

SPECTACLED EIDER RECOVERY TASK LIST
DECEMBER 2007

This list of recovery tasks was revised at a Spectacled Eider Recovery Team meeting in December 2007. Ranked tasks are high priority; tasks marked M are medium priority; and tasks marked L are low priority. Ranks are numbered beginning at 1 for highest priority based on a ranking process established in February 2003. High priority tasks given a number with a small letter attached reflect ties in the ranking (e.g., Tasks 8a and 8b were tied in the ranking process).

Tasks are listed under general categories that address threats and obstacles to recovery. There is also a category to address additional miscellaneous research and monitoring needs.

1.) Reduce Exposure to Lead

PRIORITY	TASK
8b	Continue education to eliminate the use of lead shot for waterfowl in the range of the spectacled eider.
14a	Continue monitoring spectacled eider blood lead levels in areas where information is lacking, such as the North Slope and Russia, and monitor lead levels periodically throughout the range of the eider.
28a	Monitor the use of lead shot by checking hunters and local stores for availability of lead shot.
28c	Start shot settling study on the North Slope.
M	Continue the lead shot settling study currently underway on the Yukon Kuskokwim Delta.
M	Identify source of lead in North Slope birds.
M	Start shot settling study on the North Slope.
M	Conduct a study to determine if lead is consumed via selection as grit or food

2.) Reduce Predation on the Breeding Grounds

PRIORITY	TASK
2	Evaluate the feasibility and efficacy of fox control on the Yukon Kuskokwim Delta where foxes may be affecting spectacled eiders.
17a	Evaluate the feasibility and efficacy of gull control on the Yukon Kuskokwim Delta where gulls may be affecting spectacled eiders.
L	Implement local fox/gull/raven control on North Slope
L	Investigate whether fisheries enhance SPEI predator populations

3.) Understand and Predict Potential Effects of Climate change/Regime Shift

PRIORITY	TASK
5	Evaluate and predict effects of environmental change in marine habitats on

	spectacled eiders.
6	Evaluate and predict effects of environmental change in breeding areas on spectacled eiders.
26b	Examine effects of pond salinity on spectacled eiders (especially ducklings).
M	SPEI winter energetics study
M	Study environmental patterns and processes on the Yukon-Kuskokwim Delta to guide management actions such as predator control (SPEI) and re-introduction (STEI) (added January 2006)
M	How may changes in winter ice conditions affect eiders
L	Examine historical middens to determine whether population oscillations have occurred

4). Reduce Hunting and Shooting Mortality

PRIORITY	TASK
8a	Increase education efforts across the range of the spectacled eider to eliminate take.
11a	Develop a subsistence harvest monitoring program with the appropriate evaluation instrument to reliably quantify the take of spectacled eiders throughout their range
17b	In concert with education efforts, increase law enforcement across the range of the spectacled eider to eliminate take.

5.) Reduce Exposure to Oil in the Marine Environment

PRIORITY	TASK
31	Continue education program involving villages, barge companies, and others of eider concentrations in an effort to prevent the chronic and acute oiling of spectacled eiders
M	Provide updated information regarding eider concentration areas and spill response strategies to appropriate agencies/organizations so Response Plans (geographic and Local) can be revised; also identify rehabilitation requirements/conditions and obligations and protocols for handling oiled birds. (Task changed to M at January 2006 meeting)
M	In cooperation with the U.S. Coast Guard, develop Best Management Practices protocol for fuel shipping and transfer in areas used by spectacled eiders.
M	Encourage development of spill clean-up in broken ice
L	Evaluate relative risks of wind/fossil fuel energy to SPEI
L	Evaluate impacts of spills on SPEI in Beaufort

6). Understand the Effects of Disease and Parasites

PRIORITY	TASK
22c	Continue studies to increase understanding of the incidence and impact of diseases on eiders.

7). Support Duck Management in Russia

PRIORITY	TASK
M	Initiate government to government (Alaska to Chukotka) discussions regarding duck management relative to hunting spectacled eiders, particularly where such hunting affects American breeding populations.
M	Investigate the Red Data Book criteria for listing species in the Chukotka Red Book and contact the Committee for Nature Conservation to request consideration of including the spectacled (and Steller's) eiders on the Red Book List; focus particularly on areas where American breeding birds spend time in Russia.
M	Develop (translate, adapt Alaska/U.S) information and education materials on listed eiders and make them available in Russia, focusing particularly on areas in Russia where American breeding populations spend time.
M	Investigate developing cooperative efforts with eastern Chukotkan native groups to conduct education efforts and harvest surveys.
M	Bilateral treaty talks (education).

8). Reduce Researcher Disturbance

PRIORITY	TASK
32d	Develop and distribute education materials to educate researchers working in spectacled eider breeding areas as to their obligations under the ESA and identify the actions they should take to minimize the impacts of their studies on spectacled eiders.
M	Evaluate researcher impact of intensive study site at Kigigak Island.
M	Conduct a tower-based multi-species visitor disturbance study.

9). Evaluate and Reduce Effects of Human Activities on Spectacled Eiders in Marine Habitats

PRIORITY	TASK
4	Evaluate and reduce impacts from oil and gas activities on spectacled eiders in the Chukchi Sea, particularly in Critical Habitat in Ledyard Bay.
11c	Evaluate and reduce impacts of commercial fishing on spectacled eiders in the Bering Sea, particularly in Critical Habitat south of St. Lawrence Island.
L	Obtain bycatch information from gillnet fisheries in Kolyma, Indiyirka, Mechigmenski (subsistence mostly)
L	Investigate feasibility of having at-sea processors dispose of fish offal (a supplemental food source for gulls) beneath the surface where it is unavailable to most non-diving seabirds, including gulls.

10). Understand the Effects of Eider Collisions with Structures

PRIORITY	TASK
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M	Summarize existing information into one document
M	Studies to determine best lighting regime for platforms/boats/towers/turbines

11). Understand the Effects of Contaminants (other than lead & oil)

PRIORITY	TASK
M	Periodic monitoring of eggs/birds for contaminants (including PBDE and other emerging contaminants)
M	Continue captive studies on metals (COEI as surrogate or SPEI from captive flock overflow)
L	Radionuclids/nuclear fallout – put this issue to rest (sample winter prey)

12). Reduce Habitat Destruction

PRIORITY	TASK
28b	Continue education program on the effects of ATVs on spectacled eider breeding habitats on the Yukon Delta National Wildlife Refuge.
L	Reduce number of trails through select trail improvement

13). Investigate Interspecific Competition

PRIORITY	TASK
17c	Investigate competition with walrus in Ledyard Bay.
L	Investigate competition with walrus south of St. Lawrence Island
L	Evaluate patterns of distribution and population change and density dependence and competition between geese and spectacled eiders.
L	Summary report on whether competition is a problem and how would we manage it

RESEARCH AND MONITORING TASKS FOR RECOVERY

14). Population Monitoring (includes monitoring population size and demography)

PRIORITY	TASK
1	Characterize locations and use of marine habitats, especially in the Chukchi Sea.
3	Continue the <i>Yukon-Kuskokwim Delta Nest Plot Survey</i> and <i>Aerial Breeding Pair Survey</i> used together to provide a nest population estimate.
7	Capture and mark adult female spectacled eiders nesting on Kigigak Island, Yukon Delta NWR to estimate annual survival.
10	Determine whether Ledyard Bay is a staging and molting area for North Slope or Arctic Russia breeding populations.
11b	Repeat the survey of the wintering area (last conducted in 1998).
16	Continue the <i>Arctic Coastal Plain Survey</i> .

22a	Monitor recruitment of spectacled eiders on Kigigak Island, Yukon Delta NWR.
22b	Monitor productivity of spectacled eiders on Kigigak Island, Yukon Delta NWR.
22d	Repeat Norton Sound molting survey.
26a	Monitor for annual survival on the North Slope.
32b	Conduct productivity and survival study of spectacled eiders in Arctic Russia comparable to the study conducted at Kigigak Island, Yukon- Kuskokwim Delta.
32c	Prepare a report to the recovery team summarizing information on the mortality rate of eiders implanted with transmitters with percutaneous antennae.
M	Develop a visibility correction factor for the North Slope Eider Survey.
M	Aerial surveys in Arctic Russia (repeat survey methods from 1993-1995)
M	Repeat Norton Sound molting survey
M	Mechigmentskaya Bay surveys (aerial)
M	Monitor recruitment at Hock Slough, YKD
M	Monitor annual survival at Hock Slough, YKD
M	Monitor productivity at Hock Slough, YKD
M	Monitor productivity at North Slope
M	Monitor recruitment at North Slope
L	Nest plot surveys on North Slope
L	Nest plot surveys in Arctic Russia (Chaun Delta, Irigiarika Delta)
L	Aerial survey on St. Lawrence Island
L	Aerial survey on N. Seward peninsula
L	Monitor annual survival at Indigirka River Delta, Arctic Russia
L	Monitor productivity at Indigirka River Delta, Arctic Russia
L	Monitor recruitment at Indigirka River Delta, Arctic Russia

15). General Research

PRIORITY	TASK
14b	Explore hypothesis that sub-adults winter separately from adults.
20	Evaluate factors affecting duckling growth and survival.
21	Determine cause and population effects of egg inviability.
M	Examine breeding season diets of SPEI (added January 2006).
M	Maintain captive flock of spectacled eiders.
L	Develop techniques for diet assessment.

16). Assess cumulative effects of human development of SPEI

PRIORITY	TASK
32a	Develop technique and identify information needs for evaluating cumulative effects of human development on spectacled eiders.