

Study finds potential disease threats to Washington sea otters

May 6 2009

Many of Washington State's sea otters are exposed to the same pathogens responsible for causing disease in marine mammal populations in other parts of the country, according to a study published by researchers from NOAA's Olympic Coast National Marine Sanctuary, the U.S. Fish and Wildlife Service and their partners.

While the Washington [sea otters](#) do not appear to be suffering negative effects from the pathogens, they still face potential threats from infectious disease due to their relatively small [population size](#) and limited distribution.

"Sea otters are a keystone species in the sanctuary, so potential disease threats are a significant concern for us," said Mary Sue Brancato, a sanctuary resource protection specialist who is one of the study's co-authors. "Changes in their population can affect the whole ecosystem."

The study, released as part of the National Marine Sanctuaries Conservation Science Research Series, is the most comprehensive investigation yet completed on pathogens and contaminants in Washington's sea otters. Researchers captured 32 sea otters for the study in 2001 and 2002, implanted 28 of the animals with electronic tracking tags, and collected blood and tissue samples for analysis.

Results indicate that 80 percent of the otters tested positive for morbillivirus and 60 percent for Toxoplasma, which has been a significant cause of death in southern sea otters in California. This is also

the first time morbillivirus has been detected in sea otters anywhere.

A positive test simply means the otters have been exposed to the pathogen, and while individual deaths may occur from diseases caused by these agents, a population-threatening die-off from disease is unlikely while population immunity remains high.

Analysis of blood and [liver](#) samples from the captured otters and from 15 dead otters found on Washington beaches also revealed traces of chemical contaminants. Jay Davis, a resource contaminant specialist for the U.S. Fish and Wildlife Service, said the contaminant levels were not high enough to raise concerns, but it is important to continue monitoring the health of the state's otter population.

"Sea otters are 'sentinels,'" said Davis, another co-author on the study. "They eat a wide variety of food, and if there's a problem in the otter population, it can be a sign of a larger environmental problem."

The study was conducted through a partnership between the NOAA Office of National Marine Sanctuaries, USFWS' Refuge System and Environmental Contaminants Program, and numerous other government agencies and academic institutions. Information collected by the research team will provide a baseline for future studies and monitoring of sea otters in the region.

Olympic Coast National Marine Sanctuary was designated in 1994 as the first national marine sanctuary in the Pacific Northwest. It encompasses about 3,300 square miles off the Washington Coast, extending from Cape Flattery to the mouth of the Copalis River. The sanctuary's natural and cultural resources include whales, dolphins, porpoises, large populations of nesting seabirds, Native American communities and archaeological sites, and some of the last remaining wilderness coastline in the lower 48 states.

More information: Sea Otter Study Report:
[sanctuaries.noaa.gov/science/c ... vation/brancato.html](https://sanctuaries.noaa.gov/science/c...vation/brancato.html)

Source: NOAA

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