

## Write-up by David Hooper, Native Village of Tununak, September 6, 2007

On the morning of September 25, 2006, a person brought in a tom cod with an unusual black lump. It was the first time for most of us to see a dark spot on a fish that looked like an infection. We later heard more stories that some had been caught before even on other fish types with similar spot of various sizes, especially at the location around the bridge and near the mouth of the Tununak River. People fish in summers and in the winter on frozen rivers or near the coastlines whenever they can.



Photos of the fish caught in Tununak

I took digital pictures of the fish and emailed them to the non-profit group Zender Environmental Health for some advice. They replied and advised to take pictures with some measurement beside them to show the size of the fish and how big the abnormality is. And tell how different it is from the other catch. They explained that many abnormalities are not infections. They may be birth defects or tumors. They said to remind them when we go to Anchorage for ATCEM meeting in October so; they can give us name and a number to send the information to. They sent an email of instructions and an attachment of a sample log of reported fish problems. They suggested posting pictures to the public and say to bring in fish with unusual odd spots on them to keep record. And that it is best to list when the picture was taken and what was done to the fish before the picture. They made a list of information to record along with the images.



- Date the fish was found (and time if possible)
- Where the fish was found/caught (be as detailed as possible)
- What kind of fish it is
- What appears to be wrong with it (describe it as best as you can)

In October 2006, we went to Anchorage for the Alaska Tribal Conference on Environmental Management meetings. I showed the pictures and asked people who might know of whom to contact about fish testing. Some weeks later, I received an email of where to send the pictures. Dr. James R. Winton, PH. of Western Fisheries Research Center in Seattle, Washington was interested after I sent him the images. He shared the pictures with his colleague Dr. Frank Morado of NOAA Alaska Science Center nearby in Seattle, whom said that he has seen this problem in other species of marine fish before and the problem may go away in a year or so. He offered to do a microscopic examination. Dr. Winton sent bottle tubes of fixative, a preservative to mail an infected part of a fish.



His package arrived at the same day when someone brought a smelt fish with unusual spots on them. I cut the infected parts only as instructed and placed the pieces in the bottle tubes. I wrote the time and date and packed to mail them on the same day.



It took about three months when we received their examination results. The diagnosis of Dr. Frank Morado was that the black areas were caused by infection coloration fungus which are common on crabs and found them to be unusual on a fish. And want us to send any other fish disease condition that looks strange to us in the future.

**Dr. James R. Winton thinks that removal of fungus area and freezing or cooking the fish would make it entirely safe to eat. The fish is not likely to pass a disease onto other fish in the area. But it will be good to have the record.**

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