

Charles Darwin Research Station Fact Sheet

Rice rats (*Oryzomys* and *Nesoryzomys* species)

The endemic rice rat has suffered immensely from the presence of humans in Galapagos. Invasive species have caused the extinction of a number of native rodent species. The rediscovery of one species has encouraged Charles Darwin Foundation scientists to push forward with plans to save the remaining populations and their habitats.

Unique to Galapagos

Six species have been described, belonging to two genera, *Oryzomys* and *Nesoryzomys*. Rice rats are harsh-furred rodents, up to 20 centimeters in length, and have a long sparsely-haired tail. They live in arid scrubland and eat mostly grasses, fruit and seeds. Another species, *Megaoryzomys curiori*, was a very large rat; it is extinct, having existed more than 100,000 years ago.

Vulnerability

Rice rats are listed as Vulnerable on the IUCN Red List. Until 1997, only two species were thought to survive: *Oryzomys bauri* on Santa Fé, and *Nesoryzomys narboroughii* on Fernandina Island.

Introduced black rats (*Rattus rattus*) and predatory feral cats (*Felis catus*) are thought to have been the main cause of the extinctions. Diseases and competition for habitats probably contributed.

Santiago Island's endemic rice rat (*Nesoryzomys swarthi*) was rediscovered after presumed extinct. In 1997, visiting scientists undertaking field surveys on other rodent fauna found a small population of *N. swarthi*. The species had been collected alive just once before in 1906. Against all odds, it had survived on Santiago, which is infested with black rats. Prior to this discovery, it was presumed that rice rats could not coexist with black rats.

CDRS research activities

The CDF and visiting scientists are working with the Galapagos National Park Service (GNPS) on experimental techniques to eradicate black rats on Santiago. Tests of a selective bait station showed that endemic rice rats could not access the bait, whereas black rats did. This method may help control black rats in areas where endemic rats also occur.

Eradication of black rats on islets near Santiago has started. These islets may be used as refuges for the Santiago rice rat. Here it can rebuild its populations safe from the effects of introduced species on Santiago. The rats' interaction with the islets' flora and fauna will be monitored.

If successful, similar approaches may be used to control black rats from other islands. The eradication of feral cats will also be crucial. These actions will help to restore the islands' ecosystems allowing endemic rice rats to regain their status as one of the few land mammals inhabiting Galapagos.

CDF FOCUS: RESTORATION



Key Facts

Species: *Oryzomys* and *Nesoryzomys* species

Common name:
Rice rats

Size: Up to 20cm in length

Habitat: Arid scrubland

Diet: grasses, fruit and seeds

Range: Santa Fé, Santiago, and Fernandina

Status: Vulnerable

Threatened by:
Introduced black rats and cats, introduced disease