



For Immediate Release

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Avian Botulism Confirmed as Cause of Laysan Duck Deaths

Avian botulism has now been confirmed as the cause of death of at least 134 Laysan Ducks on Midway Atoll National Wildlife Refuge in Papahānaumokuākea Marine National Monument. The National Wildlife Health Center found the toxin in all eight samples sent to its facility in Madison, Wisconsin for analysis. With this diagnosis, managers are taking additional steps to control the outbreak.

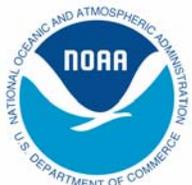
“At the recommendation of the National Wildlife Health Center, we are draining the catchment wetland where most of the deaths have occurred to eliminate toxin production at the site,” said Matt Brown, the U.S. Fish and Wildlife Service’s acting refuge manager at Midway. “Now that we know we are dealing with avian botulism rather than something like avian influenza that could spread to humans, we can include more people in the search for dead birds without compromising safety.”

Avian botulism is a different type than botulism occurring in humans and is not transmissible to people. It is caused by a toxin produced by a widespread bacterium. Normally dormant, these spores release toxins only when certain conditions occur, including warm temperatures and stagnant waters. Botulism is one of the most potent toxins known to science. Birds usually acquire the disease by eating invertebrates containing the toxin. Typical signs in birds include weakness, lethargy, and inability to hold up the head or to fly.

Carcasses are being collected on a daily basis to reduce further spread of the disease. Fifty-three bird carcasses were sent to the National Wildlife Health Center’s Honolulu Field Station last Friday for analysis. Necropsy results pointed toward avian botulism, but the final determination was made by the Center’s Wisconsin staff this week.

The first dead duck was discovered on August 10; surveys of all seeps on the atoll are being conducted each day. As of today, a total of 134 adult and adolescent birds have been found dead, mostly on Sand Island. The population level at Midway was estimated at 200 birds in December 2007, but successful fledging this year almost doubled that population level. The remaining population on Laysan Island, more than 100 nautical miles away from Midway but also within Papahānaumokuākea Marine National Monument, roughly numbers 600 Laysan ducks. There is no risk of Midway’s recent bout of avian botulism affecting the Laysan population.

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“We continue to work diligently to control this outbreak, and appreciate the significant assistance the U.S. Geological Survey – both the National Wildlife Health Center and the Pacific Island Ecosystems Research Center – are providing. In addition to our staff and volunteers here on Midway, three USGS staff here on the island as well as folks in Honolulu and Wisconsin are playing vital roles,” Brown said.

Although designed as part of the water catchment system that provides Midway its water, the catchment wetland has long been a valuable migratory waterfowl and shorebird habitat. Midway currently has well over a year’s supply of water in storage, and draining the pond will have no effect on the water system. From the storage tanks, the water goes through a water treatment facility much like those in most municipalities to provide safe drinking water for humans.

“Over the coming months, we will be discussing several treatment options to preclude or at least minimize future outbreaks of avian botulism,” Brown continued. “We will be working with the U.S. Fish and Wildlife Service’s Laysan duck recovery team as well as USGS scientists to ensure the continued survival of this population.”

In 2004 and 2005, 42 wild mostly juvenile ducks made a 750-mile Pacific voyage and were released at Midway Atoll as a conservation action to increase the rare island duck’s geographic distribution and reduce its risk of extinction. The endangered Laysan duck is considered the rarest native waterfowl in the United States and occurs only within the Northwestern Hawaiian Islands’ Papahānaumokuākea Marine National Monument. Laysan ducks were once widespread across the Hawaiian Islands, but by 1860, they were extirpated from all but Laysan Island, part of the Hawaiian Islands National Wildlife Refuge.

Papahānaumokuākea Marine National Monument is administered jointly by three co-trustees – the Department of Commerce, Department of the Interior and the State of Hawai‘i – and represents a cooperative conservation approach to protecting the entire ecosystem. Co-trustee agencies in cooperation with the Office of Hawaiian Affairs manage the monument through the Monument Management Board. The Monument area includes the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve, Midway Atoll National Wildlife Refuge/Battle of Midway National Memorial, Hawaiian Islands National Wildlife Refuge, Kure Atoll Wildlife Sanctuary, and Northwestern Hawaiian Islands State Marine Refuge.

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