

Coordinated Colonial Waterbird Inventory and Monitoring In the Western United States: Comprehensive Breeding Season Surveys

Goals:

1. Conduct a comprehensive inventory of breeding waterbird populations and locations in the western United States (short-term goal);
2. Develop long-term monitoring program to track population size, trends, and locations of breeding waterbirds in the western United States (long-term goal).

Objectives for Goal 1:

1. Document the species composition, size, and location of colonial waterbird breeding colonies from 2009 through 2011 in 11 western states.
2. Estimate the minimum regional population size of breeding waterbirds (species list below) in these 11 western states.
3. Produce an atlas of western colonial waterbird breeding colonies in 2012.
4. Establish a baseline for the development of a long-term monitoring program for colonial waterbirds in the west (area frame/sampling universe).

Survey Area:

The western U.S. survey area will include the states of Montana, Wyoming, Colorado, Utah, Arizona, New Mexico, Nevada, Idaho, California, Oregon, and Washington. In 2006 and 2007, the coastal areas of Washington, Oregon, and California were surveyed for island-nesting gulls and terns; therefore, this coastal area will be excluded from the inventories proposed from 2009 through 2011.

Background:

Current distribution and abundance information on colonial nesting waterbirds is needed for the purpose of conserving populations, resolving management conflicts stemming from increasing and expanding populations, and providing information necessary to manage waterbird populations at the local and regional scale.

Several colonial-nesting waterbird species in the western U. S. appear to be declining in overall abundance or, conversely, increasing in size and expanding in distribution, resulting in escalating conflicts at landfills, croplands, recreational areas, and urban interfaces throughout their western ranges. Many States in the western U.S. have identified that more information on colonial waterbirds is needed to determine their status, identify conservation issues, and to refine conservation actions recommended in their State Wildlife Action Plans. This project addresses priority goals and objectives identified in the Intermountain West Waterbird Conservation Plan (Ivey and Herziger, 2006); and the Coordinated Bird Monitoring objectives for aquatic birds in the Partners In Flight Western Working Group Five-year Action Plan (Neel 2007).

Information from this proposed project will aid and support the development of conservation management plans as identified in State Wildlife Action Plans, site-specific habitat plans on National Wildlife Refuges and State Wildlife Areas, and support Joint Venture planning and habitat management activities.

Project Description:

Inventory: The inventory will follow a phased approach over a two year primary survey period with a third year serving for data management and summary as well as surveying sites missed during the first two years. Survey target species have been grouped based on three habitat-based nesting guilds: island-nesters, tree-nesters, and marsh-nesters. We recognize, however, that there are some species that nest in multiple guilds.

The following is a target species list for the phased approach:

Guild I	Guild II	Guild III
<u>Island nesters</u>	<u>Tree nesters</u>	<u>Marsh nesters</u>
American White Pelican	Black-crowned Night	Black Tern
Double-crested Cormorant	Heron	Forster's Tern
Common Tern	Great Blue Heron	White-faced Ibis
Caspian Tern	Snowy Egret	Franklin's Gull
Ring-billed Gull	Great Egret	
California Gull	Cattle Egret	
Western Grebe*	Neotropic Cormorant	
Clark's Grebe*		
Eared Grebe*		

*Grebes do not fit into either guild but may be surveyed at the same time as island-nesters

Our goal is to implement the survey in 2009, and continue with surveys annually thereafter through 2010. There are three suggested strategies for implementation:

(1) focus on all species within all nesting guilds across the entire state or defined geographic area (e.g., survey for all species/guilds for an entire state in one year); or (2) inventory all species within all nesting guilds in a portion of a state or defined geographic area in each survey year (e.g., survey for all species/guilds within a portion of the state in one year, completing surveys for the entire state over a two-year period). Selected strategies will be dictated by funding/resource allocation within a particular state. Ideally, all surveys should be completed by the end of the 2010 survey season. Following analyses and review, 2011 surveys would be conducted to fill survey gaps or improve survey design for geographic areas/species' groups deemed to be lacking in coverage. Data summaries would then be submitted by each state, and then collated by the U.S. Fish and Wildlife Service (USFWS) for a final summary across Regions.

Atlas: The USFWS, Pacific Region initiated the development of a Western U.S. Colonial Waterbird Breeding Bird Atlas in 2007, initially using historical colonial waterbird data from states within the survey area. Assistance from remaining states (contribution of unpublished

data) is needed to complete the historical data portion of the atlas. Once all historical data has been input, data obtained from future surveys will be added and the atlas will be published and available in a hard copy or internet web-based format (anticipated in 2012).

Planning and Implementation:

Steering Committee: A Steering Committee has been formed with representation from various states, NGOs, FWS, USGS, and other partners. The responsibility of the Steering Committee would be to facilitate and coordinate project planning and implementation throughout the project area, with the initial emphasis on Phase I. Current members of the Steering Committee to date, include:

Nanette Seto (USFWS)	Colleen Moulton (IDFG),
Jenny Hoskins (USFWS-chair)	Ann Manning (USGS)

Additional members to broaden the geographic representation and committee capacity are needed. A partial list of tasks for the Steering Committee to address, include:

1. Identify and secure funding for the survey;
2. Identify Implementation Committee members;
3. Identify and secure partner participation and support;
4. Coordinate communication on project among partners; and
5. Identify specific planning and implementation needs.

Implementation Committee: An Implementation Committee has formed to focus on the development of methodology, protocols, and implementation. Implementation Committee members include:

Stephanie Jones (USFWS – chair)	Colleen Moulton (IDFG),
Jaime Stephens (KBO)	Bill Howe (USFWS)
Suzanne Fellows (USFWS)	Dave Shuford (PRBO)
Gary Ivey (Crane Foundation)	Larry Neel (NDOW)
Lyann Comrack (CDFG)	Troy Corman (AZGFD)

Tasks for the Implementation Committee include:

1. Develop survey protocols (completed 25 Sept 2008, Jones 2008);
2. Develop implementation schedule;
3. Identify “state coordinators” for implementation; and
4. Identify data compilation and repository process.

Preliminary Budget Estimates: The attached budget is a preliminary estimate of project costs. Costs must be validated by partners, and partner funding and in-kind contributions will need to be identified before the budget can be finalized. This budget is a rough estimates to be refined during project planning. Budget input from the Steering and Implementation committees will also aid in more accurately estimating project costs.

Many states in the western region have committed to implement surveys in 2009 and 2010. Funding and field assistance from States and other Federal agencies, and NGOs will be necessary to complete the survey.

Funding:

The USFWS will provide partial funding for surveys with contributions from some state wildlife agencies.

Possible additional funding sources include:

- Multistate Conservation Grant Program (NCN)
- SWG
- BLM, BOR, UFSF
- States

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Citations:

Jones, Stephanie. 2008. Western Colonial Waterbird Survey Protocols. Unpublished report, USDO, FWS, Region 6, Denver, CO, <http://www.fws.gov/mountainprairie/>.

DRAFT BUDGET ESTIMATE:

Task	Estimated Cost	Funding Source		In-kind Contributions*
		FWS (R1, R2, R6, R8)	Partners*	
2008 Data Management				
-compilation of available data: historic & current -database input	\$30,000	\$30,000		FWS (.25 FTE)
2009 Survey Planning -protocol/methods development -survey schedule	In-kind			FWS (.25 FTE), ID, NV, CA
Pre-survey coordination meeting (includes travel expenses)	\$5,000	\$5,000		FWS (.2 FTE), ID, WA, NV, OR, CA, AZ, NM, UT, CO, MT, WY
2009 Survey Implementation and progress report	\$115,000 (\$10K per state, \$5K for progress report)	\$80,000		FWS (.2 FTE), ID, WA, NV, OR, CA, AZ, NM, UT, CO, MT, WY
2010 Survey Implementation and progress report	\$75,000	\$60,000		FWS (.2 FTE), ID, WA, NV, OR, CA, AZ, NM, UT, CO, MT, WY
2011 Survey Implementation and Data Management	\$75,000	\$60,000		FWS (.2 FTE), ID, WA, NV, OR, CA, AZ, NM, UT, CO, MT, WY
Atlas				
Development (GIS) – 2009- 2011	\$30,000	\$30,000		FWS (.1 FTE)
Publication - 2012	\$5,000	\$5,000		FWS (.1 FTE)
Total	\$335,000	\$270,000	~ \$65,000	

* Partner funding and in-kind contributions will need to be identified before the budget can be finalized.