu/cbd/HL/HL.html.

Snake Species of the World

Coming Soon!

Some exciting news was just received! The first volume of *Snake Species of the World. A Taxonomic and Geographic Reference*
has been completed and will be sent to the printer this month. This volume contains accounts of 681 species in 19 family groups and includes all of the scolecophidians, other primitive snakes, boids, pythons, and vipers. The volume will have more than 500 pages of text, including 3 appendices and an index. This volume was compiled by Roy McDiarmid, Jonathan Campbell, and T'Shaka Toure and will be published by the Herpetologists' League. **It will be made available to members this summer**
as part of the Special Publications program. Watch for the announcements.

New URL for HL Web Page!

http://www.inhs.uiuc.edu/cbd/HL/HL.html

James F. Lynch

Conservation Biology Fund

James F. Lynch, Smithsonian Research Scientist, lost a long battle with cancer on March 26, 1998. He died at his home in shady Side, Maryland, USA. Despite the difficulties of his illness, he carried out fieldwork in Texas only 3 weeks before he died. Over the past year, he produced several new papers and manuscripts and sustained an active correspondence with colleagues around the world.

Jim Lynch was a man with a great love of life and a large appetite for its many aspects. He was a productive scientist, a willing teacher, a talented artist, a gifted musician, and generous friend.

Jim was born in Boston, Massachusetts in November 1942. He went to Harvard College, graduating cum laude in 1964 with a BA in geology. He was a man of many facets. To help put himself through school, he sang professionally with a group aptly named "The Lynch Mob". He also rowed during this period, and made the decision to concentrate on science rather than train as a member of the American Olympic rowing squad.

From Harvard Jim moved to the University of California at Berkeley to pursue his Ph.D. It was at this stage that he underwent a major change in research direction. During his first two years at Berkeley he was a graduate student in Geology. After a summer geology work experience in a mine in Montana, he switched his major to zoology, graduating in 1974. His thesis was titled "Ontogenetic and geographic variation in the morphology and ecology of the black salamander, *Aneides flavipunctatus*".

Jim then joined the Smithsonian Environmental Research Center in Edgewater, Maryland as a research scientist. During his 24 years with the Smithsonian Institution, he conducted research in ecology, systematics, island biogeography, habitat reduction and fragmentation, and animal-plant interactions. Jim's conservation research in Central America and Mexico spanned over 30 years, from documenting the distribution of salamander populations in Guatemala to examining impacts of habitat fragmentation in Yucatan bird populations. Most recently, he initiated a project to monitor bird populations in the Laikipia District of Kenya, comparing avian communities in a variety of humanly impacted areas. Over the course of his career, he worked on amphibians, birds, mammals, reptiles, and ants, and conducted research over an enormous range of the world, including North, Central, and South America, Australia, and East Africa in addition to many parts of the United States.

Jim produced over 60 scientific publications. He was actively involved in many profession societies, advisory committees, and non-profit organizations, such as the World Wildlife Fund, and the International Committee for the Preservation of Birds (now the American Bird Conservancy). A regular reviewer for many international journals, he was an enthusiastic collaborator with scientists from all over the world.

In an attempt to support new scientists working in Conservation Biology, a fund has been set up in Jim's honor through the Smithsonian Environmental Research Center. The James F. Lynch Conservation Biology Fund will assist students and researchers working in Central America and East Africa, including students native to these areas. The goal is to build this fund into an endowment that will continue to help scientists interested in Conservation Biology for years to come. Contributions and inquiries may be made to the James F. Lynch Conservation Biology Fund, care of Jeanine Robert at the Smithsonian Environmental Research Center, P.O. Box 28, Edgewater, MD 21037, USA. The first award for this Fund will be made in 1999.

Herpetotrivia: Iguanian lizards are unusual among vertebrates in that females often are more brightly colored than males. Particularly striking examples are adults of the South American species *Tropidurus callathelys* and *T. malanopleurus*. -- Harvey, M. B. and R. L. Gutberlet, Jr. 1998. Herpetologica 54: 493-520 (note particularly the

color plates on page 494)

GRAD SCHOOL NEWS...

Herpetology at the University of Arkansas

The Department of Biological Sciences at the University of Arkansas has a focus group in Ecology and Evolutionary Biology, and a large active component of this group conducts research in herpetological systems. The rich herpetological communities in the Ozark and Ouachita mountains, as well as in the extensive rivers, creeks and wetlands of Arkansas provide remarkable research opportunities. Furthermore, the central location of the state makes it easy to access diverse study systems in all four directions. Herpetological research, both basic and applied, occurs in three laboratories at UA (James M. Walker, Steven J. Beaupre, and the Arkansas Cooperative Fish and Wildlife Research Unit), and is supported by state-of-the-art facilities on campus such as the Central Analytical Facility (in the Department of Poultry Science, School of Agriculture), the Center for Advanced Spatial Technology (CAST, School of Arts and Sciences), and the Stable Isotope Science Center of the Ozarks (SISCO, an isotope-ratio mass spectrometry facility) soon-to-be installed in the Department of Biological Sciences.

JAMES M. WALKER, professor, is completing 34 years in herpetology at the University of Arkansas and anticipates staying on the job another 10 years. During this period he has directed 11 Ph. D. students; seven M.S. students (two in ichthyology); and one M. A. student. These individuals completed their degrees on a variety of projects in systematics, ecology and morphology and all have enjoyed careers in biology (teaching, research, consulting, etc.). Two of his former students have gone on to become important officers and/or editors in herpetological societies. Dr. Robert Cashner, University of New Orleans, is the President-Elect of the American Society of Ichthyologists and Herpetologists. Dr. David Cundall, Lehigh University, has recently completed a stint as General Herpetology Co-Editor of Copeia. Two former students have become high administration officials in academia. Dr. Flavius Killebrew is Provost at West Texas A & M University at Canyon, Texas. Dr. James Arnett is Dean of the Faculty at David Lipscomb College, Nashville, Tennessee. Two former students have become ongoing collaborators with whom Walker has coauthored numerous papers and continues to work with on numerous projects. The collaborations with Dr. Mark A. Paulissen, McNeese State University, Lake Charles, Louisiana, include several studies on the biology of parthenogenetic *Cnemidophorus laredoensis* and gonochoristic *C. gularis* in southern Texas. The collaborations with Dr. James E. Cordes, Louisiana State University-Eunice, Eunice, Louisiana, involve numerous projects on various species of *Cnemidophorus*
in Texas, Oklahoma, Colorado, New Mexico, Arizona, and Mexico. Many collaborations on the biology of *Cnemidophorus*
are also in progress with Dr. Harry L. Taylor, Regis University, Denver, a research relationship dating back 37 years to Walker's graduate days at the University of Colorado, Boulder. The work of doctoral student CANDIS COHN (biology of *Cnemidophorus neotesselatus* in southeastern Colorado) is uncertain, but hopeful.

STEVEN J. BEAUPRE, assistant professor, is in his fourth year at UA, with a specialty in physiological ecology (M.S. under Dr. Warren Porter, University of Wisconsin, Madison, Ph.D. under Dr. Arthur Dunham, University of Pennsylvania, and postdoctoral experience under Dr. David Duvall while at Arizona State University West). Steve's primary research interests focus on environmental effects on time-energy allocation, life history, and population dynamics of reptiles. Currently, he is funded by NSF to study the effects of natural variation in temperature and experimentally induced variation in food availability on complex time-energy allocation responses of timber rattlesnakes (*Crotalus horridus*). Empirical work in this system is accompanied by modeling using a physiologically-structured, individual-based approach. Collaborative projects in progress include individual-based modeling and comments on statistical analysis of messy data with Dr. Art Dunham and Dr. Peter Petraitis (University of Pennsylvania, Department of Biology), development of microsatellite probes for paternity analysis in *C. horridus* with Dr. Douglas Rhoads, (University of Arkansas, Biological Sciences), and completion of several writing projects with Dr. David Duvall (Oklahoma State University, Stillwater, Department of Zoology) and Ms. Chris Wills (former UA honors student, now a doctoral student at the University of Pennsylvania).

In addition to these projects, Beaupre has an active group of graduate and undergraduate students conducting research on various aspects of Crotaline biology. DAWN M. BROWNING (M.S. in progress) is developing a habitat

use model that uses GIS to predict locations of overwintering den sites of timber rattlesnakes. She is using characteristics of known dens to predict the occurrence of unknown dens using GIS data layers. With some adjustments, Dawn's model should be readily adaptable to other regions throughout the species' range. STEVEN T. HEULETT (Ph.D. in progress) is investigating the physiological allocation of prenatal parental investment to individual offspring in cottonmouth (*Agkistrodon piscivorus*). Variation in size, number and body composition of offspring will be sensitive to this allocation. Steve's research will assess how, if at all, the genetically determined rules for the allocation of reproductive effort dictate different allocation decisions based on resource availability. Steve has collected a laboratory population of cottonmouth and will manipulate resource availability to mothers in the year prior to parturition in order to test predictions about tradeoffs in size, number, and body composition of offspring. JACQUES G. HILL III (Ph.D. in progress) is studying mass-energy budgets in free ranging cottonmouth (*Agkistrodon piscivorus*) by utilizing radiotelemetry and total body lipid estimation by cyclopropane absorption. He has over 50 animals marked at his study site in an Ozark Mountain creek and he has been radio-tracking ten animals for the last two years. Jacques plans to conduct a supplemental feeding experiment to quantify relationships among feeding, body fat dynamics, and fitness components. MELISSA A. PILGRIM (Ph.D. in progress) is planning to use natural abundance of stable isotopes to investigate inter- and intra-population variance in diet of the pigmy rattlesnake (*Sistrurus miliarius*) in Florida. Although pigmy rattlesnakes are known as generalists, the prey types available to them vary considerably depending upon the habitat they occupy. Thus, microhabitat selection may result in significant variance in diet, and isotopic methods may be useful in assessing the potential effects of dietary differences on energy budgets and life histories. Melissa also provided invaluable assistance in radio tracking Beaupre's timber rattlesnakes during Summer, 1998. FREDERIC ZAIDAN (Ph.D. in progress) is currently working on two major projects. The first, which is the focus of Fred's dissertation, is an investigation of potential physiological limits to the geographic distribution of cottonmouth (*Agkistrodon piscivorus*). Specifically, Fred is examining the effects of photoperiod and temperature on hormonal cycles and reproductive behaviors as potential mechanisms that may limit reproduction at the northern edge of the species' range. Second, in collaboration with Beaupre, Fred is conducting laboratory studies of thermal effects on mass-energy allocation of timber rattlesnakes from three geographic regions. These studies simultaneously assess the potential for geographic differentiation in physiological traits, and provide information that forms the basis of Beaupre's physiologically-structured modeling efforts. KORY ROBERTS (Master of Arts in Teaching - in progress) has been Beaupre's main field technician since Spring 1996. His contribution to the timber rattlesnake project over the last three years has been extremely important and is greatly appreciated. In Summer 1999, Kory will leave the lab to pursue his work in science education full time and he will be sorely missed. Finally, no lab can be run without the involvement and assistance of undergraduates, and currently, Beaupre has help in the lab from ALLEN NEWBERRY (UA, B.S. Biology, in progress) and help in the field from NICK HAERTLE (UA, B.S. Biology, in progress) and MALLORY SMITH (Vassar, major undeclared, but leaning towards biology and herpetology).

More herpetological research at the UA occurs in the Arkansas Cooperative Fish and Wildlife Research Unit. JEFF BRIGGLER (Ph.D. in progress) is studying amphibian utilization of artificial ponds in the Ouachita and Ozark National Forests. Jeff's master's thesis (Spring 1998) surveyed the distribution and abundance of amphibians in these artificial ponds, and developed methods for predicting species occurrence based on pond characteristics. Jeff's research has had a positive influence on forest pond planning for the maintenance of amphibian diversity. His on-going work focuses on the distribution of *Ambystoma annulatum* and its use of breeding ponds. REBECCA N. DUKES (M.S. in progress) is studying the demographics of breeding migrations in *Ambystoma maculatum* and *Ambystoma annulatum*. She has monitored breeding migrations and emergence of metamorphs at four local ponds using drift fences. Rebecca plans to compare movement patterns of adults and metamorphs to determine ordinal emigration patterns and their relation to habitat usage.

The University of Arkansas, Department of Biological Sciences proudly supports traditional quality programs in ecology and evolutionary biology and cell and molecular biology. The mountains, rivers and swamps of Arkansas brim with reptiles, amphibians and research opportunities. For more information about our graduate programs, please browse our departmental web site at *http://comp.uark.edu/%7Ebioinfo/bisc.html* or the UA ecology and evolution page at *http://comp.uark.edu/~wetges/EEpage.html***.**

Herpetotrivia: Tadpoles of the frog *Chirixalus eiffingeri*
from Taiwan are obligately oophagous. Females provision their tadpoles with trophic eggs. If the females are

removed due to predation or other disturbance, the tadpoles stop growing and eventually starve to death. -- Kam, Y.-C., C.-F. Lin, Y.-S. Lin, and Y.-F. Tsal. 1998. Herpetologica 54:425-433.

Conferences, Conventions, Conclaves

Fifth Latin American Congress of Herpetology

The Fifth Latin American Congress of Herpetology (5th CLAH) will be held at the University of Uruguay, Motevideo, Uruguay, **12-1 December 1999.** The official languages of the 5th CLAH will be Portuguese and Spanish. However, English and other languages will be accepted in workshops, symposia, and poster presentations but they need to have an abstract in one of the official languages. Deadline for Abstracts is 30 June 1999. For registrations and additional information, please contact: Lic. José A. Langone, Secretario Ejecutivo V CLAH, Museo Nacional de Historia Natural, CC 399, 11000 Mentevideo, Uruguay, e-mail: vclah@fcien.edu.uy. Http://zvert.fcien.edu.uy/clh.

For further information and registration with the U.S. and Canada, please contact: Dr. Rafael de Sá, Department of Biology, University of Richmond, Richmond, VA 23173; e-mail rdesa@richmond.edu.

Animal Behavior Society

The 1999 Animal Behavior Society meeting will be at Bucknell University in Lewisburg, Pennsylvania from **June 26-30.**
Gail Michener will give the Keynote Address and Fellows lectures will be presented by Lynne Houck and Stephen Nowicki. Information about the meeting can be accessed at the ABS website at: Http://www.cisab.indiana.edu/ABS.

joint Annual Meeting:

The Society for the Study of Evolution

The American Society of naturalists

The Society of Systematic Biologists

The Evolution '99 Joint Meeting will be held **22-26 June**
in Madison, Wisconsin. On-site registration, general sessions, poster sessions, and reception will be held at the University of Wisconsin Memorial Union. The Annual Meeting Banquet is being held at the new Frank Lloyd Wright-designed Monona Terrace Convention Center. For a schedule and related conference information, see: www.wisc.edu/botit/evolution

Ecology & Management of dead wood in western forests:

Symposium announcement and

first call for papers

Dead trees, both snags and logs, are critical elements of healthy and productive forests. They contribute to forests by mediating soil recruitment and loss, affecting water retention, and movement, releasing minerals and nutrients for plants living nearby, and providing habitat for a myriad of species including fungi, arthropods, and vertebrates. Forest management, including timber harvest and fire suppression, alters the natural demographic processes of dead wood in forests. Changed are (1) the ultimate repository for dead woody material from the airshed, soils, watercourses, and oceans to centers of human activities (e.g., cities), (2) the spatial and temporal pattern, and size distributions of trees growing in the forest, (3) the functioning agent of tree mortality, and (4) the spatial and temporal pattern, size distributions, and decay character and consumption (by fire) of the resulting dead wood (snags and logs). Historically, snag relationships with cavity nesting species have been the basis of dead-wood research and management. More recently, the role of wood in aquatic ecosystems has become an important focus. However, other resource relationships are less well developed. Whether recommendations or log associations of stream-inhabiting fishes -- or estimates of natural ranges of variability will provide dead wood abundance and condition necessary to sustainable and functioning forests is unknown. Development of effective site- and regionally-appropriate management recommendations requires better knowledge about the process of decay and other ecological forests resources. To facilitate and encourage this collection and dissemination of information, a major conference covering dead wood ecology and management will be held **November 2-4, 1999** in Reno, Nevada. Objectives of the conference are to bring together forest researchers and managers to share the current state of knowledge relative to the (1) values and interactions of dead wood to, and in a functioning forest, (2) biology and processes of tree mortality, snag deterioration, and down log deterioration, and (3) the development of effective management guidelines. Proceedings will be published. **Abstracts are due May 1, 1999**. For more information and registration materials, visit the website of the Western Section of The Wildlife Society at http//www.tws-west.org. For registration information contact: Bill Hull, Western Section of The Wildlife Society, P.O. Box 21638, Oakland, CA 94620-1638; (510)465-4962; whull@cgbd.org. For information about presentations (15-20 min), contact either: Brad Valentine, California Department of Forestry, 135 Ridgway Street, Santa Rosa, CA 95401; (707)576-2937; Brad_Valentine@FIRE.CA.GOV; or Bill Laudenslayer, USFS: Pacific Southwest Research Station, 2081 East Sierra Avenue, Fresno, CA 93710; (209)487-5197; BLAUDY/PSW_FRESNO@FS.FED.US.

Symposium on the Status and Conservation of Florida Turtles

A second symposium on the status and conservation of Florida Turtles will be held at Eckerd College in St. Petersburg, Florida on **8-11 October 1999**. Co-sponsored by Eckerd College, the Gopher Tortoise Council, and the Florida Turtle Conservation Trust, this symposium will address the problems faced by Florida turtle species, as well as conservation strategies and specific recovery solutions.

Paper session topics include populations, habitat, disease, commercial trade, and conservation measures. In addition to a poster session and field trips, workshops on the identification of emydid turtles, field methods, and environmental education are scheduled.

A volume describing the conservation biology of Florida turtles at the end of the 20th century is planned. We anticipate that it will include 25, mostly-multi-authored accounts. Anyone wishing to contribute to one or more species accounts is asked to contact Peter Meylan at <meylanpa@eckerd.edu>.

For more information about the symposium, contact: Gopher Tortoise Council, c/o George L. Heinrich, 1223 Alhambra Way S., St. Petersburg, FL 33705-4620; (813)865-6255; e-mail: <highpine@gte.net>.

Herpetotrivia: Results of a phylogenetic analysis of viviparity of *Sceloporus* lizards suggest that viviparity has evolved a minimum of four times within the genus. -- Méndez-de la Cruz, F. R., M. Villagrán-Stanta Cruz, and R. M. Andrews. 1998. Herpetologica 54:521-532.

Note: More than 80% of live reptiles that are exported from the United States are red-eared sliders. These exported turtles are mostly hatchlings bound for Europe and Asia. More than 8 million slider hatchlings were exported from the USA in 1996. Tens of thousands of map turtles, snapping turtles, and soft-shelled turtles also are exported yearly. -- from Traffic North America, 1998, 1(3):1-2. (a World Wildlife Fund publication).

FEATURE ARTICLE

Editor's Note: The following is the 3rd in a series of articles describing what it's like to be a herpetologist at different types of institutions. While everyone's experience is not the same, and each institution has its own special personality, it is hoped that this series will provide useful information for students and others contemplating careers in herpetology.

Herpetology in the federal government: a personal view

By C. Kenneth Dodd, Jr.

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In late 1976, I received a phone call from an ichthyological colleague who asked if I would be willing to take a temporary position in the U.S. Fish and Wildlife Service's (FWS) Office of Endangered Species (OES) in Washington. They had a backlog of proposed and final rules that needed to be finished, and they thought that a 30-day stint by a temporary herpetologist would clear the slate. Thus began a 23-year odyssey through the sometimes

bizarre, sometimes rewarding, sometimes discouraging, but always different federal government. Fortunately, I have been able to stay involved with herpetology, both as a science and in terms of conservation policy. In my career, I have worked both in an administrative and in a research capacity. Many individuals with an interest in herpetology enter the federal government as field biologists and drift into administration as they become older and removed from the dynamically changing nature of their science. I moved in the other direction.

There are many different levels of employment within the federal service. Land management agencies (FWS, Bureau of Land Management, Forest Service) hire B.S. and M.S. level biologists to conduct resource related activities in the field. They prepare management plans, conduct faunal and vegetative inventories, oversee refuge operations, and wade through a seemingly endless paperwork trail in defiance of the so-called Paperwork Reduction Act. These activities are very rarely herpetologically-specific, but they often allow the biologist an opportunity to have input into management decisions and to add a herptological perspective. Field-related employment can help long-term management decisions. On the down side, it provides a sometimes advanced course into biological politics, something that is unavoidable when working for a federal agency in virtually any capacity.

In my administrative position, I was responsible for maintaining information on amphibians and reptiles either listed or candidates for federal protection under provisions of the Endangered Species Act of 1973 (ESA). The position required knowledge of the biology and status of these species, as well as of the personalities of the researchers involved. It necessitated a crash course not only in the executive operations of a federal agency, but also in herpetological fields quite different from my doctoral work on salamander behavior. Working in Washington during the early years of the ESA was exciting, challenging, and depressing there was, after all, no victory in adding a

species to the endangered list despite the administrative obstacles to doing so. At the same time, this work forced me to make contacts with many well-known herpetologists that I would never have met otherwise, to learn the literature of many obscure species, and to have input into decisions which, I hope, benefitted amphibians, reptiles, and their habitats.

When I began with OES, I was told that I would have one-half day per week to conduct research, although was no research support or facilities. This sounded good, but it did not last as the endangered species-related workload increased. To keep active professionally, I read journals, attended professional meetings (using vacation time and personal expense), published work conducted prior to joining the government, and often visited the National Museum of Natural History's herp range. In addition to politics, Washington has an active herpetological community, and herp seminars were frequent at the numerous academic institutions around the city, or by visitors at USNM. Short-term research projects were carried out on extended vacations, and I wrote about endangered species program in popular and professional herpetological publications.

It takes a considerable effort to maintain academic ties in an administrative position. Although not an official part of my job, maintaining professional ties was viewed favorably by my immediate supervisors; FWS also covered reprint charges and allowed me to write about endangered species issues on official time. Conversely, the official review process often rankled my sense of academic freedom, as it has on occasion through the years. No federal agency likes anything but glowingly favorable publicity. Although I ducked most of the time, a newspaper item about Pennsylvania rattlesnakes nearly terminated my federal career in 1979, but that is another story.

After 8 years, political winds changed in Washington to the point where listing operations were shifted to FWS regional and field offices. The idea was to put biologists in the field close to the resources they were monitoring (but without doing field research). Inasmuch as I was the sole herpetologist in the Endangered Species Program, this had the effect of shutting down listing activities, at least for a while. It became clear that a position

in herpetology would no longer be possible within FWS in Washington, so I decided to either leave FWS or move into the Service's research division. Political winds were blowing favorably for conservation biologists to leave the inner Beltway, and in October 1984 I moved to the FWS research field station in Gainesville. Although the organization has evolved from FWS to the National Biological Survey to the Biological Resources Division of USGS, the position has remained the same.

For the last 15 years, my position has been to conduct research on amphibians and reptiles. For about 10 years, my supervisor was in Fort Collins, Colorado, and I operated as a one person field station; for the last 5 years, I have worked in a research center as the sole herpetologist in a sea of ichthyologists. Despite recognition of the importance of herps in ecosystems, historical biases linger. In FWS, research questions were directed at virtually any aspect of life history, conservation, or management, regardless of land ownership. In USGS, the focus has shifted to federal lands and "client" agencies. Research always has centered on field questions inasmuch as there never has been space for a herpetology lab in the buildings in which I have been located.

We receive funding from two sources: internal operating funds and outside contracts. In the last few "good" years, I have had about $3K in operating funds, whereas in the first few years of FWS, I had $5K to run a research program. Operating funds are used to maintain field vehicles, travel to research sites and professional meetings, buy equipment and reprints, and virtually everything else. Contrary to the impressions of some colleagues, there is no unlimited source of funds for research, supplies, and travel. In USGS, we apply for contracts from federal and state land management agencies. These contracts fund specific research, and allow us to purchase capital equipment (computers, lab equipment, transmitters etc.) and hire technicians or student help. Many contract sources are not open to federal government employees, such as NSF, foundations, or NGOs. Except for funds from other Interior agencies, we charge overhead the same as universities.

The lack of a consistent and stable funding program inhibits long-term planning and forces researchers to switch to short-term projects. As such, there is only a limited freedom to choose research projects. One year you might be working on salamanders in the mountains, and the next year on big river turtles in Florida. This variety is both a blessing (new areas, animals) and a curse (new techniques, literature). It is not easy to be a generalist and maintain a scientific rigor in fields subject to increasing specialization. Unfortunately, most administrators believe a herpetologist can do all things, from salamanders to sea turtles, from sampling to lab physiology. The same

administrators would not think of having a darter systematist model eel population dynamics.

Every 4 years, USGS research scientists (all PhDs) are subject to an extensive review, termed a research grade evaluation. Everything you did is scrutinized (my last RGE required more than 70 pages, single spaced), and you are graded by other scientists within the agency as to scientific achievements. Promotions or demotions are based on this review. Publication output seems to drive the RGE review, regardless of resources, duties, and funding. This is one of the most unpleasant aspects of being a federal scientist, at least personally.

To be a federal scientist, you need to keep focused on what drove you into the profession in the first place, i.e., an interest in, dare I say love of, the animals and natural world around you. Too many government biologists get caught up in the agency culture, whereby an agency becomes "the Service" or "the Bureau." It is far too easy to catch Potomac fever, or to feel the power of administrative control. A government herpetologist needs to remember that his/her "clients" are the amphibians and reptiles in natural habitats, and to do what is best for them. This is what drives most of the truly successful government scientists with whom I have had the privilege to work, and who will long be remembered when the administrators are gone and policies changed.

After 23 years, I recognize that my positions have allowed me to do things, see places, and meet people I never would have if I had landed an academic position. I would not have met Archie Carr, satellite-tracked sea turtles, stood on remote Monito Island looking for Sphaerodactylus, or played a role in the acquisition of GreenCay and Sandy Point in the Virgin Islands. I might never have set foot on Egmont Key and chased box turtles through its thick undergrowth. At the same time, I recognize that there has been a cost, a certain loss of academic and personal freedom (e.g., USG employees cannot accept royalties or even sell photographs), and lots of stress. I remember the hours of writing seemingly worthless study documents and the endless reviews, all done in the name of quality control (which no field scientist I know believes to be valid). I worry that USG agencies sometimes seem no closer now than they were years ago at taking a long-term vision (in types of research, staffing or funding), of abandoning historical taxon biases, and of valuing their field scientists. I fret about abandoning principles for political expediency, even though there is less chance of that in a research agency than there was in an administrative position. As major advisor to 7 graduate students at the University of Florida, I council them to follow their professional dreams, but to be prepared for whatever career twists are thrown their way. And that is what I have tried to do, and will continue to do, as a herpetologist in a federal government position.

MONEY, MONEY, MONEY

Southwestern Research Station Student Support Fund

The American Museum of Natural History awards several grants each year of approximately $400-$800 to graduate students or postdoctoral students pursuing research at its Southwestern Research Station in the Chiricahua Mountains, Portal, Arizona. Information and application forms for this program and other Museum grant programs can be obtained by writing: Office of Grants and Fellowships, American Museum of Natural History, Central Park West at 79th
Street, New York, NY 10024-5192. For application dates and other questions, contact: Dr. Wade C. Sherbrooke, Director, Southwestern Research Station, American museum of natural History, P.O. Box 16553, portal, AZ 85632 USA; phone/fax: (520)558-2396; e-mail: swrs@amnh.org.

Carnegie Museum of Natural History -- Collection Study Grants in Herpetology

The Carnegie museum of Natural History is pleased to announce a grant to support herpetological research by graduate students and foreign scientists. The grant is intended to defray costs of transportation and lodging associated with visiting and using the collection. The Carnegie's herpetological collection contains more than 194,000 preserved

specimens, including one of the largest collections of turtles and extensive holdings from the West Indies, Mexico, South America, Spain, Africa, India, and the Philippines. Applicants should send the following, in duplicate: (1) a description of the proposed research (including its significance and the justification for visiting the Carnegie), not to exceed two pages, (2) literature cited, (3) budget, and (4) CV. Students should also arrange for two letters of recommendation to be sent. Awards will be made twice a year. Deadlines for application materials are 15 April and 15 November. Send applications to Collection Study Grants in Herpetology, Section of Amphibians and Reptiles, Carnegie museum of natural History, Pittsburgh, PA 15213-4080, and for more information, contact John J. Wiens (e-mail@clpgh.org; phone 412-622-5520; FAX 412-622-8837.

ANNOUNCEMENTS

Volunteers

Approximately 30 volunteer positions are open at the American Museum of natural History's Southwestern Research Station in Portal, Arizona. The volunteer program is run annually and offers students in biological sciences outstanding opportunities to observe and become involved with scientists doing field research. **Food and lodging are provided to volunteers**
in exchange for 24 hours per week of routine chores, with the remaining time available for research activities.

The program is open to both undergraduate and graduate students; the latter may pursue their own research projects. Faculty knowing of promising students should alert them to this opportunity for professional experience toward, development of, and evaluation of their career goals.

Volunteers are needed between March 14 and November 1. Appointments are for part of this period, with a minimum appointment of six weeks. Applicants for Spring positions (March-May) should submit applications by February 15, summer volunteers (June-August) by April 1, and fall volunteers (September- November) may apply any time.

For applications write: Dr. Wade C. Sherbrooke, Director, Southwestern Research Station, American museum of natural History, P.O. Box 16553, portal, AZ 85632 USA; phone/fax: (520)558-2396; e-mail: swrs@amnh.org.

PUBLICATION NOTICES

Problem Snake Management:

The Habu and the Brown Treesnake

Edited by Gordon H. Rodda, Yashio Sawai, and Hiroshi Tanaka. 1999. Cornell University Press. 534 pages. $47. 50 (hard cover)

A Kansas Snake Community:

Composition and Changes over 50 years

By Henry Fitch. Krieger Publishing Company. 178 pages. $42.50. Provides a summary of findings from a field study of 50 consecutive years on the 18 species of snakes found on the University of Kansas Natural History Reservation and adjoining sections of land. It is the longest running single-site, ecological research study of vertebrates ever done. Individual histories were investigated by mark-and-recapture and by radiotelemetry, and reveal information about seasonal schedules, food, reproduction, growth, survivorship, and responses to weather and climate.

For order information (ISBN #0-89464-996-5) contact: Krieger Publishing Company, P.O. Box 9542, Melbourne, FL 32902-9542, Tel: (407)724-9542, Fax: (407)951-3671; e-mail: info@krieger-pub.com, URL: www.web4u.com/krieger-publishing/

Amphibians and Reptiles of Northern Guatemala, the Yucatan, and Belize

By Jonathan A. Campbell. 1998. University of Oklahoma Press. 380 pages. $100.00 (hard cover). 189 figures, most of which are color plates. This first field guide to the herpetofauna of the area includes some 160 species from tropical, dry and rain forests, savannas, hills, and rivers. This guide includes notes on where animals are likely to be found, English and Spanish identification keys. Information on natural history and distribution is supplemented with Campbell's own observations and with anecdotes and examples of folklore drawn from almost four decades of exploration. ISBN: 0-8061-3064-4.

Status and Conservation of Midwestern Amphibians

Edited
by Michael J. Lannoo. 1998. University of Iowa Press. 507 pages. $49.95 (cloth). $29.95 (paperback). This book contains six sections: Landscape patterns and biogeography (5 papers), Species status (10 papers), Regional and state status (10 papers), Diseases and toxins (4 papers), Conservation (7 papers), and Monitoring and applications (6 papers).

Rattlesnake:

Portrait of a Predator

By Manny Rubio. 1998. Smithsonian Instituion Press. 272 pages. 250 color photographs. $39.95. This book was written not for a scientific audience -- although scientists reviewed every chapter -- but for anyone willing to suspend the human dread of snakes and appreciate their beauty and natural history. In addition to the author's photographs, their are fourteen chapters including information about rattlesnakes' evolution, habitat, biology, reproduction, and feeding habits.

The Amphibians of the Former Soviet Union

By Sergius Kusmin. 1999. Pensoft Publishers. 544 pages, 44 maps, 119 b/w photos and drawings, and 126 color photographs. English text. $98 (US) (hardcover). A fundamental review on all 41 species or 47 subspecies of Amphibia encountered in the territory of the former Soviet Union. Each species or subspecies is supplied with a list of synonyms and a detailed description of the morphology and, partly, karyology as well as of the current geographical range and its limits. Detailed data are presented on ecology, including habitats, abundance,

thermobiology, activity cycles, reproduction, ontogeny, feeding, enemies and parasites, the impact of antrhopogenic factors, conservation, etc. Keys are given to eggs (so far as is known), larvae, and adults. A comprehensive bibliography is provided, including about 900 references.

For publication information contact: Pensoft Publishers, Akad.G. Bonchev Str. B1.6, 1113 Sofia, Bulgaria; e-mail: pensoft@main.infotel.bg. Note: handling and postage is extra ($12 [US] for European orders, and $15 [US] for overseas).

The Origin and Evolution of Larval Forms

Edited by Brian K. Hall and Marvalee H. Wake. 1999. Academic Press. 425 pages. $79.95 (hard cover).

Policy for Advertisement of New Books As a service to our readers, *Communications* is pleased to publish announcements of new books of interest to HL members. However, we do not accept formal "advertisements". We will include the "standard" information (title; author; publisher; price (HB/PB); no. of pages, maps, illustrations), plus, optionally, a very brief 1-2 sentence description of the book and an address for orders. This information should be sent to the editor of *Communications.*
Announcements will be included as space allows and content may be edited.

Communiqués to *Communications*

Target dates for distribution of *Communications*
are March and September. Herpetologically-relevant announcements are included as space allows. Send submissions/ questions/comments to: Dr. Alicia Mathis, Dept. of Biology, Southwest Missouri State University, Springfield, MO 65804-0095. Phone: 417-836-5699; FAX: 417-836-4204;

e-mail: sam477f@mail.smsu.edu.

Note: Editorial Assistance was provided by Daphne Daugherty.

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