

Xochimilco Today

Susan T. Duhon
Indiana University Axolotl Colony
Jordan Hall 407
Bloomington, IN 47405

Sandi and I had the opportunity and privilege in January 1997 to travel to Mexico and see for ourselves the last remaining natural habitat of the axolotl first hand. We were hosted in Mexico by Virginia Graue of UAM, Director of CIBAC (Centro de Investigaciones Biológicas y Acuícolas de Cuernavaca— a research center for the study of the aquatic life of Xochimilco), and a specialist on the axolotl in Xochimilco.

Virginia is directing an evaluation of the axolotl population in its natural habitat today. Another important goal is to raise and breed axolotls at CIBAC with the aim of boosting the natural population with offspring from this breeding project. Sandi and I were there in large part to help establish the breeding project. While there, I also gave a talk at UAM on the IU Axolotl Colony and axolotls in research.

Xochimilco today is an irregular network of wide and narrow canals on the southern edge of Mexico City. Some of the canals wind among the streets and houses of the village of Xochimilco, now part of the capital city. Much of the landscape is still rural, however, and the canals are part of modern-day chinampas, which are cultivated, especially for flowers, or used for pasture.

CIBAC is located adjacent to the Canal de Cuernavaca, one of the major canals of Xochimilco, and opposite the Pista Olímpica, a long pool for rowing and other water sports built for the 1968 Olympics. The center was constructed for the study of the native aquatic fauna (especially axolotls, frogs, and native carp) of Xochimilco as part of a larger program of ecological restoration for Xochimilco.

A small, white, stucco-coated building with several small rooms provides space for an office and for hatching embryos and raising small larvae and juvenile axolotls. Adults are housed in a large open building, the *módulo*, near the canal. Although the side walls of this building reach to the eaves, the end walls rise only about half way. A large worktable stands in the center. Concrete shelves line the walls

Views of CIBAC and Xochimilco

CIBAC: The *estanques*, or in-ground tanks, are in the foreground. The *módulo* is in the rear on the left, and the *ranario* is on the right. The *piletas* are out of sight to the right.



The *piletas*. The *estanques* are to the right, out of the picture.





The interior of the *módulo*

Virginia Graue (left) with the author



A view down one of the canals. Sandi Borland is videotaping.

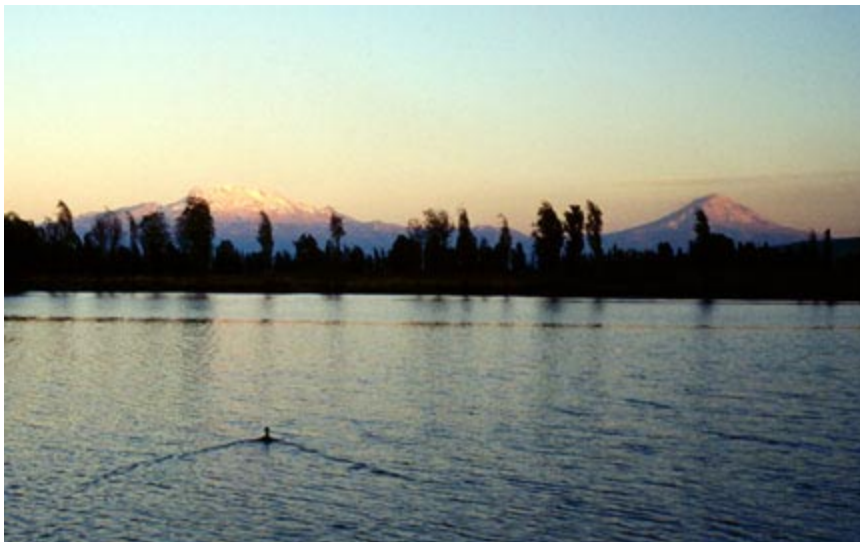


Salvadore Soto casting the *atarraya*

and support the large plastic basins that house the axolotls.* CIBAC also has eight large in-ground tanks (used mainly for carp) and six above ground tanks (*piletas*) out-of-doors. The *piletas* can be filled with water directly from the canal and are used both for axolotls and to hold the *Daphnia* and Corixid beetles that are kept to feed the axolotls. Also near the canal and adjacent to the *módulo* is a *ranario* or frog house, a large polygonal structure for tadpoles and adults of the species *Rana montezumae*.

The axolotls that form the initial breeding colony at CIBAC were caught in the canals as part of a baseline study of the natural population of axolotls in the canals. This study included a program of sampling carried out over the course of a year. A report containing the data collected during this program is currently being prepared. While Sandi and I were in Mexico, we were taken out onto the canals in the *trajinera* belonging to CIBAC so that we could see more of Xochimilco and see how the sampling had been done. A *trajinera* is an open, flat-bottomed wooden boat with a rounded canopy to provide protection from the sun and rain. Typically, they are painted bright colors, given romantic names, and poled slowly about the canals, carrying tourists. CIBAC's *trajinera* is propelled by an out-board motor with poles as a backup. On this occasion, a smaller craft, a sort of skiff called a *canoas* was tied to the side of the *trajinera*. The *canoas* belonged to Salvador Soto, a local fisherman and farmer, who helps with the sampling. We made a circuit to several of the

Xochimilco at dusk. The volcano Ixtaccíhuatl is on the left and Popocatépetl is on the right.



sampling sites. At each site, Salvador poled his *canoas* away from the *trajinera* in order to cast the *atarraya* (a fishing net, six meters in diameter, that can be cast and drawn up by one person). At each sampling location, the net was cast three times. Meanwhile those still in the *trajinera* took measurements of water temperature and pH and noted pertinent observations. At the several sampling

New housing has now been developed. See the article by Virginia Graue in this issue

locations that we visited, the net yielded a few carp most of the time, but only two axolotls altogether.

Sandi and I spent approximately two weeks in Mexico. It was a great opportunity to meet with our Mexican colleagues and to see the

natural habitat of the axolotl. We also came away with a greater understanding of the pressures that are exerted on the native population of axolotls by the urbanization of the region.