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## **NESTING ECOLOGY OF THE NORTHERN GOSHAWK IN THE BLACK HILLS OF SOUTH DAKOTA**

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The nesting ecology of northern goshawks (*Accipiter gentilis*) was studied in the Black Hills of western South Dakota from 2003 to 2009. Goshawk nest territories were found by

broadcasting alarm calls, intensive searches of potential nesting habitat, and visiting historic nesting territories based on information from the USDA Forest Service. During this 7- yr period, 30 active goshawk nesting territories were studied. There were 53 nesting attempts sufficiently monitored to establish that 35 nests fledged young (66% successful). Among these monitored nests, there was an average of 1.1 chicks fledged/nesting attempt and 1.6 chicks fledged/successful nest. Goshawks frequently used alternative nests from one year to the next, and we were not always successful at finding new alternative nests. Alternative nests ranged from 50 yds to 0.7 mi apart. The average number of alternative nests found per nesting territory was 2.2, and in 1 territory there were six nests. Ponderosa pine (*Pinus ponderosa*) was the preferred nest tree with 65 goshawk nests in pine trees and one nest found in a white spruce tree (*Abies glauca*). The average diameter (dbh) of nest trees was 16.8 in dbh. Nest stand characteristics were measured at 21 nest tree sites. Average nest stand dbh was 10.2 in, average nest stand tree density was 266 trees/ac, and the average nest stand basal area was 128 ft<sup>2</sup>/ac.