

The MAPS Program: Monitoring Avian Productivity and Survivorship



The MAPS program is a continent-wide network of bird banding stations (>1,000 stations have operated since 1991 - see map, left) operated by public agencies, private organizations, and individual bird banders across North America, and coordinated by IBP. MAPS monitors the demographic rates of more than 100 bird species. IBP coordinates the efforts of hundreds of independent MAPS operators, and also staffs many MAPS stations on diverse lands. **Here we provide a few highlights from the MAPS Program in 2011.**

Using MAPS data at the local scale: Yosemite National Park

IBP is collaborating with personnel at Yosemite National Park to analyze data from the park's 5 MAPS stations, which have been in continuous operation by IBP for two decades. Applying cutting-edge statistics and modeling techniques to this remarkable data set is allowing us to describe not only the demographic rates and population trends of park birds, but also to assess the role of weather and climate in driving changes in the population dynamics and community structure of park birds. We are now preparing a comprehensive report that will aid habitat management efforts in the park, as well as a manuscript for publication that will disseminate results to a wider audience.

habitat on individual bird species' distribution, abundance, and demographic rates. Results are accessible through the Conservation Biology Institute's Data Basin GIS server (www.databasin.org).

Also in the Midwest, IBP partnered with the Smithsonian Migratory bird Center and other partners to begin a multi-year study of Wood Thrush population dynamics and migratory connectivity. IBP's role in this important partnership includes the operation of 18 MAPS stations on military installations and other public lands.



Wood Thrush, by Marcel Gahbauer

Left: Spotted Towhee, a focal species with an increasing population at Yosemite National Park's MAPS stations.



Using MAPS data at the regional scale: the Midwest

With funding from the US Fish and Wildlife Service, IBP recently collated and analyzed nearly 20 years of MAPS data from ~150 stations that have operated in the midwestern states (see map near top of page) and collected data from over 140,000 individual birds. The MAPS data were used to model effects of landscape and

Using MAPS data at the continental scale and beyond

Continental-scale MAPS results are now being used in conservation planning efforts by IBP partners such as American Bird Conservancy to prioritize migratory species for targeted conservation efforts. MAPS results are identifying declining bird species whose populations are being limited by poor survival during the non-breeding seasons – species likely to benefit most from targeted conservation efforts on the tropical wintering grounds.

The MAPS approach will soon spread to another continent – IBP partners in Japan have received funding to establish Japan's first MAPS stations in 2012.