When I started in the zoo business in 1965, one of the persons I met a few years later was reptile keeper Ron Goellner from the St. Louis Zoo. A few years later, he was promoted to curator, a position he held until 1995. Since then, Ron was Director of Animal Collections. Some months ago, I learned that Ron was ill and sadly, he passed away on 26 February 2006. An expanded tribute to Ron will appear in Herpetological Review by two of his friends and colleagues, Jeff Ettling and Charles Hoessle. Ron was the creator of the Zoo’s Center for Hellbender Conservation, now renamed the Ron Goellner Center for Hellbender Conservation. Donations can be sent to the St. Louis Zoo Foundation, P.O. Box 790290, St. Louis, Missouri 63179-0290, USA. Include a note directing funds to the Hellbender Center.

—James B. Murphy, Section Editor

Herpetology at the Fort Worth Zoo: A 45-Year History

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The Early Years

In late summer of 1953, members of the Fort Worth Zoological Association, notably Kirk Johnson, Amon G. Carter Jr., and Park Director Hamilton Hitson, began searching for a professional zoologist for the position of Curator of the Fort Worth Zoo. Although the search committee considered numerous candidates, it was a young chap, merely 23 years old, who piqued their interest. His name was Lawrence Curtis. Curtis, who had earned two natural science degrees from Southern Methodist University, had been working at the Dallas Aquarium for seven years, and was also gainfully employed as General Curator of the Dallas Zoo. Assistant Park Director James Brown frequently visited the Dallas facility and had been very impressed with Curtis. So on the recommendation of Brown, Hitson attempted to recruit Curtis for the position of Curator of the Fort Worth Zoo.

Curtis thoughtfully weighed the merits of each institution. He knew that Dallas was municipally supported and had no immediate plans for capital improvements, whereas the Fort Worth Zoo was supported by a strong association intent on expanding its facilities. Further lured by an increase in salary and the promise of free residence, Curtis accepted the position.

Shortly after joining the staff, he began developing a master plan, which would become the basic design of the modern Fort Worth Zoo. One of his primary goals was to add indoor facilities, for at that time the Zoo was basically a summer attraction. Curtis had a great interest in ichthyology and rather quickly sold the Zoological Association members on the value of a new aquarium. In December of 1953, Amon G. Carter Jr., presented the Zoological Association with a check for $50,000, and shortly thereafter, construction on the new aquarium began. It was named the Record Aquarium, in honor of James R. Record, dynamic Managing Editor of the Fort Worth Star Telegram. In two-and-half years the aquarium had drawn more than twice as many visitors as the population of Fort Worth, and had grossed $150,000, much of which was used to finance additional Zoo construction.

The following five years were busy ones for Curtis. He petitioned the Park Board for numerous improvements that included moated exhibits and a Great Ape House. In November of 1958, Curtis initiated a project that would bring the Zoo acclaim for decades. He appeared before the Park Board to announce that the Zoological Association wished to build a reptile house. After receiving authorization to proceed, Curtis flew to New York, Philadelphia, and Washington, D.C. to evaluate various herpetological facilities.

Herpetarium Construction.—In the spring of 1959, Curtis presented Herpetarium plans for final approval. The building was to measure 117 by 55 feet and cost approximately $80,000, including stock expense (ca. 200 species). The Park Board unanimously approved the proposal, whereupon the Zoological Association received a $93,000 loan co-signed by Amon Carter Jr. The loan was to be repaid by admission fees of 10 cents for children and 20 cents for adults.

The Herpetarium was completed in the summer of 1960 and was the fourth indoor exhibit to open in less than six years. Boasting the largest exhibit of reptiles and amphibians in the world (with 175 vivaria), the facility also included a Zoo hospital and quarantine room. Then contemporary features, such as refrigerated air, operational skylights, temperature controlled water, switch operated emergency alarms, and state-of-the-art service facilities, made this Herpetarium a true marvel. Innovative exhibits such as a display of giant snakes with curved non-reflective glass (creating the illusion of an open-fronted exhibit) were especially popular attractions. The main public area included five exhibit halls covering various geographic regions and another area that was devoted exclusively to amphibians. There were also special exhibits teaching the identification of native venomous snakes and treatment for snakebite.

Staff

Lawrence Curtis had a passion for herpetology that rivaled his interest in ichthyology. In the 1950s he authored papers in numerous journals such as Copeia, Herpetologica, and the Texas Journal of Science. He also contributed regularly to International Zoo Yearbook. Over the years he held many board positions including Vice President of the Texas Herpetological Society and President of the American Association of Zoological Parks and Aquariums (now AZA – American Zoo and Aquarium Association).

Curtis was one of the first herpetologists to keep an up-to-date catalogue on antivenin. During the summer of 1966, a young boy—the victim of a rattlesnake bite—was saved after receiving antivenin treatment. Curtis consulted his antivenin catalogue and coordinated the serum shipment to Texas via the US Air Force. Before the year’s end, he aided several other people from various states. In recognition of his services he received several awards from the American Aviation Association and the Press Club of Fort Worth. Further, Fort Worth Mayor Willard Barr proclaimed August 15, 1966, as “Lawrence Curtis Day.”
Top Row (L to R) — Lawrence Curtis and J. P. Jones; J. P. Jones and Jonathan Campbell; Lawrence Curtis and Roger and Isabel Conant; Middle Row — Herpetarium as it appeared shortly after construction; Bern Tryon; Bottom Row — David Blody; George Ledvina; Rick Hudson.
After leaving the Fort Worth Zoo, Curtis became Director of the Oklahoma City Zoo in 1970—a position he held for 15 years. In later years he served as a consultant for various zoos and aquariums around the world, and he recently lived in Saudi Arabia where he worked as Director of the Riyadh Zoological Gardens. He presently lives in Oklahoma.

The first Supervisor of the Herpetarium was John M. Mehrten. He was partly responsible for the quality design of many exhibits in the Herpetarium. Over the years he traveled to many locations, securing animals for display. Mehrtens is probably best known for his book Living Snakes of the World in Color (Sterling Publishing, 1987).

Joseph Laszlo, well known internationally for his significant contributions to our understanding of captive management, furthered his career at the Fort Worth Zoo under John Mehrtens. Joe was a colorful character to say the least. He was always eager to talk herpetology and he pursued his interests with unbridled passion. Joe was promoted to Assistant Supervisor in the mid 1960s, and later worked at the Houston Zoo before accepting the position of Supervisor at the San Antonio Zoo in the early 1970s.

John P. Jones was hired as Supervisor in the late 1960s—a position he held for many years. J. P. was a talented man who understood the art of exhibit design, graphic display, and the science of animal husbandry. Moreover, he led a fine crew of young men, some of whom would go on to make significant contributions to herpetology.

Contemporary with Jones was a young stalwart named Jonathan Campbell. Campbell was Assistant Supervisor at the time and had already begun to blaze a herpetological path of accomplishment that would prove difficult to follow. Back in those days he traveled frequently to Mexico and Guatemala with various colleagues, bringing home all manner of reptiles and amphibians—many of them new to science. Campbell left the department in the early 1970s to pursue his master’s degree under William Pyburn at the University of Texas at Arlington. Afterwards he wrapped up his graduate studies at the University of Kansas under William Duellman where he earned his PhD in 1983. Some of Campbell’s early publications covered husbandry techniques and behavioral observations in captivity. He subsequently produced a wave of manuscripts and books that included myriad new species descriptions and taxonomic revisions, mostly on Latin American herps. Campbell now holds a professorship at the University of Texas at Arlington where he is also Chair of the Biology Department and Director of the Amphibian and Reptile Research Diversity Center.

Bern Tryon joined the department in the mid-1970s as Assistant Supervisor. Modeled in the Carl Kauffeld tradition, Bern was another zoo herpetologist who bridged captive management with academic pursuits. He published many peer-reviewed papers on topics such as breeding and rearing bog turtles and captive reproduction of West African dwarf crocodiles, a paper widely regarded as one of the classic studies on crocodilian reproductive behavior. His paper entitled How to Incubate Reptile Eggs stands today as the standard cited reference on this topic. Bern’s publications helped advance the state of chelonian husbandry, but two of his enduring passions during this time were developing breeding techniques for Arizona Ridge-nosed Rattlesnakes and Gray-banded Kingsnakes. Bern presently lives in Tennessee where he serves as Director of Animal Collection—Herpetology at the Knoxville Zoo.

One of the hallmarks of the Fort Worth Zoo’s Herpetarium was the naturalistic quality of the exhibits. The department personnel began using live plants to enhance exhibits at a time when this practice was considered anathema (or before this practice became vogue). When it came to quality in herpetological exhibitry, one keeper stood head and hands above the rest—Fort Worth-raised David Heckard. Lead keeper in the department until 1981, David brought an attention to detail for exhibits that was unequaled. David went on to manage the Herp Department at the Abilene Zoo in Texas for many years before moving to San Diego Zoo’s Wild Animal Park where he is presently employed.

Certainly one of the more colorful and intense curators in the department’s history was Dave Blody. Dave had an unparalleled passion for the “herp of the moment.” The result of his addiction was a burgeoning collection that stretched the resources of the department. Dave’s primary husbandry interests included arboREAL crotalids, boids, and varanids. He was particularly adept at making the drafty and poorly insulated Herpetarium work to his advantage by shuffling animals to appropriate niches, thus inducing many of his charges to reproduce. Perhaps his legacy will be that he oversaw the transformation of an aging and deteriorating facility into a showcase for rare herp species that attracted legions of reptile enthusiasts and became world renowned for successfully breeding difficult-to-manage species.

Rick Hudson was hired in 1980 as Assistant Curator. A Virginia native with degrees in biology and veterinary technology, Rick arrived at a time when the mystique of Texas zoo herpetology was at its peak and the collection in Dallas across the river to the east was earning its highest accolades. Fueled by a competitive spirit to excel, Rick was at once Dave Blody’s “partner in crime” and together they built a reproductive program rivaled only by the Dallas menagerie.

Early on Rick became involved in the emerging AZA conservation programs for reptiles, founding and chairing the Lizard Advisory Group for more than ten years. This led to the development of the Rock Iguana Species Survival Plan (SSP) and the Jamaican Iguana Recovery Program, which received the AZA’s International Conservation Award in 2000. For years he has worked tirelessly on this project and has played an integral role in the survival of the species. Expanding on this work to include the conservation of other Caribbean iguanids, Rick helped organize the IUCN Iguana Specialist Group, now in its 10th year, which he currently co-chairs. In this capacity, he devotes 50% of his time to traveling, doing fieldwork, building head-start facilities, and organizing reintroduction and recovery programs. To fund and support these efforts, he helped create the International Iguana Foundation in 2001 and serves as the Executive Director. He has long had a special interest in crocodilians and chelonians, and in 2001 organized an international workshop to address the Asian Turtle Crisis. That led to the formation of the IUCN Turtle Survival Alliance that he co-chairs, which raises funds, conducts workshops, and administers conservation programs in five Asian countries. Rick worked in the Herpetarium until 2000, whereupon he became one of the zoo’s Conservation Biologists.

Jack Cover, a native of Baltimore, Maryland, was hired as Lead Keeper in the early 1980s. Jack worked at the Fort Worth Zoo for several years where he made significant contributions to the overall program. Jack was a great exhibit artist, published numerous
papers, and was particularly adept at enticing animals under his care to reproduce. Jack left the Fort Worth Zoo in the late 1980s to take a position at the National Aquarium at Baltimore, where he presently serves as General Curator.

Other former staff members worthy of mention are: Johnny Banks, Steve Boyd, Kelly Bradley, Amy Bridgam, Gary Carl, Chris Davis, Steve Dobbs, Ricky Green, Norm Haskell, Terry Hulsey, Randy Johnson, Tim Jones, George Ledvina, Tommy Logan, Doug Mehaffey, Steve Meyers, Ken Morgan, Nate Nelson, Norman Nunley, Rick Reed, Jeff Ross, John Simmons, Marc Spataro, Mike Stewart, Earl Turner, and Mark Wanner.

Currently the department has eight staff members: Curator Diane Barber, Lead Keeper Matt Vaughan, and keepers Grant Ashmore, Andrew Brinker, Mike Doss, Andrea Floyd, and Stephen Hammack.

CAPTIVE REPRODUCTION

During the late 1970s and early 1980s herpetologists were finally beginning to grasp the fundamentals of husbandry science—made possible by pioneering studies on sex determination, thermoregulation, hibernation, habitat selection, UV light requirements, social behavior, etc.

The Fort Worth Zoo Herp Department has always had an impressive collection and a staff motivated to provide their animals with the environmental/social conditions necessary to reproduce. In 1988 the department was awarded the prestigious AZA Edward H. Bean award for their breeding program for five species of arboreal boids. Over the years staff elicited reproduction in more than 220 species (crocodilians, 6 species; chelonians, 25 species; lizards, 58 species; snakes, 120 species; anurans, 15 species) resulting in the production of more than 6000 offspring.

CONSERVATION

Staff members at the Fort Worth Zoo have a rich history of involvement in conservation projects. In 1993 the Zoo established a Conservation Department to more actively participate in global programs aimed at habitat protection and species conservation. Although the members have an interest in many non-herp programs, reptile and amphibian projects have always been, and continue to be, an integral part of their overall conservation vision. Herpetology staff is actively involved in the Conservation Department’s programs and also pursue projects independently. The following is a brief summary of ongoing herp projects.

Anegada Iguana, Cyclura pinguis

In an effort to save Cyclura pinguis, the World Conservation Union (IUCN) Iguana Specialist Group, along with the British Virgin Islands National Parks Trust, initiated a head-start program to bolster the wild population until many of the problems facing the iguanas could be minimized or removed. This project is partially funded and managed by staff at Dallas Zoo, with staff from the Fort Worth Zoo providing field support and nutrition studies. The San Diego Zoo’s Center for Research of Endangered Species (CRES) also has an active role in this program.

Puerto Rican Crested Toad, Peltophryne lemur

In an effort to save this species from extinction, a Species Survival Plan (SSP) was created in 1984. The SSP goals include island-wide education and outreach, research, the protection of existing habitat, and the creation of new ponds. A reintroduction program is a large component of the recovery plan for this species. Each year, captive toads from zoos and aquaria in the United States and Canada are reproduced, and tadpoles are sent to Puerto Rico for repatriation.

In late 2006 program participants will begin a nutritional/dietary analysis of wild tadpoles, and continue a hydrology study on the remaining breeding pond and release sites. Zoo veterinarians will initiate a health assessment study on Marine Toads that are sympatric with the Crested Toad.

SSP Partners are American Zoo and Aquarium Association, Puerto Rican Department of Natural Ecological Resources, U.S. Fish and Wildlife Service (USFWS), University of Puerto Rico, Juan Rivero Zoo, and citizens of Puerto Rico.

Chiricahua Leopard Frog, Rana chiricaahuensis

Listed as threatened without critical habitat, the Chiricahua Leopard Frog is in decline in many locales across its range. The Fort Worth Zoo has set up a head-start facility where adult frogs from select populations will be bred and resulting tadpoles returned to the field for repatriation.

Partners are USFWS, New Mexico Game and Fish Department, Arizona Game and Fish Department, and Turner Endangered Species Fund.

Jamaican Iguanas, Cyclura collei

Shortly after the rediscovery of the Jamaican Iguana in 1990, the Fort Worth Zoo began raising funds to support field research efforts. To formulate a consensus, conservation, and recovery strategy, the Zoo organized a Population and Habitat Viability Assessment workshop in Kingston. Conservation actions were focused on reversing high juvenile mortality due to mongoose predation and called for collection of hatchlings for an expanded head-start program at the Hope Zoo, increased field research, predator control, and an eventual restocking program. In 1994 a team from the Fort Worth Zoo constructed an iguana management and head-start facility, and by 1996 the first pilot releases of iguanas had occurred. Since then the Zoo has conducted nutritional studies, coordinated genetic research, and performed veterinary health assessments. Training of Hope Zoo staff has been ongoing, both in Jamaica and in the U.S. The reintroduction program continues today and since 1996, 76 sub-adult Jamaican Iguanas have been successfully repatriated to the wild in order to boost the remnant population surviving in the Hellshire Hills. In 2002 a milestone was reached when a released iguana appeared at one of two known nesting sites and laid eggs, evidence that head-started iguanas were becoming integrated with the wild population. Today the Jamaican Iguana is recognized as one of the world’s leading conservation success stories, and reinforces the concept that captive populations, when properly managed, can be highly relevant to conservation.

FUTURE PLANS

Following tradition, the Herp Staff will continue to showcase a diverse collection and focus on the captive reproduction of rare or little-known species. With conservation and in-house research playing an increasing role in the department’s master plan, staff members will further expand their ties with the academic herp community to more broadly define and address issues of importance.

As the department nears its 50th anniversary, staff are complet-
ing plans and raising funds for a new state-of-the-art herpetarium. This improved facility will provide increased off-exhibit holding space, as well as a more dynamic public display that presents naturalistic exhibits with an educational theme of conservation and stewardship.

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Selected Publications


