

Conservation of the Endangered Central American Tapir, an Ancient Neotropical Megaherbivore

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As a part of a collaborative project between the Center for Tropical Research (CTR) and the Centro de Investigaciones en Ecosistemas (CIEco), Universidad Nacional Autónoma de México (UNAM), I traveled to areas in Southeast Mexico in July and August that are known to support populations of the Central American Tapir (*Tapirus bairdii*). The objectives of this field trip were twofold: 1) to get point localities of tapir presence by walking through natural areas searching for individuals, scat, or footprints and recording their Global Positioning System (GPS) coordinates, and 2) to collect scat samples for genetic analyses.



Left: Eduardo Mendoza collecting scat samples in the Sian Ka'an Biosphere Reserve. Right: Tapir scat.

The Central American Tapir, also known as Baird's Tapir, Danta, Anteburro, and Tzimin, is being driven to extinction by the destruction of its habitat and over-hunting. Tapir habitat, which originally included most of the area between northern Colombia, Ecuador, and southern Mexico, has been highly fragmented and reduced. Consequently, the tapir population is estimated to have decreased by 50% in the last three decades.



Left: Central American Tapir (photo courtesy of Juan Carlos López Acosta). Right: Tapir scat deposited in a small stream in the Lacandon Forest in the state of Chiapas.

The tapir is the largest mammal dwelling in tropical forests and wetlands of the Neotropics. It has a weight close to 300 kilograms, a body length of about three meters, and a height greater than one meter. It is one of the last living megafauna (e.g., mammoths, saber-toothed tigers, and giant ground sloths) that once roamed the Americas. Most of this fantastic fauna met its demise by the end of the Pleistocene, an epoch characterized by intense climate changes and the arrival of *Homo sapiens*, factors that are hypothesized to have played a major role in the collapse of the megafauna. Tapir appearance has not changed very much since its origin, which is why it is considered a “living fossil.”

Human activity is threatening tapir populations through hunting and habitat destruction. Tapirs are avid consumers of a wide variety of plants and fruits and play a significant role in seed predation and dispersal in tropical forests. Their extinction could negatively impact forest regeneration and possibly result in a trophic cascade that could affect rainforest biodiversity.

During this field trip, I obtained more than 40 point localities and collected 20 scat samples for genetic analyses. Point localities will help to model tapir habitat distribution and genetic analysis will provide needed information on population sizes and habitat connectivity. These novel study approaches will provide information to further our knowledge of the ecology and population status of tapirs in Mexico. This trip greatly benefited from the support of local organizations working on conservation management of natural areas in Southeast Mexico, such as the Comisión Nacional de Áreas Naturales Protegidas (CONANP), Amigos de Sian Ka’an, and Natura Mexicana, as well as from the participation of local inhabitants and conservation consultant Edgar Matus.

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Left: Eduardo Mendoza looking for tapir footprints along the shoreline of the Miranda River in the Lacandon Forest. Right: Project consultant Edgar Matus (second from right) and people from the community of Nuevo Cunduacán, in the state of Quintana Roo, who are working on a project to protect the local tapir population.