

# Nunatsiaq News

May 14, 2004

## Ogac Lake's monster cannibal cod

*Trapped during ice age, huge, hungry fish eat everything*

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If you go ice-fishing this spring, you don't want to end up jigging at Ogac Lake, a landlocked fiord on Baffin Island's Frobisher Bay that is home to a landlocked stock of fish that biologist Jeff Hutchings calls "large, monster cod."

"The first one I had was four and half feet long, weighing on the order of 60 to 70 pounds," Hutchings tells. "It was quite the experience."

As he reeled the fish in, other huge cod circled around and snapped into the air.

That's because these cod are cannibals and would have willingly eaten Hutchings' catch.

"They have the highest rate of cannibalism that I'm aware of for this species. Roughly one-third of the stomachs contained other cod," Hutchings says. "We did find a loon in one cod, which we think was a red-throated loon. We found the entire neck, skull and feathers inside the stomach. It's unbelievable."

The cod are not very tasty, something that may have helped preserve them from over-fishing. The researchers sampled some of the cod they had to kill for study.

Last summer, Hutchings, who is a biology professor at Dalhousie University in Halifax, his graduate student, Dave Hardie, and field assistant Michael Mipeegaq of Iqaluit went out to study Ogac Lake's cod, just as the last ice on the lake was breaking up and there was still snow around.

After they settled into their camp, the three men went out in a zodiac to see if they could catch a cod and find out what is required to catch one. A fishing rod with a rubber fish lure at the end was all it took.

"They were just so hungry," Hutchings says.

The team caught, tagged and released many fish. They kept several cod of various sizes.

The three had a hard time finding cod smaller than 18 inches (40 cm.) long.

"I'm sure they're hiding," Hutchings says. "They're clearly there, but they're very effective [at hiding]. It's a tough existence."

The "monster cod" are unique to Nunavut, and are only found in two other lakes along the Cumberland Sound, called Qasigialiminik and Tariujarusiq, which Hardy visited last summer with Alan Alikatuktuk from Pangnirtung.

The landlocked cod are "highly unusual," Hutchings says. They ended up in those lakes at the end of the last Ice Age, 5,000 to 8,000 years ago.

"When the last ice was retreating, with the removal of all the ice on the land, the land experienced various rates of uplifting and this tended to pinch off these bodies of water, so some of these would have been entirely cut off from the ocean," Hutchings explains.

However, Ogac Lake is open to the ocean, and this has allowed its cod to thrive.

"It allows for the high tides of each month to bring in food and salt," Hutchings says.

The lake water is fresh near the surface, but remains salty at the bottom. There's no regular movement of cod between the lake and the bay.

Hutchings and his crew plan to be back at Ogac Lake this July. Meanwhile, wildlife management groups and the hunting and trapping associations in Iqaluit and Pangnirtung are following this project with interest.

"Any knowledge gained that would help guarantee the persistence of these populations would be of interest to the Inuit and non-Inuit," Hutchings says.

The research should show what happens to the ability of cod to survive when a population is at low level, and there's a small gene pool and a lot of inbreeding.

"As far as we can tell, these populations number in the hundreds of breeding individuals, and that's very small, especially for cod," Hutchings said. "We can say small populations of cod can persist over time despite the fact that there are all these potential genetic issues."

This is something that could help cod recover in the North Atlantic.

However, the key to survival of Nunavut's lake cod may be the existence of a number of larger fish, because large females produce many more eggs.

"It underscores the importance of large body size for this species. We once had cod further south that would attain these sizes, but now these sizes are unheard of," Hutchings says.