

"MUY DIFICIL"

BY BRUCE ELFSTRÖM

I have had an interest and have kept *Ctenosaura* species for a number of years now. Besides devouring any literature on the genus, I have had the pleasure to see some fine examples in their home range in many areas of Mexico and central America. This year was no exception. Kacey (my wife), her mother, Mimi, and I took a trip to the Yucatan peninsula during the month of March. I had dreamed of this place for some time. Reasons for a visit were several, among them, a new cultural experience and, big surprise, the Yucatan is home to two species of *Ctenosaura*. The two species are *Ctenosaura similis*, the largest of the genus, and *Ctenosaura defensor*, the smallest of the genus, a small red, grey/blue and black species that I have always appreciated.

Ctenosaura similis range from the Isthmus of Tehuantepec, Mexico, to mid-Panama (Etheridge, 1982). Adult males reach a total length of approximately one meter and can weigh over 2.5 kilograms. *Ctenosaura defensor* ranges through the Mexican states of extreme eastern Tabasco, northeast through Campeche, Yucatan, and portions of central western Quintana Roo (Duellmann, 1965; Lee, 1980; Etheridge, 1982; Villa, et al. 1988). Adult males reach 25 centimeters total length and usually weigh less than 250 grams.

On March 5th we arrived at the city of Merida, the beautiful capital of the state of Yucatan. We stayed there for several days in a small bed and breakfast and explored the city. Some guests at the bed and breakfast had seen and photographed several "iguanas." From their description, "very large lizard, two or three feet long, greenish white and black," it had to be *Ctenosaura similis*, the only lizard that large in the area. They had seen the "iguanas" in the middle of Merida, a city with a population of more than 950,000. During our stay at Merida I saw no *Ctenosaura*. I also did not look too hard. The beauty of the people and the city itself, is enough to keep your attention. If you want to see an authentic post-Spanish period city, this is it. Do

not bother with the "city" most tourists see 300 kilometers to the west.

After our stay at Merida, we rented a small Nissan Sentra and headed west toward the Mayan ruins of Chichén Itzá. We stayed in a nearby hotel for three days. This area of the Yucatan is where the majority of *Ctenosaura defensor* have been collected, including the type locality by Bailey (1928). Upon arrival I set out to work. I had brought a copy of Philippe de Vosjoli's *Green Iguana Manual* (1992) along to show Jim Dougherty's photograph of *Ctenosaura defensor* to the local population starting with the hotel staff. With broken Spanish and nonexistent local Mayan, (there are many dialects of Mayan spoken throughout Mexico), I ended up speaking with Jorgé at the main desk, who acted as an interpreter of the constant flow of Maya and Spanish coming from a group of five or six staff members. I learned through this crowd, as well as from an old gentleman who worked as a gardener and farmer in Piste, a nearby village, that this lizard was not an iguana or garrobo (reserved for *Ctenosaura similis*) but went by the Mayan name for lizard. These men led me off the courtyard of the hotel to show me iguanas. After ten feet I saw, basking on a replica of the Mayan sacrificial statue Chac Mool, two large *Ctenosaura similis*, a male and a female. Male *Ctenosaura similis* can be differentiated from females by the presence of an enlarged crest, swollen jowls and large adult size. After buzzing off a few photos of the pair, I told the men they were right, indeed I was looking for the smaller red and black one. It seemed these men had not seen one for sometime, and it was generally "muy difencil" to find. They told me, "It lives in trees and ground, when you come near it will run and hide in the hollow of a tree. It lives in the jungle and does not like people — it lives in the jungle and is out when it is hot." My knowledge of *Ctenosaura defensor* seemed to match theirs, a common behavior of many "club-tails," is the use of hollow logs as retreat sites (The name "club-



Adult male, *Ctenosaura similis similis* on Chac Mool, near Chichén Itzá in the Yucatan, Mexico.

tail" is usually restricted to lizards formally grouped in the genus *Enyaliosaurus*. These include *C. clarki*, *C. defensor*, and *C. quinquecarinata*. *C. palearis* was also included in this genus but was rarely referred to as a "club-tail"). It also has a rather more wary attitude toward people than the larger *Ctenosaura* ("spiny-tails"), which seem to thrive in disturbed habitat. The jungle they referred to is a dry, tropical thorn and hardwood forest that surrounds the Chichén Itzá area and has not been used for agriculture in 50 years. The older gentleman told me that the lizard is used to cure very bad cases of gout and has been used this way "forever"; it is prepared in a soup or ground up and baked. I asked him if it is used often he said "No, very hard to find." My fancies of finding *Ctenosaura defensor* waiting in the nearby ruins seemed more dream-like than ever.

I grabbed my bags and headed to the bungalow to join my wife. In a distance of 20 meters I saw seven medium to very large *Ctenosaura similis* basking in the hotel garden and moving only when approached to within a meter or so. Males seemed to hold territories less than eight meters in diameter. Each territory contained up to three females. When approached, individual lizards would vanish into a limestone hole usually located at or near the center of their territory. (Yucatan is a large flat shelf of limestone with a very thin layer of topsoil — there is no lack of holes and crevices for a lizard to hide.) Prime territories seemed to be dictated by the availability of a hole large enough to allow entrance of the territory holder. I witnessed some smaller to medium-sized males having quite a hard job trying to fit into their respective holes. In the hotel garden, as well as all areas I visited during the trip, I never saw a *Ctenosaura* retreat to a dug burrow. The chances were good that if you saw a large limestone hole, it would belong to a large male.

Having traveled a linear distance of 20 meters in two hours, I unpacked and sat down to take notes on the four territories of males within view of my front step. Two identical bright blue males seemed to share a retreat under the cement foundation of our bungalow. The hole to the retreat was between limestone and cement, but seemed to open up after the entrance. Most likely just the

entrance and not the retreat itself was shared. This in itself is hard to imagine due to the extreme territoriality of the species. Availability of suitable retreats may be a limiting factor to population densities — without data I can not say. Of the three large males and the five females in sight, some generalizations of behavior can be made. The *Ctenosaura* would spend the morning hours from approximately 9 a.m. to 11:30 a.m. basking, females seemed to appear slightly later than males. The large males would watch the movement of females and other males, attending to any "out of place" male with a series of slow exaggerated head bobs followed by a shudder, or a chase if the male was smaller and not responding to head bobs. Conflict between similar-sized males was not observed. Head bobs seemed to be sufficient to re-affirm territory boundaries. The smaller to medium-sized males seemed to move through and around the larger male territories, perhaps having no territory of their own. After basking, the lizards would then begin to forage in a leisurely fashion. The males moved within their territories periodically displacing females and smaller males. In one instance a large male was out of sight of his hole where one of "his" females was basking. A male 1/3 the size of the female approached the female and attempted to grab the scruff of her neck, causing the female to disappear into the nearby hole. The small male then followed the female into the hole returning within a few seconds at full speed only to be caught 1/2 meter from the hole by the female in hot pursuit. She proceeded to grab the male mid-body, shake him twice, and fling him some two meters. The little male returned within 30 seconds to a repeat of the behavior. This time with blood drawn from the dorsum of the male, he did not return again. At the hottest part of the day most *Ctenosaura* would retreat into their holes. If this disappearance was caused by the heat (app. 85-90°F) or the inundation by bus loads of lunch-eating Cancun tourists. It can not be said, since *Ctenosaura similis* seem very tolerant of human presence. I as well, after a share of piña coladas, would retreat to my hole, the bungalow. Around 3 p.m., they would reappear, and bask and forage until sunset.



Juvenile male, *Crenosaura similis similis*, Sian Ka'an Biosphere Reserve, Quintana Roo, Mexico. Photograph: Bruce Elfström

You may be asking yourself, "Didn't this idiot go and see the Mayan ruins?" Yes I did, thank you. The above generalizations were made after a few days interspersed with much sight-seeing of ruins and bushwhacking of the "jungle."

The ruin of Chichén Itzá is a sight to be seen by everyone and is only a 1.5 hr. bus ride from Cancun. (Cancun is reached without spending a king's ransom and may be within many people's means.) Every ruin, of which there are over 50, in differing states of reconstruction, are watched over by at least two large male *Ctenosaura similis*. The sight of these awe-inspiring temples and buildings is in itself worth a trip costing much more, and is all the more exhilarating when a beautiful one meter long yellow, blue, white and gray monster of a *Ctenosaura* is silhouetted against the ruins and sky. *Ctenosaura* of all sizes and both sexes are throughout the ruins and are quite approachable.

The "jungle" proved to be much harder to move through than most other classic rain forest jungles I had been in, being more like the vegetation of the dry forests of the Caribbean islands. After many hours, scratches and a run-in with some violent ants, I came out short some blood and not a single glimpse of a *Ctenosaura defensor* wiser. I thought I would stack the cards in my favor. I offered the hotel staff, local farmers, and ruins' tour guides \$50 for every live unharmed *Ctenosaura defensor* they brought me. I told them to tell all their relatives and friends. I sat back and waited for the lizards, correct and incorrect, to appear. This "technique" usually works wonderfully when looking for any harmless reptile or amphibian in an unfamiliar area. Time went by and not a single specimen was found! I upped the reward to \$100 and still nothing. On the way out of the hotel leaving for our next stop in Quintana Roo, Jorgé, at the main desk looked at my cuts and scrapes and lack of *Ctenosaura defensor* and said with a grin, "You see, this one is hard to find."

To drive from Chichén Itzá to our last stop near the Tulum ruin in the state of Quintana Roo, you must drive to Cancun, then down the coast. Well, you can't tell this rental car driving New England boy to avoid the interesting small village roads and stay on a large highway which takes


you 200 km out of the way, when the map shows a road which goes right where we want to be without sending us in the wrong direction. On the pay highway between Chichén Itzá and Cancun, we slowly came to realize there were no exits and no way off the highway to pick up the short cut we had planned to use. By estimating the number of kilometers to where the road should be, we left the highway at the nearest "road." After a few minutes, and some lifting of a wire fence later, we were off down a limestone road heading somewhere. In twenty minutes we happened upon a farm and asked directions to the town of Victoria, which should have been on the road, if our calculations were correct. The farmer nodded his head and pointed in the direction we were going. We had the right road! To make a long story less so, if you want to see some of the real Yucatan, and see some beautiful forest with a variety of reptiles, including many *Ctenosaura similis*, and travel with two beautiful adventurous women, then by all means travel this road. However, if going an average of 25 kilometers/hour for two hours in a small car, with little ground clearance, and three adults, one of which is over 215 pounds and 6' 4", and finding the road does not go through to your destination, and having ended around 3/4 of the distance to your destination, and having to turn around to use the bloody pay highway two bumpy hours away, and having to face three villages of laughing people, is not your idea of fun, then by all means don't take this road! Funny as it seems, I would do it the same way next time, only with a new short cut and a different set of people laughing at me turning around.

The trip ended with a relaxing five days on the beach near Tulum. We watched the largest *Ctenosaura similis* I have ever seen, walk, mate and do lizard stuff all through the ruins of Tulum. A drive into the Sian Ka'an Biosphere Reserve showed off some taller, slightly more moist forest teeming with wildlife. A visit to the Maya ruins of Coba, stuck in the middle of some very old secondary and some primary forest, is a requirement. Who knows—you might find a few coral snakes, much to the dismay of your fellow travelers. With better luck than I, you may turn up the very special lizard named "*Muyus difcila defensor*."



Mating pair of *Ctenosaura similis similis*, Tulum, Quintana Roo, Mexico. Photograph: Bruce Elfström.

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The Iguana Widow

By Sheila Aumiller

He's off like a shot, when he sees a green spot
Move in the bushes or dart up a tree.
In each destination, he forgets conversation,
In search of the prize - iguanas, naturally.

My husband's obsessed and he's always dressed
In iguana T-shirts and one on a chain.
Whatever island, flat beaches or highland,
He'll seek them out, again and again.

I can't complain, he's not chasing dames
But he pets lizards whenever he can.
So spare me a thought - for the lizards he's caught
Made me the 'Iguana Widow' I am.

Ctenosaura Husbandry Notes

THE EDITORS

Ctenosaura occur in a variety of habitats. Their preferred habitat is dry open woodlands with rock outcroppings and an abundance of dead wood and standing hollow snags. Most species are adaptable iguanas, able to survive well in secondary habitats, farmland, cemeteries, and sometimes vacant lots. The *Ctenosaurus* range from northern Mexico to Panama in Middle America. The areas they inhabit are dry, with heavy seasonal rainfall. They can occur in wet areas, but only in dry ecotones such as beachfronts (Manuel Antonio, Costa Rica).

In captivity, as with all iguanas, the larger the enclosure the better. Enclosures should be furnished with driftwood, hollow logs, and large rocks. *Ctenosaurus* seem to have a strong need for privacy. The more hiding areas they have available the more secure they appear. In their native environments predators are a constant threat.

Ctenosaura are primarily vegetarian. They are known to feed on bean crops and browse a variety of native shrubs. Flowering and fruiting trees are important seasonal food sources. *Ctenosaurus* are at times predators. This is the most pronounced difference between them and the green iguana. They feed on a variety of insects, small lizards, hatchling birds, and small rodents.

Hatchling and juvenile *Ctenosaurus* eat a higher percentage of animal food than adults. Adults may be almost totally vegetarian. In captivity they should be fed a varied vegetable diet heavy on greens such as collards. Waxworms, mealworms, crickets, and pinkie mice should be offered. Fruit will also be accepted. *Ctenosaura* are heliothermic. They only emerge from their burrows when the sun is shining. Body temperatures of 36°-37°C is preferred, and maintained by thermoregulation (Fitch 1983). In captivity, an effective full spectrum UV light system is necessary. *Ctenosaurus* should be able to bask within 6 inches (15 cm) of the UV lights above the screen top. A hot spot should be available at a prominent location at one side of the enclosure. One male may be kept with several females.

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Adult male, Spiny-tail Iguana, *Ctenosaura similis* in Yucatan, Mexico. Photograph: Bruce Elström