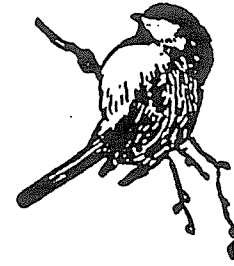


# WILDLIFE WATCHERS' NEWSLETTER



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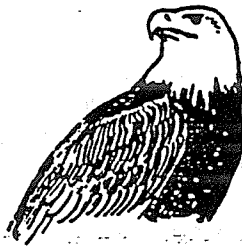
ALASKA DEPARTMENT OF FISH AND GAME  
DIVISION OF WILDLIFE CONSERVATION

## EXXON VALDEZ OIL SPILL

Soon after the grounding of the *Exxon Valdez* on Bligh Reef, ADF&G's Nongame Wildlife Program staff initiated studies assessing the effects of the oil spill on raptors, loons and shorebirds in addition to other ADF&G studies on big game, furbearers, marine mammals, and waterfowl. In addition, the US Fish and Wildlife Service has initiated studies and surveys on raptors, seabirds, shorebirds and other water birds.

## Bald Eagle Production Down

ADF&G and the USFWS recently began a 5-year study to document the immediate and long-term extent of the impacts of the *Exxon Valdez* oil spill on Bald Eagles. Biologists are concerned about impacts to eagles from ingestion of oil, physical oiling of feathers and eggs, decreases in nesting success, and reduction in available food.



More than 5000 Bald Eagles are associated with intertidal habitats that have been impacted by the oil spill in Prince William Sound. As of August 1989, 146 Bald Eagles (including several chicks) have been found dead, although this is believed to be only a fraction of the total mortality.

Nearly all the eagle nests in the Sound occur within 100 meters of the beach, so nest surveys were conducted from May to August, 1989 to assess the effects of the spill on the number of chicks raised. More than 800 nests from areas affected by the oil spill and in non-oiled areas were located and checked for occupancy and productivity. Nests in oiled areas of Prince William Sound produced only a third as many eaglets as a comparative number of nests in the Copper River Basin (distant from spill).

Biologists have also collected the remains of foods found in eagle nests, eggshell fragments, and more than 20 unhatched eagle eggs. These samples will be analyzed for contaminants associated with crude oil, to learn more about how oiling affects Bald Eagles.

## Peregrine Falcons In Prince William Sound

Surveys in Prince William Sound and along the outer coast of the Kenai Peninsula in the past have documented a considerable population of Peale's peregrine falcons. Peale's falcons are thought to be year-round residents of this area preying upon alcids, small gulls, and waterfowl, and occupying traditional nesting territories during the breeding season.



Concern about the effects of *Exxon Valdez* oil spill on Peale's falcons prompted ADF&G and USFWS to initiate follow-up surveys in this area. Potential impacts to Peale's falcons include ingestion of oiled prey, physical oiling, impairment of productivity, and reductions in the amount of available prey.

Peale's falcons are known to have occupied as many as 35 nesting territories each year in Prince William Sound and coastal areas of the Kenai Peninsula. Territories occupied by falcons in recent years and potential nesting habitat in these areas were surveyed between 30 April and 18 May to count adult peregrines, and again in early July to count young. Cliffs suitable for peregrines occur primarily along exposed outer coasts and on offshore islands. These areas were the focus of the surveys done by helicopter using two observers in addition to the pilot.

Only 10 occupied nesting territories were identified during the surveys. Seven of the 35 previously inventoried nesting territories were occupied and 3 previously unknown nesting territories were identified. These initial surveys indicate a significant number of unoccupied nesting territories in Prince William Sound and along the coast of the Kenai Peninsula. Although some annual variability in the number of occupied nesting territories is normal, the low rate of occupancy and the few peregrines observed are well below the range of expected fluctuation.

Surveys to monitor eyrie occupancy, productivity and assess impacts from the *Exxon Valdez* oil spill will continue next year.



## Shorebirds Studied in Sound



When news of the spill first came out, many people were concerned about its effect on the Copper River Delta where more than 10 million birds stop each spring enroute to their northern nesting areas. Fortunately, the oil did not spread to the mudflats of the delta. As it became clear that the rocky shorelines within Prince William Sound were being heavily oiled, concern shifted to shorebirds reliant on those habitats. Most, if not all, of the entire world populations of some species, such as the Surfbird and Black Turnstone (estimated to number in the 50,000 to 200,000 range), pass through Prince William Sound every spring. Others, like the Black Oystercatcher spend their entire annual cycle in the rocky intertidal habitat of the Sound.

Studies were designed to assess the impacts of oil on these species. Field work on the migrants using rocky intertidal habitats was conducted in late April through mid-May by the US Fish and Wildlife Service with the assistance of an ADF&G nongame biologist.

Large numbers of Surfbirds and Black Turnstones were found on northern Montague Island, apparently attracted to the herring roe which had recently been spawned there. These two shorebirds and large numbers of gulls, waterfowl, and other birds appeared to home-in on this super-abundant food source. Fortunately, this area was only lightly touched by the oil spill. Herring roe may serve as a critical food for these migrating shorebirds as they replenish fat reserves on their passage north to nesting areas. A US Fish and Wildlife Service crew from Oregon was recruited to conduct studies on breeding Black Oystercatchers in late May and June. Data on hydrocarbon contamination from these two projects are not available at this time.

The waterborne oil slick also threatened pelagic species like the phalaropes. Limited surveys from the 1970's suggested perhaps 1 to 3 million red and red-necked phalaropes used nearshore waters in Prince William Sound and adjacent portions of the Gulf of Alaska. Unfortunately, studies of phalaropes in nearshore waters of Prince William Sound and the Gulf of Alaska were never conducted by the USFWS.

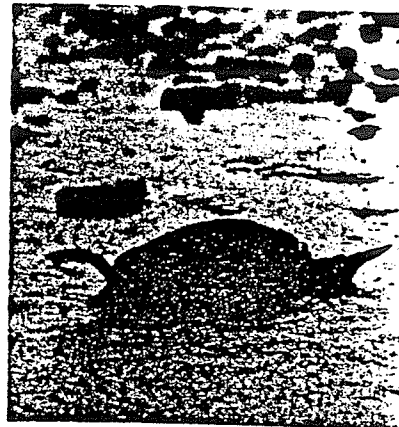
Although oil did not reach the Copper River Delta, its critical importance to millions of shorebirds prompted researchers from the University of Alaska and Hawk Mountain Sanctuary to independently duplicate field work conducted in the mid-70's. About 3 weeks were spent in the field in April and early May studying migrant Dunlins and Western Sandpipers and their invertebrate prey on the mudflats of Hartney Bay on the western edge of the Copper River Delta.



## Wintering Loons Affected by Spill

By late September 1989, 387 dead loons had been collected from coastal areas affected by the *Exxon Valdez* oil spill. Over 200 Common Loons and 86 Yellow-billed Loons were tallied. Biologists suspect that these numbers represent only a fraction of the total mortality because many of the carcasses sank, were scavenged by predators, or were not found and tallied.

Most of the loons were killed in March and April before the adults fly to freshwater lakes for breeding. The relationship between marine wintering areas and freshwater breeding areas is not well understood for loons in western



North America. However, because historical data on breeding Common Loons were available for 93 lakes in nearby areas of southcentral Alaska, ADF&G initiated follow-up surveys last summer on these lakes. These surveys included the northern Kenai, Anchorage and Matanuska-Susitna Valley. No loss of breeding adults in these areas was found, so it remains unknown where the Common Loons killed in the spill normally nest.

Although there appeared to be fewer Yellow-billed Loons killed by the spill, the deaths are of greater concern because their total population size is so much smaller. There are about 34,000 Common Loons in Alaska, but probably less than 5,000 Yellow-bills that nest in the state, which may represent half of the total world population. Thus, the mortality of Yellow-billed Loons probably represents the greatest population impact of the spill on any bird species.

To investigate the status of Yellow-bills breeding in Alaska following the spill, aerial and ground surveys were conducted on lakes in northern and northwestern Alaska known to have nesting Yellow-bills in the past. Dr. Judith McIntyre, a loon expert from Utica College, and Dr. Rebecca Field from the University of Massachusetts, coordinated the surveys with funds from the National Geographic Society, Exxon USA and the North American Loon Fund. No loss of breeding adults was found, although only about 10% of the breeding range was surveyed. Again, lack of historical and migratory data hindered knowing which breeding areas were affected.

Wintering populations of loons in the spill area will continue to be surveyed by biologists from the U. S. Fish and Wildlife Service. With this information, we may learn more about the status of these populations following the spill.