

Chapter 13

Current Management Situation: Great Gray Owls

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The breeding range of great gray owls (*Strix nebulosa*) in the United States includes portions of Alaska, mountains in the western United States including portions of the Cascades and Sierra Nevada ranges and the northern Rockies, and portions of Minnesota, Michigan, Wisconsin, and New York (see Chapter 14 and Map 3). The species is sometimes observed in more southerly states during severe winters. Based on the species' documented distribution (see National Geographic Society 1987, Johnsgard 1988, and others), the owl may occur on National Forests across seven Regions. To document the management status of great gray owls throughout its range we queried management personnel on all National Forests where the species is likely to occur. Our questionnaire requested information on:

1. Documented breeding status of great gray owls on the National Forest (no records, recorded, recorded breeding).
2. The range of habitats in which the species has been recorded on the Forest.
3. The existence of any Forest or Regional level conservation strategies and/or management plans.
4. The management status of the species in each Region (state list, USDA Forest Service's sensitive species list).

5. Whether forests are conducting distribution surveys for great gray owls.

6. The distribution of great gray owls plotted on a National Forest, map based on all data available from the Forest data base.

The questionnaire asked for additional, more qualitative, information. For instance, we asked how Forests are dealing with this species in biological evaluations (evaluating important habitat or population viability) and in monitoring plans. We were also interested in whether Forests had information on changes in vegetation used by great gray owls over the last 2 centuries.

We also reviewed refereed literature sources for documented owl sightings and locations where museum specimens were collected. Most of these locations were plotted using U.S. Geological Survey 7.5" topographic maps. Where definite locations could be obtained they were plotted based on the latitude and longitude of the site. When locations were not clearly defined or described, the approximate center of the appropriate U.S. Geological Survey 7.5" topographic map was used. In some cases only the county of occurrence was retrievable from the literature. In these cases, the location is shown as a county center.

Table 1.—Status of great gray owl on National Forests as reported by managers early in 1993.

Region	No. of Forests in Region	No. of Forests where owl is present	No. of strategies or plans in place	Addressed in Forest management plan?	Forest Service conservation status
Northern	13	12	None	No	None
Rocky Mountain	12	2	None	No	None
Southwestern	11	Does not occur in this Region			
Intermountain	16	8	None	No	Sensitive
Pacific Southwest	18	10	None	No	Sensitive
Pacific Northwest	19	14	None	7 forests	None
Eastern	14	1	1	1 forest	None
Alaska	4	4	None	No	None

Table 2.—Habitat associations of great gray owls based on surveys of USDA Forest Service data bases. Habitat is described by dominant overstory tree species: SF - Spruce-fir forest, LP - Lodgepole pine forest, DF - Douglasfir forest, MC - Mixed conifer forest, WBP - White-bark pine forest, PP - Ponderosa pine forest, GF - Grand fir forest, QA - Quaking aspen forest, LBP - Limber pine forest, RF - Red fir forest. Status for National Forests who did not respond is listed as “not present.”

State	Forest	Occurrence	Habitats
Northern Region (Region 1)			
Montana	Beaverhead	Present	SF, LP
Montana	Bitterroot	Present	
Idaho	Idaho Panhandle	Present	
Idaho	Clearwater	Present	DF, LP
Montana	Custer	Suspected	
Montana	Deerlodge	Present	LP, DF ~7000 ft.
Montana	Flathead	Present	
Montana	Gallatin	Present	High elevation MC, WBP, LP, SF ~7200 ft., LP, SF
Montana	Helena	Suspected	
Montana	Kootenai	Present	
Montana	Lewis and Clark	Present	
Montana	Lolo	Breeding	
Idaho	Nez Perce	Suspected	
Rocky Mountain Region (Region 2)			
Wyoming	Bighorn	Present	
South Dakota	Black Hills	Not present	
Colorado	Grand Mesa	Not present	
Wyoming	Medicine Bow	Not present	
Colorado	Rio Grande	Not present	
Colorado	Arapaho/Roosevelt	Not present	
Colorado	Routt	Not present	
Colorado	Pike/San Isabel	Not present	
Colorado	San Juan	Not present	
Wyoming	Shoshone	Present	
Colorado	White River	Not present	
Nebraska	Nebraska	Not present	
Intermountain Region (Region 4)			
Utah	Ashley	Suspected	LP/SF
Idaho	Boise	Suspected	
Wyoming	Bridger-Teton	Breeding	MC Mature DF/LP LP
Idaho	Caribou	Breeding	
Idaho	Challis	Breeding	
Utah	Dixie	Not present	
Utah	Fishlake	Not present	
Nevada	Humboldt	Not present	
Utah	Manti-La-Sal	Not present	
Idaho	Payette	Breeding	DF, PP, GF/QA SF, LBP
Idaho	Salmon	Breeding	
Idaho	Sawtooth	Not present	
Idaho	Targhee	Breeding	LP, DF, MC LP, MC
Nevada	Toiyabe	Breeding	
Utah	Uinta	Not present	
Utah	Wasatch-Cache	Not present	
Pacific Southwest Region (Region 5)			
California	Angeles	Not present	
California	Cleveland	Not present	
California	Eldorado	Not present	
California	Inyo	Suspected	

Table 2. - (Continued),

California	Klamath	Suspected	
California	Lassen	Present	MC
California	Los Padres	Not present	
California	Mendicino	Not present	
California	Modoc	Present	SF
California	Six Rivers	Not present	
California	Plumas	Present	RF, MC
California	San Bernardino	Not present	
California	Sequoia	Present	RF, MC, PP
California	Shasta-Trinity	Suspected	
California	Sierra	Suspected	
California	Stanislaus	Present	SF
California	Tahoe	Present	RF, MC, LP
California	Lake Tahoe	Not present	

**Pacific Northwest Region
(Region 6)**

Oregon	Deschutes	Breeding	LP, MC,
Oregon	Fremont	No response	
Washington	Gifford Pinchot	Present	
Oregon	Malheur	Present	
Washington	Mt. Baker	Present	
Oregon	Mt. Hood	Not present	
Oregon	Ochoco	Not present	
Washington	Okanogan	Breeding	
Washington	Olympic	Present	
Oregon	Rogue River	Breeding	LP
Oregon	Siskiyou	Present	
Oregon	Siuslaw	Not present	
Oregon	Umatilla	Breeding	
Oregon	Umpqua	Present	MC
Oregon	Wallowa-Whitman	Breeding	MC
Washington	Wenatchee	Present	MC
Oregon	Willamette	Breeding	
Oregon	Winema	Present	
Washington	Colville	Not present	

**Eastern Region
(Region 9)**

Wisconsin	Chequamegon	Not present	
Minnesota	Chippewa	Not present	
Michigan	Huron-Manistee	Not present	
Missouri	Mark Twain	Not present	
Wisconsin	Nicolet	Not present	
Michigan	Ottawa	Not present	
Illinois	Shawnee	Not present	
Minnesota	Superior	Breeding	?
Michigan	Hiawatha	Not present	
Pennsylvania	Allegheny	Not present	
Vermont	Green Mt.-Finger Lake	Not present	
West Virginia	Monongahela	Not present	
New Hampshire	White Mountain	Not present	
Indiana	Wayne-Hoosier	Not present	

**Alaska Region
(Region 10)**

Alaska	Tongass-Stikine	Present	
Alaska	Tongass-Chatham	Present	
Alaska	Chugach	Present	
Alaska	Tongass-Ketchikan	Present	

The distribution of great gray owls based on literature and agency locations is depicted in Map 3. The distribution of major vegetation associated with great gray owls was not plotted because of the wide range of forest types used by this species throughout its range. The owl locations were digitized and plotted on an existing map of the United States.

Great gray owls were reported to occur on 51 of 96 Forests in seven Regions. The owl has been recorded breeding on 15 of these forests. The great gray owl is listed as a USDA Forest Service "sensitive species" in two regions and on the Superior National Forest in a Region where the owl has no special status (table 1). In addition to its designation as a sensitive species by the Forest Service, great gray owls are given special management status in three states: Idaho (Species of Concern), Montana (Species of Concern), and California (endangered). The Committee on the Status of Endangered Wildlife in Canada considers great gray owls "vulnerable" or "a species at risk because of low or declining numbers" (Nero 1980). Specific Forest-level management recommendations have been written for nine National Forests. None of these can be considered management plans or strategies. Management guidelines on most forests involve very general direction to protect nest sites or to protect raptor nests in general. On the Payette National Forest, recommendations include general direction to manage foraging as well as nesting habitat and to manage prey populations.

Although many forests report the presence of great gray owls, there is little information on population or habitat trends. Surveys to establish the distribution of great gray owls are being conducted in the Intermountain and Alaska Regions while the owls are being located during surveys for spotted owls (*Strix occidentalis*) in the Pacific Southwest (where the species is listed as sensitive) and Pacific Northwest Regions (table 2). Surveys directed at the spotted owl could lead to a biased view of the distribution of great gray owls because of the different habitats used by the two *Strix* owls.

The response we received from National Forests throughout the range of great gray owls indicates that little is known about the species in these management units. Furthermore, there is no mechanism in place to gather the data necessary for management. The Forests where some attempt has been made to manage great gray owls have concentrated management on nesting habitat, focusing on the short-term objective of protecting currently occupied nests.

REFERENCES

- Johnsgard, P. A. 1988. North American owls: biology and natural history. Smithsonian Institution Press, Washington, D, USA.
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- Nero, R. W. 1980. The Great Gray Owl: phantom of the northern forest. Smithsonian Institution Press, Washington, D, USA.