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## **Waterfowl Monitoring on Pools 12, 13, and 14 of the Mississippi River**

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Prepared for: U.S. Fish & Wildlife Service

Project Name: Waterfowl Surveys, Pools 12-14 Mississippi River  
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Annual Performance Report  
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**Objectives:**

1. Obtain the number (index) of waterfowl occurring in specified areas of Pools 12, 13, and 14 of the Upper Mississippi River on a weekly basis during the period of 12 October through 11 December 2009.
2. Survey results shall be provided to the Refuge Project Officer in weekly reports, utilizing electronic data sheets provided by the Service.
3. Provide the Service Project Officer with survey data sheets including: observer, location, date, weather conditions, numbers of all species of waterfowl and American coots observed (Additional data on numbers of white pelicans, double-crested cormorants, great blue herons, and bald eagles should also be provided as time permits).

**Methods:**

We conducted approximately-weekly inventories of wetland birds on Pools 12, 13, and 14 of the Upper Mississippi River using a fixed-wing, single-engine aircraft at altitudes of ~ 200 ft and speeds of ~ 150 mph with one observer and pilot (Havera 1999:186, Stafford et al. 2007). Aerial surveys were conducted between 13 October and 11 December 2009. We estimated avian abundance while flying ¼ mile transects (1/8 mile on each side of the transect line) at predetermined locations between Clinton and Dubuque, IA. All data were summarized and distributed electronically to the project officer within 24 hrs of flights.

**Results:**

We completed 6 of 9 (67%) aerial inventories of the specified areas of the Upper Mississippi River. Surveys were flown on Oct. 13, 20; Nov. 2, 11, and 27; and December 11. We failed to conduct three inventories due to weather. Additionally, we made a spring flight of Pools 12-14 on 16 April 2010.

We distributed weekly summaries of waterfowl numbers to the US Fish and Wildlife Service. We documented that the majority of waterfowl observed during surveys were concentrated on lower Pool 13 and upper and lower Spring Lake. We can only speculate on the distribution of waterfowl using these refuges; however, food availability and human disturbance are likely factors.

**Literature Cited:**

Havera, S.P. 1999. Waterfowl of Illinois: status and management. Illinois Natural History Survey Special Publication 21.

Stafford, J.D., M.M. Horath, A.P. Yetter, C.S. Hine, and S.P. Havera. 2007. Wetland use by mallards during spring and fall in the Illinois and Central Mississippi River Valleys. Waterbirds 30:394–402.

**Submitted by:**



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