MISTY MOUNTAIN

Bathed in the misty haze of the toxic gas plume wafting from Skull Mountain, the Misty Mountain population of Island mice is small, isolated, and at risk. Jack's sparrow, toxic gases, cold temperatures, collection, low food availability, and small population size are potential problems for these mice living in Misty Mountain's extreme, high-elevation habitats.

Due to the difficulty of accessing these mountaintop habitats, little is known about this population except for data and observations collected by the Cannibal Cove native islanders during their collection trips. Although darker in color, the mice on Misty Mountain are likely very similar to their neighbors to the west across the valley atop Darlost's Dome.

Misty Mountain supports a large roosting colony of Jack's sparrows, so the bird is a likely significant source of predation on this small population. However, Jack's sparrows also occasionally drop Island mice while flying, which may introduce new genes into the population.

Eruption blasts immediately to the east at Skull Mountain likely kill most of the population, although the effect on the population size is unknown. Volcanologists believe that blasts above 60 decibels (dB) occur about once per year, but speculate that some Misty Mountain mice elude cardiac arrest by hiding under hardened lava flows when they sense ground vibrations. However, mice on the easternmost side closest to Misty Mountain likely cannot escape the eruption blasts and die.

The native islanders of Cannibal Cove prize the darker, thicker pelts of both Mountain populations for use in ceremonial garments. The islanders collect no more than 15 mice from either Darlost's Dome or Misty Mountain every 3 years.

During the winter, the cold winter trade winds blow Skull Mountain's toxic plume directly onto Misty Mountain. The effect on the population is unknown.

Survey Year	2000-2015
# of Individuals (from counts during collection)	50

CLIMATE CHANGE

Under high emission scenarios, the likely shift in the cold winter trade winds to the southeast could reduce the Misty Mountain population's risk of exposure to Skull Mountain's toxic gas plume, by redirecting the plume to the north. However, a shift to the southeast could also extend winter on Misty Mountain, with approximately 20 percent more days below 80°F, which could increase risk of exposure, but also force the Jack's sparrow to