

12-27-06

## Media Release

### OSU Creates New Institute Based on Success of Marine Mammal Program

NEWPORT, Ore. – Building on the success of its marine mammal research and outreach program, Oregon State University has created a new Marine Mammal Institute, and announced plans to expand its faculty and broaden the scope of its research in ecology and conservation.

The new institute will be a focus of campus fund-raising efforts that would nearly double its endowment of more than \$7 million, say officials of the OSU Foundation.

OSU's research in the study of threatened and endangered whale species has been internationally recognized over the past three decades, primarily through the pioneering studies of Bruce Mate, who directs the institute. Mate was the first scientist to use satellites to track whales, and specialized tags developed at Oregon State by his team have led to new discoveries and a wealth of data on blue, gray, humpback, bowhead, right, fin, sperm and other whale species.

"Creating an institute to further the university's research on marine mammals is a reflection of the excellence of the faculty and the relevance of their work," said OSU President Ed Ray. "This is a signature program that continually provides critical information about marine mammals that can help humans peacefully co-exist with them."

The new institute already is experiencing success. The Oregon Community Foundation has approved a grant of \$200,000, contingent upon the university raising \$400,000 in matching funds, and an anonymous donor has provided a gift of \$50,000.

During the past year, the OSU program achieved significant growth with the hiring of Scott Baker, a cetacean geneticist and scientific delegate to the International Whaling Commission, who will serve as the institute's associate director, and Markus Horning, a pinniped ecologist from Texas A&M University. Their addition widens the focus of the institute beyond satellite tagging of large whales to encompass new technology for the study of all marine mammals, including seals, sea lions and dolphins.

Future plans include boosting the donor-supported endowment and hiring additional faculty with backgrounds in marine mammal behavior and physiology, as well as expertise in physical oceanography, acoustics, engineering, veterinary medicine and other specialties.

"With the addition of Dr. Baker and Dr. Horning, our work will now include research in every ocean in the world," Mate said.

"We're certainly not shifting our focus away from critical research that investigates the migration routes and habitats of endangered whale species," Mate added. "We want to apply similar energy and passion to the study of other marine mammals and the ecological issues surrounding them."

Public interest in marine mammal research and outreach continues to expand as do issues relating to conservation of rare and threatened species. Baker has been involved in recent international efforts to curtail the illegal exploitation of protected whales. Using molecular methods to identify the species of whalemeat sold in commercial markets in Japan and Korea, he has documented the sale of products from humpback, western gray, fin, sei, Bryde's and sperm whales.

By developing more general methods for DNA identification of all whales, dolphins and porpoises, Baker helped to discover the first new species of cetaceans described in 15 years – Perrin's beaked whale, a rare and enigmatic species known only from a handful of stranded specimens.

Baker is now working to describe the genetic diversity and abundance of recovering populations of humpback whales worldwide. Working with regional collaborators throughout the North and South Pacific Oceans, his laboratory will undertake analysis of thousands of genetic samples collected from living whales and help to integrate this information with the photographic sighting records of these naturally marked individuals.

Horning's recent work, funded by NOAA and the National Science Foundation, has focused on endangered Steller sea lions in Alaska, and Weddell seals in Antarctica. The dramatic decline of Steller sea lions over the past three decades, and their subsequent listing as endangered, has had a significant impact on the fishing industry and coastal communities in Alaska. Horning is using specially developed tracking devices to monitor Stellers throughout their entire lives, a first in the study of marine mammals.

Horning spent much of this fall in Antarctica, collecting data on muscle physiology and diving performance for a study of aging in Weddell seals.

"In many declining species, a shift toward older animals in the populations has been observed," Horning said, "yet we know next to nothing about the constraints imposed by old age, and possible adaptations to aging in marine mammals."

One of OSU's goals in creating the Marine Mammal Institute is to foster more collaborative research – not only with other Oregon State scientists, but with specialists from around the world. Already the institute has received a grant of \$750,000 from the Joint (petroleum) Industry Program, Office of Naval Research and the Minerals Management Service for a collaborative project with OSU oceanographer Kelly Benoit-Bird, a specialist in acoustics and marine community behavior, to study sperm whales and squids in the Sea of Cortez off Mexico.

The expansion of collaborative research should broaden the scope of the institute's research potential by attracting more federal research dollars to Oregon, Mate said. Much of the funding for the program has come from private donations and additional private support is critical for future expansion.

During the last three years, OSU's marine mammal program got a boost from the donation of three large fishing vessels from West Coast fishermen. Those vessels have a combined value of \$1.7 million and private donations to the Marine Mammal Endowment allowed one of the boats to be retrofitted for research. This summer, it was used in the Bering Sea for two months and off California on blue whale research.

Mate said the institute hopes to refit the other two boats, creating a mini-fleet of research vessels for OSU scientists.

***About the Hatfield Marine Science Center: OSU's Marine Mammal Institute is headquartered at the university's Hatfield Marine Science Center, a research and teaching facility located in Newport, Ore., on the Yaquina Bay estuary, about one mile from the open waters of the Pacific Ocean. It plays an integral role in programs of marine and estuarine research and instruction, as a laboratory serving resident scientists, as a base for far-ranging oceanographic studies and as a classroom for students.***

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#### **Sources**

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