

# Northern Goshawk

Autour des palombes

*Accipiter gentilis*

Jim Richards



The Northern Goshawk is the largest of the accipiters or “true hawks,” averaging 60 cm in length (Squires and Reynolds 1997). Readily distinguished by size, grey plumage, and prominent white eye-stripe, the adults are imposing birds, aggressive, even fearless, in defence of the nest.

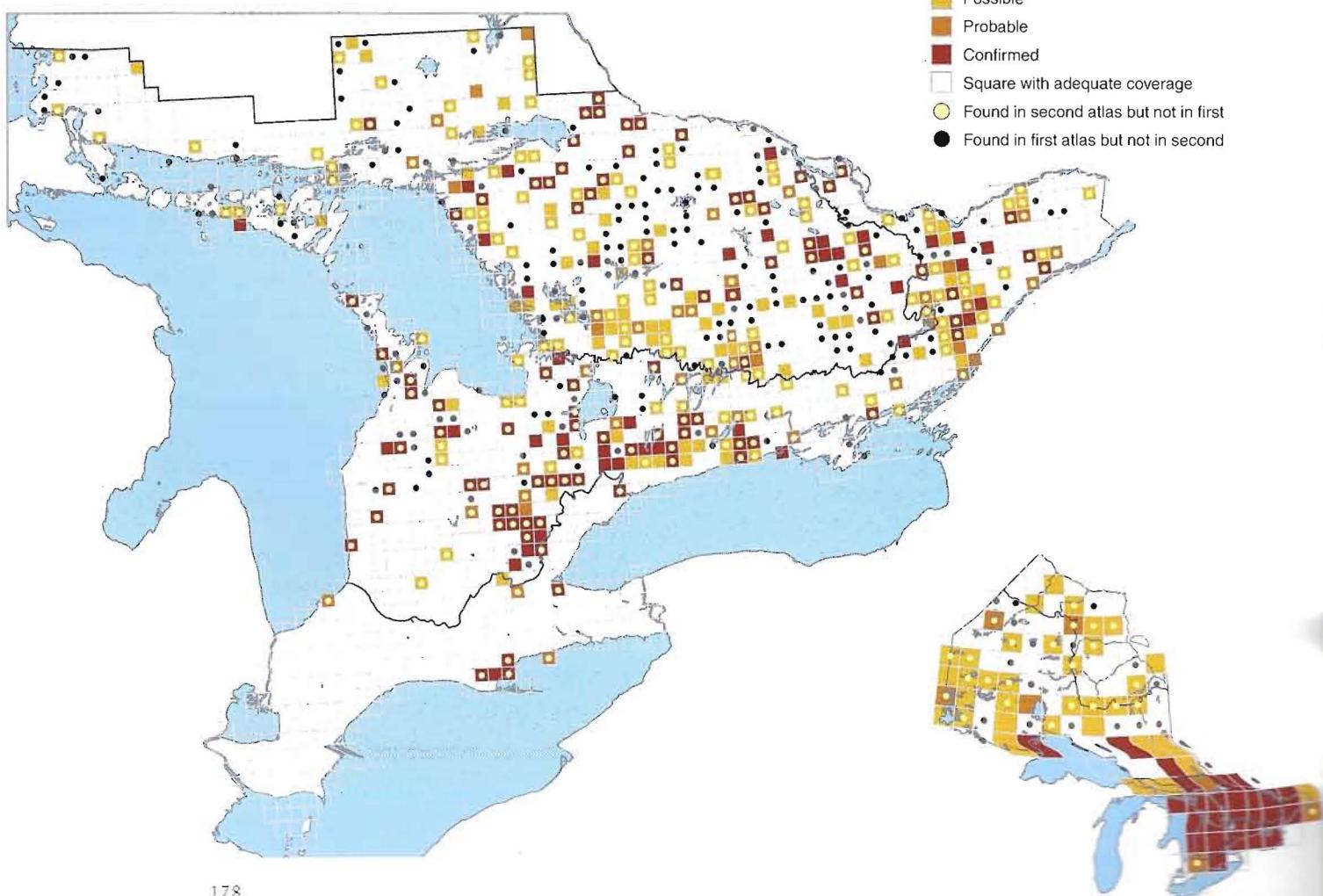
The Northern Goshawk has a holarctic distribution, occurring throughout much of the boreal and temperate forested

regions of North America and Europe. In North America, it occurs from Alaska to the US northeast, south in the west, primarily at higher elevations, to Mexico (Squires and Reynolds 1997). It is a permanent resident throughout much of its range, vacating breeding areas in winter only during periods of low prey abundance. Typically only a proportion of the population migrates (primarily sub-adults), but occasional large irruptions, coincident with crashes in the species’ principal prey, involve adult males and females (Squires and Reynolds 1997).

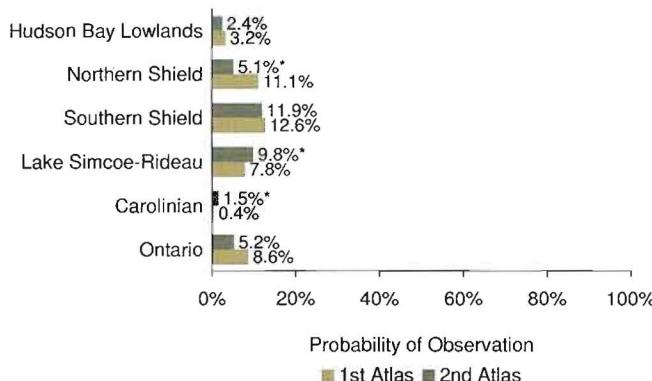
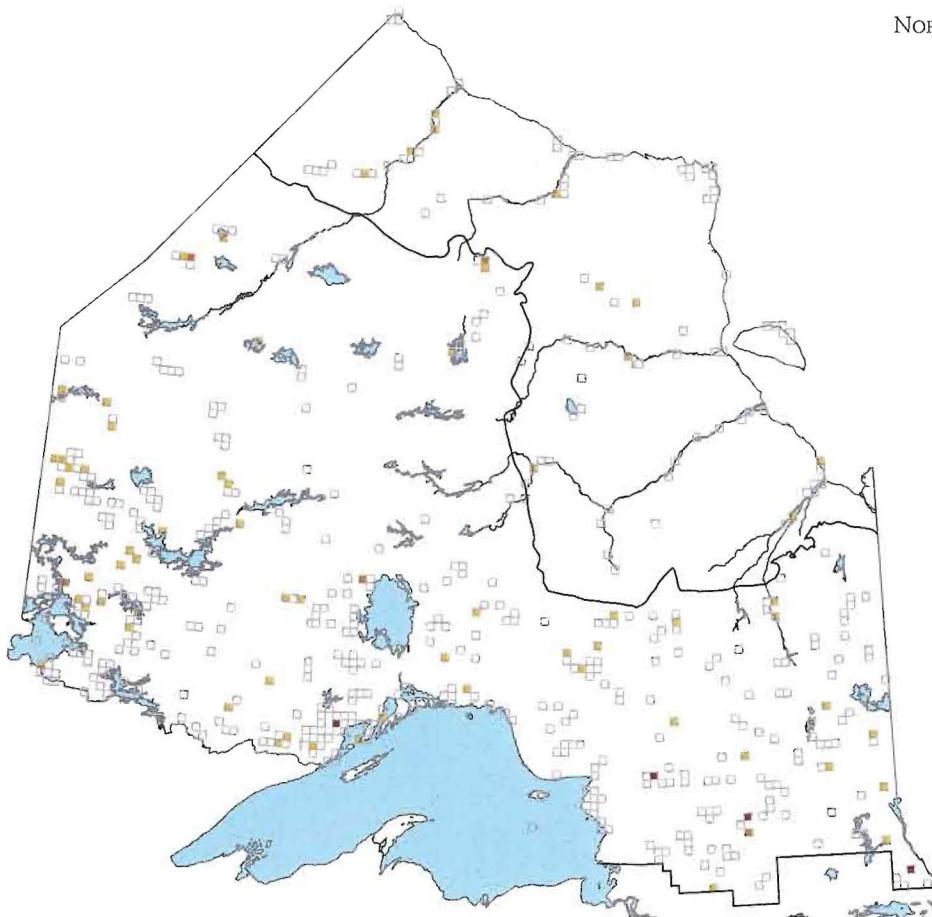
**Distribution and population status:** The Northern Goshawk occurs widely but sparsely in all forested regions of Ontario. In the second atlas, it occurred most frequently in the Lake Simcoe-Rideau and Southern Shield regions where the probability of observation was 10% and 12%, respectively. The species was even more sparsely distributed in the Carolinian, Northern Shield, and Hudson Bay Lowlands regions. The low probability of observation in the province overall is likely a reflection of the species’ relatively large home range (up to 3500 ha; Squires and Reynolds 1997) and low densities. The limited distribution in the southwestern portion of the province is due to the more limited forest cover and small forest fragment size.

Across the province, there was a non-significant decline of 40% in the probability of observation for the Northern Goshawk between atlases, with a significant 54% decline in the Northern Shield. While the reasons for the decline are unclear, natural cycles in principal prey species and a reduction in the

## Breeding Evidence



## BREEDING EVIDENCE



supply of the mature mixed boreal forest habitat offer possible explanations. Significant increases in the probability of observation in both the Carolinian and Lake Simcoe-Rideau regions may be attributable to an expanding source population, and the maturation of forests, including coniferous plantations, in parts of southern Ontario and particularly in the Carolinian where the species is known in only a small number of squares.

**Breeding biology:** The Northern Goshawk nests in forested areas that are well stocked with larger-diameter trees, fewer smaller-diameter trees, high canopy closure, and generally low ground and shrub cover (Bush 2006). In Ontario, preferred habitat is dominated by White Pine, Red Pine, tolerant hardwoods, and intolerant-mixed woods (Bush 2006), and includes a mosaic of forest types and ages supporting its primary prey (Snowshoe Hare, Ruffed Grouse, Spruce Grouse, and Red Squirrel; pers. obs.). Although larger forest blocks may be preferred for nesting, fragments as small as 12 ha may be suitable (B.J. Naylor, pers. comm.). The species shows strong

nest-site fidelity, using the same nest over successive years or alternative nests within 100-300 m of the old nest (Squires and Reynolds 1997; Hautala 2004). In central Ontario, it nests primarily in deciduous trees and seems to prefer aspen (Peck and James 1983).

The Northern Goshawk is secretive and infrequently observed during much of the year. It is most difficult to observe during the early stages of nesting, particularly during egg laying and incubation. Egg laying takes place from mid-April to mid-May and incubation lasts approximately 30-44 days (Kennedy 2003); detection is most difficult during the incubation period. Nonetheless, most records (56%) were of possible breeding, likely reflecting observations of single birds in suitable habitat. Birds aggressively defend the nest site during nest building and rearing of young. Adults may intercept intruders at considerable distances from the nest, and highly agitated, vocal, and increasingly aggressive adults easily reveal nest locations. Breeding was confirmed in 32% of squares in which the species was detected.

**Abundance:** Estimating population size and trends for the Northern Goshawk in Ontario is difficult in part due to the general inaccessibility of much of its range, the possible cyclic nature of populations, and its partial migratory status. There were too few detections on point counts to produce an abundance map. Based on partial migration data from goshawk invasion years, however, the northern Ontario population was estimated by Duncan and Kirk (1994) at fewer than 5,000 pairs, while Kirk (1995) suggested that the population in central and southern Ontario is possibly in the range of 500-2,000 pairs. – Peter G. Bush