NOAA Fisheries Service Releases Necropsy Report
Cause of 2005 Marine Mammal Strandings Unclear

NOAA Fisheries Service released necropsy results today, taken from stranded marine mammals off the coast of North Carolina in January 2005. Despite extensive testing, no single cause of the stranding and death of the marine mammals have been identified.

“Experts from around the country worked on these samples and tests, and the bottom line is that we are not able to reach a definitive cause for the stranding,” Dr. Aleta Hohn, NOAA Fisheries Service lead marine mammal scientist on the report said. “Although lesions involving all body systems were observed, consistent lesions were not observed across species or individuals.”

According to Hohn, four whales had pre-existing conditions that could have contributed to stranding, and one whale had a debilitating condition that could have been present just prior to or as a result of stranding. Neither of these explains the stranding event, however. Although the stranding event occurred while military activities were going on off the coast of North Carolina, the investigation was unable to determine what role, if any, those activities played in the stranding events.

On January 14, 2005, 33 pilot whales (Globicephala macrorhynchus) stranded near Oregon Inlet, N.C., and one minke whale (Balaenopatera acurostrata) stranded in Corolla, N.C. On January 15, 2005, two dwarf sperm whales (Kogia sima) stranded north of Cape Hatteras, N.C. Immediately following the stranding, NOAA Fisheries Service coordinated a response team. The National Park Service, U.S. Coast Guard and others raced to the scene and attempted to help, but none of the stranded animals survived.

NOAA Fisheries Service worked with their partners around the country to conduct a comprehensive response effort, and a multi-organizational, interdisciplinary investigation into the circumstances surrounding this unusual multi-species mass stranding and the potential cause(s). In the months since the stranding, scientists from several organizations have been analyzing tissues, evaluating environmental parameters including acoustic sources and oceanographic conditions, and interpreting the results to determine the circumstances surrounding this event.

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According to NOAA Fisheries Service scientists, in many stranding cases, scientists never learn the exact cause of the stranding. Over the past decade they have however, found that a number of things can cause marine mammals to strand including: diseases such as parasite or viral infections, biotoxins from harmful algal blooms, traumatic injuries due to ship strikes or fishery entanglements, acute noise in the ocean, tidal fluctuations, extreme weather events, and starvation.

In all cases of mass strandings, NOAA Fisheries Service works with partners from around the country to coordinate stranding response and necropsy examinations to try to determine the circumstances and cause(s) for stranding events.

Biotoxin and contaminant results and results of diagnostic computerized images (Magnetic Resonance Imagery [MRI] or computed tomography [CT] scans) of some heads and ears and histopathology are not included in this report. These results are anticipated to be completed in late 2006 and will be provided as additional reports after peer review.

NOAA Fisheries Service is dedicated to protecting and preserving our nation’s living marine resources and their habitat through scientific research, management and enforcement. NOAA Fisheries Service provides effective stewardship of these resources for the benefit of the nation, supporting coastal communities that depend upon them, and helping to provide safe and healthy seafood to consumers and recreational opportunities for the American public.

The National Oceanic and Atmospheric Administration, an agency of the U.S. Commerce Department, is dedicated to enhancing economic security and national safety through the prediction and research of weather and climate-related events and providing environmental stewardship of our nation’s coastal and marine resources. Through the emerging Global Earth Observation System of Systems (GEOSS), NOAA is working with its federal partners and 60 countries to develop a global monitoring network that is as integrated as the planet it observes.

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