

2002-2003 National Park Service Klamath Network Landbird Inventory

The Klamath Bird Observatory (KBO) worked in partnership with the National Park Service Klamath Network (Network) and PRBO Conservation Science taking part in the National Park Service's Inventory and Monitoring Program. This two-year effort was implemented to:

- Establish bird monitoring stations and conduct avian inventories within the Network's Parks, Monuments and Recreation Areas (Units);
- Determine what additional information is available from previous bird monitoring efforts conducted within the Network; and
- Develop a long-term bird monitoring plan as part of the Klamath Network's Vital Signs Monitoring Program.

Using GIS software and spatial habitat data we identified study areas in riparian and adjacent upland habitats along elevational gradients within Crater Lake, Redwood and Lassen Volcanic National Parks, Whiskeytown National Recreation Area, and Lavabeds and Oregon Caves National Monuments. Survey routes were established in each study area. Additional routes were established at Crater Lake and Lavabeds control burn units as part of a Joint Fire Sciences project being conducted by KBO.

Breeding bird abundance data were collected at stations along each route using standardized point count census methodologies and during the migration season bird abundance data were collected at stations using standardized area search census methodologies. Extensive habitat composition and structure data were collected at each station. KBO established and operated a constant-effort mist-netting station at Oregon Caves National Monument where visits were made every 7 to 10 days between May and October, during which 10 nets were opened for 5 hours and area search censuses were conducted. KBO biologists collected comprehensive species presence/absence data using daily checklists during each visit to a National Park Service Unit. The National Park Service Klamath Network falls within the boundaries of the Klamath Demographic Bird Monitoring Network. As part of our inventory effort, we identified data that are available from previously implemented efforts within the Klamath Network's Parks, Recreation Areas, and Monuments.

KBO confirmed the presence of species that were thought to have occurred in each Units and Our efforts also confirmed the occurrence of species that had not been previously been considered to occur. For example Three-toed Woodpecker, Common Nighthawk, Violet-green Swallow, and Vesper Sparrow are species that we detected that were not included on the Crater Lake National Park's hypothetical bird lists. The importance of including fall migration inventory efforts, as part of the Klamath Network's program, was demonstrated by our work at Lava Beds National Monument. Two of the species added to the Monument's bird list (Golden-crowned Sparrow and Northern Shrike) do not breed in the continental United States, and will only be encountered in northern California during fall migration and winter.

An effective inventory and monitoring program is critical to understanding the role protected lands of the National Park Service Klamath Network play in fulfilling bird Regional, National and International conservation objectives. The use of multiple standardized methods for inventorying and monitoring birds in the Klamath Parks Network during breeding, migration and wintering seasons is important. Such an approach provides information about many more species than would a single, season specific method.