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Oil Spill Public Health Advice - Report No. 4

More Results from Subsistence Study Show No Surprises



Results of analyses of Alaskan fish and shellfish collected in August as part of the Exxon subsistence study have been reported by the National Marine Fisheries Service, National Oceanic and Atmospheric Administration (NMF-NOAA). The new results are consistent with previous findings from samples collected in June and July (reported in our Epidemiology Bulletin No. 16, September 22, 1989).

August results included analysis for aromatic compounds (primarily polycyclic aromatic hydrocarbons--PAH) in bile of 105 fish of eight species; and of 233 samples of fish and shellfish tissues collected, 179 samples were included in the 119 analyses reported.

Samples tested included pink, red, chum, coho, and chinook salmon, halibut, cod, rockfish; and mussels, butter clams, little neck clams, and chitons. Samples were collected from Tatitlek, Chenega, Port Graham, English Bay, Windy Bay, Kodiak, Chiniak, Akhiok, Karluk, Old Harbor, Ouzinkie, Larsen Bay, Pt. Lions, and Angoon. Specimens were collected from Angoon in order to have a site far from the oil spill for comparison.

The major findings from the August sampling are clear evidence of low level contamination of some fish and shellfish at some places from the oil spill. For example, pink salmon collected from Kodiak and Chenega showed presence of aromatic hydrocarbons at low levels, but considerably higher than found in specimens collected from Angoon and the other villages tested. Mussels, butter clams, and little neck clams from Windy Bay, Kodiak, and Chenega showed the greatest exposure to petroleum with Windy Bay specimens having the highest levels.

Most specimens taken from Prince William Sound and the Kodiak villages had levels of aromatic hydrocarbons in edible flesh comparable to the very low levels observed in the same species from Angoon.

These findings are consistent with those reported previously and add to the strength of evidence about seafood and other subsistence foods.

Alaskan fish are and will continue to be safe to eat. Levels of aromatic hydrocarbons found to date in fish are very low and are similar to levels in uncontaminated fish.

Specimens of mussels taken from a heavily oil-contaminated beach at Windy Bay have shown very high levels of aromatic hydrocarbons that should not be consumed (with this amount of contamination, no one would want to collect the mussels, and they would taste terrible). Shellfish tested from "clean beaches" have shown the presence of aromatic hydrocarbons in higher concentrations than found in uncontaminated areas but at levels that do not represent a serious health hazard. If mullusks are consumed, they should not be collected from areas that are obviously contaminated with oil.

No crabs or marine mammals have been tested to date. Having these species tested is a high priority. We also are trying to arrange for testing of deer.

During September, additional specimens of fish and shellfish were collected as part of the last phase of the Exxon subsistence study. These results will be reported on when they become available later in October or early November.