

ZooMAT

Much More than a Zoo

Becky Álvarez*



The César Domínguez Flores Zoological Museum, inside the ZooMAT. Photo: Elsie Montiel

More than half a century ago in southern Mexico, in a state that was part of Mesoamerica, cradle of great pre-Hispanic cultures, a zoo was founded using a totally innovative creative concept for its time. Today, in addition to being Chiapas capital Tuxtla Gutiérrez's main tourist attraction, the ZooMAT is a front-ranking scientific center for the study, management, protection and conservation of wildlife.

The ZooMAT —full name, Miguel Álvarez del Toro Regional Zoo— is named after the man who made it distinctive and was its director until his death in 1996. It all began very modestly in 1942 on some city property. Over the years, after relocating twice, urban growth made it necessary to relocate one last time to a more appropriate site, and in 1980, the state government

* Assistant to the director of the Institute of Natural History and Ecology (INHE). nambue@yahoo.com



Statue of museum founder Miguel Álvarez del Toro. Photo: Elsie Montiel

approved Álvarez del Toro's proposal to definitively build the zoo in an ideal spot, a natural forest in the southern part of the city.

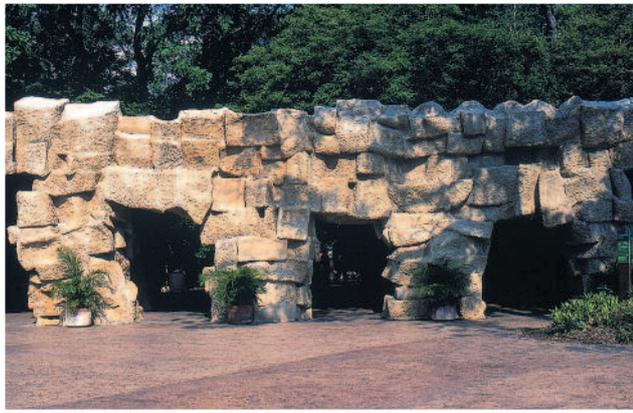
Since then, ZooMAT has been located in El Zapotal, a 100-hectare area of semi-humid jungle that was designated as a reserve in the same year, with a climate typical of the region: warm, with summer rains and a long dry season in which the vegetation loses a large portion of its foliage as part of its life cycle. Its name derives from the presence of various species of trees famous for their fleshy, sweet, fragrant fruit: black sapote (*Diospyros digyna*), sapodilla or "little sapote" (*Manilkara achras*) and mamey or red sapote (*Pouteria sapota*).

The zoo adapted to its new surroundings as though fated to be there. The rugged terrain was used to build spacious enclosures fenced off by mesh and stone walls, crisscrossed by small streams fed by underground water. The animals, some practically unknown to the public, are in semi-captivity in surroundings very like their original habitats,

which often makes it difficult to see them even when they are near. Other native species run completely free. This offers the zoo's 500,000 visitors a year the opportunity to go through part of the forest on a 2.5 kilometer path, while observing an interesting display of wildlife diversity from all over the state of Chiapas: 2,041 animals of 241 species, including the groups of mantled howling monkeys (*Alouatta palliata*) that move freely from tree to tree, often making deafening noise with their screeching.



After entering ZooMAT, you come out onto an esplanade. Photo: Elsie Montiel



Main entrance. Sundays from 9 to 10:30, admission is free. Photo: Rubén Vázquez



The zoo is located in a 100-hectare area of semi-humid jungle. Photo: Rubén Vázquez



The Nocturnal House has an inverted day-night cycle. Photo: Elsie Montiel

Miguel Álvarez del Toro's work in Chiapas is a legacy for the world. His scientific work is classified as the most important in Mexican zoology in the twentieth century. A native of the state of Colima, he fell in love with Chiapas and its natural wonders from the moment he arrived, and stayed there the rest of his life. Among the many honors he received in his lifetime are the Paul Getty Prize for Nature Conservation; being chosen by the committee for the UN Prize for the Environment to be included on the Honor Roll for Environmental Achievement; the Chiapas Prize; two honorary doctorates; more than 10 species named after him; and the zoo itself being named after him by a 1981 government decree.

From the beginning, Don Miguel—as everyone called him—thought that one way of educating Chiapanecans in the respect and care for the state's wealth of fauna was that they get to know it up close. And what better way than a zoo where people could find information about the species and their ecosystems, their habits and life cycle? To achieve this goal, the animals have to live in appropriate conditions. The ZooMAT's animals exhibit their well-being by maintaining the behavior and habits they display in the wild. Almost all the species in the zoo have reproduced, and some of the births have even been world records. Longevity records have also been set, such as in the case of the harpy eagle (*Harpia harpyja*), which lived 41 years after arriving at the zoo full grown.

In addition to the fauna that lives in the open air like the ponds with aquatic birds or otters, or in cages with macaws and other birds, the ZooMAT has closed spaces for exhibiting certain species, like the Crocodile Museum. The first of its kind in Latin America, this museum shows the visitor everything about these large reptiles: nests and eggs, skeletons and, of course, live babies and adults from the three Mexican species (*Crocodylus moreletii*, *C. acutus* and *Caiman crocodilus*), since Chiapas is the only state where all three live. The Tropical Reptile House and the Mountain Reptile House, the latter specifically adapted for species from temperate climates, exhibit serpents and lizards. The Nocturnal House, logically, is home to species with nocturnal habits and has an artificial lighting through which their day-night cycle has been inverted, which makes it possible to see them in activity during the day. The Insect and Spider House exhibits a wide array of these species and other invertebrates from the state. And, lastly, the César Domínguez Zoological Museum, dedicated to the memory of the man who shared with Don Miguel the founding and design of the zoo in El

Zapotal, boasts several dioramas of Chiapas's different ecosystems. It also has two exhibits of live species: one is adapted to house a pair of quetzals (*Pharomachrus mocinno*), the mythical inhabitants of the Mesoamerican cloud forests. The appropriate humidity and temperature conditions made it possible for them to reproduce in 2004, the first time they have ever reproduced in captivity. A beautiful blue egg, cared for like the treasure it was, brought into the world a diminutive quetzal chick that is now covered in the emerald green feathers that make it look like a jewel.

Another of ZooMAT's important assets is its staff, who has a thorough knowledge of Chiapas wildlife and knows its job. Anyone familiar with how zoos work knows that successfully maintaining live species in captivity and on display depends a great deal on an enormous amount of behind-the-scenes work. The constant presence of a group of professionals including biologists, veterinarians and many kinds of technicians who design diets and prepare food, prevent disease and treat the animals when they get sick are the guarantee for that success.

What began in 1942 as a state effort to study and exhibit samples of regional fauna gradually grew and added other areas related to the knowledge, management and protection of the state's natural resources. Today, ZooMAT is the best known part of the Chiapas state government's Institute of Natural History and Ecology (INHE), dedicated to the study and conservation of biodiversity in the state, divided into six areas: the botanical (the herb garden, and botanical garden and museum); natural areas (reserves and protected areas); education and environmental culture, which has in ZooMAT an ideal live laboratory for its activities; research (research projects, scientific collections, the Paleontological Museum); environmental protection, which enforces state environmental norms; and zoology (ZooMAT and matters related to wildlife).

The ZooMAT is the cornerstone of the Chiapas institution that is a leader in conservation of its natural resources. But, its merits go beyond its merely biological achievements: for many years the public has been very fond of it, proud of it, its history and Don Miguel's legacy. ZooMAT's originality and the feeling of belonging and identity that it creates made people form habits that are difficult to forge without resorting to consumerism or carnival rides: the pleasure of visiting ZooMAT comes only from the forest and its fauna, from enjoying nature. And this alone is a valuable contribution to environmental culture. **NM**



Almost all species in the zoo have reproduced. Photo: Elsie Montiel



The ZooMAT has baby and adult crocodiles of all three Mexican species. Photo: Rubén Vázquez



The green *nauyaca*, one of the most venomous snakes in the southeastern Mexico. Photo: Elsie Montiel