

## Charles Darwin Research Station Fact Sheet

# Mockingbirds (*Nesomimus* spp)

With their inquisitive nature, these noisy birds are likely to be one of the first species to greet visitors to the Galapagos Islands. Whilst they may seem common, at least two of the species have shown significant population declines since Charles Darwin's visit in 1835. Scientists from the Charles Darwin Foundation (CDF) are working to prevent the loss of these characteristic species.

### *Unique to Galapagos*

There are four species of mockingbirds that are endemic to Galapagos:

- Galapagos mockingbird (*Nesomimus parvulus*): Found among the majority of islands, except those where one of the other species resides. The ranges for each mockingbird species do not overlap.
- Charles or Floreana mockingbird (*Nesomimus trifasciatus*): This species is extinct on Floreana Island, but continues on its two satellite islets, Champion and Gardner-by-Floreana. These birds nest in *Opuntia* cacti. In 2006, the population of this species was critically low at approximately 79 birds.
- Hood or Española mockingbird (*Nesomimus macdonaldi*): Found only on Española and its satellite islet, Gardner-by-Española.
- Chatham or San Cristóbal mockingbird (*Nesomimus melanotis*): Found only on San Cristóbal Island.

In general, mockingbirds are thrush-sized and have brown or grey coloring. Each species can be distinguished by certain features, such as eye color and distinctive markings, in addition to their location.

All species are omnivorous, although the Floreana mockingbird feeds mainly on *Opuntia*. Diet depends on the species, but includes:

- Seeds
- Insects and other invertebrates, including ticks taken from land iguanas on Santa Fé Island
- Turtle hatchlings and eggs, bird eggs
- Galapagos mockingbirds on some islands drink blood taken from live hosts. Española mockingbirds have been observed eating sea lion placenta.

Mockingbirds have an unusual social structure, especially on Española and Genovesa Islands. Cooperative breeding colonies consist of a breeding pair, and older offspring that help with rearing nestlings and defending territories.

### *Vulnerability*

#### **CDF FOCUS: RESTORATION**



#### **Key Facts**

**Species:** *Nesomimus parvulus*, *N. trifasciatus*, *N. macdonaldi*, *N. melanotis*

**Common name:**  
Mockingbirds

**Habitat:** Shrubland

**Diet:** Omnivorous

**Size:** 25-28 centimeters in length.

**Range:** Three species endemic to single islands and islets, one species present on other islands, ranges do not overlap

**Status:** The San Cristóbal and Floreana mockingbirds are Endangered, Española mockingbird is Vulnerable

**Threatened by:** Cats, rats, smooth-billed anis, habitat loss or destruction, avian diseases, extreme climates e.g. El Niño

The Floreana mockingbird is listed as Endangered on the IUCN Red List. The small populations of the Floreana species are especially affected by El Niño cycles, which cause significant changes in population size. Global warming may increase the occurrence and severity of these cycles.

The extinction of Floreana mockingbirds on the main island is likely to be due to a combination of factors. It has been associated with the loss of *Opuntia* cacti, which were destroyed by invasive goats, donkeys and pigs and are now very rare on this island.

Predatory cats and black rats that eat mockingbird eggs are likely to have affected mockingbird populations. The smooth-billed ani is an introduced bird that preys on nestlings including mockingbirds. Parasitic *Philornis* flies have been found in mockingbird nests, affecting nestling survival.

San Cristóbal mockingbird populations are declining within their restricted range on a single island. This species is listed as Endangered on the IUCN Red List. The Española species is listed as Vulnerable due to its restricted range. Habitat degradation and the impact of invasive species and climatic events continue to threaten these species.

Like other Galapagos birds, mockingbirds are susceptible to introduced avian diseases, such as avian pox. Avian pox was introduced with bird species brought to the islands, including poultry. In the future, avian malaria and West Nile virus infection may also become a problem.

### *CDRS research activities*

The vulnerability of the Floreana mockingbird has drawn much attention by CDF scientists. They aim to prevent this species from becoming the first extinct bird species in Galapagos. The problems faced by Floreana mockingbird are discussed in greater detail in a separate article.

Scientists at the CDF monitor annually the numbers and health of the mockingbird populations on Floreana, San Cristóbal and Española Islands. Invasive species are identified and controlled to keep the Floreana islets in a pristine condition.

Visiting scientists continue to work with the CDF to monitor the spread of introduced avian diseases amongst mockingbirds.