Reflections on Mona Island

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Dr. Tom Wiewandt, who studied the Mona Island iguanas from 1972-1975 to earn his Ph.D. from Cornell University, reflects on his experience on Mona Island and his impressions of its indigenous iguana.

Any trip to Mona Island is an adventure, and I always enjoy reading accounts of a traveler's first visit to this remarkable place. The most intriguing I've come across was discovered in the journal of Rev. Samuel Purchas, entered on 7 April 1607:

"The seventh day, wee arrived at Mona: where wee watered: which wee stood in great need of, seeing that our water did smell so vilely that none of our men was able to endure it.

"Whilst some of the Saylers were a filling the Caskes with water, the Captaine and the rest of the Gentlemen, and other Soldiers, marched up in the Ile sixe myles; thinking to find some other provision to maintaine our victualling. As wee marched, wee killed two wild Bores; and saw a huge wilde Bull, his hornes was an ell betweene the two tops. Wee also killed Guanas, in fashion of a Serpent, and speckled like a Toade under the belly.

"These wayes that we went, being so troublesome and wilde, going upon the sharpe Rockes, that many of our men fainted in the march: but, by good fortune, wee lost none but one Edward Brookes Gentleman; whose fat melted within him, by the great heate and drought of the Countrey. Wee were not able to relieve him nor our selves; so he died in that great extreamitie."

Fortunately, Mona was not terribly inviting to early explorers and most moved on. Today the island has no permanent human residents, only tourists, researchers, fishermen, and a small detachment of government employees. Nevertheless, this tiny island has had a rich history of occupation by Taino Indians, European colonists beginning with Christopher Columbus, pirates, guano miners, treasure hunters, the Civilian Conservation Corps., and the U.S. Air Force.

People came, people went; but unfortunately, goats, pigs, cats, and rats were left behind, now wild and among the principal threats to the island's native flora and fauna. I was extremely fortunate to have spent three consecutive years of my life on Mona as a graduate student studying and filming the habits of Mona's giant iguanas and documenting the impact of these introduced mammals. It's worth pointing out here that the innate "tameness" so often noticed in animals on remote islands comes from having evolved in a place with few natural enemies. This is why introduced predators like cats, dogs, mongooses, and pigs have such a profound impact on native island populations (see John Iverson's article in *Iguana Times*, Vol. 1, Nos. 1, 2).

There are some common misconceptions about the iguanas held by many visitors to Mona. First is size.

These reptiles are so impressive, they often seem bigger than they actually are. Adults are short-tailed and stocky. Based on my data, males average 3.4' overall length (range 3.3-3.6'), and weigh in at 13.5 lb (range 11.0-15.1 lb). Females are somewhat smaller: 3.1' in overall length (range 2.8-3.4'); 10.4 lb (range 7.5-12.1 lb). In three years of fieldwork, I never saw one that, in my estimation, exceeded 4'.

Second is sex. Except for the largest males and gravid females, it's difficult without considerable experience to distinguish males from females in the wild. I have long been intrigued by the similarity in appearance between male and female Mona Iguanas, certainly not the norm for most iguanine lizards. In a nutshell, it seems that in this population, natural selection has favored male-like traits in females, which I've proposed has been an evolutionary consequence of competition between females for limited nest sites on an island where soil is scarce (see my article in *Iguana Times*, Vol. 3, No. 1).

Third are misconceptions regarding the iguana's population size. It's impossible to determine whether this population is expanding or shrinking unless one has an understanding of the animal's activity patterns, year-round. Females, for example, migrate to coastal nesting areas during the nesting season, greatly increasing the density of animals near the beaches for about two months of the year. Obviously at hatching time, young are also concentrated in these areas before they disperse. When it's especially dry and little fruit is available (their preferred food), the iguanas may lay low, passing days, even weeks underground in a state of torpor. When shrubs and trees bear fruit, activity greatly increases and individuals may relocate to sites where such foods are plentiful. All of these findings underscore the importance of methodical, scientifically based long-term population estimates.

Last but not least, it's worth commenting on the signs mentioned by the Byrds which have been posted to discourage visitors from walking through these clearings during the nesting and incubation period (July 1 November 15). Females preparing nest holes or guarding completed nests scatter when they catch sight of a human, which greatly increases the likelihood of nest abandonment and females digging into each other's nests while preparing their own. Even after nesting has ended, visitors pose a serious threat to these animals. While refilling their nest tunnels, females leave an airspace over the eggs, vital to proper egg development, hatching, and emergence (it sometimes takes hatchlings a week or two to reach the surface). This airspace is easily capsized by visitors inadvertently stepping on completed nests, thereby killing the eggs and hatchlings within. Thus, the signs represent a change in the right direction, and should be heeded by those who visit Mona during the sensitive period specified.

Putting conservation measures in place in Latin America is typically a slow and politically challenging process. I would like to encourage all iguana enthusiasts to work towards staying well-informed and getting involved in conservation programs. Island populations are especially vulnerable and need all the help they can get.