

Commercial fish species discovered in Arctic

March 9 2011, By Elizabeth Bluemink

Spurred by the rush to develop the Arctic's offshore oil and gas riches, scientists are unlocking some mysteries about the marine environment off Alaska's northern coast.

Hundreds of millions of dollars have been spent on the icy Beaufort and Chukchi seas, resulting in major discoveries - including the existence of commercial [fish species](#) such as Pacific cod and walleye pollock in places never before documented.

Two summers ago, Libby Logerwell and her colleagues from the National Marine Fisheries Service headed out in a trawler to survey [fish populations](#) in federal waters of the western Beaufort. This research project occurred the same year that the federal government leased large blocks of seafloor in both seas to major oil companies for exploration. It was the first offshore fish survey in the Beaufort in 30 years.

Logerwell said the main goal of the 2008 Beaufort survey - compiled into a final report in February - was to gather data to help evaluate the potential impacts of oil and gas development.

But her team's discoveries east of Barrow had other ripple effects.

For example, the team's find of commercial fish species more typically caught in the Bering and North Pacific informed federal fishery regulators' 2009 decision to ban commercial fishing in U.S. Arctic waters, to buy time before seafood companies could even think about moving boats there. The biggest fishery in Alaska targets Bering Sea

pollock.

A larger concern is the potential for environmental disruption, either from increased shipping traffic as Arctic ice recedes amid global warming, or from catastrophic spills of future oil production or exploratory drilling. Scientists say it is difficult to calculate the damage if you don't know even know what is in the environment.

Also, scientists are watching commercially valuable fish and shellfish species expand their range northward due to warming [ocean temperatures](#). In addition to the discovery of pollock and cod, Logerwell's survey was the first to find commercial-sized snow crab in the U.S. Arctic.

Since 2006, federal offshore oil and gas regulators have spent about \$60 million on Arctic research.

Royal Dutch Shell, one of the companies that aspires to drill exploration wells in the Beaufort and Chukchi, says it has spent more than \$500 million on scientific work.

The western Beaufort fish survey in 2008 alone cost \$1 million. A second fish survey in the central Beaufort - closer to Camden Bay, where Shell hopes to drill its first oil well in the U.S. Arctic in decades - is scheduled for this summer. That University of Alaska Fairbanks project has been budgeted at \$1.7 million. Both surveys were funded by the federal Bureau of Ocean Energy Management, Regulation and Enforcement.

Federal scientists admit they had to rely on limited, old data about fish when they analyzed the potential environmental impacts of exploring for oil and gas in the Beaufort. The scarcity of data and concerns about Arctic wildlife including bowhead whales and polar bears has resulted in

harsh criticism from environmental groups seeking to halt or slow the pace of oil and gas development in offshore waters.

"We're pushing to get information on both seas," said Kate Wedemeyer, a fisheries oceanographer for the federal Bureau of Ocean Energy Management, Regulation and Enforcement in Anchorage.

"There is about five to 10 times more information (about) the Chukchi than the Beaufort," she said, noting that Shell and ConocoPhillips have both surveyed for fish where they hope to drill wells but the companies haven't shared their data for external review yet.

Shell Alaska spokesman Curtis Smith said the company is still analyzing its fish data from the Beaufort last year. He said the company looked at everything from bowhead whale migration to water chemistry over the last five years. Recently, Shell signed a \$2 million agreement with the North Slope Borough to tackle scientific concerns raised by people who live in the region. Some of that work - possibly including a review of the health of subsistence wildlife populations - will begin this year, he said.

The borough came out in favor of Shell's plan to drill one exploration well this summer in the Beaufort's Camden Bay, saying enough data has been collected to go ahead with that work. But that drilling has been delayed until 2012 due to permit problems, and some tribal governments on the North Slope and many environmental groups continue to oppose Shell's plan.

"We strongly believe the science should be conducted first, until we have a good baseline," said Chris Krenz, a Juneau-based research scientist for Oceana, a conservation group.

The fish surveys are an important step in that direction, he said.

In the Gulf of Alaska, the Aleutians and the Bering Sea, federal-run research vessels sail every year or every other year to gather trawl data needed to manage commercial fish catches. But large swaths of the Beaufort still remain barely examined by scientists.

"Where we have the least knowledge, after fish, is the (bottom-dwellers) and the food that everybody eats," Wedemeyer said.

She said she is excited to learn what the University of Alaska-Fairbanks-led fish survey this summer in the central Beaufort will find. For example, it remains unknown whether the pollock and cod discovered in the western Beaufort in 2008 have migrated that far.

It's also unclear if pollock and Pacific cod are spawning in the region. Logerwell's survey found many juvenile pollock and a handful of Pacific cod but no spawning adult. The [fish](#) could have strayed there, she said.

Wedemeyer said she's also hopeful about reaching an agreement with Canadian scientists to study the eastern Beaufort - another potential hot spot for future oil and gas exploration - in future years.

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