

NORTHERN GOSHAWK HOME RANGES, HABITAT ASSOCIATIONS AND JUVENILE DISPERSAL IN SOUTHEAST ALASKA

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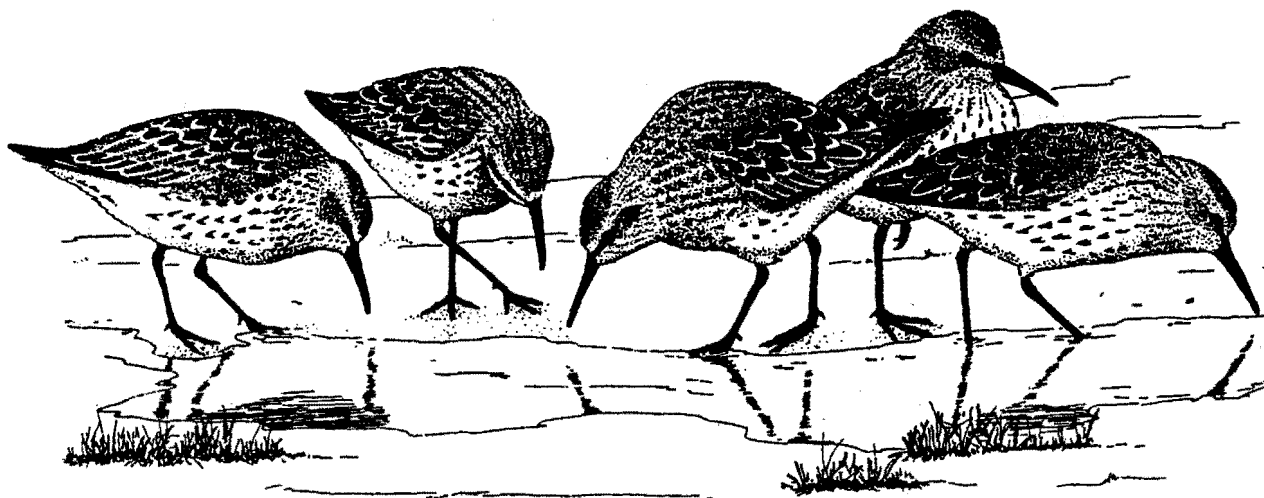
We used radio-telemetry to assess home range size and habitat use by 29 goshawks radio-tagged at 9 nest sites in southeast Alaska. Our objectives were to describe patterns of goshawk home range size and habitat use during nesting and post-nesting seasons that provide the technical basis for interim management guidelines for maintaining goshawk habitat across the Tongass National Forest. Individual minimum convex polygon total home range sizes varied from 1,900-349,000 ac. Adult home range size during the brood-rearing period varied from 1,800-47,956 ac for males ($n=9$) and 674-275,290 ac for females ($n=8$). The large brood-rearing home ranges for 2 females occurred because of their nest abandonment during the fledgling dependency period. Adults were non-migratory. Adult males generally maintained year-round home ranges loosely associated with the nest area. Some adult females vacated the nesting area and had fall/winter home ranges distinct from their nesting area. Although we lost contact with 9 of 14 radio-tagged juveniles, documented dispersal distances through mid-winter ranged from 16-151 km. Aerial estimates of habitat use based on 667 relocations from 30 goshawks indicated that 89% were judged to be in old-growth coniferous forests. Aerial estimates of timber volume associated with telemetry relocations indicated that 92% occurred within commercial forest stands >8,000 thousand board-feet/ac.

Keywords: *Accipiter gentilis*, habitat use, home range, northern goshawk, radiotelemetry, Tongass National Forest

Alaska Bird Conference and Workshop

Cordova, Alaska

May 4 – 6, 1994



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Copper River Delta Institute
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