

## **This year's gray whale migration brings new insights into their remarkable journey**

Spring 2012

The gray whale migration season is here! Viewers can see these magnificent creatures heading north off the West Coast of Mexico, the United States, and Canada to their summer feeding grounds in the Bering, Beaufort, and Chukchi Seas. One group of gray whales – the eastern North Pacific population – migrates from their breeding and calving areas along Baja California, Mexico, northward, traveling some 15,000-20,000 km round trip. Their migration represents one of the longest annual migrations of any mammal. The North Pacific is home to a second group of gray whales, the western North Pacific population, which until recently scientists thought was confined to the coast of eastern Asia. But two members of the western population, nicknamed “Flex” and “Varvara,” changed our understanding of gray whale migration patterns.

In summer 2010 and 2011, a team of scientists from the United States and Russia satellite tagged seven western gray whales off the east coast of Sakhalin Island, Russia, to study their migration route(s).<sup>1</sup> Four of the tags stopped transmitting while still off Sakhalin, and another stopped further east, but scientists tracked Flex and Varvara all the way to the West Coast of North America. Flex's tag stopped transmitting off the Oregon Coast in 2011. However, Varvara's tag has tracked her as far south as the Baja lagoons and as far north as False Pass on Alaska's Aleutian coastline, where she was last located. These remarkable tracks are also supported by recent photo-identification evidence showing that at least some western whales mingle with the eastern population off North America's West Coast. Scientists do not yet know why these western gray whales travel east—genetic evidence indicates the two populations do not interbreed regularly. Nevertheless, the new information suggests that at least some members of each population follow a similar migration route south of Alaska, and may even share breeding/calving grounds in Mexico.

In the 1970s scientists believed the western gray whale was extinct, but a small aggregation was discovered off Sakhalin Island. A joint Russia-U.S. research team, co-directed by NOAA scientists, has monitored the whales since 1995. The western population numbers approximately 130 whales and is listed as endangered under the U.S. Endangered Species Act. Though the

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<sup>1</sup> This research was conducted by A.N. Severtsov Institute of Ecology and Evolution of the Russian Academy of Sciences (IEE RAS) and Oregon State University Marine Mammal Institute in collaboration with the U.S. National Marine Fisheries Service, Kronotsky State Nature Biosphere Reserve, and the Kamchatka Branch of the Pacific Institute of Geography. The research was contracted through the International Whaling Commission (IWC) and International Union for Conservation of Nature (IUCN) with funding from Exxon Neftegas Ltd. and Sakhalin Energy Investment Company Ltd.

eastern population also was listed as endangered, a global ban on commercial whaling allowed it to recover and it was delisted in 1994. Today the eastern population stands at approximately 19,000 animals. Both the eastern and western populations are protected by the Marine Mammal Protection Act.

Through scientific research and management, NOAA Fisheries works to understand the geographic distribution and biological requirements necessary for healthy gray whale populations. The agency also works to address the threats these populations face, such as entanglement in fishing gear, collisions with vessels, and habitat degradation. For example, NOAA Fisheries' Southwest Fisheries Science Center conducts stock assessments on the eastern population to track its abundance and calf production over time. These assessments allow us to track the health of the population. The Northwest Regional Office and National Marine Mammal Lab fund photo identification studies to better understand the species' stock structure and behavior. This information allows us to follow the animals over time and gain greater insight into their use of habitat and their feeding patterns. It can also potentially shed light on the relationship between the eastern and western populations. In addition, NOAA Fisheries works with the International Whaling Commission, academic institutions, and other partners to conserve and protect these animals. This year, their collective efforts unveiled an important scientific discovery—some members of the western and eastern populations of gray whale “share the road” as they continue the longest mammal migration on earth.

*To follow Varvara's journey, please visit Oregon State University's Marine Mammal Institute:*  
<http://mmi.oregonstate.edu/Sakhalin2011>

*To learn more about gray whales and NOAA Fisheries' research and management, please visit:*

Gray Whale Research: <http://swfsc.noaa.gov/textblock.aspx?ParentMenuId=230&id=1431>  
[http://www.afsc.noaa.gov/nmml/species/species\\_gray.php](http://www.afsc.noaa.gov/nmml/species/species_gray.php)

Eastern North Pacific Gray Whale Management: <http://www.nwr.noaa.gov/Marine-Mammals/Whales-Dolphins-Porpoise/Gray-Whales/Index.cfm>

Track Gray Whales Now: <http://swfsc.noaa.gov/PRD-GrayWhale-tracking/>

Gray Whale Fact Sheet:  
<http://swfsc.noaa.gov/textblock.aspx?Division=PRD&ParentMenuId=211&id=16453>

Eastern North Pacific Gray Whale Population Studies:  
<http://swfsc.noaa.gov/textblock.aspx?Division=PRD&ParentMenuId=211&id=9036>

Gray Whale Calf Production Research:  
<http://swfsc.noaa.gov/textblock.aspx?Division=PRD&ParentMenuId=211&id=16464>

Evaluating Killer Whale Predation on Eastern North Pacific Gray Whales:

<http://swfsc.noaa.gov/textblock.aspx?Division=PRD&ParentMenuId=211&id=16064>

Eastern North Pacific Gray Whales and Climate Change:

<http://swfsc.noaa.gov/textblock.aspx?Division=PRD&ParentMenuId=211&id=16478>