

EXPERIMENTAL REPATRIATION OF CAPTIVE-REARED LAND IGUANAS (*CONOLOPHUS SUBCRISTATUS*) AT CARTAGO BAY, ISABELA

by

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The captive rearing program for endangered Galápagos land iguanas (*Conolophus subcristatus*) was established at the Darwin Station in 1976 with the cooperation of the Galápagos National Park Service and the financial support of the World Wildlife Fund and the San Diego Zoological Society. Included in this program are breeding adults from the islands of Isabela, Santa Cruz, and North Seymour. Since 1978, when the first hatching occurred, in excess of 200 iguanas have hatched successfully in captivity.

Land iguanas on Santa Cruz and southern Isabela were threatened with extinction as a result of predation by feral dogs, which reached a peak in the mid 1970's. Feral dogs became abundant on Santa Cruz and in the Cartago Bay area of Isabela in the early 1970's (Kruuk 1979), and by 1976 they had almost completely eliminated land iguanas at these sites (Cifuentes and MacFarland 1976). Approximately 30 adults from Cartago Bay and 60 from Santa Cruz were rescued at that time, and these animals constitute the breeding stock for the current rearing program.

The ultimate success of this program depends upon the eventual return of the young iguanas hatched and reared at the Station to their ancestral habitats. Until recently we could not achieve this objective because of the continued presence of feral dogs on Santa Cruz and southern Isabela. In 1981, however, the National Park Service initiated a dog eradication campaign on southern Isabela with funds provided by the Frankfurt Zoological Society. This effort has proved highly successful, virtually eliminating dogs from the coastal regions and drastically reducing highland populations. National Park wardens encountered no dogs and no evidence of dogs during an intensive 17 day survey of Cartago Bay in early 1982 (Calvopiña 1982). In light of these results, we formulated plans to release captive-raised juvenile iguanas at Cartago Bay this year.

To follow the iguanas' progress after their return to the wild, we sought an Ecuadorian scholarship student. Lcda. Yolanda Céleri, from the Central University of Quito, arrived at the Darwin Station in February to begin a one-year study of the repatriation effort. She began by familiarizing herself with all aspects of the iguana breeding program at the Station as well as working on South Plaza Island with Howard and Heidi Snell (former principal investigators, land iguana conservation program). There, Yolanda prepared herself for the study of repatriated iguanas by learning such techniques as handling and marking iguanas and by gaining a basic understanding of the ecology and behaviour of iguanas in a natural situation.

In April, we made a reconnaissance of Cartago Bay to assess the availability of plant foods required by juvenile iguanas and to select a release site. As the rainy season had just ended, the vegetation on Cerro Cartago was quite lush, and many preferred iguana food plants such as *Opuntia*, *Lantana*, *Waltheria*, and various grasses were particularly abundant. We selected Cerro Cartago as the release site because of the abundance of vegetation as well as the presence of many old, uninhabited iguana burrows which would serve as shelter for the released animals. Also, we found no evidence of feral dogs in the area, in agreement with the Park wardens' findings previously mentioned.

We selected 37 juvenile iguanas from the 1980 and 1981 breeding seasons and measured, weighed, and permanently marked them for future identification. On 5 May 1982 the juveniles, accompanied by personnel of the National Park and Darwin Station (all of whom were silently wondering at what point Murphy's Law would intervene), were aboard the Beagle IV and under way for their new home. Thankfully, no problems were encountered during transport and by 0900h the following day, all 37 juveniles had been released at various sites along the base and sides of Cerro Cartago.

At present, the returned juveniles appear to have adapted well to their new environment. Yolanda's initial reports reveal that the iguanas are actively foraging on a variety of plant species and many have taken up

residence in the old iguana burrows. Additional releases at Cartago Bay are planned for 1983; the success of this repatriation experiment, however, will not be known for a number of years.

The Galápagos National Park Service will begin eradicating feral dogs on Santa Cruz later this year, and if this project proves to be as successful as the southern Isabela effort, juvenile iguanas will be returned to Cerro Dragon and Conway Bay on NW Santa Cruz in 1983.

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National Park Superintendent Fausto Cepeda (right) and Warden Fausto Llerena with the first captive-bred Land Iguana to be released in the wild. *Photos by Donna Reynolds*