

TRAVELOGUE

The Rock Iguanas of Parque Nacional Isla Cabritos¹

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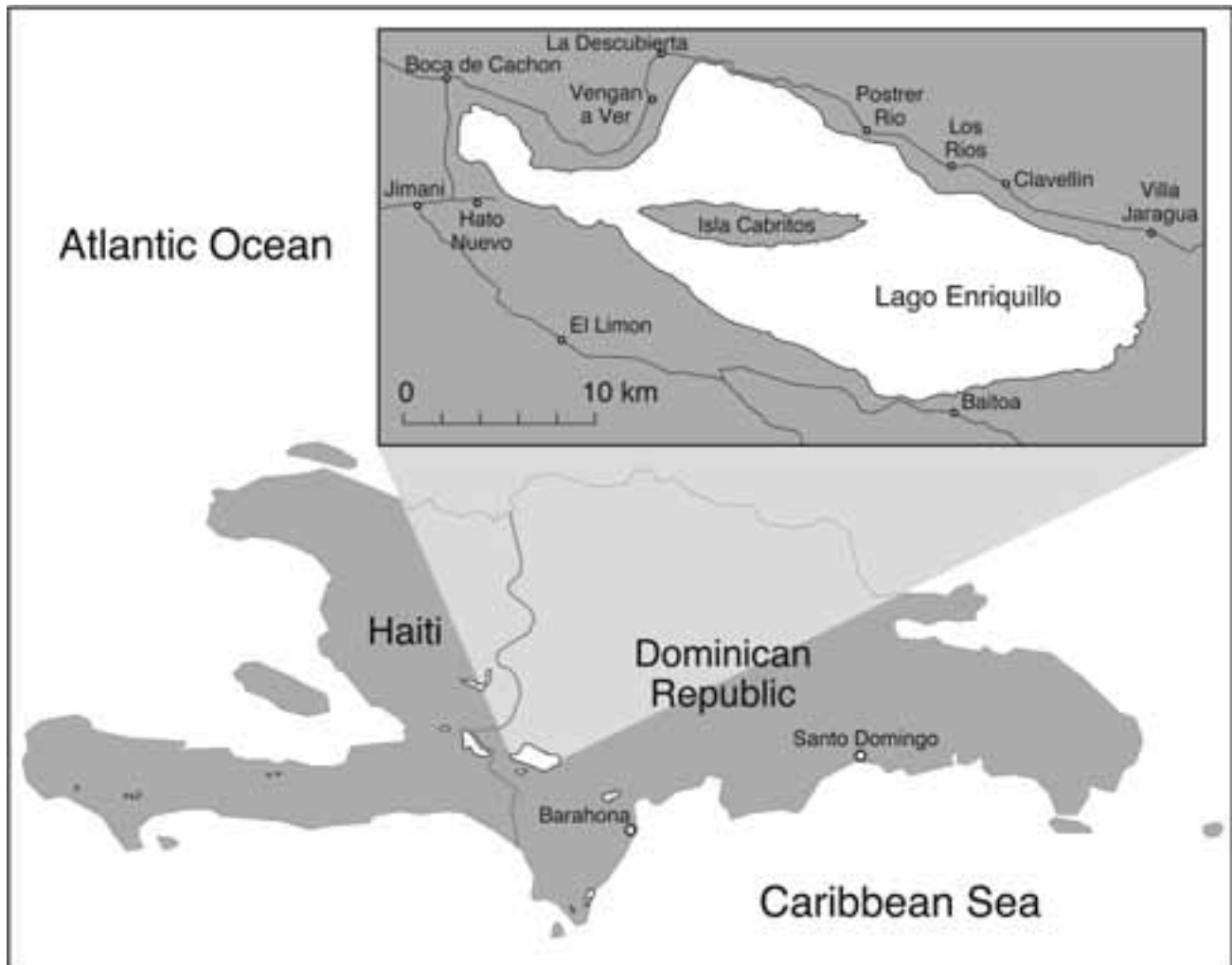
If you want to see two species of West Indian Rock Iguanas (*Cyclura* spp.) in natural habitat at the same time, your only choice of destinations is the Dominican Republic (DR). The DR shares the island of Hispaniola with the Republic of Haiti; however, the biogeographic boundaries of the island differ substantially from the current political configuration. Two major islands, referred to as the North and South paleoislands, were joined when the South Island “caught” the North Island after the latter collided with the Bahama Platform. This event probably occurred during the middle of the Tertiary Period. Reef limestones were deposited in the former marine channel that separated the two islands. This area is now a barren valley known

as the Plaine de Cul-de-Sac in Haiti and the Valle de Neiba in the DR. Much of this valley lies below sea level in the rain-shadow of the Sierra de Neiba. Two of the four large lakes that

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Parque Nacional Isla Cabritos lies in Lago Enriquillo, in the heart of the Valle de Neiba, Dominican Republic.



KIM SCHNEIDER

An adult male Ricord's Iguana (*Cyclura ricordii*) outside its burrow on Isla Cabritos. Notice the characteristic vegetation.

characterize this valley lack outlets to the sea and are saline. Powell et al. (1999) provided a summary of the geological history of Hispaniola, listing pertinent references and documenting the herpetofauna of biogeographic regions, including the Valle de Neiba.

Lago Enriquillo is a hypersaline lake situated 40 m below sea level. It is named after a native-American Taino chieftain who successfully resisted Spanish efforts to enslave the indigenous population during the early colonial period. Annual temperatures in the area average 28 °C (Hoppe 1989), although daily temperatures often exceed 40 °C during the summer months. Average annual rainfall is only 642 mm, most of which falls during two "rainy seasons," one in late spring and the other in late summer and early fall (the latter associated with the hurricane season).

A small island (12 x 2.0–2.5 km), Isla Cabritos, lies in Lago Enriquillo. It was incorporated into the Dominican system of national parks in 1974, and serves as a sanctuary for a flora and fauna that include a number of species endemic to Hispaniola. The plant community on the island is characterized as dry thorn forest — and just about every plant is equipped to stick, stab, or scratch the unwary hiker. Cacti, including the tree cactuses, Caguey (*Neobottia paniculata*) and Alpagata (*Opuntia moniliformis*), Cholla (*Opuntia caribaea*), and a tall cactus locally known as Cayuco (*Cereus hexagonus*), fill gaps between scrubby

trees. The most common trees are Mesquite (*Prosopis juliflora*), Ziziphus (*Ziziphus rignoni*), and Catalpa (*Catalpa longissima*) (Hoppe 1989).

Birds and reptiles are the most conspicuous components of the island fauna. Sixty-two species of birds have been recorded (Hoppe 1989). Hispaniola's largest flock of Greater Flamingos (*Phoenicopterus ruber*) feed on arthropods and mollusks, and Great Blue Herons (*Ardea herodias*) and Little Blue Herons (*Egretta caerulea*) fish the shallows. Glossy Ibis (*Plegadis falcinellus*) and Roseate Spoonbills (*Ajaia ajaja*) frequent the shores, and Hispaniolan Palm Crows (*Corvus palmarum*) call raucously while carefully surveying visiting humans in hopes of soliciting (or stealing) a handout. The most famous inhabitants of the island, however, are the large, endangered reptiles, American Crocodiles (*Crocodylus acutus*), Rhinoceros Iguanas (*Cyclura cornuta*), and Ricord's Iguanas (*Cyclura ricordii*).

In the summer of 1999, we were part of a National Science Foundation-funded undergraduate research program working in the Dominican Republic. In the course of our three-week-long studies of lizard communities, we made arrangements with the National Park Service (Dirección Nacional de Parques) to take a day off and visit Isla Cabritos to see crocodiles and iguanas in their natural habitat.

On 12 June 1999, we left our base in Barahona well before dawn in order to catch an early boat to the island. The boat drivers generally prefer to return by early afternoon before the offshore winds, funneled through the valley from the east, kick up high waves. The morning was cloudy and surprisingly cool, exceedingly pleasant for humans, but less than ideal if you are searching for basking reptiles. Nonetheless, we had high hopes for success — and were almost immediately rewarded. While we were still waiting on the dock as the drivers were preparing the boat for our trip, we saw a small crocodile swimming nearby. Although not visibly disturbed by our presence, it swam away slowly, submerged, and we didn't see it again.

After an uneventful crossing, we docked on the north side of Isla Cabritos and took a trail that led us to the park station. Cicadas and the ubiquitous crows serenaded us as we wound our way along the path through the prickly vegetation. The ground underfoot was sandy, but often gave way to large areas of darker consolidated rock. Upon close examination, we observed that both rock and sand were composed of coral and shell fragments, relics of the ancient sea life inhabiting the former marine channel. After a short stop at the park station, our driver, now in the role of guide, led us toward the south side of the island to a beach where crocodiles frequently bask.

Along the way, our guide took us on a short detour to look for iguanas. Almost instantly, we spotted a large male *Cyclura ricordii*. Although we had been alerted to watch for iguanas, we were unabashedly amazed by his size and demeanor. We took some pictures, but the ruckus raised by our excited group scared the iguana back into its burrow. A short walk later, we arrived at the beach. Cautioned to remain quiet, as the crocodiles are very sensitive to human disturbance, we approached from behind some vegetation along a shoreline dune. Unfortunately, no crocodiles were basking, but a large individual was swimming just off the beach. Although it continued to swim away, we got a good look through binoculars and snapped some pictures.

The range of the American Crocodile includes coastal regions of southeastern North America, Central America, northwestern South America, Cuba, Jamaica, and Hispaniola. The species was once very abundant in Hispaniola, but is now found only at Lago Enriquillo and in the nearby Haitian lake, Etang Saumatre. The depletion of populations has mainly been the result of habitat destruction, hunting, and nest poaching (Schubert and Santana 1996). At Lago Enriquillo, nesting sites are scattered along the main shoreline and along the shores of Isla Cabritos. After hatching, the baby crocodiles, which cannot tolerate the high salinity of the lake, must move from the nesting beaches to fresh water habitat. Crocodile mothers nesting on Isla Cabritos have to carry their babies from the nesting beaches to areas where freshwater springs, called borbollones, empty into the lake. We visited Isla Cabritos at the end of the nesting season and saw an empty nest, littered with egg fragments.

On the way back from the beach, we stopped again at the iguana burrow and found that the iguana had re-emerged and was sitting in a small patch of sunlight. This time we were quieter and everyone had a chance to take pictures and admire this beautiful animal for a few minutes.

Cyclura ricordii is endemic to Hispaniola, where it can be found in the Valle de Neiba and on the lower Península de Barahona, where apparently separate populations occur near Pedernales and along the southern shore of Lago Enriquillo. Although the species is common on Isla Cabritos, thanks to the legal protection provided by the island's status as a national park, other populations in Hispaniola are of uncertain size and may



An adult male Ricord's Iguana (*Cyclura ricordii*) outside its burrow on Isla Cabritos.



An adult American Crocodile (*Crocodylus acutus*) in Lago Enriquillo off the southern shore of Isla Cabritos.

be declining. The separate populations probably are genetically as well as geographically isolated from each other, rendering the threat of extirpation more serious, since unique gene pools could be lost forever. Because it is more of a habitat specialist than *C. cornuta*, *C. ricordii* is more susceptible to alterations in its habitat. Other threats include predation by and competition with exotic species, and hunting (J.A. Ottenwalder, pers. comm.). Captive breeding programs were established in the early 1990's at the Indianapolis Zoo and Parque Zoológico Nacional (ZooDom) in Santo Domingo (Christie 1996), but became

inactive within a few years due to a lack of animals (W. Christie, pers. comm.). Since the level of success in these programs was low (J.A. Ottenwalder and W. Christie, unpubl. data), better captive husbandry techniques needed to be developed. In 1999, a successful breeding program was reestablished at ZooDom to help ensure a future for this species.⁴ Major threats to *C. ricordii* on Isla Cabritos are nest predation by feral cats, and competition for forage with mammalian herbivores that cross the land bridge connecting the island to the shore during dry periods.

In the meantime, the weather had cleared and the day was heating up, so we went looking for *C. cornuta*. Our guide led us to a regularly visited burrow. Almost immediately, we saw a female, but she quickly retreated. This burrow was situated under a limestone ledge, like most of the others we were to see. Ledges or the root systems of trees or bushes provide necessary support for large burrows in sandy soil, which would collapse if not reinforced. While continuing our search, one member of the group spotted a big male. Unlike the other individuals we had seen previously, he was not at all shy. Instead, he walked directly toward us before apparently losing interest and wandering away. The guide told us that this male, named "Pancho" by the guides, and a few other individuals had grown accustomed to human visitors and their handouts. This might not have been the most natural behavior, but it was an excellent opportunity to get a close look. On the way back to the dock, we saw several more



⁴ See article on p. 222.



ROBERT POWELL

An adult male Rhinoceros Iguana (*Cyclura cornuta*) named "Pancho" by local guides.

Rhinoceros Iguanas and a female *C. ricordii*, most basking just outside their burrows. As they were less accustomed to visitors than Pancho, we were careful to maintain our distance.

Prior to the early 1950s, *C. cornuta* was very common in the arid areas of Hispaniola, but populations have declined substantially (Ottenwalder and Powell 2002). Even though the preferred habitat of *C. cornuta* is not favorable to human settlements, the introduction of exotic animals has increased the

competition with and predation on the iguanas. They have also been illegally hunted for food and the pet trade. Because Isla Cabritos is protected, it is one of the few areas where population densities appear to be near what are assumed to be pre-Columbian numbers.

On the boat ride back to the mainland, we stopped by the borbollones to look for more crocodiles. Instead, we got a close look at flamingoes. One of them took off and flew over our



JOHN BINNS

Birds are conspicuous residents of Lago Enriquillo. Most birds in this view are either Great (*Ardea alba*) or Snowy Egrets (*Egretta ibula*). A few Greater Flamingos (*Phoenicopterus ruber*) and Black-necked Stilts (*Himantopus mexicanus*) are evident, and a single Little Blue Heron (*Egretta caerulea*) can be seen in flight (upper left). Notice also the American Crocodile (*Crocodylus acutus*) in the foreground.



ROBERT POWELL

Male Rhinoceros Iguana (*Cyclura cornuta*) courting a prospective mate.



JOHN BINNS

Adult female Ricord's Iguana (*Cyclura ricordii*) on Isla Cabritos.



JOHN BINNS

Female Rhinoceros Iguana (*Cyclura cornuta*) outside her burrow on Isla Cabritos.

heads (Fig. 10). When we returned to the mainland, several people were waiting to visit the island. Most were Dominicans, testament to the growing awareness of the unique ecological value of the Lago Enriquillo area. Educational programs presented locally through slide shows and nationally on television illustrate natural communities and feature endangered species. Posters and brochures about the lake and its species are to be distributed throughout the country (Schubert and Santana 1996). This heightened awareness among Dominicans is critical to the success of any conservation efforts.

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Getting to Lago Enriquillo from Santo Domingo requires a 2½–3 hour drive, taking the road toward Barahona, turning right on the road to Neiba and continuing to La Azufrada. At La Azufrada, you can hire for a modest fee one of the commercial boats or one of the Parques boats to take you to the island. Inexpensive park permits can be acquired at the main office of Dirección Nacional de Parques in Santo Domingo or at La Azufrada. The closest tourist accommodations are about one hour away in the town of Barahona. However, pensions and a few very modest hotels can be found in the nearby town of La Descubierta, along with some small restaurants, the best of which is at the “Hotel Iguana,” where the more intrepid traveler may want to stay.



JAN RAMER

Although not normally considered to be human commensals, some Dwarf Geckos, such as this *Sphaerodactylus altavelensis enriquilloensis*, seem to seek out human companionship. This photograph was taken at the Hotel Iguana in La Descubierta, near Lago Enriquillo.