

Proposals selected for funding by the Sea Duck Joint Venture in FY07 (in no particular order)

SDJV Project #	Lead author and affiliation	Study Title and Synopsis	FY07 Funding level	# yrs funding sought
16	Katherine Mehl, Ducks Unlimited	Ducks Unlimited Canada's Common Eider Initiative Focus is on Newfoundland and Labrador populations. Objectives are to: 1) Calculate and assess geographical variation in adult female survival, seniority, recruitment, and overall population growth using CMR techniques; 2) Obtain estimates of breeding propensity; 3) Estimate juvenile/sub-adult survival; 4) Determine age at first breeding; 5) Identify links between breeding, molting, and wintering areas.	38,465	1 (year 2 of 3 already completed)
49	Scott Gilliland, CWS	Demography and Moulting Ecology of Surf Scoters in Eastern North America Location: Labrador Study has two major components. The first is a traditional banding program to measure vital rates of male surf scoters, and their affiliations between the moulting area and harvest areas. The second is to study moulting ecology (chronology, behaviour and habitat use) of Surf Scoters.	15,000	1 (year 2 of 3 already completed)
63	Dan Esler, Simon Fraser University and David Ward, USGS Alaska	Population delineation, winter/spring habitat use, winter and migration ecology and harvest of Pacific Surf Scoters (<i>Melanitta perspicillata</i>) from the southern portion of their winter range Location: Baja, Mexico Objectives are to: 1) Describe key migration routes, timing of movements, and affiliations with staging (spring and fall), breeding and molting areas; 2) Evaluate survival, habitat use patterns, foraging behavior, and diet of birds wintering in Baja California; 3) Test a new surgical technique for coelomic implantation of transmitters in surf scoters; and 4) Estimate scoter harvest throughout western Mexico and assess the potential importance of sport and subsistence hunting on regulating the wintering population.	31,460	2 (year 1 of 3 already completed)
65	Dan Esler, Simon Fraser University	Spring Migration of Surf Scoters Along the Pacific Coast: Important Habitats and Energetic Implications Location: Pacific states British Columbia This is a multi-faceted, collaborative approach to quantifying Surf Scoter spring migration strategies, focusing primarily on quantifying scoter use of herring spawn events.	6,000	1 (year 2 of 3 already completed)
71	Magella Guillemette, Univ Quebec Rimouski	Ecological and behavioral monitoring of American Common Eiders over the annual cycle Location: St. Lawrence estuary, Quebec Objectives are to: 1) describe and compare early and late breeders in the timing and duration of annual phases, 2) quantify habitat use (depth), energy expenditure, time spent diving and body mass of post-reproductive females and identify the behavioral and	16,383	2 (year 1 of 3 already completed)

		physiological strategy that would maximize their survival probability; 3) use daily bottom time and energy expenditure, in conjunction with laboratory estimates of food ingestion, to estimate energy intake, feeding efficiency and energy balance throughout the annual cycle; and 4) estimate the duration of the pre-laying period based on the timing of spring migration and relate these (individual) estimates to energy expenditure, foraging behavior and laying date.		
86	Jerry Hupp, USGS Alaska	Distributions of Sea Ducks in Southeast Alaska: Geographic Patterns and Relationships to Coastal Habitats Location: Southeast Alaska Objectives are to: 1) Document and map regional and temporal patterns of species diversity among sea ducks that occur in Southeast Alaska. 2) Develop and test models describing seasonal relationships between characteristics of shoreline or nearshore environments and numbers of sea ducks.	15,400	2
87	Christine Lepage, CWS Quebec	Molt ecology of White-winged Scoters in the St. Lawrence estuary Location: Quebec Objectives are to: 1) Develop an efficient capture technique for White-winged Scoters molting in the St. Lawrence estuary, 2) Take blood and feather samples to look at genetics and stable isotopes signals, 3) Document behavior and space use by molting white-winged Scoters	8,500	1
88	John Pearce, USGS Alaska	Testing the ‘demographic independence’ of molting groups using Common Mergansers on the Kodiak National Wildlife Refuge, Alaska Location: Kodiak Island, Alaska Objectives are to: 1) Continue DNA sampling, marking and recapture of molting common mergansers at Karluk Lake to enable an estimate of annual survival, recapture probability, and molt site fidelity to specific beaches within Karluk Lake; and 2) Capture molting common mergansers on fresh and salt water areas near Karluk Lake to further examine molt site fidelity and determine home range origins using mtDNA.	9,600	1
89	Alicia Berlin, USGS Patuxent	Foraging values of <i>Mulinia lateralis</i> and <i>Ischadium recurvum</i>: the impacts on surf scoters wintering in the Chesapeake Bay Location: Patuxent WRC, Maryland Overall goal of our study is to compare the relative foraging values of hooked mussels and dwarf surf clams to wintering surf scoters on the Chesapeake Bay. Study uses captive birds.	18,152	1
90	Matt Perry, USGS Patuxent	Effects of Implanted Transmitters with Percutaneous Antennae on Breeding and Foraging Behavior of Captive Seaducks Used as Surrogates for Wild Sea ducks Location: Patuxent WRC, Maryland	7,579	1

		The proposed study will determine the effects of implantable transmitters with percutaneous antennae on sea duck behavioral ecology.		
91	Jean-Pierre Savard, CWS Quebec	Movements of Common eiders breeding along the north shore of the gulf of St. Lawrence: Relationships between breeding, molting and wintering sites Location: Quebec Study will determine whether two populations of common eiders breeding in the lower north shore of the St. Lawrence and in the estuary interact in their population dynamics and/or overlap in their molting and wintering areas	15,900	1
92	Suzanne Budge, Dalhousie University, NS	Diet of Surf Scoters Molting in Eastern North America Location: Labrador Study will examine fatty-acid structures and stable isotope levels in a sample of male Surf Scoters to delineate origin (terrestrial vs. marine) of nutrient reserves on arrival to the molting areas and explore how they change with time. Also document fatty-acid structures and stable isotope levels in a sample of potential food-web items.	7,400	1
30	Jean-Francois Giroux, CWS	The Effect of Hunting and Avian Cholera on the St. Lawrence Estuary Common Eiders Location: Quebec Continue long-term banding program to 1) assess survival rates of adult females and juveniles, and 2) determine the relative contribution of hunting and natural mortality including disease (avian cholera).	15,000	1
93	John Takekawa, USGS, San Fran Bay	Spring Body Condition and Breeding Propensity of Surf Scoters along the Pacific Coast Location: UC Davis Study involves analyses of existing carcasses to address the following questions: 1) How does body condition and nutrient acquisition of Surf Scoters change during late spring migration and breeding ground arrival? How does it compare to wintering areas? 2) Do Surf Scoters employ a capital or income breeding strategy for reproduction? 3) What proportion of the population is capable of breeding, and can breeding potential be assessed on spring staging grounds?	15,500	1
94	Josh Vest, Utah State University	Inorganic Contaminant Concentrations and Body Condition of Common Goldeneye Wintering on the Great Salt Lake, Utah Location: Great Salt Lake, Utah Objectives are to: 1) Document temporal variation in hepatic inorganic trace element concentrations including arsenic, boron, cadmium, copper, lead, mercury, selenium, and zinc in common goldeneye wintering on GSL; and 2) Evaluate relationships between hepatic trace element concentrations and measure of physiological condition	4,900	1

Monitoring Projects

SDJV Project #	Lead and affiliation	Survey Title and Synopsis	FY07 Funding level
95	Scott Petrie, Long Point Waterfowl & Wetlands Research Fund	<p>Lake Ontario January Sea Duck Survey Location: Canadian side of Lake Ontario Location: North shore Lake Ontario Estimate abundance and trends of primary and secondary target species wintering on northern Lake Ontario. A modification and developmental element of the broader Lower Great Lakes January Survey. Survey by twin-engine fixed-wing aircraft.</p>	9,800
96	Bob Stehn, USFWS Alaska	<p>Pacific Black Scoter Breeding Survey Location: Western Alaska Objectives are to: 1) Provide annual population estimates of breeding black scoters and greater scaup with improved precision and accuracy in comparison to the WBPHS; 2) Document regional population trends with statistically rigorous analysis; and 3) Derive unbiased estimates of population size to provide perspective on the potential impact of harvest or other estimated losses. Fixed-wing survey.</p>	6,000
80	Lynne Dickson, CWS	<p>Central Arctic Canada Pacific Common Eider Breeding Survey Location: Bathurst Inlet area, Nunavut Primary objective is to determine population trend and abundance in core part of Pacific common eider breeding range. Secondarily, possible hypothesis testing of impact of local mining and port development. Survey by helicopter.</p>	25,000
97	David Mizrahi, NJ Audubon	<p>Avalon New Jersey Sea Watch: Addressing Monitoring Prerequisites Location: Avalon, New Jersey Waterbird migration counts operated by NJ Audubon Society at Avalon, NJ, also known as the Avalon Sea Watch, have been conducted consistently since 1995. This study uses long range radar to address questions about how many birds pass too far offshore, or migrate at night, and are not seen.</p>	14,760
98	Tim Moser, USFWS, and Lynne Dickson, CWS	<p>Waterfowl Breeding Population Survey for Central and Western Arctic Canada Location: Central Canadian arctic Goal is to obtain population size estimates and monitor long-term population trends of several migratory bird species and stocks. Expands on historical and existing surveys and partners up with Arctic Goose JV among others. Survey by fixed-wing aircraft.</p>	15,000