

KLAUBERINA

A Periodic Newsletter of the Department of Herpetology

December 2002 San Diego Natural History Museum

NSF Funded Renovation of the Skeletal Collection Begins

Collection renovation began in August of this year as part of the NSF funded collections improvement grant. Delays with the wet collections room continue, causing us to work with the 3,100 skeletal specimens first. The collection was moved from storage and reshelfed in the temporary collections preparation room. The collections manager, with help from Herpetology volunteers Richard Jones and Jacquelynn Vanderlip, have spearheaded the rehousing project.

Rehousing the Skeletal Collection

In its current state, the skeletal specimens are stored in acidic cardboard boxes which have been shown to be unhealthy for the long-term conservation of the bones. We have completed the transfer of about one-fourth of the collection to archival quality containers. The new specimen boxes are 100% virgin polyethylene terephthalate (PET), antistatic, chemically stable, and neutral in pH. These lidded plastic containers are safe, practical and fully modular within series, and are designed to fit in specimen drawers with minimal loss of space. The specimen sits on a black ethafoam pad customized to fit each box and serves to prevent slippage and offsets the color of the bones. The clear plastic also allows us to view the specimen without opening the lid on the box.

Standing the Test of Time

Labeling both the skeletal boxes and wet collection jars will be aided by our new Datamax I-4308 thermal transfer printer. Identification and information tags used in the museum environment have to be resistant to acidic adhesives or survive long term submersion in alcohol or formaldehyde based solutions. Problems in the past have included fading, bleeding, tearing, abrasion, and the extensive time required to make hand-written labels using India-ink and linen-rag paper. Thermal printers offer the ability for efficient custom tags that avoid these common problems and provide excellent image quality with unmatched durability. Thermal transfer printers utilize a special resin ribbon and preservation polyester-based paper that together form a molecular bond making the print a part of the label itself. Therefore, the print is abrasion resistant and fade-proof.

Skeletal Cabinet Installation

Ten new Delta Design cabinets will arrive in January to be installed in the vertebrate collections wing. Once in place, the newly rehoused skeletal specimens will find their way to this permanent storage facility where further curation will be attended to.

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Dustin Wood Hired As NSF Collection Manager

The Herpetology Department hired Dustin Wood as its new collections manager in charge of the NSF funded specimen rehousing project. Dustin started in August of this year and his position is a two-year appointment. We are currently looking for ways to keep him on after the completion of the project.



Background and Interests

Dustin has had extensive experience related to natural history collections. He earned his Bachelor and Master degrees from San Diego State University. His research focuses on the conservation genetics of the Rosy Boa (*Lichanura trivirgata*), but he has also conducted field studies to monitor their movement patterns using radio transmitters while working at the USGS Western Ecological Research Center. After graduating from SDSU, Dustin moved to Utah and worked for the Department of Natural Resources. In Utah, his position involved the collection, computerization, and mapping of information concerning Utah's rare animal species.

Since joining the museum, Dustin has led our efforts to get the NSF rehousing project off the ground. Over the last four months, he has brought us up-to-date with the current collection protocols and materials, purchased the necessary materials and equipment, and completed the transfer of hundreds of skeletal specimens. With his help, the herpetology collection is now receiving the care and attention it deserves.

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NSF HerpNet Partially Funded For 2005

The joint proposal to build an integrated web-accessible database, known as HerpNet, was awarded \$2.5 million over five years by NSF. The funding is a great success for the 36 participating collections, but is only a portion of the \$5 million needed to implement the project. Each of the collections will receive partial funding. The Department of Herpetology will receive \$23,795 during the third year of the project in 2005. The support will partially fund a new computer server and a programmer. We are currently seeking additional financial support to ensure the success of HerpNet and our contribution. Once completed, information about each of our specimens will be accessible on the internet, while allowing us to maintain direct control over the data and its use. In addition, HerpNet will have geographical mapping capabilities, allowing users to search for specimens by querying regions throughout the world.

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NSF Undergraduate Intern Renovates Holotype Collection

Daniel Palmer was selected as the first of two NSF sponsored undergraduate student interns. Funding for this position came from the Research Experience for Undergraduates (REU) program and is in association with the collections improvement grant. Daniel attends SDSU as a biology major and started working in the Department of Herpetology in July of this year. He completes the internship in December 2002.

Holotype Renovation

The holotype specimens in the Herpetology collection represent the designated reference specimens of newly described species and are our most valued specimens in the collection. The Department of Herpetology has 62 holotype specimens. Daniel has been working on rehousing the holotype collection and assembling their associated publications into a resource library. The pertinent information is being extracted for each of the holotype specimens, including the publication citation, specimen number, type locality, collectors, paratypes, and etymology. This information is currently being assembled into a website that will include a scan of the original catalogue entry and photographs of the type specimen. This resource will be the first online reference guide to an amphibian and reptile holotype collection. At the moment, we are seeking additional financial support to hire Daniel to complete the website. When it is finished, the holotype collection will set a new standard for natural history collections.

About the REU Internship Program

Two undergraduate research internships have been awarded, one for each of the two years of the NSF project. During the process of improving the collection, updates and reorganization are needed for specific sections of the collection. The student intern will pick a specific taxonomic group or subsection of the collection to renovate. It will include researching the literature, updating the database, rehousing the specimens, and replacing the labeling. If complications should develop during the project, the intern will be directed to get in touch with the representative authority of the group in question to discuss the problem more thoroughly. Each project can be made more or less challenging depending on the student's background by choosing projects with different levels of complexity and size.



BRCC San Diego Natural History Museum
Herpetology Collections

Crotalus willardi meridionalis
Southern Ridge-nosed Rattlesnake

Holotype:
SDSNH 06569

Description: Klauber, Laurence M. 1949. The subspecies of the Ridge-nosed Rattlesnake, *Crotalus willardi*. Transactions of the San Diego Society of Natural History 11(8):121-140.

Description Page(s): 131-134

Type Locality: Coyotes, Durango, Mexico.

Collectors: Edmund Heller and Charles M. Barber, August 1904.

Etymology: The generic name comes from the Greek root *Crota*, translated as "rattle" or "bell," and *us*, meaning, "one condition." The species name is in honor of Professor F. C. Willard (Meek, 1905). The Latin root *meridionalis* translates as "southern," in reference to the southern distribution within the species range.

Paratypes: FMNH 1493, from Coyotes, Durango, Mexico; CA 13953, from Weicher Ranch 50 miles west of Durango, Durango, Mexico; and USNM 46332, from Sierra Madre, Zacatecas, Mexico.

Original Catalogue Entry:



Nomenclatural Status: Last recognized as a valid subspecies by Klauber (1972).

Additional References:

Pregill, Gregory K. and James E. Berrian, 1984. Type specimens of amphibians and reptiles in the San Diego Natural History Museum. Transactions of the San Diego Society of Natural History 20(10):152-164.

Sloan, Allan J., 1965. Holotype specimens of reptiles in the collection of the San Diego Society of Natural History. Transactions of the San Diego Society of Natural History 14(1):1-8.

Meek, Seth Eugene, 1905. An annotated list of a collection of reptiles from southern California and northern lower California. Field Columbian Museum Zoological Series 7(1):1-19.

Text by Daniel Palmer and Bradford Hollingsworth
Photos and Scans by Daniel Palmer

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Sample Webpage: Holotype collection prototype webpage includes original description information, photograph, and catalogue entry.

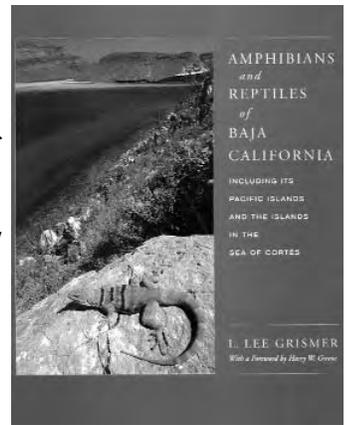
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Research Associate Lee Grismer Publishes Book

The long awaited book on the herpetofauna of Baja California is now available. From the University of California Press, *Amphibians and Reptiles of Baja California Including Its Pacific Islands and the Islands in the Sea of Cortez* can be purchased at the San Diego Natural History Museum Store. This monumental book is the lifelong work of Lee Grismer, who is considered one of the foremost authorities on the herpetology of Baja California and its associated islands. The book contains extensive overviews of the ecology of the peninsula and detailed species accounts that include range maps, descriptions, natural history, and photographs. With a forward by Harry Greene, *Amphibians and Reptiles of Baja California* sets a new standard among natural history books and will certainly become a classic.

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The Museum Store is open every day 9:30 AM - 4:30 PM (hours current until May 25, 2003)
Members receive a 10% discount. Call the store directly at 232-3821 ext. 239 for more information.



Database Conversion to *Specify*

Conversion of the Herpetology database from *Access* to *Specify* is currently in progress. *Specify* is a highly configurable database designed to meet the needs of biological collections. It can be customized to fit our established procedures for entering, editing and retrieving specimen data, tracking accessions, printing labels and reports, and other collection tasks. *Specify* data windows are configured to our own criteria, but we will begin by adopting the layout of other herpetology collections. The Informatics Biodiversity Research Center at the University of Kansas is currently doing all the conversion work for us. We hope to receive the converted database by the end of the year.

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