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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 inter-

tidal 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 akids, 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.

Bird Treatment Center Opens in Anchorage



A new treatment center for diseased and injured wild birds was established recently in Anchorage. The Bird Treatment and Learning Center (TLC) was founded largely through the efforts of long-time Alaskan veterinarian Dr. James R. Scott and several key Alaskan community members and organizations who recognized the need for a facility in Anchorage.

The goals of the TLC include providing wild bird care and treatment, compiling information on injured and diseased birds, succesfully reintroducing treated birds to the wild, and developing an education program about the importance of birds and their environment. ADF&G is one of the many agencies and professional groups that support the concept and purposes of the TLC.

The concept of this treatment center for wild birds evolved during Dr. Scott's voluntary treatment of injured wildlife for many years. The TLC is staffed by qualified veterinarians, veterinary technicians, and a large cadre of trained volunteers. The Center seeks to provide facilities to care for injured or diseased wild birds, as well as to increase awareness of the need to protect and preserve critical habitat.

In the spring of 1989, the TLC enlarged its mission to include the care and long-term rehabilitation of Bald Eagles and other species injured as a result of the Exxon Valdez oil spill. New facilities, located at Camp Carroll on Fort Richardson, were constructed with grants mostly from Exxon.

The TLC is a private, non-profit organization supported primarily by contributions and volunteers. For further information, contact the Bird Treatment and Learning Center, P.O. Box 230496, Anchorage, AK 99523 or call (907) 263-8977.

Shot Loon Treated at Center

An adult Common Loon that had been shot in the left wing was successfully treated and released from the Anchorage Bird Treatment and Learning Center (TLC) this fall. The loon had been shot some time before being captured in early November, and X-rays revealed that the fracture had healed well.

Loon Watch volunteer Jane Buskirk retrieved the loon from a lake near Talkeetna after ice had formed over most of the lake. Although 9 other adult loons had flown into the lake and left during the fall, this one stayed behind. Buskirk contact ADF&G, and we took it to the TLC for examination and treatment before release.

The loon should be able to fly again soon, according to TLC staff. To monitor its movements, it was banded with a USFWS aluminum leg band and fitted with colored tags around each wing. The loon was released near Whittier where it will be able to join other wintering loons.

Fairbanks FeederCount

The winter of 1988-89 was the fourth consecutive year that Fairbanks' volunteers have monitored over-wintering birds at feeders. Sixty-eight households reported on the birds using their feeders in November, December, and March.

Overall, this past winter was characteristic of an off-year for redpolls. Redpolls in the Interior vary dramatically in number from year to year, sometimes appearing to exhibit a cycle, with an as yet unknown period - or cause.

As usual Black-capped Chickadees were present at nearly all feeder stations, in similar numbers to previous years. Restricted in distribution by their preference for pure spruce forests, Boreal Chickadees were reported by approximately 60% of the counters. Other regulars, such as Downy and Hairy Woodpeckers, Pine Grosbeaks, and Gray Jays, were also present in similar frequency and number to previous years. As in winter 87-88, grouse and ptarmigan were fairly common visitors to residences while searching for grit in snow-free areas.

The cold snap of January 1989 had no obvious impact on bird numbers, as no dramatic drop was seen between the December and March counts.

If you would like to participate in this winter's FeederCount in Fairbanks, send in the coupon in this newsletter.

Loon Watch Continues in Southcentral Alaska

More than 150 volunteers participated in ADF&G's Loon Watch survey during 1989, contributing information on loons on 150 lakes in the Anchorage, Kenai and the Matanuska-Susitna Valley areas. Alaska is one of only four states that still have substantial numbers of breeding loons.

Loon Watch surveys have been valuable for recording which lakes have successfully nesting loons, for documenting traditional loon nest sites, and for identifying loon conservation problems. We hope to learn more about how loons and people can coexist so that even Alaskans in developed parts of the state can enjoy this "wilderness species."

During 1990, the Alaska Loon Watch will be expanded to all lakes in southcentral Alaska, with an emphasis on identifying and protecting loon nesting areas. If you would like to participate in this fun and rewarding effort, please return the coupon inside this newsletter.

An informational packet, including observation forms and instructions, will be sent to all volunteers by early May. All participants receive an attractive loon pin as a small thank-you for their efforts.



Bring Wildlife into Your Classroom

Alaska Wildlife Week materials and Project WILD are two wildlife oriented curricula that ADF&G sponsors for grades K-12. Hundreds of teachers statewide have used the activities that lead from awareness to responsible action in wildlife conservation.

Alaska Wildlife Week materials include Alaskan-specific information on wildlife habitat, populations and endangered species, and ecosystems, including wetlands, forest and tundra. Each year since 1983, packets including teacher's guides, posters, and other materials have been distributed to all schools in the state free of charge. The materials are currently being revised, expanded and reprinted, and we are looking for volunteer teachers to field test the activities.

Project WILD is a national wildlife curriculum which has been adopted by state wildlife and education agencies in 47 states. These stimulating and fun activities include the topics of habitat, values of wildlife, ecological principles, and management and conservation for fish and wildlife. Project WILD teacher guides are available free of charge through a teacher training workshop.

Magpies Studied in Anchorage

Over 150 Black-billed Magpies have been banded in Anchorage since 1987 as part of a long-term research project by Anchorage resident Rick Sinnott. He hopes to learn more about their movements, nesting habits, and life spans from reports by volunteer observers. Magpies may be attracted to a residence by providing



dogfood, meat scraps, or fatty foods such as suet or peanut butter.

If you see a banded magpie, make careful observations of the leg bands and call Rick at 267-2185. Most of the banded magpies have two bands on each leg. One band is aluminum (silver) and three are colored (not necessarily three different colors). It is important to note which colors are on the bird's right vs. left leg and which colors are on top (for example, RIGHT = blue/orange LEFT = orange/silver).

All information on an observed magpie, such as age, sex, and birthplace, will be shared with the volunteer observer.







Copper River Delta Provisionally Included in Shorebird Reserve Network

The Western Hemisphere Shorebird Reserve Network (WHSRN) is a system to identify and protect valuable shorebird concentration areas in the western hemisphere. The Copper River Delta seasonally hosts one of the world's largest concentration of shorebirds and has often been promoted for inclusion in the WHSRN. Each spring 10 million or more shorebirds stopover during late April and May during spring migration to feed and replenish fat reserves before proceeding north to nesting areas.

During the Copper River Delta Conference held in Cordova in late September 1989, representatives from WHSRN, ADF&G, ADNR, US Forest Service, US Fish & Wildlife Service, Chugach Alaska Corporation, Eyak Corporation, and the City of Cordova sat down to try and resolve differences holding up the inclusion of the critical Copper River Delta staging area into the WHSRN. The participants in this discussion came with a variety of interests - ranging from protection of wildlife and their habitats to preserving options for economic development and maximizing profits from mining and logging.

A consensus was reached (provisional to official acceptance by the various organizations represented), which included most of the existing State Critical Habitat Area plus the Hartney Bay and Orca Inlet portions of the western Delta. As a concession to strong development interests, the eastern Delta, namely Controller Bay, Bering River Delta, and Softuk Lagoon, were not included in the initial boundaries, but the option to make additions in the future was discussed and generally agreed upon.

Nest Boxes Used in Studies



Providing houses for swallows, chickadees, goldeneyes, kestrels, small owls, and other cavitynesting birds is a great project for any individual Alaskan or groups who enjoy wildlife around their home or community. Carefully constructed nest boxes properly placed in the correct habitat and well maintained - are beneficial to both birds and to humans.

Nest boxes are being used in Interior Alaska in two studies of cavity-nesting birds of prey. One of these is in the Fairbanks area, where a Boreal Owl project was initiated in January 1989 with the assistance of volunteers. The project was designed to monitor trends in numbers and productivity, and learn more about nest-site preferences and prey of this secretive small owl.

Volunteers help build nest boxes, place them near their residences, report on owl activity, and maintain the boxes. Over 70 boxes were built and put up by March 1989. Initial reports from 23 volunteers indicated at least 3 boxes were used by Boreal Owls, 4 by American Kestrels, and 1 by flying squirrels.

A second study is underway in the Delta farming area. Nest boxes are being used there to monitor levels of pesticides in American Kestrels. Periodic grasshopper outbreaks have prompted farmers to use chemical controls. Concern over the effects of these pesticides on wildlife, especially endangered Peregrine Falcons nesting close to the agricultural fields, led to the selection of the cavity-nesting kestrel as a study species.

Thirty-eight boxes were in place by spring 1989, built by the Delta Future Farmers of America and other volunteers assisted by the ADF&G and the U.S. Fish and Wildlife Service. Twenty-two of these were used by birds - 17 by kestrels, 3 by Mountain Bluebirds, and two by Tree Swallows. The kestrel nests average

4.75 eggs per clutch, with 4.1 young hatched per nest. No nest predation was observed.

In 1988 12 boxes were used by 6 pairs of kestrels and one pair of Northern Flickers. Clutch size in kestrels average 4.5 in 1988. Addled eggs and prey remains were collected in both years, but chemical analyses have yet to be conducted.

ADF&G's Alaska Wildlife Watcher's Report #3, Birdhouses for Alaska - a guide to building and placing birdhouses, provides specific information for Alaska. Detailed construction plans for boxes suitable for Boreal and Saw-whet Owls, or kestrels, are available from John Wright, Fairbanks ADF&G office.

The Boreal Owl

The Boreal Owl seems quite tame and often is easily approached. It feeds on mice when they are available and small birds and insects at other times.

About ten inches long, the Boreal Owl has a chocolate brown back with large white spots and white underparts streaked with brown. Its whitish facial disk with a distinct black border, short



tail, yellow bill, and white forehead spotting are distinctive field markings.

The voice of a Boreal Owl sounds like the ringing of a soft bell, but it also emits a high-pitched whistle. Strictly nocturnal (except where the north's long summer nights prohibit), the Boreal Owl roosts in thick foliage during the day. Its preferred habitat is muskegs and dense coniferous and deciduous forests. It nests in natural and human-made cavities and abandoned bird nests.

The Boreal Owl can be found most commonly in interior Alaska, but also lives in parts of western, southwestern and southcoastal parts of the state.

Please check appropriate boxes and return this coupon to the Anchorage office:				
	Please add my name to your mailing list. Address correction:			I want to participate in winter birdfeeder counts in Fairbanks. Daytime phone number
-				I am interested in building nest boxes for cavity- nesting birds and reporting on their use.
-	Suggestions:	3		Holiday Gift Idea! Send me copy(ies) of ADF&G' s full-color book A Guide to Wildlife Viewing in Alaska. Enclosed is a check or money order for \$12.95 each (includes shipping charge).
	Please send me a Fish and Game magazine subscription form.			I want to participate in Loon Watch 1990 in Southcentral Alaska on

Loon Festival a Success

Nearly 400 people attended the first Alaska Loon Festival in Anchorage last May. The festival, held at the Alaska Pacific University, featured guest speakers, loon woodcarving demonstrations, guided walks to view loons, a loon calling contest, loon art and specimen displays, a banquet for ADF&G Loon Watch volunteers, craft and book sales, and other events. The festival was sponsored by the Alaska Department of Fish and Game, the Anchorage Audubon Society, and ARCO Alaska.

A festival highlight was a performance by "Dr. Loonacy", a characterization of a wacky Swedish biologist who has studied loons so long, he looks like one! The characterization is the creative work of Dennis Olson, former director of the Minnesota Loon Watch volunteer program. Everyone enjoyed his entertaining and educational show.

Another featured speaker was Dr. Judith McIntyre, foremost authority on Common Loons and author of a recently published article in National Geographic and a book titled "The Common Loon, Spirit of Northern Lakes." She shared fascinating stories and slides from her 20 years of loon research.

Children and adults alike enjoyed becoming "Loon Rangers" by purchasing a pin with a masked loon and signing a "Loon Ranger Pledge" to help loons. Other activities included a loon education workshop for teachers and youth group leaders, and movies and slide shows.

The festival raised about \$2400 which has been designated for loon research and public education about loons. The festival owes its success to the sponsors, raffle donors, and the many volunteers who assisted in its planning and execution.

MANY THANKS TO:

Bill Abadie Barbara & Jack McCord Dr William Mills Mollie Bynum Barb Byrne Gary & Jean Nilson **Dorothy Carlson** Thomas Oliger Mark Parmelee Scott Christy Jim & Joann Eakin Linda Pavey Jill Follett. Jennifer Richards Delesta Fox Terry Rosso Joe Gallant Anne Ruggies Sue Hagedorn Elise Scheffel Muriel Sutton Kenna Haggart Annie Lawler Jean Tam John Wenger Devona Lybarger Debbie Maloney Stan Wulkowicz George Matz

Volunteers are already busy planning the next festival planned for early May 1990 in Anchorage. Please join us for a fun and enlightening family event! Look for more publicity this spring. If you would like to help, please call Nancy Tankersley at 267-2149.

The Alaska Department of Fish & Game operates all of its public programs and activities free from discrimination on the basis of race, color, national origin, age or handicap. Because the department receives federal funding, any person who believes he or she has been discriminated against should write to O.E.O., U.S. Department of Interior, Washington, D.C. 20240

Sorry you haven't heard from us for a year. Commitments to oil spill work preempted the publication of our spring newsletter. Please return any address corrections to the Anchorage ADF&G office.

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