



IMPORTANCE

Landbirds are vital to every Northwest ecosystem. They are critical food-chain links, eating millions of seeds and insects and in turn, are prey for other creatures. Because they have specific needs for food, nest sites, and habitats they are easily impacted by change. For these reasons, birds are among the most sensitive indicators of ecosystem health and counting them is one of the most efficient ways to take the ecological pulse of an area. Bird populations are widely used as indicators of ecosystem health so standard methods already exist giving scientists a relatively low cost and statistically rigorous monitoring tool. Whether year-long residents or migrants that arrive in spring, birds bring color and song to our national parks. They have high and growing public interest and are perhaps the most visible faunal component of park ecosystems. This public interest in birds ensures that the landbird monitoring statistics gathered over time will be relevant to the public and to concerned resource managers.

Despite many international treaties, domestic laws, and initiatives protecting resident and migratory bird species, landbird populations continue to decline. Because national parks provide relatively stable and protected breeding habitat for birds, parks are among the few remaining places to study regional and global effects on bird populations. North Coast and Cascade Network parks represent excellent reference sites for comparison with more heavily managed lands. And, monitoring landbird populations in Pacific Northwest national parks fill gaps in other regional monitoring programs, for example high elevation subalpine habitats which are virtually unmonitored by other programs.

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Male yellow warbler, *Dendroica petechia*. USFWS photo.

PROGRAM TRENDS

The NCCN Landbird Monitoring Program completed its second year of long-term landbird monitoring in 2008. During the first two years of sampling 1,976 point counts were conducted, 18,550 individuals birds counted, and over 100 bird species documented. The six most commonly detected species in 2007-2008 include Pine Siskin, Dark-eyed Junco, Red Crossbill, Varied Thrush, Winter Wren, and Townsend's Warbler.

DISCUSSION

In 2007, NPS biologists working with The Institute for Bird Populations and the U.S. Geological Survey established a Landbird Monitoring Protocol for national parks in the NCCN. The NCCN Landbird Monitoring Program has completed two successful years of sampling with the comprehensive, field-tested protocol. Interpreting the survey results at this juncture is premature, as they have not yet been adjusted for survey effort or detectability of birds between years. Nevertheless, preliminary results indicate the monitoring program will provide a robust dataset for evaluating a 5-year trend analysis in 2011, and that the monitoring program is detecting substantial annual fluctuations in bird populations. These fluctuations, when analyzed in the context of annual weather variation and perhaps other factors, should yield interesting and useful findings about the drivers of population dynamics in birds of Pacific Northwest forests.

Monitored at:

Lewis and Clark National Historical Park

Mount Rainier National Park

North Cascades National Park Service Complex

Olympic National Park

San Juan Island National Historical Park

