

## Continental Marshbird Pilot Survey

The USFWS-Division of Migratory Bird Management, in cooperation with multiple partners, is conducting a pilot study to examine the feasibility of a secretive marshbird survey program. The goal of this study is develop methods for instituting a survey that will cover the conterminous United States and may be extended to neighboring countries. During the first year of the study, 2008, surveys were conducted in the state of Wisconsin. In 2009, field surveys will continue in Wisconsin and begin in the District of Columbia, Idaho, Kentucky, and New York.

**Objectives.** Data collected from the survey will be used to estimate species-specific: (1) temporal trends in abundance; (2) changes in abundance from year to year; and (3) habitat associations at multiple spatial scales. Temporal trend information can be used to inform management decisions regarding general population health (e.g., determining species of concern or threatened/endangered status). Annual changes in abundance will be used to inform regulatory decisions for harvested species. Habitat information can be used to inform management decisions at local, regional, and continental scales, and, when coupled with population data, can be used to target specific habitats or habitats within specific regions.

**Target Species:** black, clapper, king, sora, Virginia, and yellow rails, least and American bitterns, common moorhen, purple gallinule, American coot, and limpkin. Wilson's snipe is being recorded as a secondary target species. These species are poorly accounted for by existing surveys such as the Breeding Bird Survey.

**Survey.** The survey was designed to allow for inference to population status at multiple scales including regions, flyways, and continent-wide. The design is flexible and allows for more intensive surveys within pre-determined strata such as states, wildlife management areas, or bird conservation regions. Primary sampling units, 40 km<sup>2</sup> hexagons, are randomly drawn from a uniform hexagonal grid that covers the United States. Once a hexagon is selected, secondary sampling units (survey points) are randomly placed in wetlands within the hexagon. Wetlands within hexagons are delineated using available maps such as the National Wetland Inventory.

Surveys are conducted 1 to 3 times each year at each survey point. A standard protocol is being used to conduct surveys. The survey itself consists of a 5 minute passive listening period followed by one minute "playback" intervals of calls from selected target species. Habitat data will be collected at individual survey points and from wetland cover maps. A database specific to the target species, the protocol, and the survey design is available and is maintained by USGS at Patuxent.

**Future.** There are multiple sources of uncertainty regarding implementation of the survey, thus the pilot study will continue through at least 2010. New survey areas (states) will be added each year. For further information about the survey, and for those interested in becoming part of the pilot study, please contact Mark Seamans, [mark\\_seamans@fws.gov](mailto:mark_seamans@fws.gov) (phone 301-497-5866).