

A PROPOSAL TO STUDY
SNAG HABITAT IN THE IDAHO PRIMITIVE AREA

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By Ed Rieckelman
Wildlife Resources

Within the field of Wildlife Management, there is a rapidly increasing amount of interest being expressed toward nongame species. This rising concern for our nonhunted and nontrapped wildlife has contributed to an awareness for the need for careful management of dead and dieing trees (snags). Many species of birds and mammals are dependent upon snags for nesting, feeding, or perching. One study in California indicated that 116 species of wildlife were dependent upon snags in that state (Unpublished data).

Forest management practices in the ^A _A pst have been mostly oriented towards removing snags during logging operations. Snags are considered fire hazards in that they are dry and can easily ignite, having the potential to cause forest fires. Snags are also considered hazardous to the safety of fire fighting crews as well as logging crews. Snags may fall suddenly, causing injury to workers. In some areas, federal laws require the removal of standing dead trees.

New attitudes towards nongame species, however, have forced reevaluation of forest management practices. Information on habitat requirements of snag-utilizing species such as woodpeckers, as well as potential habitat availability to those species, is now in demand by agencies which deal in resource management. This proposed study will primarily deal with the area of potential habitat availability to snag-utilizing species of wildlife.

OBJECTIVES

1. Determine the number of snags in given forest stands.
2. a) Determine the rate at which trees are dieing (becoming habitat) in the same given forest stands through the use of mortality prediction equations.

- b) Assess the applicability of this process in relation to wildlife management.
3. Compile a list of animal species seen utilizing snags through incidental observations, with special emphasis on species of woodpeckers found in the Idaho Primitive Area.

JUSTIFICATION

The human uses of snags are diverse enough to have serious managerial implications. Snags are cut for firewood at an ever-increasing rate, due to the rising cost of gas and oil. Dead wood biomass has been ground into chips and used for pulp, and now there is even talk of the feasibility of utilizing wood waste as a source of energy. All of these uses of dead wood can only result in more pressure on snag habitat.

However, the most serious effects will continue to be in the form of logging operations. It is these operations that will continue to eliminate the old, over-mature timber stands that now provide the most suitable variety of snags, including large, thick trees which provide nesting sites for so many birds.

If agencies such as the U.S. Forest Service are to implement logging modifications that will help to maintain some of the snag habitat, wildlife managers must be prepared with recommendations based on solid research findings. That is the main justification for this project. It is true for all types of habitats--knowledge about the dynamics of the habitat is essential.

Researchers continue to determine what wildlife species utilize what type of snags. It is now time to step up research on the ecology of the habitat itself.

STUDY AREA

The study area includes the Idaho Primitive Area in general, with specific forest stands to be selected for study upon arrival. The choosing of tree stands will constitute part of the methodology.

METHODS

Plot Selection

Study plots will be chosen on the basis of tree stand maturity. Only forested areas of mature and over-mature timber will be selected, since these forest types provide the best habitat for snag-utilizing species. Those mature and over-mature forest stands closest to the Taylor Ranch will be given preference.

Existing Snags

For the sake of this study, a snag will be considered to be any tree that is 75% or more composed of dead material. A dead tree is a snag if it is 3 meters or more tall.

In order to determine the number of snags in a plot, a line transect method will be used. A transect will be 400 m long. Measurements will be taken at 10 points \mathbf{K} along the transect, each point being 40m apart, the first point beginning 20m from the transect's end. At each point, the number, height and diameter at breast height ^{of all dead trees within a 15m radius around} will be recorded. _{the point}

Mortality

Using the above transect procedure, all the live stems within a 15m radius of each point will also be measured in order

to determine their probability of dieing within a year. Mortality prediction equations are described in Hamilton and Edwards (1976). Results from prediction equations may then be extrapolated to predict a given tree's probability of dieing in any time interval.

Species List

A species notebook will be kept up on a daily basis, making note of any species of wildlife seen utilizing a snag. Special care will be taken to identify any and all species of woodpeckers as they are observed.

Literature Cited

- Beaty, Wm., et. al. 1976. Report for board of forestry prepared by study committee on snags. Presented to the California Board of Forestry. 19 pp. Typescript.
- Hamilton, D.A., and B.M. Edwards 1976. Modeling the probability of individual tree mortality. USDA Forest Service Research Paper INT-185. 22pp.

MATERIALS

Range finder (height)
 100 meter tape
 DBH Tape (metric)
 Clinometer
 Binoculars
 Maps
 Forester's Prism
 Increment Boron
 Compass