

e) Roosting cover for sleeping.

Each species will have specific needs.

To create cavities for nest excavators you should retain both case hardened (dead trees with the outside hardened and the inside rotten) and soft snags (those which are soft on the outside and solid on the inside). For the purposes of bird nesting, a snag must be a minimum of 10 cm (4") at chest height and 1.8 m (6' in height). A minimum of five to six per acre is advisable for nesting purposes. These should be evenly distributed across the area and they should vary in size. Where none are available, snags can be created by girdling live trees. When trees are to be girdled the trees should be picked to allow varying life of the snag (e.g., poplars and white birch will rapidly evolve into a snag after girdling but they will also decompose quickly, maples will slowly evolve as snags but remain useful for extended periods).

Where no trees appropriate for snag creation are available or where the owner wishes to conveniently observe cavity users, the erection of nest boxes may suffice. *Woodworking for Wildlife* has an excellent series of designs. Nest boxes should be cleaned each fall unless they have been occupied by squirrels.

Ground shelter areas for food storage or nesting are appropriate in wet areas. They can be fabricated using branches, rocks, chimney liners, or other materials. In all cases, care should be taken that the shelter is built on a rise of ground, not in a hollow, as this will help to keep them dry. If tar paper is used to roof over a few cavities, it will further protect the animals using it from rain and snow. The structure should allow entrance from several directions, at least one of which offers aerial cover.

Escape cover can be retained in young white spruce stands by the retention of dense young unthinned patches approximately four to five meters square. In open areas the interplanting of conifers in small patches will allow cover to be created. Wild rose patches may be created or enhanced for both food protection and escape cover.

Subnivian (under snow) cover can be enhanced by creating bridge trees (stems supported off the ground by branches) which develop runways on the underside of the stem and by planting shelter belts to cause snow entrapment. When using logs close to the ground, put them across the slope so that summer runways are also created.

The retention of small numbers of dense crowded conifers in deciduous stands or the planting of shelter belts will provide roosting habitat.

Perches:

Many of the birds use perches either in the defense of territory or as observation points for capturing food; e.g., flycatchers. They also play an important part in the defense of red squirrel territories.

Grit:

The distribution of grit or exposure of the ground may be helpful to certain species of birds, particularly in winter.

Display Areas:

Certain species of birds require special areas for their courtship rituals. The woodcock uses an area of very short or sparse grass in some aspects of courtship and the ruffed grouse uses drumming logs.