

Getting to Know Kodiak's Whale Population

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Brianna Gibbs/KMXT

Humpback

and fin whale populations are increasing in the Kodiak archipelago, says Bree Witteveen, a marine mammal specialist and research assistant professor for the Marine Advisory Program. On Tuesday Witteveen gave a teleconferenced talk with students at the University of Alaska in Fairbanks, but opened the talk to Kodiak residents at the Kodiak Seafood and Marine Science Center on Near Island.

Since 1999,

Witteveen and fellow researchers have been studying whale populations around Kodiak through the Gulf Apex Predator Prey Project, a program designed to study various predator species and their effects on surrounding ecosystems. Using aerial and boat photography, tagging and isotope sampling from skin and blubber, researchers have gained a greater understanding of where whales travel, when they travel, how many whales there are and what they are eating.

Witteveen

said a special tagging technique has been especially useful in collecting the info.

"Our approach is to use short term tags, they just stay on the animal for a number of hours, rather than days or months like some of the satellite tags do. And they attach to the animal with a suction cup. So you see the suction cup here, and this black bar here essentially tells us how deep the whale is diving and this part here with the antenna coming up is a vhf transmitter, and that allows us to when a tag falls of it sends us a signal so we can scoop it up."

The depth data, when combined with elaborate fish finders, helps determine what the whales are eating.

-- (Whale Seminar 2 :33 "So another part of this is the prey assessment, and we do this concurrent with our depth assessment. This is where the benefit of a real time tag comes into play. What we're able to do is communicate with a separate vessel that is doing specific prey surveys for us. So we're able to talk to this vessel and well the whales at 100 meters, so they go over there and they tell us what's at 100 meters. And they do this by using acoustic sampling of a back scatter, which essentially is just a big fancy fish finder.")

During the talk Tuesday night, Witteveen discussed some of the most important findings of her research, including the surprising amount of fish humpback and fin whales eat, which she said is equal to commercial fisheries catch.

"Well first of all we can say from those aerial surveys and from our photo identification work these whales are using the Kodiak archipelago year round. And they seem to have mostly separate habitats, but there do seem to be areas where there is spatial overlap. The population of both of these species are increasing, or at the very least stable. With respect to diets, when we compare the tagging with the stable isotope data we can start to see that fin whales are more reliant on zooplankton, and humpback whales seem to be comprised mostly of fish, and to a lesser extent zooplankton."

Witteveen said the photography, tagging and sampling tools will continue to be used for research, but more recently her efforts have been directed toward studying the relationship between commercial fishing and whales.

"A new addition this last year and we're going to continue it this year is to look at the humpback whale and fishery interaction, which is becoming more and more of a problem. And how we're tackling this is we're putting a different type of tag on these animals, using a pole. And in this tag is a little hydrophone that essentially records what the whale hears. It records the sound at the whale. And it also has a 3D way of recording the data. So not only do we get depth but we get speed and pitch and roll, we get all kinds of information from this tag. And the idea is to attach the tag and then record what the whale hears in terms of different deterrents to get whales out of their net."

She said
humpback whales getting caught in fishing nets are a growing problem, and she hopes this research will find useful methods to prevent that.

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