

FEATURE ARTICLES

DO SOME NORTHERN GOSHAWK NEST AREAS CONSISTENTLY FLEDGE MORE YOUNG THAN OTHERS?

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Abstract. In long-lived raptors, research suggests that some nest areas consistently fledge more young than others, with the majority of young in the population being produced by a few females. If this claim were true for Northern Goshawk (*Accipiter gentilis*) populations, it would benefit land managers to identify high-quality goshawk breeding habitat. We examined whether the number of young fledged varied spatially among Northern Goshawk nest areas within three study areas where long-term reproductive data from goshawks were available: (1) Vancouver Island, British Columbia; (2) Jemez Mountains, New Mexico; and (3) Uinta Mountains, Utah. A mixed-model ANOVA indicated there was minimal spatial variation in nest productivity among nest areas within the three study locations. Rather, nest areas exhibited high temporal variability in nest productivity within each study area. These results suggest that temporal patterns such as local weather and fluctuating prey populations influenced Northern Goshawk reproduction more than spatial patterns such as habitat characteristics. Nest productivity may inadequately reflect spatial patterns in goshawk reproduction and so it would be premature to assume that habitat quality for Northern Goshawks was equal among nest areas within these study areas. Future research should examine spatial variability among nest areas in adult and juvenile survival rates to gain a complete picture of population responses to habitat change.

Key words: *Accipiter gentilis laingi, habitat quality, mixed models, nest productivity, reproduction, spatial variability, temporal variability.*