## A MEXICAN LIVE HERPETOLOGICAL COLLECTION

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Private or public herpetological collections have increased in number in the last three decades. This increase has resulted in an enormous output of information in many publicatins concerning techniques for the husbandry and propagation of a wide variety of reptile and amphibian species. Unfortunately, the growth in herpetological collections and knowledge has been paralleled by increased loss of habitat. The Republic of Mexico is country of a vast ecological diversity which is largely unknown to its citizens. This was not the case with many precolombian cultures in Mesoamerica. According to the Conservation International the number of reptiles (717) and amphibians (282) species (999 total [McNeely et al., 1990]) gives Mexico the most diverse herpetofauna in the world, followed by Brasil, Colombia, Indonesia, and Zaire. Sadly, there seems to be little scientific interest in the herpetological fauna among the citizens of these countries, prehaps because of religion, educational, and economic constraints. Thus, we feel one of the primary goals of any live animal collection should be the education of the citizens among which it is located.

Our Herpetological collection is one of about 15 in Mexico (Fanti,1993). It is with great respect and admiration that I list some of the other collections: UNAM Campus - Iztacala in metropolitan area, Zoologico de Guadalajara in Jalisco, Instituto de Historia Natural "Miguel Alvarez del Toro" o Zoomat in Tuxtla Gutierrez, Chiapas, Centro Ecologico in Hermosillo, Sonora, Parque La Patora in Guadalupe, Nuevo Leon, Zoologico de Chapultepec in City de Mexico, Instituto Nacional de Higuiene the metropolitan area of the City de Mexico, and Zoologico Zacango in Toluca, Mexico. In spite of Mexico's herptofaunal diversity, none of these collections have or could sustain a large scale collection; they possess primarily local and/or exotic species. The list of qualified personal to maintain these collections is also fairly small.

Among the vertebrate fauna of Mexico, the reptiles and amphibians are the least well known. However, one notable feature is the high number of endemic species: 60.7% of the amphibians and 53.75 % of reptiles (Flores-Villela, 1993). This high degree of endemism, with some species having extremely limited known distributions, presents a great challenge in terms of concentrating on one area of research, since there are so many possibilities. Additionally, the worlwide recession we are all experiencing has adversaly affected Mexico's economy, making it difficult to obtain funding for field work.

Since Mexican herpetofauna is generally scare in collections worldwide, with only 16% of 253 public and private collections holding 169 species, mostly non-endemic ones (Slavens,1992), there ia a huge amonut of basic data that needs to be collected regarding Mexican reptiles and amphibians in the field and captivity. Because of this, we decided

to contribute as best we could by putting together a modest live specimen collection at the Universidad Autonoma de Nuevo Leon Campus. In September 1984, the museum opened to the students of the university and the public in general. At that time we had 24 exhibits and 50 specimens. Now nine years later, our collection has stabilized at about 160 specimens, although we had as many as 400 specimens in the past. In many respects we have matured concerning husbandry and propagation, but we always have questions about new specimens and techniques.

Thanks to our many friends around the world, we have recieved valuable advice, literature, and equipment to help us with our day by day activities. This has in turn allowed us to reproduce 16% of the species in our collection (Table 1), which is 74% Mexican species. However we feel that our responsibility to Mexican herpetofauna is huge and that our contribution is so far microscopic, compared to the type of data (e.g. demograhic, see Dodd [1993]) needed to save many of the species that are considered rare or endangered.

The University collectins maintains a total of 160 snakes, lizards, turtles, and a few amphibians in two principal areas: the exhibit area and the laboratory area, which also serves as a quarantine area. The snakes are housed in various sized cages constructed of plastic or wood, and the lizards are housed in various sized aquariums. Data is recorded concerning every many activity (e.g. reproduction, antagnistic behavior, food intake, fecal and shed frequency, specimen weight, ect). About 90 % of the specimemns are hibernated from December to March to encourage reproduction. Weight loss and mortality during hibernation are minimal. Most of the reproductive activity begins in March and ceases in most cases in July.

One of our goals is to expand the collection, both in individuals and number of species communly, with an emphasis on generating information that will benefit the species and other herpetologists. Keeping specimens in captivity simply because they appeal to one's aesthetic sense, or because nobody else has them is a very egocentric and anachrostic view-a view we must confront and try to change when possible. We also must look for better mechanisms that assure the survival of species in their natural habitats, strengthen local and international laws to regulate legal trade (e.g. CITES ), and halt the world-trade in illegally collected hepetofauna. This situation is especially unacceptable because of the numbers of specimens that die long before they rearch the market, pet shop, or home. Trying to persuade people to conserve and respect reptiles and amphibians is often extremely difficult, but through pursuing our primary duty of education, we can hopefully begin chipping away at the wall of apathy and ignorance that obscures the average person's appreciation of these fascinating animals.

We are happy to mention that our Biological Sciences Faculty that has hosted the 12<sup>th</sup> National Zoological Congress, has an increase in papers (up to 24) presented in the field of herpetology, plus the assistence of a large number of young biological students, ready to learn and discover more of our herpetofauna.

Acknowledgments: We would like to thank Alan Kardon of the San Antonio Zoo and Karl Peterson of the Houston Zoo. Both have contributed their time, literature and equipment to the Museum, funding traveling expensise for us and some of our students. We also want to thank the many other people and institutions that have deposited their faith in our program.

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Foto 1: Leptodeira septentrionalis septentrionalis uit het gebied rond Monterrey. From local municipalities within the Monterrey metroplotan area.

Foto: R.D. Jacobo Galvan.



Foto 2: *Lampropeltis triangulum annulata*. Vindplaats citrus plantages rond Caderyta Jimenez, Nuevo Leon, Mexico. Found in citrus plantations. Foto: R.D. Jacobo Galvan.

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The species in the collection which have succesfully been bred.

Drymarchon corais erebennus \* Drymobius margaritiferus margaritiferus \* Elaphe bairdi Elaphe guttata emoryi Elaphe obsoleta lindheimeri Leptophis mexicanus \* Heterodon nasicus kennerlyi \* Leptoderira septenntrionalis septentrionalis \* Pituophis catenifer affinis Pituophis catenifer sayi Pituophis deppei jani Crotalus durissus vegrandis Crotalus enyo enyo \* Crotalus lepidus klauberi \* Crotalus polystictus \* Crotalus pricei miquihuanus \* Bitis gabonica rhinoceros Chondropython viridis Liasis childreni

\* These females were recieved gravid and their young or eggs were incubated and homed in the Museum installations.