Montana Prairie Pothole Joint Venture Breeding Shorebird Monitoring Project

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Populations of several shorebird species in the Prairie Pothole Region (PPR) appear to be declining, largely because of loss of grasslands and wetlands. Marbled godwit (Limosa fedoa), long-billed curlew (Numenius americanus), willet (Tringa semipalmata), Wilson's phalarope (Phalaropus tricolor), upland sandpiper (Bartramia longicauda), American avocet (Recurvirostra americana) and Wilson's snipe (Gallinago delicata) are listed as priority species by Partners in Flight or the U.S. Shorebird Plan. In 2004, the USDI Fish and Wildlife Service, Habitat and Population Evaluation Team (HAPET) began conducting breeding shorebird surveys to complement existing waterfowl population and habitat evaluations for the partners of the Prairie Pothole Joint Venture in North Dakota, South Dakota and northeast Montana. Survey methodology was modeled after the Breeding Bird Survey (BBS) but modified to fit the breeding ecology of these shorebirds. In 2012, surveys were expanded to include the western portion of the Montana PPR. Data from these surveys will be used to estimate shorebird population densities and distribution; however, current survey methods do not take into account areas where shorebirds may have been present but undetected, possibly resulting in an underestimation of shorebird densities. Surveys will be modified in 2013 in an effort to allow for estimation of shorebird detection probabilities, while maintaining compatibility with previous data collection methods. Results from this research will allow land managers to integrate breeding shorebird conservation with ongoing waterfowl conservation actions in the Montana PPR. We summarize the objectives and field design of the project and report results of preliminary modeling from our 2012 efforts.