The Return of Grand Cayman's Blue Iguana: From Near-Extinction to Endangered

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Posted by Nicole Glass on May 22, 2013

In 2002, between 10-25 blue iguanas remained in the wild. Today, there are 750. By incubating eggs in his home office and gathering plants to feed the baby blues, Fred Burton and his team have brought back a species that was nearly extinct.

While these 5-foot-long majestic creatures are still a rare sight, they are making a striking comeback.

Last October, the species was downlisted from critically endangered to endangered. But even though hundreds of these dinosaur-like reptiles have been released in the wild, the blue iguanas continue to rely on Burton's help to maintain their population.

Burton has lived in Grand Cayman since 1979 and spent most of his years working for the government and the islands' National Trust. He now heads the Blue Iguana Recovery Program (BIRP), for which he has worked as a full-time volunteer for about a decade. He distinctly recalls seeing a blue iguana for the first time in the 1980s, not knowing anything about the scaly reptile that was looking at him from the brush in someone's backyard.

"You're sort of looking for mosquitos and you see a red reptilian eye gazing back at you from under a tree somewhere," Burton says. "And I thought, 'what's going on here?' I had no idea there were animals like this anywhere in the world."

Burton estimates that the blue iguana population was in the low 100's from 1900 to 1990, and went down to about a dozen by 2002. An island-wide 2002 survey found that the wild population consisted of 10-25 blue iguanas, making the animals functionally extinct. Ever since Burton began saving the species in the 1990s, he knew his mission was critical.

His conservation efforts began – and continue – at his home office, where Burton set up incubators to hatch blue iguana eggs. After two months of incubation, 8-inch-long baby blue iguanas emerge from the eggs and Burton then sends them to a conservation facility in the Cayman Islands' Queen Elizabeth II Botanic Park, which he launched with the help of donations in 1997.

The facility has the capacity to rear about 100 baby blue iguanas a year. Two iguana wardens, a field officer, and volunteers provide them with food, water and care. Burton's goal is to bring the wild population to at least 1,000 "in the next single-digit years," he says.

The facility rearing and breeding the blue iguanas relies heavily on donations and funding, but the blue iguana's downlisting from critically endangered to endangered has made it more difficult for the BIRP to gather crucial funds.

A baby blue iguana. Photo by Fred Burton.

"It's a two-edged piece of news," Burton says. "It's a great piece of news, inherently and actually, but what it does is it downgrades also the urgency in the minds of people who grant funding to programs like this."

In March, the program surveyed the Salina Reserve to see if the blue iguana population has sustained itself. The BIRP has been releasing blue iguanas into the reserve since 2004, but it has always been unclear if the population was supporting itself.

"We've got preliminary results from that now and the bottom line is that it's holding – but it's only holding because we're trickling more animals out there every year at the moment," Burton says.

Blue iguanas. Photo by Fred Burton.

Part of the problem is that blue iguanas lay very few eggs in their early years, and it takes a large number of hatchlings to ensure the survival of a few. Native snakes consume many of the young, and it is only when they reach a certain size that they are safe from their only natural predators.

"A baby that is just coming into breeding age might produce one egg in a year, and the next year maybe three, and the next year maybe five or six," Burton says. "And until they start producing like 12, 14, 16 in a year, there's just not going to be enough young iguana hatchlings in order to swamp the snake population's ability to mop them up."

The reason blue iguanas initially began to die off – and a factor that will continue to affect the population – is Grand Cayman's population of non-native predators. When humans arrived on the islands, they brought animals that the native iguana species did not recognize or fear.

"We brought dogs and cats and built roads and started driving cars. So we've got habitat destruction and then these invasive mammalian predators that the iguanas have no instinctive fear of," Burton says. "If you see a baby blue iguana get sight of a snake, it freaks out and runs up the nearest tree – it's instinctive. But a two-year-old iguana will walk up to a dog and look at it and think 'who are you?' – and get its head bitten off. They don't recognize these things as dangerous because there's no evolutionary memory [to do so]."

Green iguanas, on the other hand, have multiplied rapidly since the 1980s, after they were brought over as pets and eventually found in the wild. The green iguanas, which are native to Central and South America, make nests often consisting of 60 or more eggs. In their native environment, they have an array of predators, including jaguarundis, margays, hawks and snakes. By producing large numbers of young and instinctively recognizing danger, the green iguanas have flourished on an island with no natural predators aside from the native Cayman snakes.

"The population is just going crazy – and we don't

An invasive green iguana on Grand Cayman. Photo by Nicole Glass.

know where it's going to end," Burton says.

Cayman Islanders have largely grown to despise the invasive species, which have destroyed much of the land.

"They frighten their children, they climb up on houses and they eat the Caymans Islanders' food, crops, flowers and landscapes," Burton explains, before describing his own attempt to grow a rare tree in his backyard, only to have it destroyed by the green iguanas.

The green iguanas have the potential to defoliate the environment in the long run, which would be harmful to the survival of the native blue iguana population as well. Some Cayman Islanders have developed a loathing for the green iguanas, which translates to the blues as well – even though the native species remains endangered.

Burton has saved a species from extinction, but in order to bring the population to sustainable numbers, the Blue Iguana Recovery Program continues to rely on donations and volunteers.

The program plans to release another batch of blue iguanas into the wild this summer, which will bring the population to the 800 mark. Although it may be a long shot, Burton hopes to one day see the native blue iguanas reclaim their land without his help.

"If they're breeding abundantly enough to sustain themselves without us continuing to put the animals out there, then we can close the captive facility and we can release all these adults that we used in captive breeding facilities," he says. "That would be a fantastic thing to do."

For more information, visit the Blue Iguana Recovery Program website at www.blueiguana.ky and sign up to work as a volunteer. Check out the program's Facebook page to get up-to-date news and information about the Cayman Islands' native blue iguanas.


A blue iguana. Photo by Fred Burton.