

## (16) NESTING AREA PREFERENCES OF NORTHERN GOSHAWKS IN SOUTHEAST ALASKA

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We studied Northern Goshawk nesting area preferences in the temperate rainforests of southeast Alaska. First, we systematically described and quantified goshawk nesting area characteristics at three spatial scales: nest tree, nest site, and nest stand. Next, we assessed nesting area preference by comparing goshawk nest stands with a sample of available forested points. We measured nest and nest tree characteristics at 37 nest trees in 22 nesting areas and measured habitat characteristics at 30 nest sites and nest stands from 21 nesting areas. Goshawks selected the location of their nests at different spatial scales based on forest structure. At the stand scale, goshawks nested in large volume, western hemlock (*Tsuga heterophylla*) dominated forests with relatively dense canopy and shrub layer. Within those stands, nest sites occurred in forest patches containing larger trees on average and an overall higher volume forest, predominately western hemlock. Nest trees were either Sitka spruce (*Picea sitchensis*) or western hemlock, were larger than those around them in the nest site (mean DBH  $\pm$  SE;  $68.7 \pm 3.7$  cm vs.  $47.4 \pm 3.4$  cm), and were either dominant or codominant in the forest canopy. Goshawk nest stands contained larger trees ( $35.5 \pm 0.4$  cm vs.  $30.2 \pm 0.1$  cm), greater basal area, and fewer trees/ha than available sites. Forest managers in southeast Alaska can ensure that goshawks have nesting habitat into the future by preserving high volume timber stands with large trees and relatively dense canopy.

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