Introduction to field techniques for Habitat Analysis and evaluation Techniques :

Cavities in Live Trees and Snags

In most wooded areas tho recognition of cavitiess in the trees and snags Or wildlife cover will be essential for a complete habitat analynis. Since tree cavities are an important type of cover for a variety of bird and mammal species therefore detail studies should be caried out by the prescribed methods for determining their presence and size ote Gysel (1901).

In a study of trans cavities and ground burrows utilizod by a varinty of species made a complete tally in standards, ground witlh binoculars and Inter from various heights in the trees which proved to be necessary to determine the actual number of cavities available,

Measurements of the horizontal cross section and the vertical extent of the cavities were necessary to determine their potential value far wildlife. Many cavities, which appeared to be usable from the ground, could not be used because of small intorlor dimensions or poor drainage. The number of cavities per unit area can be determined by a sampling procedure along transect lines, in plats, or in conjunction with a plotless method.

They indicated the value of snags for 39 bird spacies and 24 mammal species in the Blue Mountains of Washington and Oregon and listed the following types of cavity development or use:

1) excavation in soft or decayed wood sound (through) wood

2) occupation of cavity made by another species

3) occupation of "natural" cavilies cronted by dccay, etc,

4) occupation of space under loose bat.

For uses of cavities the following were listed.

1) as part of a courtship

2) for nesting and/or raising young ones.

3) roosts

4) for winter cover including hibernation.

Use of the cavities can be determined by direct visual observations and by presence of scales, hair, feathers, floss, odor, nesting materials, food and the amount of soar on the sides of the cavity. In addition, photographer animals entering er leaving through some capability entrances can be obtained with a small camera with an automatic

shocker release (Gynel and Davia 1956).

Logs of trees

Logs can be utilized as hiding and the thermal caver and can provide moist microclimatic conditions for wildlife. In recognition of the structural changes with age, Maser et al (1970a) described 5 classes:

1) Essentially sound with support points intact and utilized by animals such a snowshoe hares and porcupines.

2) Weakened and sagging slightly to support space paints with duff and soil building up on the sides and used by snakes and small rodents.

3) Bark loosened with interspaces between bark and wood used as hiding and thermal cover and for the moist microclimate the small animals; support points are gone and the log stages.

4) Log completely on the ground and may be partially buried with the "inside usually soft enough for small mammals to burrow.

5) Logs silt and powdery. partially buried and with long-established burrow systems both within and under them and used primarily by mammals.

Where hollow logs occur the various types of utilization such as escape cover or for rearing.of young.

Cliffs and Caves

Cliffs and caves provide ideal cover for some wildlife species and are sometimes an important component of the habitat in some areas. Maser et al. (1979b)

indicated that cliffs (a steep high face of rock) offer relatively high security, distinctive Internal environment, predictable airflow patterns, diversity in plant communities and abrupt, relatively stable edges.

The authors (Gysol and Lyon, 1980). recognized 4 types of cliffs important to wildlife:

fissures

Rodents, and cats.

Underground caves so let physical protection and in additions stable internal environments especially important for the survival of bats.

Thermal Cover

Thermal cover, a term used to designate a major function of vegetative cover and recognized by Thomas et al. (1979a), is considered in 3 dimensions - height. coverage, and total are of cover in units of forest stands, This type of cover serves as an aid for improving the effects of ambient air

temperature. radiant heat loss, and insulation for deer and elk, For the Blue Maintains of Washington and Orogon, optimum thermal cover for elk is defined as a stand of coniferous trees 12 to 24 in areas, 12 m or more in height, the term thermal cover, described the ideal winter cover for white-tailed deer in northern Michigan for providing the least amount of snow and Wind and a stable microclimate - dense, even-aged mature swamp conifers in blocks of 16 to 64.