

Mexico: Yucatan Coastal Wetlands

RÍA LAGARTOS/ISLA HOLBOX/YUM BALAM

Sites Provide Important Nesting Habitat for Flamingos and Turtles



ecoregion Mexican Mangroves; Yucatán Dry Forests; Gulf of Mexico Biogeographic Region

targets coastal lagoons; mangroves; cenotes; aguadas; petenes; tropical forests; flamingos; native and resident migratory birds; hawksbill, loggerhead, leatherback and green sea turtles; jaguar; ocelot; margay

stresses tourism development; overfishing; salt harvesting; water contamination from inappropriate agricultural practices; road construction; inadequate waste management

strategies protect land in the coastal wetlands and forests of Ría Lagartos; build conservation capacity; develop a conservation and land use zoning plan for Isla Holbox to guide tourism development; address critical habitat threats to nesting beaches in Isla Holbox

results coordinated land protection program in the region that saved 5,000 acres of habitat

partners Pronatura Peninsula de Yucatán; National Commission for Natural Protected Areas; reserve staff

funding need \$75,000 for conservation programs

leveraging opportunity TNC Wilson Challenge Grant Program



Ría Lagartos is composed of tropical vegetation, mangroves and wetlands. © M. Andrade

Distinct among avian species, the flamingo has long been admired for its pink plumage, sylphlike form and graceful movements. These striking birds are prominent in Mexico's Ría Lagartos Biosphere Reserve and in neighboring territories like Yum Balam Biosphere Reserve and Isla Holbox, which provide feeding and breeding habitat for large populations of flamingos.

Ría Lagartos is an extensive complex of small estuaries and hypersaline coastal lagoons located along the northern coast of the state of Yucatán, bordering the Gulf of Mexico. This 149,057 acre site has

a great diversity of vegetation communities, including medium tropical forest, semi-evergreen tropical forest, semi-deciduous tropical forest, low deciduous thorn forest, flooded lowland forest, coastal dune shrub and flooded grasslands.

Several mangrove species are also found on the reserve, including red mangroves, black mangroves and buttonwood. As a primary producer and filterer of nutrients and synthesizer of organic matter, the mangrove system plays an important role in the coastal tropic chain. This ecosystem exchanges matter and energy with neighboring ecosystems and is



The nutrient-rich wetlands of the region are perfect habitat for flamingos. © R. Migoya

of vital importance for fisheries in the region.

In addition, Ría Lagartos contains several different types of wetlands, such as cenotes (sink holes), aguadas (lagoons) and petenes (vegetated islands surrounded by marsh). The petenes on the reserve are often covered with an abundance of epiphytes like bromeliads and orchids. The reserve is contiguous with the Yum Balam Biosphere Reserve, an area of similar ecosystems, and borders the small island of Isla Holbox.

An Array of Wildlife

The diverse aquatic habitats of the Ría Lagartos region give rise to an array of wildlife, representing a high percentage of the species known in the Yucatán. In total, 333 types of birds, including 142 migratory species, have been documented in the reserve.

The most conspicuous of these species is the flamingo. Summer brings a convergence of flamingos to Ría Lagartos, who fill the sky with flames of pink as they spend the summer nesting in the area's nutrient-rich wetlands. Twenty-seven thousand flamingos were tallied in a July 2001 aerial survey of the northern Yucatán coast and 4,500 chicks

were born that same year in Ría Lagartos.

Marine turtles arrive in Ría Lagartos, Yum Balam and Isla Holbox each year to breed on area beaches. Endangered or threatened hawksbill, loggerhead, leatherback and green sea turtles deposit eggs under the sand, many of which fall prey to predators and never begin their life cycle. More than 95 species of reptiles, 71 species of fish and 55 species of mammals are also found at the site, including endangered species such as the jaguar, ocelot and the margay.

Inhabitants of the Region

Approximately 7,000 people inhabit four settlements within Ría Lagartos. An additional 16,000 live in the Yum Balam region and 1,500 occupy Isla Holbox. Local communities are growing, mainly due to inland migrations, and are beginning to put a strain on the available resource base of the region.

Economic activities in the reserve are based on fisheries, cattle ranching, salt extraction and agriculture for self-sustenance. Tourism is also a thriving enterprise in Ría Lagartos, Yum Balam, Isla Holbox and the surrounding region.

Threats to Critical Habitat

The extensive natural resources of Ría Lagartos are diminishing due to tourism development, overfishing, salt harvesting and water contamination from inappropriate agricultural practices. In addition, the poorly-planned construction of highways and bridges and pollution caused by inadequate waste management is posing a major threat to the health of the wetland system.

What the Conservancy is Doing

Working with conservation partners, protected area staff, government officials and local communities, The Nature Conservancy is focusing on the following strategies to conserve the wetlands, coastal dunes and forests critical to the biodiversity of Ría Lagartos: develop a coastal management and conservation model to conserve biologically significant lands and water; promote the establishment of long-term financing and key conservation policies; and build conservation capacity.

In 2002, the Conservancy started a land protection program in the region with partner Pronatura Península de Yucatán (PPY) which has already protected 5,000 acres of critical habitat. The Conservancy and PPY are also developing a conservation and land use zoning plan for Isla Holbox to guide tourism development, and are planning to address critical habitat threats to the turtle nesting beaches on the island.

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