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BALD EAGLE NESTING IN THE SUPERIOR NATIONAL FOREST

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ABSTRACT.--Sixteen years (1959-1974) of bald eagle nesting data representing 102 nests were examined. Nest survey intensity increased in the late 1960's and was most comprehensive during 1972, 1973, and 1974. Some nests were used for at least 15 years. Most nest trees were white pines, reflecting availability. In 1974 the number of active and successful nests and young produced were relatively low.

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A nationwide concern over declining bald eagle populations has resulted in annual surveys of nesting and wintering birds throughout the range of this species. Since the mid-1960's, nesting areas have been extensively surveyed annually in the Chippewa and Ottawa National Forests in Minnesota and Michigan by the USDA Forest Service and others. However, only cursory surveys in the Superior National Forest in northeastern Minnesota were conducted during this period. We suspected that the Forest and surrounding area contain many more aeries than these records indicate because suitable breeding habitat seems to be abundant: numerous lakes, potential nest sites, and sparse human habitation and activity.

The object of this paper is to summarize all the information available on bald eagle nesting in the Superior National Forest, including some new data not previously reported.

METHODS

In 1973 and 1974, the senior author examined Forest Service bald eagle records as well as data collected by Robert Hodge, Conservation Officer and pilot, Minnesota Department of Natural Resources, and the junior author. Early 1960 nesting surveys were not comprehensive for the entire Forest, were incomplete in reporting incubation and productivity, or not consistent in the use of terminology by the various persons conducting the surveys. A lack of funds and the experienced personnel to conduct those surveys resulted in an incomplete assemblage of data.

To resolve some conflicts among these data involving nest tree locations, nest tree species, nesting activity, and territory occupancy, three investigatory flights were made. Several nests, either not reported or not found by the Forest Service, were located. Details on these nests are included in this report.

RESULTS

Data from 102 extant and/or defunct nests collected during the past 16 years (1959-1974) were summarized in tabular form (copies available on request from the authors). The data are increasingly more comprehensive from 1959 through 1974 and are complete for all known nests only for 1974 when 56 nesting territories were verified. (Nesting territories often contain two or more alternate nests.) In addition four nests previously reported occupied by eagles had been claimed by ospreys.

Nesting Success

Of the 3 years for which the best data were available, 1972, 1973, and 1974, 1974 was poorer in number of active and successful nests, and in number of young produced, both in active and successful nests (table 1).

Reports from other major breeding areas indicate that reproductive success in those areas was also down from past years.

Nest Tree Species

Of the 102 nest trees listed, 82 are white pine (*Pinus strobus*), 13 are red pine (*Pinus resinosa*), 4 are aspen (*Populus* spp.), and 3 are not identified. In contrast, only 41 of 79 (52 percent) of known nest trees in or adjacent to the Ottawa National Forest in Michigan are white pine, whereas 35 (44 percent) are hardwoods, mostly yellow birch (*Betula lutea*). Only one red pine on the Ottawa National Forest contains an eagle nest. On the Chippewa National Forest in North Central Minnesota, red pine and white pine are used about equally as nest trees. The use of certain tree species as nest sites varies greatly over breeding ranges and seems simply to reflect availability.

Nest Longevity

There is little information in the literature on nest longevity, the time elapsed between nest construction and destrution. This is because the construction dates for very few nests are known. Although this report does not add greatly to this information, we did find that some nests are used at least 15 years, and that minimum average longevity was 9.2 years. The number of years the nests were known to exist follows:

Number of Nests	*Years in Existence*
1	1
1	2
2	3
1	4
0	5
0	6
1	7
4	8
1	9
14	10
2	11
3	12
2	13
2	14
1	15

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Table 1.--*Comparison of 40 nests in both 1972 and 1974, and 42 nests in both 1973 and 1974*

(In numbers of nests)

Year	Active	Inactive	Successful	Unsuccessful	Young		
					Total	Per active[1] nest	Per successful[2] nest
1972	24	16	17	7(29 percent)	31	1.3	1.8
1974	21	19	11	10(48 percent)	15	.7	1.4
1973	24	18	18	6(25 percent)	29	1.2	1.6
1974	22	20	10	12(55 percent)	15	.7	1.5

[1]Adult birds attending nest.
[2]Nests in which young were reared to age of leaving nest.

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