FEDERAL AID ANNUAL PERFORMANCE REPORT

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF WILDLIFE CONSERVATION
PO Box 115526
Juneau, AK 99811-5526

Alaska Department of Fish and Game
Wildlife Restoration Grant

GRANT NUMBER: AKW-20 Wildlife Restoration FY2017

PROJECT NUMBER: 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, 2016 – June 30, 2017

REPORT DUE DATE: September 1, 2017

PRINCIPAL INVESTIGATOR: Dan Rosenberg/Jason Schamber

COOPERATORS: Mike Petrula, Kyle Smith

WORK LOCATION: Statewide

I. SUMMARY OF WORK COMPLETED ON JOBS IDENTIFIED IN ANNUAL PLAN THIS PERIOD

Job/Activity 1: Conduct assessments of annual status, production, and harvest information on migratory bird populations in Alaska from a variety of data sources. Evaluate problems and concerns, coordinate with other agencies, and develop Alaska Department of Fish and Game (ADF&G) work plan/budget requests.

Accomplishments The FY 2017 Waterfowl Program annual work plans and budgets were developed through analysis of migratory game bird status information, identification of management needs and issues, Pacific Flyway management plans, and assessment of the department's capabilities and role in addressing needs relative to programs by U.S. Fish and Wildlife Service (USFWS), the Alaska Migratory Bird Co-management Council (AMBCC), U.S. Geological Survey-Biological Resources Division (USGS-BRD), U.S. Forest Service (USFS), Sea Duck Joint Venture (SDJV), Arctic Goose Joint Venture (AGJV), and other state wildlife agencies. 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 Pacific 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 the Alaska Migratory Bird Co-management Council (AMBCC), USFWS Region 7, USGS-BRD Alaska Science Center, USFS, University of Alaska, Canadian Wildlife Service, and the Sea duck and Arctic Goose Joint Ventures to identify migratory bird issues and develop cooperative projects in Alaska.

Job/Activity 2: Coordination on the PFC and PFSC; information exchange, update population management plans, develop research needs; coordinate conservation programs between flyways, at national and international levels; develop harvest strategies, review and recommend annual hunting regulations, comment on federal harvest management programs.

Accomplishments: Alaska played an active role on the PFC (Bruce Dale) and PFSC (Dan Rosenberg/Jason Schamber). The Waterfowl Program Coordinator (Coordinator) served on the PFSC and represented the State of Alaska at the AGJV annual meeting. The Program Coordinator chaired subcommittees to update the PFSC and revise management plans for Aleutian Canada geese, emperor geese, mid-continent greater white-fronted geese, Pacific Coast Trumpeter Swans, and eastern tundra swans. The Coordinator also served on subcommittees to review and edit plans and coordinate management activities for brant, cackling Canada geese, Pacific white-fronted geese and Tule geese, Taverner's, lesser, and Vancouver Canada geese, lesser snow and Ross' geese, and western tundra swans. The Coordinator recommended early-season regulations for sport hunting in Alaska to the PFC and the USFWS. The Coordinator integrated and coordinated PFC activities with the AMBCC and worked closely with the Executive Director and committee members to develop and review proposals and incorporate the AMBCC in the revision of the Pacific Flyway emperor goose management plan and develop the AMBCC emperor goose management plan.

During this reporting period, the Coordinator and Waterfowl Program staff (Staff) worked with the Pacific Flyway to revise the emperor goose plan for adoption in September 2017, and open a harvest of emperor geese in the 2017-18 season. We continued working with the USFWS, North Slope Borough and AMBCC to implement harvest regulations that meet the needs of local residents while minimizing the incidental harvest of Steller's eiders and yellow-billed loons.

Job/Activity 3: Collaborate with coastal state agencies, federal agencies, academic institutions and non-governmental organizations to implement the SDJV and AGJV strategies under the North American Waterfowl Management Plan. Complete synthesis of population status reports; implement the strategic plan; identify priority issues and action items with the Management Boards.

Accomplishments: The Coordinator worked with partners in the U.S. and Canada to review and recommend sea duck research and management projects to update objectives in the 2014-2018 SDJV Strategic Plan. Staff is analyzing results of a 2012–2014 sea duck population monitoring program in Southcentral Alaska last surveyed in 2003. Staff continued to monitor results and data analysis of a SDJV funded population delineation project in cooperation with the USFWS, USGS, and Canadian Wildlife Service. Barrow's goldeneyes were instrumented with satellite transmitters in Southeast, AK in 2012 and expanded to Kachemak Bay, AK in FY13 and 14 (see below). Staff began a new SDJV funded satellite telemetry project in April 2015 to further study the movements and distribution of scoters in Alaska. In

2017, staff deployed 34 satellite transmitters in surf and white-winged scoters for year 3 of 4. Coordinator worked with partners in the U.S., Canada, and Russia to review and recommend Arctic Goose research and management projects and update objectives in the AGJV Strategic Plan at a meeting in Vancouver, BC, Canada in November 2016. Coordinator worked with the Pacific Flyway and the AGJV Management Board to develop management and communications strategies for overabundant light geese.

Job/Activity 4: Update information compiled on sea duck status and harvest in Alaska with USFWS Region 7 and USGS-BRD; identify key issues and action items.

Accomplishments: The Coordinator and Staff in cooperation with USFWS-R7 and USGS-BRD have tracked sea duck population trends and demographics in Alaska, which are used to identify data gaps and research and managements priorities. Fall-winter harvest is compiled through the USFWS - Harvest Information Program (HIP) and reported by Staff to the USFWS and PFC and PFSC. Staff reviewed spring-summer subsistence harvest estimates of sea ducks from ADF&G conducted harvest surveys.

Job/Activity 5: Meet Pacific Flyway regional duck banding targets by forming a cooperative network of USFWS, ADF&G, and other banders.

Accomplishments: Staff continued duck banding effort at Minto Flats State Game Refuge and in Anchorage (see Regional–Interior and Southcentral). Staff established 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-R7 to define banding needs and apply banding and harvest data to regulatory prescriptions in Alaska and the Pacific Flyway states.

Job/Activity 6: Monitor implementation of HIP for adequate registration of hunters, survey sampling, and estimation of non-rural harvest, with emphasis on harvest of sea ducks, brant and cranes.

Accomplishments: Staff collaborated with ADF&G Licensing Section and the USFWS to implement the HIP in Alaska. This included design and printing of state duck stamps and contracting for production of HIP cards in state duck stamp vendor booklets, evaluation of survey design, 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 are distributed to licensed vendors in time for the spring subsistence season.

Job/Activity 7: Support enhancement of the migratory bird subsistence harvest co-management system in Alaska, and linkages to flyway councils; expand and improve statewide harvest strategies, harvest data collection, and outreach projects. Serve as technical representative to the AMBCC.

Accomplishments: The Coordinator and Director Bruce Dale continued work with the USFWS and 10 Native regional representatives of the AMBCC, participating in regulatory meetings in September, 2016 and April, 2017. Department activities and accomplishments include: (1) serving on the AMBCC Technical Committee, the Handicrafts Committee, the Invitation subcommittee, the Exclusion subcommittee, the Emperor Goose Management subcommittee, and the Kodiak Road System subcommittee to develop regulatory proposals and solutions to outstanding regulatory issues and concerns; (2) seeking further regulatory changes to a recent federal regulation that allows the sale of handicrafts containing non-edible bird parts and preventing waste of edible bird parts (3) presenting information on the status and trends of migratory bird populations and harvest in Alaska to the AMBCC; (4) assisting with development of 2018 federal subsistence regulations and technical review and analyses of proposals; (5) chairing the Emperor Goose Subcommittee to review subsistence harvest and develop the AMBCC Emperor Goose Management Plan; and (7) serving as liaison between the AMBCC and PFC including drafting PFC recommendations to support Alaska subsistence harvest regulations. The Coordinator participated in the assessment and review of the statewide harvest survey and coordinated with Subsistence Division staff in this process. The Coordinator and Staff attended regional management body committee meetings in Bethel, Kodiak, Bristol Bay and Kotzebue.

Job/Activity 8: Effective dissemination of public information on migratory bird resources, conservation issues, and agency management and research programs. Support Hunter Education shotgun proficiency and non-toxic shot programs.

Accomplishments: In the area of public information products, program staff 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, regulations, and hunting. 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 Coordinator and Staff edited and revised the hunter regulations brochure and coordinated with USFWS special agents to assure consistency with federal regulations. Coordinator and Staff transmitted technical information on management and research projects to the PFC and PFSC, the AMBCC, at state and federal coordination meetings, and scientific conferences. The Coordinator and Staff in coordination with the AMBCC and USFWS developed a suite of outreach materials for rural residents regarding details of the spring-summer subsistence and fall-winter emperor goose hunts.

Job/Activity 9: Participate in interagency efforts to monitor avian diseases including: (1) develop joint notification protocols and communication plans for release of information to affected agencies and the public (2) develop cooperative response plans for discovery of positive tests or bird mortality events coordinate sample submissions to certified laboratories and registry of samples in the national database; and (3) collaboratively develop and deliver public information products on avian diseases, current situations, agency surveillance efforts, and precautionary hygiene for public contacts with wild birds.

Accomplishments: ADF&G program staff coordinated with US Department of Agriculture (USDA) and USGS-BRD to conduct surveillance of highly pathogenic avian influenza as part of national and regional strategies. Staff participated in sampling of live and hunter-shot birds at interior and southcentral Alaska locations following the Alaska Interagency Sampling Protocols. Collected samples were submitted to laboratories directly or jointly with partner agencies. Surveillance results were communicated to the PFC and PFSC, AMBCC, governmental and non-governmental organizations through meetings and electronic correspondence. The Coordinator and Staff delivered directly and jointly public information on avian influenza current status, sampling efforts, precautionary hygiene via press releases and media interviews.

Job/Activity 10: Work cooperatively with other state and federal agencies, non-governmental organizations, and divisions and programs within ADF&G to formulate, review, evaluate, and comment on land use plans, management plans, resource development plans, the NEPA process, Endangered Species Section 7 consultation, and other state and federal special areas management and regulatory functions.

Accomplishments: The Coordinator and Staff have reviewed permit applications for ecological impacts and mitigation strategies for energy development projects (oil and gas, wind, hydroelectric), large scale mining projects, state special area management activities and planning documents, section 7 consultation for development in Steller's and Spectacled eider habitat, NEPA documents for the Izembek National Wildlife Refuge and the Chugach National Forest Land Management Plan, and NPRB proposals.

Regional - Northern and Western

Job/Activity 1: Manage cackling Canada geese to maintain the population at 250,000 and develop new Management Plan and population objective for emperor geese. Maintain the status of other waterfowl above population objective through Yukon Kuskokwim Delta Goose Management Plan (YKDGMP) and the PFC. Revise the YKDGMP in coordination with the USFWS, the PFC, Association of Village Council Presidents (AVCP) Waterfowl Conservation Committee (WCC), the AMBCC and the Oregon Farm Bureau.

Accomplishments: The Coordinator represented the Department at meetings of the AVCP –WCC and is working collaboratively on efforts to update the YKDGMP. The YKDGMP has expired and is up for renewal, but it remains in effect by continuing agreement among partners of the plan. The Department maintains its commitment to the YKDGMP that supports populations necessary for subsistence hunting.

The Coordinator, working with the Pacific Flyway (PFC and PFSC) and AMBCC has reassessed the population status of cackling Canada geese which now surpasses population objectives. Working within the framework of the AMBCC, the Coordinator has kept Alaska Native Regional Representatives informed of the process for updating Pacific Flyway management plans for Pacific brant, western tundra swans, cackling Canada geese, and emperor geese. The cackling Canada goose Management Plan was adopted by the Pacific Flyway Council in September 2016. The western tundra swan Management Plan was adopted by the Pacific Flyway Council in August 2017. The Coordinator continues to work with the PFSC to update and revise the Pacific Flyway Management Plan for brant. The Coordinator and Staff worked cooperatively with the PFSC and the AMBCC to revise the Pacific Flyway Emperor Goose Management Plan and the AMBCC Emperor Goose Management Plan. Both Plans were adopted by the respective Councils in September 2016 and were approved by the Service Regulations Committee in October 2016.

Staff worked with the USFWS and the Native Caucus of the AMBCC to develop regulations and outreach materials for the first subsistence hunt of emperor geese in over 30 years that commenced in 2017.

Staff worked with the Board of Game to develop a hunt structure for a fall-winter emperor goose hunt that will begin in September 2017.

Job/Activity 2: Continue to prioritize revisions of Pacific Flyway Management Plans through the PFSC and AMBCC. Continue working on current revisions to the following Management Plans: cackling Canada geese, emperor geese, brant, western tundra swan, and lesser sandhill cranes.

Accomplishments: The Coordinator worked with the PFSC and the AMBCC to develop a schedule of revisions for Management Plans. Many Plans have exceeded the standard 5-year term and are overdue for updating and revisions. Recently completed and adopted Plans include mid-continent white-fronted geese, western Arctic snow geese, emperor geese, cackling Canada geese, and western tundra swans. Plans that are scheduled to be completed in FY18 include Pacific brant, Pacific coast population of sandhill cranes, lesser-Taverner’s geese, and Aleutian Canada geese.

Job/Activity 3 and 4: Monitor progress and update annual work priorities on the Spectacled Eider Recovery Plan; evaluate status changes for Russia, the Arctic Coastal Plain, and the YKD; continue supporting outreach efforts in coastal villages. Assist in implementation of the Steller's eider Recovery Plan when practical and

feasible, and provide input to public information products; cooperate in development and implementation of effective population assessment and recovery tasks; participate when productive in public involvement efforts with USFWS and local interest groups.

Accomplishments: As a member of the Steller's and spectacled eider Recovery Team, the Coordinator worked with other team members to update annual work plans and funding priorities, review survey data, and design research projects to address information needs. The Recovery Team met in this fiscal year in person to receive updates on ongoing studies and the Steller's eider re-introduction efforts. The Recovery Team made a decision to discontinue the Steller's eider reintroduction effort on the YKD. The Coordinator continues to work with team members to update recovery tasks and help facilitate a FWS Species Status Assessment set to begin in 2018.

Job/Activity 5: Monitor the distribution and movements of satellite transmitted Black Scoters captured and marked in Nelson Lagoon, AK in 2015 and 2016 and coordinate with partner agencies; disseminate information to the scientific community and the public.

Accomplishments: In April 2015 and 2016, Staff completed 2 years of PTT deployments at Nelson Lagoon, Alaska as part of a multi-agency effort to delineate Pacific populations of scoters. Staff spent 10 days in Nelson Lagoon in 2015 and 14 days in 2016 with the intent of deploying 8 and 10 PTTs, respectively, in adult female BLSCs. The result was the instrumentation of 1 adult female BLSC in 2015 and 10 adult females in 2016. The PTTs were monitored remotely until the transmitters either failed or a bird died. Annual reports were disseminated to the SDJV Science Board and partner agencies in both years. Data is being analyzed with past data and a draft manuscript is forthcoming.

Job/Activity 6: Oversee revision and implementation of the Management Plan for mid-continent white-fronted geese with Central and Mississippi Flyway states, and affected users on the Arctic Coastal Plain.

Accomplishments: Staff continues to monitor annual status of Arctic Coastal Plain breeders in conjunction with the USFWS and review analysis of survival and harvest patterns throughout their range with USFWS and USGS-BRD. Staff also reviews hunting regulations with counterparts in the Central and Mississippi Flyways.

Job/Activity 7: Provide support to the USGS Arctic Coastal Plain project to measure and forecast the ecosystem response to climate change for populations of Arctic nesting geese.

Accomplishments: The USGS is investigating the population dynamics of lesser snow geese and black brant on the Arctic Coastal Plain of Alaska. This project was funded by the AGJV. A comparative demographic analysis can inform the PFC on the potential impact of continued expansion of lesser snow geese and the contribution of black brant colonies to the flyway population, and address questions of how these

species interact in a changing environment. Staff was invited to participate in in molt captures and banding of lesser snow geese and black brant at brood rearing areas on the Colville River delta in July 2017. However, due to Staff turnover and conflicting field projects, Staff did not participate in banding activities on the Colville River delta in 2017. Staff plans to participate in summer 2018.

Regional - Interior:

Job/Activity 1: Oversee revision and implementation of the Management Plan for mid-continent white-fronted geese with Central and Mississippi Flyway states, and affected users in Interior and Northwest Alaska. With USFWS and regional groups, monitor numbers of breeding birds in Interior/Northwest Alaska, identify sources of mortality, and evaluate results of new research; develop appropriate recommendations on harvest strategies within and outside of Alaska.

Accomplishments: Staff monitored the annual status of Interior/Northwest Alaska breeders in conjunction with the USFWS and reviewed analysis of survival and harvest patterns throughout their range with USFWS and USGS-BRD. Also, Staff reviewed hunting regulations with counterparts in the Central and Mississippi Flyways. The Coordinator successfully worked with the Central and Mississippi Flyways to implement the revised harvest strategy in the mid-continent white-fronted goose Management Plan.

Job/Activity 2: Band ducks at Minto Flats State Game Refuge to meet Pacific Flyway Adaptive Harvest Management Goals.

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. In August 2016, annual duck banding on the Minto Flats State Game Refuge was suspended due to seasonal flooding. Staff shifted their focus to Creamer's Field Migratory Waterfowl Refuge in Fairbanks and banded 186 mallards and pintail. This effort resulted in the first documented case of highly pathogenic avian influenza in Alaska. Band information was reported to the USGS Bird Banding Lab and USFWS Headquarters.

Regional - Southcentral

Job/Activity 1: Maintain dusky Canada geese populations to prevent ESA listing; progress toward 20,000 birds and annual production of >20% young. Produce annual estimates of dusky goose production on the Copper River Delta (CRD), breeding Canada geese and production on Middleton Island (MI); improve or develop methods to obtain indices of geese breeding on Middleton Island and in Prince William Sound (PWS).

Accomplishments: Program staff continued to work with Pacific flyway states and USFWS to monitor the population status and harvest of dusky Canada geese. The

Coordinator worked closely with the Chugach National Forest to incorporate dusky Canada Geese as a "species of conservation concern" in the Assessment Phase of the Forest Management Plan Revision and coordinated with the Cordova local advisory committee on the Management Plan revision.

Staff conducted the annual dusky Canada goose production survey over the west CRD in July 2016. Individual survey methods and coverage were similar to previous years over the west delta, from Copper River Islands to Point Whiteshed, including Egg Island and offshore mudflats. Staff counted 5,092 adults and 158 goslings and estimated that 316 goslings were present on the west CRD survey area. Production of dusky Canada geese was 5.8%; based on this survey, the Pacific Flyway Dusky Canada Goose Management Plan objective of achieving annual production of 20% young has not been met in the last two years of the survey (i.e., 2016 and 2017).

The Breeding Ground Index used as the population index of dusky Canada geese includes a biannual count of breeding adults on MI; conducted in June during the brood rearing period. This biennial effort is directed at documenting growth of this island group and periodically determining its status as part of the dusky Canada goose population. Staff did not conduct the biennial survey of Canada geese on MI this year. The next biennial population survey is scheduled for June 2018. In May 2016, Staff continued a pilot project to estimate abundance of dusky Canada geese on MI using nest plots. MI was divided into 168 (~200m × 400m) plots. A crew of six observers searched 25 randomly selected plots and located 128 nests. An abundance estimate (95% CL) will be based on nest density adjusted for observer detection and habitat type. In association with the pilot project, Staff conducted a brood survey in June to compare the two population survey techniques. Staff counted 2345 adults on MI.

Job/Activity 2: Band and mark with neck collars up to 600 dusky geese semi-annually on the CRD.

Accomplishments: Staff in cooperation with the USFS, Pacific Flyway states, and the Canadian Wildlife Service band adult dusky Canada geese on the west CRD every other year with a goal of banding 600 geese and deploying 300 neck collars to monitor distribution and estimate survival rates. Staff conducted banding drives in July 2016. A total of 612 geese were processed in two banding drives. Two hundred ninety seven geese received a red neck collar (white code) and USGS metal leg band, 3 geese had their collar replaced, 228 geese received a USGS leg band (no collar), and data was recorded for an additional 84 geese captured in previous years. The next banding drive is scheduled for July 2018.

Job/Activity 3: Monitor and report on satellite-marked Canada geese from CRD, MI and PWS. Monitor Tule white-fronted geese radio-marked birds migrating through Upper Cook Inlet and molting in western Alaska.

Accomplishments: To monitor annual movements of dusky Canada geese, Staff deployed 66 implantable satellite transmitters (PTTs) in females nesting in PWS, MI,

and on the CRD, Alaska from 2011–2014. Staff is currently monitoring 6 active PTT's. Data is shared with other Pacific Flyway states and the USFWS. Data analysis has begun in anticipation of producing a final report next summer.

As part of a cooperative Pacific Flyway project, in the fall of 2016 and spring of 2017, Staff coordinated a search for VHF radios deployed on Tule white-fronted geese. Transmitters were deployed by CA and OR state agencies at Summer Lake Wildlife Area, OR. ADF&G conducted a fall telemetry monitoring flight in the Upper Cook Inlet Basin (UCIB) in August 2016 prior to fall migration and detected 22 radios that were deployed in California and Oregon. A total of 46 radios were available for detection in Alaska during the summer of 2017. Staff conducted two aerial telemetry flights (May and June) and detected 32 unique radio-collared birds during the nesting period and post-nesting period. In cooperation with the USFWS a survey was conducted on the Innoko NWR on July 8, 2017 and no radio-marked birds were detected. Results were shared with the Yukon Delta and Innoko National Wildlife Refuges and Pacific Flyway states.

Job/Activity 4: Continue and expand banding, population surveys and remote sensing projects to assess the number and seasonal distribution of wintering sea ducks in the Gulf Coast, Kodiak, and Cook Inlet regions; link wintering birds to seasonal use areas. Analyze data and prepare report for wintering sea duck surveys conducted in Kachemak Bay.

Accomplishments: As part of a multi-year project program staff conducted boat and aerial surveys of wintering sea ducks in Kachemak Bay from March 2012–2014 to estimate the number and distribution of sea ducks inhabiting the bay during winter. Staff continues to work with a biometrician to analyze survey results for species composition and abundance which will be compared to data from previous surveys conducted from 1999–2003. This analysis will be used to design a long-term monitoring program for waterfowl in Kachemak Bay and surrounding areas.

In 2015, a pilot project was conducted in Kachemak Bay to capture molting harlequin ducks with the purpose of estimating population size and harvest rates. No birds were captured due to unworkable conditions. The project has been temporarily suspended until capture techniques can be refined. The project is still of interest and the feasibility will be revisited in FY18.

Job/Activity 6 below provides an update on the Kachemak Bay satellite telemetry project to better understand season habitat use and annual distribution of Barrow's goldeneyes wintering in the area.

Job/Activity 5: Monitor the distribution and movements of satellite transmitted surf scoters and white-winged scoters captured and marked in PWS, AK in 2017 and coordinate with partner agencies; disseminate information to the scientific community and the public.

Accomplishments: The Waterfowl Program staff and the SDJV decided to postpone captures in PWS because of poor herring spawn in recent summers. Herring spawn concentrates sea ducks and provides alternate high nutrition food source that often results in higher levels of body condition post-surgery. Instead, staff captured and instrumented scoters in Juneau, Southeast Alaska. A total of 34 scoters were instrumented with PTTs. Their movements are currently being tracked. An annual report to the SDJV and partner agencies is forthcoming.

The fourth and final year of the project is expected to be completed in 2018 with a capture trip to PWS planned.

Job/Activity 6: Report on the distribution and movements of satellite transmitted Barrow's goldeneyes captured and marked in Kachemak Bay and coordinate with partner agencies; disseminate information to the scientific community and the public.

Accomplishments: Staff led a cooperative SDJV project with the USFWS, the Alaska SeaLife Center, and Environment Canada to delineate the population of Barrow's goldeneyes wintering in Southcentral Alaska. Staff is currently analyzing data on movements, seasonal use locations, and philopatry from satellite transmitted birds marked in Kachemak Bay. Results will be compared with goldeneyes marked on coastal wintering areas in British Columbia, Canada and Southeastern Alaska. A poster and lecture was presented at conferences by partner agency staff. A draft manuscript has been prepared on fidelity to wintering areas by breeding birds as a result of a Simon-Fraser University student's MS thesis.

Job/Activity 7: Investigate potential locations to band ducks in Upper Cook Inlet to meet Flyway management goals. Band and monitor urban mallards in Anchorage to assess health parameters, diet, seasonal distribution, survival rates, and harvest rates.

Accomplishments: Staff advised and supported the efforts of a citizens group to monitor snow geese and sandhill cranes on the Anchorage Coastal Wildlife Refuge. Staff continued a project implemented in FY14 to assess the health of urban mallards in cooperation with a graduate research project at the University of Alaska Fairbanks. In FY17 staff marked 146 birds with metal leg bands and colored tarsus bands and re-sighted banded individuals from previous years to conduct survival analysis and gain information on seasonal movements; and sample birds for body condition, genetics, parasites, avian influenza, and food habits (stable isotopes). In addition, staff instrumented 10 mallards with a GPS transmitter to track local movements throughout the winter months. A MS thesis was completed and 2 draft manuscripts are in development for journal review. A final report is expected to be completed next summer.

Job/Activity 8: Report on survey, satellite telemetry, and genetic study to assess population status and distribution of Canada geese introduced to Kodiak and Shuyak Island in 1986.

Accomplishments: Staff in cooperation with the Kodiak NWR implanted 7 Vancouver Canada geese on Shuyak Island with satellite transmitters in 2014. In cooperation with the USFWS we conducted an aerial survey in March 2015 based on satellite transmitter locations and other known wintering sites to monitor the wintering population. We counted 1,816 geese on the east side of Kodiak Island and parts of Afognak Island. This survey will likely be repeated on a 5 year cycle. Staff is currently monitoring 2 active PTT's. A final report will be prepared following data collection.

Regional – Southeast

Job/Activity 1: Report on the distribution and movements of satellite transmitted Barrow's goldeneyes captured and marked in Juneau and coordinate with partner agencies; disseminate information to the scientific community and the public.

Accomplishments: As a continuation of a cooperative SDJV project with the USFWS, USGS, Simon Fraser University, and Environment Canada, a project began in FY12 to delineate the population of Barrow's goldeneyes wintering in Southeast Alaska, Staff continued to work with cooperators in FY17 to analyze data and report on results. A poster and lecture was presented at conferences by partner agency staff. A master's thesis was completed and a draft manuscript was prepared for journal review.

II. SIGNIFICANT DEVIATIONS AND/OR ADDITIONAL FEDERAL AID-FUNDED WORK NOT DESCRIBED ABOVE THAT WAS ACCOMPLISHED ON THIS PROJECT DURING THIS SEGMENT PERIOD

None

III. PUBLICATIONS

Savoy, L., P. Flint, D. Zwiefelhofer, H. Brant, C. Perkins, R. Taylor, O. Lane, J. Hall, D. Evers, and J. Schamber. 2017. Geographic and temporal variation in total mercury concentrations in blood of harlequin ducks and blue mussels from Alaska. Marine Pollution Bulletin 117:178-183.

IV. RECOMMENDATIONS FOR THIS PROJECT

None.

Prepared by: Jason Schamber, Statewide Waterfowl Coordinator

Date: September 1, 2017