

Charles Darwin Research Station Fact Sheet

Pinta giant tortoise

(Geochelone abingdoni)

Only one Pinta tortoise remains to tell the story of the existence of this species. It is a poignant tale illustrating the devastation that followed the arrival of humans to the shores of Galapagos. Hunting tortoises for meat greatly affected the numbers of tortoises on Pinta Island. The destruction caused by introduced goats compounded the problem. Scientists working for the Charles Darwin Foundation (CDF) are attempting to save the Pinta tortoise and are succeeding in restoring the ecosystems on Pinta Island.

Unique to Galapagos

Eleven species of giant tortoise are found throughout the Galapagos Islands. The Pinta tortoise is one of the smaller species. It has a “saddle-backed” shell or carapace. This has probably evolved as an adaptation to the environment on Pinta Island. Saddle-back types are raised at the front to allow the tortoise’s long neck to reach for higher vegetation on drier islands.

The sole remaining Pinta tortoise is a male known as “Lonesome George”, who currently resides at the Charles Darwin Research Station (CDRS). Lonesome George was found on Pinta Island in 1971, and taken to the CDRS soon after. He weighs approximately 90 kilograms and measures over 100 centimeters across his carapace. His exact age is unknown, but is predicted to be between 60 and 90 years.

Vulnerability and CDRS research activities

When “Lonesome George” eventually dies, his species will probably end with him. He will join the other species of giant tortoises that have become extinct in Galapagos.

Hunting by humans was a problem in the past. Their numbers were heavily depleted by whalers and sealers during the 19th century, some ships taking hundreds of tortoises at a time. Tortoises were a good food source, living up to a year in the holds of the ships without requiring food or water. Females were generally taken first as they are smaller than males and were more accessible in lowland areas during the egg-laying season. The last sighting of tortoises on Pinta was in 1906 when the island was visited by the Californian Academy of Sciences who collected three males.

The last remaining Pinta tortoise was brought back to the CDRS in 1971, where there was already a captive breeding program for giant tortoises.

Lonesome George is housed in a corral with two females (*G. becki*) from Wolf Volcano (Isabela Island). This species looked most similar to the Pinta species. It was hoped that George would pass along some of his genes into future generations. So far he has failed to breed successfully with these females. He probably grew up alone and did not learn proper social and mating behavior.

CDF FOCUS: RESTORATION



Key Facts

Species: *Geochelone abingdoni*

Common name:
Pinta giant tortoise,
“Lonesome George”

Size: 102cm across
shell, 88kg in weight

Habitat: Charles Darwin
Research Station corral

Diet: herbivore

Range: None present on
Pinta, “Lonesome
George” resides at
Charles Darwin
Research Station

Status: Pinta species is
Nearing Extinction

Threatened by:
introduced species,
habitat destruction,
historical predation by
humans

Today, the biggest problem facing the endemic giant Galapagos tortoise on many islands is that of introduced species. Fishermen released goats on Pinta Island during the 1950's as an alternative food source. They destroyed the vegetation and competed with any remaining tortoises for food. The goat population grew rapidly and caused soil erosion.

The Galapagos National Park Service (GNPS), with the technical support of the CDRS, successfully eradicated goats from Pinta in 2001. Since then, many native and endemic plant species have shown signs of recovery.

It is unlikely that more tortoises will be found on Pinta. During a goat monitoring expedition in 2003, a full search performed by the GNPS and visiting scientists failed to find any other tortoises. A number of carapaces and skeletons were found; these were in poor condition indicating the animals had been dead for a long time. These are now housed at the CDRS.

Collaborating scientist, Edward Lewis, has made DNA scans of many tortoises from around the world without finding a match. Cloning is theoretically possible but difficult in practice and has not yet been achieved for reptiles. Until such times as the methods used for cloning are more fully understood, research at the CDRS must focus on other possibilities.

Scientists at the CDRS continue to search for a solution to the Pinta tortoise problem. It would be a true shame to see the end of another unique species of Galapagos, a single survivor of thousands of years of evolution. In the meantime, the recovery of Pinta is of the utmost importance, and will require a native herbivore, probably a tortoise from elsewhere in Galapagos, to be reintroduced to the island to restore the balance of the island's natural ecosystems.