Proposals selected for funding by the Sea Duck Joint Venture in FY08 (in no particular order)

SDJV Project #	Lead author and affiliation	Proposal Title and Synopsis	FY08 $$ request	# yrs funding sought
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 (*Melanitta perspicillata*) 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	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 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.	16,383	1 (year 2 of 3 already completed)
86	Jerry Hupp, USGS	**Distributions of Sea Ducks in Southeast Alaska: Geographic Patterns and Relationships to Coastal Habitats** This study utilizes existing aerial survey data collected by the FWS between 1996 and 2002 to examine sea duck distributions and relationships with coastal habitat attributes.	13,200	1 (year 1 of 2 already completed)
2	Lynne Dickson, *Canadian Wildlife Service*	**Identification of Chukchi and Beaufort Sea Migration Corridor for Sea Ducks** Study will employ satellite telemetry to provide detailed information on location and timing of use of the migration corridor to better predict and mitigate adverse effects of offshore oil and gas development, and provide information on population definition/delineation for LTDU and	40,000	3

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105	Dr. Grant Gilchrist *Environment Canada*	**Examining the Impact of Avian Cholera on the Population Dynamics of a Long-lived Sea Duck, the Northern Eider** Study will identify the geographic magnitude and spread of cholera outbreaks in northern eider populations, genetically characterize the strains of *Pasteurella multocida* isolated during these outbreaks, and evaluate the demographic response of northern eiders to large scale mortality caused by avian cholera.	15,000	3
106	John Pearce *U.S. Geological Survey*	**Comparative demography of three cavity nesting sea ducks: Bufflehead and Common and Barrow's Goldeneyes** Study will use existing, long-term (5–11 years) mark-recapture and genetic data from Bufflehead, Common Goldeneye, and Barrow's Goldeneye to estimate probability of survival and fidelity, evaluate levels of dispersal across their breeding ranges, and investigate if these levels are consistent with on-going gene flow, recent population isolation, or both.	18,842	1
16	Mark Gloutney *Ducks Unlimited Canada*	**Ducks Unlimited Canada's East Coast Eider Initiative** Study will estimate adult and juvenile survival, age at first breeding, and recruitment to assist in development of population models.	38,465	1 (funded last 3 yrs)
107	Jerry Hupp, *USGS*	**Molting Ecology of Surf and White-winged Scoters in Southeast Alaska** Study will quantify several aspects of molt ecology including timing of molt, sex and age composition of molting flocks, body mass variation, foraging intensity, movements, and habitat use.	30,470	3
104	Paige G. Ross *College of William and Mary*	**Distribution, habitat characteristics, prey abundance and diet of surf scoters and long-tailed ducks in polyhaline wintering habitats in the mid-Atlantic region: a comparison of shallow coastal lagoons and Chesapeake Bay environs** Study will compare the distribution, fine-scale habitat characteristics and diet of surf scoters and long-tailed ducks in two discrete mid-Atlantic environs: lower Chesapeake Bay and Delmarva Peninsula bays.	35,793	1
79	Margaret Petersen, *USGS*	**Temporal and Geographic Distribution of the Aleutian Islands Pacific Common Eider: Rat and Andreanof Islands** Study will use satellite telemetry to locate and describe staging, molting, and wintering areas and describe key habitat features of areas used by the Aleutian Islands population of common eiders.	33,427	1
90	Matthew Perry, *USGS*	**Effects of Implanted Transmitters with Percutaneous Antennae on Breeding and**	6,544	1

		Foraging Behavior of Captive Seaducks Used as Surrogates for Wild Sea ducks Determine the influence of implantable transmitters (19 g and 39 g PTT) with external antennae on reproductive courtship, egg production, and incubation with captive lesser scaup. Compare behavior and diving rates for WWSC with and without implanted transmitters.		
108	Dan Esler, *Simon Fraser University*	**Population Delineation and Wintering Ecology of Surf Scoters in Southeast Alaska** Study will use satellite telemetry to quantify links among annual cycle stages, define management units, and conduct studies of wintering ecology that will be directly comparable to work at more southerly wintering sites, allowing a consideration of latitudinal variation in wintering ecology of the species.	53,170	3
85	Sean Boyd, *Environment Canada*	**Annual cycle connectivity, inter- and intra-annual site fidelity, and habitat use of Pacific Barrow's Goldeneye** Study uses satellite telemetry to determine links among annual cycle stages, rates of site fidelity at all stages, the geographic scale of dispersal, and identify important habitats used seasonally.	43,000	3

Monitoring Studies Funded in FY08

	PI and affiliation	Title and Synopsis	FY08 Funding level
98	Tim Moser, *USFWS,* and Lynne Dickson, *CWS*	**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.	15,000 (funded in 2007 as well)
80	Lynne Dickson, *CWS*	**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.	25,000 (funded in 2007 as well)
96	Bob Stehn, *USFWS Alaska*	**Pacific Black Scoter Breeding Survey** Location: Western Alaska Operational survey 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. Fixed-	11,000 (funded in 2007 as well)

		wing survey.	
103	Jim Wilson, *Saint John Naturalists' Club*	**Sea Duck Migration Monitoring - Point Lepreau, New Brunswick** Shore-based counts of migrating sea ducks during spring. Done since 1996. SDJV contribution to hire observer to ensure continuation of time series in 2008.	4,700
82	Ken Ross, *Canadian Wildlife Service*	**James Bay molting Black Scoter Survey** Aerial survey of moulting Black Scoters along the western shore of James Bay to provide an index of the size of the Atlantic population of this species to enable tracking of population trend.	10,000 (funded pilot study in 2006)
83	Scott Petrie, *Long Point Waterfowl & Wetlands Research Fund*	**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.	10,000 (funded pilot study in 2006)
97	David Mizrahi, *NJ Audubon*	**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. SDJV support is for observers, Funding contingent on successful review of radar study to address questions about how many birds pass too far offshore, or migrate at night, and are not seen.	7,000 (funded radar study in 2007)
109	Mark Koneff, *USFWS*	**Atlantic Coast Wintering Sea Duck Survey** Location: Nantucket Shoals, MA to Florida Prerequisite work. Fixed-wing aerial distributional surveys of offshore concentration areas to support design of adaptive sampling plans. Surveys will assess annual variation, evaluate factors affecting distribution and detectibility of sea duck flocks.	48,000 (funded pilot survey in 2005)