Alaska Department of Fish and Game
Division of Wildlife Conservation

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MIGRATORY GAME BIRDS

Status, Trends, and Public Use of Migratory Game Birds in Alaska

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Petrula Biologist Steve Bethune bands a pintail on Big Minto Lake

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Status, Trends, and Public Use of Migratory Game Birds in Alaska

Project Location: Statewide Functions

Project Objectives

- Conduct assessments of annual status, production, and harvest information on migratory bird populations in Alaska from a variety of data sources. Evaluate concerns, coordinate with other agencies, develop ADF&G work plan/budget requests.

- Coordination on the Pacific Flyway Council and Study Committee; information exchange, update population management plans, develop research needs; coordinate conservation programs between flyways and at national and international levels; develop harvest strategies, review and recommend 2001–02 hunting regulations, comment on federal harvest management programs.

- Collaborate with coastal state agencies, federal agencies, academic institutions and non-governmental organizations to implement the Sea Duck Joint Venture under the North American Waterfowl Management Plan. Complete synthesis of population status reports; complete the draft strategic plan; identify priority issues and action items with the Management Board.

- Meet Pacific Flyway regional duck banding targets by forming a cooperative network of USFWS, ADF&G, and other banders.

- Improve implementation of HIP for optimal registration of hunters, adequate sampling, and survey design by USFWS, and acceptable estimates of harvest.

- Cooperate with USFWS and other interests to begin work of the statewide Alaska Migratory Bird Subsistence Co-management Council, establish regional committees, implement linkages to flyway councils; begin the process of developing spring and summer subsistence regulations in Alaska.

- Effective dissemination of public information on migratory bird resources, conservation issues, and agency management and research programs. Continue participation in Hunter Education shotgun proficiency and interagency non-toxic shot programs.

Work Accomplished During the Project Segment Period: We developed Waterfowl Program annual work plans and budgets through analysis of migratory game bird status information, identification of management problems, and assessment of the department's capabilities and role in addressing needs relative to programs by FWS, U.S. Geological Survey-Biological Resources Division (USGS-BRD), and other state wildlife agencies. The primary source of status information and process for determining the department's work plans is through the Pacific Flyway Council and Study Committee. The department actively participates in ongoing flyway

communications, data exchanges, work sessions, and formal biannual meetings. Waterfowl Program staff also participate in many coordination meetings, technical discussions, and planning functions with FWS Region 7, USGS-BRD Alaska Science Center, U.S. Forest Service (FS), and Bureau of Land Management (BLM) to identify migratory birds issues and develop cooperative projects in Alaska.

The following list includes the primary ADF&G activities and accomplishments at the flyway national and international levels during this reporting period.

1. Alaska served as chairs of the Pacific Flyway Council (Matt Robus) and Study Committee (Tom Rothe) from October 1, 2000 through September 30, 2001. This involved managing communications and business of the flyway and arranging and conducting meetings in Socorro, NM; Newport, OR; Washington, DC and Juneau. In addition, Matt Robus and Tom Rothe represented the Pacific Flyway at meetings of the National Flyway Council (March, June) and FWS Service Regulations Committee (June).

2. Lead role in revision and adoption of the Pacific Flyway Management Plan for the Western Population of Tundra Swans (July 2001), and submission of the Conservation Assessment for the Dusky Canada Goose for publication (in press). Participated in a dedicated effort to revise the PFC management plan for Pacific Brant at regular meeting and a special November workshop.

3. Contributions to Pacific Flyway recommendations on the FWS EIS on overabundant resident Canada geese; an Environmental Assessment for swan hunting; delisting of Aleutian Canada geese; development of a Tule white-fronted goose monitoring plan; developing coordination mechanisms and contributions to national plans under the North American Bird Conservation Initiative (NABCI); and adoption of revised bylaws for the Pacific Flyway Council and the first set of bylaws for the Study Committee.

4. Participation in North American Waterfowl Management Plan (NAWMP) programs by representing the Pacific Flyway and serving as U.S. co-chair of the Sea Duck Joint Venture (SDJV) Continental Technical Team (CTT); led drafting and revision of the SDJV Strategic Plan; managed CTT assignments to develop science needs documents for 7 initiatives; coordinated development of the first package of endorsed projects and funding allocations; and worked with Management Board chairs to plan SDJV work plans and meeting schedules. Attended Board meetings in September 2000 and March 2001; CTT meeting in October 2000.

5. Participation in IUCN/Wetlands International, coordinating North American information for the Threatened Waterfowl Specialist Group

Harvest Information Program

Waterfowl Program staff collaborated with ADF&G Licensing Section and FWS to implement the Harvest Information Program (HIP) in Alaska for the 2000 hunting season. Specific tasks included coordination with FWS Harvest Surveys (Laurel, MD) to ensure that HIP forms,

internet response systems, and data entry protocols were accurate and consistent with federal regulations and program needs; contracting for production of HIP cards in state duck stamp vendor booklets; improving performance of state license vendors in submitting enrollment cards; answering numerous inquiries from ADF&G staff, license vendors, and the public; and monitoring hunter enrollment data acquisition. Program staff worked with FWS to improve the harvest survey design for Alaska sea duck, crane, and brant hunters. Analysis of HIP enrollment data from 1998–2000 produced important new information on migratory bird hunter activity and community origins of hunters.

Implementation of Bird Treaty Amendments

During this reporting period, the ADF&G Waterfowl Coordinator and headquarters staff worked with the Service and Alaska Native representatives to establish and initiate the Alaska Migratory Bird Comanagement Council (AMBCC). Department activities and accomplishments included: (1) active participation in AMBCC meetings in October 2000—primary accomplishments were election of officers, an interim set of bylaws and draft operating procedures; February 2001—bylaws adopted, development of draft advice to regions on spring hunting regulations, formation of an ad hoc committee on harvest surveys; and April 2001—special meeting to review budget needs and funding sources; (2) development and presentation of PowerPoint shows on the status of migratory bird populations and harvest in Alaska (AMBCC in October, Kawerak committee at Nome in December, and AVCP at Bethel in April). ADF&G contributed analyses of subsistence and recreational harvest data, as well as summaries of national status data; (3) participated on the ad hoc harvest survey committee to develop technical issues and begin planning for a workshop; and (4) ADF&G presentations at meetings of Pacific Flyway Council and other groups to advise on AMBCC involvement in the flyway system and national regulatory regime.

Public Information

In the area of public information products, the program frequently provided answers to questions and technical information to the public, other agencies and conservation groups on a wide variety of topics concerning waterfowl biology, management and hunting. Specifically, program staff maintained and improved the Waterfowl Program web site, expanding pages on satellite telemetry of scoters (EVOS project), adding pages on satellite telemetry of sandhill cranes, and expanding information on migratory bird hunting and regulations.

Since 1989, ADF&G has supported a statewide clearinghouse for advice and information on lead poisoning in waterfowl and effective use of nontoxic shot. The Waterfowl Coordinator worked with Hunter Information and Training (HIT) on the Steel Shot Steering Committee with FWS to annually plan nontoxic shot program funding, products and community clinics, and maintain a team of trained agency educators. The Coordinator participated in a December training session for FWS Refuge Information Technicians to present updates on nontoxic shot information and the interagency education program. ADF&G staff conducted a nontoxic shot seminar and shooting clinic in Togiak during August. The Coordinator organized and conducted a presentation and shooting clinic on nontoxic shot to 30 law enforcement personnel at a Valdez interagency workshop May 15–16. Participants included officers from all federal agencies in Alaska, Alaska State Troopers, Canadian Wildlife Service, Parks Canada, and provincial

agencies in NWT, Yukon, and British Columbia. Waterfowl and HIT staff planned a 2-day interagency training session for FWS staff to develop more trained nontoxic shot educators (held in August 2001).

Progress Meeting Project Objectives: The effective working relationships and extensive coordination efforts by program staff have resulted in annual work plans and budget requests that balance state, flyway, and national conservation needs and in multiagency initiatives that reflect the department's interests and capabilities.

ADF&G played a leadership role in progress on Pacific Flyway objectives for updating management plans. The Western Tundra Swan Plan was brought to completion and significant progress was made updating the Pacific Brant Plan. Work was begun on revisions to the Pacific and Tule White-fronted Goose Plans; these are the oldest Pacific Flyway plans remaining to be updated in 2001–2002.

The department continues to play a key role in growth of the Sea Duck Joint Venture, established under the North American Waterfowl Management Plan (NAWMP) in 1998. The Waterfowl Coordinator has upheld the responsibilities of Co-chair of the Continental Technical Team, collaborating with the Management Board on several drafts of the Strategic Plan, working with the two staff coordinators to facilitate communications and products, and launching the first group of officially endorsed and funded projects. The Board is poised to adopt the Strategic Plan at its next meeting, so the Board and CTT will focus on designing work and funding initiatives to expand the SDJV program in 2002.

HIP was successfully implemented in Alaska with no major problems in 1998, and incremental improvements were made during this reporting period. Hunters and license vendors seem aware of the program, Alaska has a high rate of enrollment compliance, data entry procedures are well established and more effective sampling is improving harvest estimates for the state.

During this period, the department and FWS Region 7 have made substantial progress with regional Alaska Native partners to implement the Alaska comanagement system for migratory birds. The AMBCC has established bylaws and some operating procedures to guide its routine business; officers, representatives to flyway councils and several committees are in place; and regional committees are becoming functional in several key regions. More progress needs to be made in two respects. First, some regions have not formed working committees and others have not been active in bringing villages and local leaders up to speed on the comanagement process. Functional committees and local connections are essential to familiarize everyone with the comanagement mission, identify regional migratory bird concerns and be prepared to develop spring and summer hunting regulations. The second area of necessary work is completion of guidelines for regulation proposals by the AMBCC, to transmit to the regions for concerted work in winter 2001–2002. The AMBCC advised the USFWS and Pacific Flyway Council in June that more time was needed to prepare the regions for regulation development; this delays consideration of the first spring regulations to at least the 2003 season.

Nontoxic shot education efforts have been largely successful in Alaska through a cooperative ADF&G/FWS program. Hunter seminars and shooting clinics have been conducted in all rural

regional centers and urban cities. Hunter compliance and public awareness of nontoxic shot rules seem relatively good, although there has been no systematic evaluation. Law enforcement contacts in urban and rural areas show low numbers of lead shot violations. ADF&G will continue to provide nontoxic shot education to agency staff and hunters, and integrate this material with a broad shotgun proficiency program. Future efforts should provide additional coverage on the North Slope, in Bristol Bay, and in Southeast Alaska.

Project Location: Regional – Northern and Western Alaska

Project Objectives

- Restore cackling Canada geese to 250,000; emperor geese to 80,000 and maintain other waterfowl populations through the Y–K Delta Goose Management Plan and Pacific Flyway Council.

- Integrate involvement of North Slope and Y–K Delta interest groups in revisions of flyway management plans; complete revision of the Pacific brant plan; begin revision of the Pacific Flyway white-fronted goose plan.

- Monitor progress on the Spectacled Eider and Steller's Eider Recovery Plans and annually advise on work plans; evaluate status changes for Russia and the Y–K Delta; extend non-toxic shot education and enforcement efforts in coastal villages.

Work Accomplished During the Project Segment Period: A coordination meeting was held with the new leadership of the Association of Village Council Presidents' Waterfowl Conservation Committee (WCC) and FWS in February to assess the status of and needs for the Y–K Delta Goose Management Plan, comanagement process to develop subsistence regulations and other cooperative programs. Current issues included (1) the need to hold an annual meeting to reaffirm the YKDGMP with partners in Washington and Oregon; (2) organizing the WCC to develop spring hunting regulations; and (3) reducing emperor goose harvest. Because of reorganization of the WCC, no meeting was held to review the YKDGMP during the reporting period. ADF&G and FWS attended and April meeting to present information on the statewide comanagement system, status of regional migratory bird resources and the requisite elements of spring hunting regulations.

ADF&G participated as a member of the Spectacled and Steller's Eider Recovery Team. During the performance period, recovery team meetings focused on the status and priority of eider recovery projects, proposed designation of critical habitat, and development of a draft Steller's eider recovery plan. ADF&G consulted with FWS on proposed rules to designate critical habitat for both species and submitted state comments.

Progress Meeting Project Objectives: The Y–K Delta Goose Management Plan was last revised in 1998. Under cooperative management programs of the Y–K Delta Goose Management Plan and Pacific Flyway plans, Pacific white-fronted geese number over 400,000, far above objective level. Hunting opportunities have been increased for all users. Cackling Canada geese have stabilized just below the population goal of 250,000. Continued cooperative management

with agencies and interest groups in Washington and Oregon have provided increased harvest on the population to help address crop depredation complaints on the wintering grounds. Pacific brant remain stable and subject to conservative hunting regulations. Population objectives and harvest guidelines are under revision in a new management plan. ADF&G, FWS and AVCP–WCC remain concerned about continued harvest of emperor geese by several villages. There are signs that some villages are more willing to discuss the problem, but all the parties uphold the need for continued law enforcement to monitor spring hunters, detect the taking of emperors, and issue citations.

Cooperators in the Y–K Delta Goose Management Plan need to have a coordination meeting during the coming winter to review current issues and renew the plan. It is important to maintain a cooperative effort to improve the size of cackling Canada goose population while implementing agricultural depredation programs in Washington and Oregon.

FWS, ADF&G and the AVCP–WCC need to make significant progress toward development of spring hunting regulations and addressing regional migratory bird concerns through the statewide comanagement process. The involvement of this region is critical, both in terms of substantial spring harvest of birds and its leadership role among regional groups. To date, the WCC has been reluctant to address the concept of regulation proposals.

Recovery actions for spectacled eiders are continuing on schedule, dependent on availability of funds. However, an evaluation of delisting the Russia population segment remains on hold. The Steller's eider team will work toward completion of a recovery plan in 2002.

Project Location: Regional – Interior Alaska

Project Objectives

- Implement the Management Plan for Mid-continent White-fronted Geese with Central and Mississippi Flyway states, develop a rangewide harvest strategy and continue investigation of diminished Interior/Northwest Alaska white-fronts and potential conservation actions.

- Annually band a large sample of ducks on Minto Flats State Game Refuge as part of the Pacific Flyway Duck Banding Program. Regional targets are 1000 mallards and pintails.

Work Accomplished During the Project Segment Period: The department maintained frequent contacts with Mississippi and Central Flyway Technical Committees on issues related to management of midcontinent white-fronted geese. ADF&G reviewed survey and research reports on the status of birds in Interior Alaska, and coordinated with staff of Migratory Bird Management and Koyukuk NWR to evaluate concerns. Harvest levels and regulations in Alberta and Texas were monitored for changes that could affect Interior Alaska birds.

The department has continued to work with Pacific Flyway states to plan and implement a flywaywide duck-banding program to support population modeling of western mallards and pintails. During August 2001, despite inclement weather and high water levels in Interior Alaska, our duck banding effort on Minto Flats was successful. An average number of ducks were banded in 2001 (n = 1367) composed of 50% northern pintails, 33% mallards and 17% green-

winged teal. The proportion of hatch-year birds banded (31%), was the highest reported in the last 5 years, indicating improved productivity by dabbling ducks nesting in Interior Alaska.

Progress Meeting Project Objectives: ADF&G played a significant role in the coordination of information and management discussions among the Pacific, Mississippi and Central Flyway Councils on Midcontinent white-fronted geese. Currently, there is not enough interest in developing specific regulation prescriptions for moderate or restrictive regulations by jurisdiction. More data are needed to demonstrate the trend and extent of declines in breeding white-fronts in Interior and Northwest Alaska. Monitoring of survival rates and harvest distribution of Interior Alaska white-fronts should continue to detect differential hunting mortality in areas where these birds are vulnerable.

The department's efforts on Minto Lakes continue to be the most successful duck banding operation in the Interior and an important part of the Pacific Flyway banding program. In Alaska, interagency duck banding efforts have been modest, focused only where field offices have committed to the program. Mallard banding goals for the state have never been met because the breeding population is dispersed and more effort is required to capture birds where they are prevalent (Gulf Coast and areas of Interior Alaska). Pintail banding has been relatively successful because of active banding in western Alaska.

The interagency banding effort should be extended in the Interior and other areas to achieve regional and statewide banding goals. Greater participation by ADF&G area and regional staff and federal refuge staff would improve geographic coverage and numbers of banded ducks. ADF&G will try to enlist area and regional office support for one or more banding stations (e.g., Minto Flats), but more effort is needed on federal wildlife refuges.

Project Location: Regional – Southcentral Alaska

Project Objectives

- Maintain dusky Canada geese to prevent ESA listing; maintain goals of 20,000 birds and annual production of >20% young; implement actions in the Pacific Flyway management plan.

- Produce annual survey estimates of dusky goose production on Copper River Delta (CRD); numbers of Canada geese and production on Middleton Island; evaluate survey methods for geese in Prince William Sound (PWS).

- Maintain a marked sample of dusky geese on CRD for population estimation in winter.

- Assist ADF&G Region 2 in producing estimates of urban Canada geese and production in Anchorage; collaborate with USFWS and Municipality to manage and remove surplus geese.

- Monitor Tule white-fronted geese summering in Upper Cook Inlet and Kahiltna Valley and implement marking as necessary to facilitate a mark-recapture estimate during fall.

- Develop distribution, abundance and trend data for sea ducks wintering in Kachemak Bay.
- Continue to mark and track lesser sandhill cranes from Cook Inlet to migration and wintering areas with satellite telemetry.

Work Accomplished During the Project Segment Period

Dusky Canada Goose Monitoring

Monitoring of dusky Canada geese has long been a high priority of the department and the Pacific Flyway. ADF&G continued extensive coordination with Washington and Oregon, FWS, USFS and USGS-BRD by attending flyway subcommittee meetings and participating in coordination of annual field programs on the Copper River Delta (CRD). The department conducted the annual helicopter production survey of the CRD on July 20, 2000, documenting 22.7% young dusky geese. Family groups were found at 67% of 52 observation sites, compared to only 45% in 1999.

Banding drives were conducted on the Copper River Delta from 24–26 July in an effort to band and collar (neck collars) dusky Canada geese. Six hundred and nine geese were banded with USFWS metal leg-bands and 602 geese received red neck collars with unique white alpha-numeric codes. This met the marking objective necessary to support estimates of population size during the winter.

Urban Canada Geese in Anchorage

The Waterfowl Program provided technical assistance to Region II and cooperating agencies to conduct Anchorage goose surveys in 2000 and 2001, as well as manage banding operations. Program biologists analyzed survey data, applied the mark-recapture model, and generated a population estimate of 2331 geese in 2001. Waterfowl staff continues to coordinate with and assist the Anchorage Waterfowl Working Group in gathering management data and implementing strategies to reduce the number of urban geese.

Tule White-fronted Goose Monitoring

ADF&G did not conduct fieldwork on Tule white-fronted geese during this period. The department collaborated with California, Oregon, USGS-BRD and FWS to evaluate potential monitoring projects that could provide a reliable population index for Tules. To date, attempts to capture and mark birds in winter, as a means to develop an indirect population estimate, have not been successful. ADF&G continued support of landcover mapping of the Susitna Valley and Cook Inlet coastal areas by Ducks Unlimited and BLM. ADF&G also ensures that protection of Tule geese and their habitats is prominent in land use planning and development proposals in Southcentral Alaska.

Sea Duck Surveys in Kachemak Bay

For the third consecutive year, a March waterfowl survey was conducted in Kachemak Bay in an effort to monitor long-term trends of wintering sea ducks. We estimated that 21,552 ducks

occupied Kachemak Bay in 2001; 16,922 ducks in 2000; and 25,097 ducks in 1999. Survey coverage in 2001 was modified from previous years to decrease the variability in our estimate. Total survey coverage of the offshore stratum was increased and poststratified by bathymetry in 2001. We attribute most of the annual variation in our estimates to the large geographic scope of the survey, the diversity of 14 primary species in the bay, and different weather conditions during annual survey periods.

Sandhill Crane Telemetry Project

During fall of 1999 the department developed a concept plan to mark sandhill cranes in Cook Inlet with satellite transmitters to document their movements on state game refuges and during fall migration to wintering areas. In late July 2000, 6 satellite transmitters were deployed on young cranes hatched that year. We were successful in tracking 3 cranes during fall migration and 2 that returned on spring migration. In April and July 2001, 9 additional satellite transmitters were deployed on sandhill cranes in Alaska to increase our sample size and broaden the scope of the study. A summary of this study, maps of crane movements and educational links to other crane projects are posted on our website:

http://www.state.ak.us/adfg/wildlife/duck/crane/crane.htm.

Progress Meeting Project Objectives: Flywaywide harvest restrictions have resulted in relative stability in the dusky goose population, as indicated by improved monitoring methods; the 2000–2001 winter index of 17,346 geese was derived from an indirect mark-resight estimate facilitated by banding and collaring of 600 duskys by ADF&G on the Copper River Delta in July 2000. A continued trend in high predation rates on nests and young has prevented reaching the 20% production objective in most years. However, the 2000 production index of 22.7% young is well above the 1990's average of 14.3%, and exceeds the long-term (30-yr) average of 18.7%. This level of production has only been reached five times in the previous two decades.

Surveys of urban Canada geese in Anchorage indicate that the cultural harvest of eggs in spring, translocation of goslings in July, and limited airport kills are reducing the urban goose population. The Waterfowl Program continues to advise the Anchorage Waterfowl Working Group on scientific aspects of goose management and maintain coordination among Pacific Flyway states and FWS Regions 1 and 7.

The project to monitor wintering sea ducks in Kachemak Bay was designed as a 5-year effort to develop trend information over sufficient time to account for variation in the number of birds and environmental conditions. Experience with equipment and methods improved in 2001, providing confidence in the design. Shoreline and aerial coverage is effective over all major habitat types for developing abundance estimates for the study area. Analysis of species habitat associations will provide additional information on factors affecting winter distribution of sea ducks.

Planning and implementation of the satellite telemetry project on Cook Inlet sandhill cranes is proceeding as planned. In 2001, the pilot project was expanded with funding from a Webless Migratory Game Bird Research grant and additional department funding. The results to date are providing the first direct documentation of migration routes, staging areas and rates of travel for

juvenile and adults in this population. This approach has provided opportunities to evaluate habitats in previously unknown use areas and to promote public education about cranes and their migrations. Research planning has been well coordinated with Pacific Flyway Council partners in Washington, Oregon, California and USFWS Region 1. Broader telemetry and survey programs are under discussion with the West Coast Crane Working Group and cooperating local offices of state agencies and federal refuges.

Segment Period Project Costs

	Personnel	Operating	Total
Planned	160.4	60.0	220.4
Actual	154.3	59.9	214.2
Difference	6.1	0.1	6.2

Explanation: Actual expenditures for salary were slightly lower than the planned amount because of cost-savings from using personnel on other funding sources.

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Petrula Biologist Steve Bethune bands a pintail on Big Minto Lake