

Brighter future for Jamaican Iguanas

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by Dr. Stesha Pasachnik

Jamaica is considered a hotspot within a hotspot of biodiversity, as it has the greatest number of endemic birds and plants of any Caribbean island, and numerous unique reptiles, amphibians and insects. There are five AZE sites in Jamaica, including Hellshire Hills, which holds the last known population of the Jamaican Rock Iguana, *Cyclura collei*.

This AZE story was written and adapted by Dr. Stesha Pasachnik, a Conservation Biologist at the Fort Worth Zoo, who helps to conserve the Jamaican Rock Iguana.

It is thought the Jamaican Rock Iguana once thrived within much of the island's southern dry forest habitat; however, they were considered extinct by the 1940s, due to habitat conversion and the introduction of the Indian mongoose, known to have caused the extinction of at least two other lizards on Jamaica.



New efforts to understand the success of the headstart reintroductions focus on radio tracking, demonstrating more arboreal behavior than previously thought. Photo by Joey Marx.

The 1970s brought a ray of hope for the species, when JD Woodley was conducting an assessment in the Hellshire Hills and a pig hunter showed him a dead iguana. Woodley shared this information but unfortunately little action was taken. Two decades later, when the idea of biodiversity conservation was revolutionizing the field of ecology, a second discovery was made that would change the course for this species.

A pig hunter, Edwin Duffus, encountered an iguana in the Hellshire Hills, when his dog returned with it. Duffus brought it to the Hope Zoo in Kingston, Jamaica, and they contacted local herpetologist, Peter Vogel. This time the community was ready and quickly mobilized an international strategy to save the species. The Jamaica Iguana Research and Conservation Group (now the Jamaican Iguana Recovery Group [JIRG]) was created as a collaborative effort, between many local and international organizations, to establish a stable population of iguanas within Hellshire Hills and investigate sites for reintroduction.



Master's student Joey Marx and field ranger Jason Smith radio tracking newly released headstart iguanas to monitor behavior and adaptation to the new environment. Photo by Stesha Pasachnik.

For nearly 30 years, the JIRG has worked to build a stable population in the Hellshire Hills through intensive surveys, invasive-species control, and a head-start and release program at the Hope Zoo. This perseverance has resulted in a dramatic increase in the population. To date, nearly 400 headstarted iguanas have been released back into Hellshire Hills.

AZE Partners profile: The [Hope Zoo](#) in Kingston, Jamaica and the [International Iguana](#)

Foundation, together with the Jamaican government, have worked to protect and restore the Jamaican Iguana population.

In 2013, the National Environmental Planning Agency (NEPA) formally took on oversight of the project, making it one of their only species-focused conservation projects. In 2016, long-time JIRG members the Fort Worth Zoo and the International Iguana Foundation hired Dr. Stesha Pasachnik to work closely with NEPA to update and revitalize the program. Also in 2016, the Jamaican government included the protection of the iguana in its National Biodiversity Strategy and Action Plan (NBSAP), detailing the protection of the Hellshire Hills AZE site and the efforts taken to protect the iguana. This plan also highlighted conservation initiatives for the iguana as a model to be used to conserve other highly-threatened species at AZE sites in Jamaica.

The program is currently undergoing significant revisions and the future is brighter than ever for this Critically Endangered species. The protected area in Hellshire Hills is being expanded, new nesting sites are being developed, new invasive control techniques are being tested, and the headstart program is expanding, bringing in more hatchlings each year and closely monitoring the reintroduced individuals with radio tracking technology. For the first time ever, the program will have a second release of headstart iguanas this year, and the Goat Islands, located off the southern shore of Jamaica, are back on the table, after much debate, to be considered as a reintroduction site.

