Grant and Segment No. W-33-8

Project No.: 11.0

Project Title: Migratory Game Bird Annual Survey and Inventory: Status, Trends, and Public Use of Migratory Game Birds in Alaska.

Project Duration: July 1, 2011 – June 30, 2012

Report Due Date: September 30, 2012

Partner: Numerous

PRINCIPAL INVESTIGATOR: Dan Rosenberg

COOPERATORS: Mike Petrula, Jason Schamber

WORK LOCATION: Statewide (Regions 1, 2, 3, 4 and 5)

REPORT DESCRIPTION: This performance report describes the Statewide Waterfowl Programs survey and inventory activities. Activities are listed by geographical region.

Project Activities and Accomplishments

Project Location: Statewide

JOB/ACTIVITY 1: Develop ADF&G FY 12 work plan/budget request consistent with high priority management needs, federal activities, and state objectives.

Accomplishments: The FY 2012 Waterfowl Program annual work plans and budgets were developed through analysis of migratory game bird status information, identification of management needs and problems, and assessment of the department’s capabilities and role in addressing needs relative to programs by U.S. Fish and Wildlife Service (USFWS), U.S. Geological Survey-Biological Resources Division (USGS-BRD), U.S. Forest Service, Joint Ventures, and wildlife agencies of other states. The primary source of status information and process for determining the department’s work plans was through the Pacific Flyway Council (PFC) and Study Committee (PFSC). The department actively participated in flyway communications, data exchanges, work sessions, and formal biannual meetings. Waterfowl Program staff also participated in many coordination meetings, technical discussions, and planning functions with USFWS Region 7, USGS-BRD Alaska Science Center, U.S. Forest Service (USFS), and University of Alaska to identify migratory bird issues and develop cooperative projects in Alaska.
JOB/ACTIVITY 2: Participate in meetings of the Pacific Flyway Council and Study Committee; complete revisions of high-priority management plans; review and recommend 2011-12 hunting regulations.

**Accomplishments:** Alaska played an active role on the Pacific Flyway Council (Dale Rabe) and Study Committee (Dan Rosenberg). Alaska served as Chair to the Pacific Flyway Study Committee and Consultant to the Service Regulations Committee. Alaska served on subcommittees to review management plans for Brant, Cackling Geese, White-fronted Geese, Dusky, Aleutian, Taverner’s, lesser, and Vancouver Canada Geese, Lesser snow and Ross’ Geese, Emperor Geese, and Western and Eastern Tundra Swans. We organized and conducted a business meeting in July 2011 to review and recommend late-season regulations, a Study Committee work session in December 2011, and a spring business meeting in March 2012 to review and recommend early season regulations. The Department continued important leadership roles in coordination of Pacific Flyway Council activities with the Alaska Migratory Bird Comanagement Council (AMBCC).

During this reporting period, ADF&G worked with Pacific Flyway coastal states, USFWS, and Alaska subsistence interests to improve population estimates and maintain fall and winter harvest restrictions to promote cackling geese and Pacific Brant populations and to maintain more liberal harvests of abundant Pacific white-fronted geese and Aleutian geese. We worked on a revision to the Flyway Management Plan for the Western Arctic Population of Lesser Snow Geese. We continued to administer a permit hunt for Dusky Canada Geese on the Copper River Delta and eastern Prince William Sound in response to population declines. We continued working with the USFWS, North Slope Borough and AMBCC to implement harvest regulations on the North Slope that met the needs of local residents while minimizing the incidental harvest of Steller’s eiders and yellow-billed loons.

JOB/ACTIVITY 3: Develop funding opportunities and partners to achieve objectives of the Sea Duck Joint Venture (SDJV) Strategic Plan; contribute to research planning, coordination of management projects, and fund allocation; continue development of a population monitoring program.

**Accomplishments:** Alaska worked with partners in the US and Canada to review and recommend sea duck research and management projects to achieve objectives in the 2008-2012 SDJV Strategic Plan. We reinstituted a population monitoring program in Southcentral Alaska in 2012 that we last surveyed in 2003 and led a cooperative project with the USFWS, USGS, and Canadian Wildlife Service to mark Barrow’s goldeneyes in Southeast, AK with satellite transmitters (see below).

JOB/ACTIVITY 4: Band ducks at several sites to meet Pacific Flyway regional duck banding targets in conjunction with other staff, USFWS, and other banders.

**Accomplishments:** The Waterfowl Program continued its duck banding effort at Minto Flats State Game Refuge (see Regional–Interior). We did not band at Lewis River Slough, Susitna Flats State Game Refuge. We established and met goals for operational banding needs in Alaska and other states as part of the PFSC and PFC, and the USFWS Adaptive Harvest Management Models for western Mallards and northern pintails. This involved collaboration with USFWS Region 7 to define banding needs and apply banding and harvest data to regulatory prescriptions in Alaska and the Pacific Flyway states.
JOB/ACTIVITY 5: Evaluate results of 2009 HIP surveys to estimate harvest in Alaska and monitor 2011 enrollments for adequate hunter registration. In collaboration with USFWS, evaluate survey sampling design and harvest estimation methods, with an emphasis on development of effective surveys for harvest of sea ducks, brant, and sandhill cranes.

**Accomplishments:** Waterfowl Program staff collaborated with ADF&G Licensing Section and FWS to implement the Harvest Information Program (HIP) in Alaska. This included evaluation of survey design, contracting for production of HIP cards in state duck stamp vendor booklets, improving performance of state license vendors in submitting enrollment cards, and answering numerous inquiries from ADF&G staff, license vendors, and the public. We continued to compile HIP enrollment data and to assess trends in migratory bird harvest and hunter activity statewide. Hunter enrollment cards and duck stamps were distributed to licensed vendors in time for the spring subsistence season.

JOB/ACTIVITY 6: Attend meetings of the Alaska Migratory Bird Subsistence Co-management Council (AMBCC), regional committees, and public meetings statewide; provide technical information on bird populations and harvest and conservation issues; assist with implementation of the statewide subsistence harvest survey; collaborate with regional management committees and FWS to expand and improve subsistence harvest management strategies for spring 2012 and 2013.

**Accomplishments:** The ADF&G Waterfowl Coordinator and Deputy Director Dale Rabe continued work with the Service and Native regional representatives of the AMBCC, participating in meetings in October 2011, January, April, and May 2012. Department activities and accomplishments include: (1) serving on the AMBCC Technical Committee and Harvest Survey Committee to provide data on population status and trends and design and interpret harvest survey data, (2) assisting with development of 2011 federal subsistence regulations and technical analyses of proposals; (3) presenting information on the status and trends of migratory bird populations and harvest in Alaska to the AMBCC; (4) providing guidance and assistance in an effort to develop a fall subsistence hunt; and (5) serving as primary liaison between the AMBCC and PFC. The Coordinator also participated in the assessment and review of the statewide harvest survey and coordinated with Subsistence Division staff in this process. The coordinator represented the Department at the AMBCC Spring Gathering in May 2012 in an effort to resolve several longstanding AMBCC issues.

JOB/ACTIVITY 7: Plan and produce public information products on migratory bird resources, conservation issues, and agency management and research programs.

**Accomplishments:** 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. Program staff maintains, reviews, and updates department web pages on migratory birds including research projects, endangered species information, and information on migratory bird hunting and regulations. The Waterfowl Coordinator edited and revised the hunter regulations brochure and coordinated with USFWS special agents to assure consistency with federal regulations.
transmitted technical information on management and research projects to the Pacific Flyway, at state and federal coordination meetings, and scientific conferences.

The waterfowl Coordinator developed and distributed a flyer to duck stamp vendors clarifying hunting license and duck stamp regulations for the spring/summer subsistence and fall sport hunting season.

**Regional - Northern and Western:**

**JOB/ACTIVITY 1:** Participate in meetings and coordination of annual activities of the Y-K Delta Goose Management Plan with Association of Village Council Presidents (AVCP), USFWS, and PFC.

**Accomplishments:** The Y-K Delta Goose Management Plan has expired and is up for renewal. It remains in effect by continuing agreement. The Waterfowl Coordinator, members of the PFSC, the Oregon Farm Bureau, the USFWS, and the AVCP Waterfowl Conservation Committee met twice in FY11 to discuss population status and changes to the Management Plan. The Waterfowl coordinator is in negotiations with western states, the USFWS, and the Waterfowl Conservation Committee of the AVCP to reach a consensus and develop a revised Plan once we have established the population status. The Department is committed to maintaining a Y-K Delta Goose Management Plan that supports populations necessary for subsistence hunting.

**JOB/ACTIVITY 2:** Meet and communicate with Y-K Delta, Bristol Bay and other interest groups to implement management strategies in Pacific Flyway population management plans.

**Accomplishments:** ADF&G, USFWS, the Waterfowl Conservation Committee of the Association of Village Council Presidents, and representatives from Oregon, Washington, and California continued to meet and discuss management concerns regarding cackling goose survey methodologies, population estimates and objectives, and harvest strategies through the AMBCC, PFSC, and PFC processes as well as resolve issues of agricultural crop depredation while maintaining subsistence opportunities. Efforts are underway to update the Yukon-Kuskokwim Delta Goose Management Plan (see above). In conjunction with area staff, program staff manages and reports on results of Tundra Swan permit hunts in GMU’s 17, 18, 22, and 23.

**JOB/ACTIVITY 3:** Meet and communicate with interest groups in North Slope and northwest regions to coordinate and implement multi-flyway management plans for Eastern Population Tundra Swans and Midcontinent White-fronted Geese.

**Accomplishments:** Working within the framework of the AMBCC, the Waterfowl Coordinator has kept Native Regional Representatives informed of the above Management Plans as well as the Management Plan for Snow Geese and Endangered Species Management activities for eiders and yellow-billed loons. The Waterfowl Program and the North Slope borough worked on a cooperative proposal for eider research on the North Slope. The Waterfowl Coordinator attended meetings of the North Slope Borough Fish and Wildlife Management Committee to exchange information.
JOB/ACTIVITY 4: Participate on the Spectacled/Steller’s Eider Endangered Species Recovery Teams; assist in implementation of Recovery Plans; cooperatively develop annual work priorities.

**Accomplishments:** As a member of the Recovery Teams, the Waterfowl Program Coordinator has worked with the Steller’s and spectacled eider teams to update annual work plans and funding priorities, review survey data, and design research projects to address information needs. ADF&G appealed a permit request to conduct a multi-year satellite telemetry study on the movements of the listed population of Steller’s eiders. The Waterfowl Coordinator has coordinated with the USFWS Regional Director and the North Slope borough on future directions for eider management.

**Regional - Interior**

**JOB/ACTIVITY 1:** Adopt the revised Management Plan for Mid-continent White-fronted Geese. Continue to monitor annual status of Interior/ Northwest Alaska breeders in conjunction with the USFWS and review analysis of survival and harvest patterns throughout their range with USFWS and USGS-BRD.

**Accomplishments:** Coordinating with counterparts in the Central and Mississippi Flyways, the Waterfowl Coordinator finalized the Midcontinent White-fronted Goose Management Plan and presented it to the Pacific Flyway Council for endorsement in July 2011. The Waterfowl staff participated in annual biological reviews of information gathered on midcontinent white-fronted geese in interior Alaska.

**JOB/ACTIVITY 2:** Band ducks at Minto Flats State Game Refuge to meet Pacific Flyway regional duck banding targets, in conjunction with other ADF&G staff and USFWS.

**Accomplishments:** The department has continued to work with Pacific Flyway states to plan and implement a flyway wide duck-banding program to support population modeling of western mallards and northern pintails. During our trapping efforts on Minto Flats in August 2011, we banded 1853 ducks, a 72% increase from 2010. This was composed of 41% northern pintails, 12% mallards, and 47% American green-winged teal.

**Regional – Southcentral:**

**JOB/ACTIVITY 1:** Conduct an aerial survey to estimate annual production of dusky Canada geese on Copper River Delta (CRD) and a ground survey to estimate annual production at Middleton Island. Assess survey protocols. Evaluate ability to assess recruitment of Middleton Island goslings.

**Accomplishments:** ADF&G conducted the annual dusky Canada goose production survey over the west Copper River Delta on July 17. Individual survey methods and coverage were similar to previous years over the west delta, from Copper River Islands to Point Whiteshed, and Egg Island. A total of 4,106 adults were counted and 2,458 young were estimated. Production of young dusky Canada geese on the Copper River Delta in 2011 was > 37.0% and appreciably above the 10-year and 40-year average. The Pacific Flyway Dusky Canada Goose management plan objective of achieving annual production of 20% young (measured as the most recent 10-year average) was met for the fourth consecutive year. We surveyed dusky Canada geese on Middleton Island from June 26-
28. The biennial survey recorded 1,188 adults, down 5% from the last survey in 2010 (1,249). We also recorded 687 goslings. We could not evaluate recruitment of Middleton Island goslings at this time due to lack of personnel and financial resources.

**JOB/ACTIVITY 2:** Evaluate survey methods to produce indices for Canada geese in Prince William Sound; if feasible, capture, band and radio-mark Canada geese from PWS.

**Accomplishments:** In 2011 we monitored movements and nesting activity of Canada geese captured and implanted with satellite transmitters in Prince William Sound (PWS) and Middleton Island (MI). We monitored migration from PWS and MI to molting areas in Southcentral Alaska and wintering areas in Washington and Oregon and return migration to nesting areas in Alaska. We conducted searches to determine nesting effort in PWS in May 2011. PWS birds did not aggregate during the molt so no population surveys were conducted. ADFG informed the Pacific Flyway of the timing of movements, migration routes, and winter locations. We did not have funds to mark additional birds with satellite transmitters.

**JOB/ACTIVITY 3:** Conduct aerial surveys to locate VHF-marked Tule white-fronted geese during the breeding and molting season, and enumerate Tule geese on the principal molting area in Kahlitna Valley and on Cook Inlet coastal marshes.

**Accomplishments:** As part of a cooperative Pacific Flyway project, in the fall of 2011 and spring of 2012 ADFG searched for VHF radios deployed on Tule white-fronted geese. Radio collars were deployed by CA and OR state agencies during September from 2006-2011 on Summer Lake Wildlife Area, OR. A fall 2011 flight was conducted in the Upper Cook Inlet Basin (UCIB) on Aug. 22 prior to southern migration. Thirty-two radios were detected, with all but 2 heard in the UCIB during the spring 2010 survey. One radio was heard near lower Lake George in a flock of approximately 150 geese. The first spring 2012 aerial survey in the UCIB on May 28-29 (nesting period) located 39 unique individuals based on radio frequencies. A second flight in the UCIB during the post-nesting period (June 22) located 19 individual birds; all but one had been heard on the May 28-29 flight. The primary search areas included those traditionally used by breeding Tule geese along the Susitna River drainages and coastal locations extending from Redoubt Bay east to the Knik River. In total, 41 of 53 marked individuals (unique frequencies) were located during the spring flights. As in past years we expect most birds had moved further north by the second flight. Results were shared with the Yukon Delta and Innoko National Wildlife Refuges and Pacific Flyway states.

**JOB/ACTIVITY 4:** Conduct boat and aerial surveys of wintering sea ducks in Kachemak Bay.

**Accomplishments:** In March 2012, the Waterfowl Program conducted a boat and aerial survey of Kachemak Bay to estimate the number of sea ducks inhabiting the bay during winter. A skiff survey of the shoreline was conducted to estimate sea duck species utilizing near shore habitats. We also surveyed transects in deeper water from a fixed winged aircraft to estimate species in offshore areas. GPS locations were obtained for each flock and sex and age was determined for a large proportion of birds encountered.
Data is currently being analyzed. Species composition and abundance will be compared with results from previous surveys conducted from 1999-2003.

**JOB/ACTIVITY 5:** Assist Region II with inventories of waterfowl and sandhill cranes on Anchorage Coastal Wildlife Refuge and address urban waterfowl management issues.

**Accomplishments:** Staff advised and supported the efforts of a citizens group to monitor snow geese and sandhill cranes on the Anchorage Coastal Wildlife Refuge. The number of Canada geese breeding and molting in Anchorage has declined significantly, indicating that management goals to increase airport safety and reduce nuisance problems have been met and annual surveys have been discontinued. The need for periodic surveys will be evaluated annually.

**Regional – Southeast:**

1. **JOB/ACTIVITY 1:** Capture, band, and mark wintering Barrow’s goldeneyes in Southeast Alaska to study winter movements and distribution.

**Accomplishments:** This project was developed after completion of our annual work plan. The waterfowl program led a cooperative Sea Duck Joint Venture Project with the U.S. Fish and Wildlife Service, U.S. Geological Survey, Simon Fraser University, and Environment Canadian to delineate the population of Barrow’s goldeneyes wintering in Southeast Alaska. We placed satellite transmitters in 35 birds and tracked them to nesting and molting locations in the Yukon and Northwest Territories, Canada and back to wintering areas in Alaska. Movements, seasonal use locations, and philopatry will be compared with goldeneyes marked on coastal wintering areas in British Columbia, Canada and Southcentral Alaska. Monitoring will continue in FY13 when we plan to mark an additional 15 goldeneyes in Southcentral Alaska.

**Prepared by:** Daniel Rosenberg.