

Peer Review Plan

Influential Scientific Information

Highly Influential Scientific Information

Topic of the Review: Status & trends of Northern Spotted owl populations & habitats, 1994-2008

Agency, Office or Center: Forest Service, PNW Research Station

Agency Contact: (AD): John Laurence (jalaurence@fs.fed.us, ; 503-808-2191)

Subject of Review: This is the second in a series of periodic monitoring reports on northern spotted owl (*Strix occidentalis caurina*) population and habitat trends on federally administered lands since implementation of the Northwest Forest Plan (the Plan) in 1994.

Purpose of Report:

The report summarizes results from a population analysis that included data from long-term demographic studies from 1985-2008. This data was analyzed separately by study area, and also in a meta-analysis across all study areas to assess temporal and spatial patterns in fecundity, apparent survival, recruitment, and annual rates of population change. Estimated rates of annual population decline ranged from 0.4 to 7.1 percent across federal study areas (weighted average of 2.8 percent) annually. Covariates for barred owls (*Strix varia*), weather, climate, habitat, and reproductive success analyzed and had varying degrees of association with owl demographic parameters. There is now more evidence that increasing numbers of barred owls and loss of nesting/roosting habitat contributed to demographic declines in some study areas. Report also summarizes results from a habitat analysis that used the above data in conjunction with remote sensed data from 1994 to 2007 to develop "habitat suitability" models and habitat maps. These maps were used to quantify the amount and distribution of owl habitats. Causes of habitat change during this period are also reported. On federal lands, nesting/roosting habitat declined by 3.4 percent range-wide, with some physiographic provinces experiencing losses of 10 percent. Dispersal habitat increased by 5.2 percent, but dispersal-capable landscapes declined by 1 percent.

Type of Review: Panel Individual

Alternative Process (Briefly Explain):

Reviews include one internal Station reviewer; one reviewer from PSW Station, and 2 external reviewers. An internal statistical review was also completed.

Timing of Review: Three reviews were completed in August 2010 and another review was completed January 2011.

Number of Reviewers: 3 or less 4 to 10 More than 10

Primary Disciplines/Types of Expertise of Reviewers: _spotted owl habitat and population ecology, forest ecology

Reviewers Selected by: Agency Designated Outside Organization

Public Nominations Requested for Review Panel: Yes No

Opportunities for the Public to Comment: Yes No

If yes, briefly state how and when will these opportunities be provided:

Peer Reviewers Provided with Public Comments: Yes No

