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## Conserving Australian owls

In a biological sense, *conservation* means to preserve a wide variety of species, subspecies and habitats (retain *biodiversity*) and to save the greatest number of each species appropriate to the ecological conditions in any given area (retain *densities*). If Australia loses more forest, prey species hunted by owls, open spaces or bushland, owl species may disappear. Biodiversity is reduced. If good habitat is taken up by houses, farms, mines or roads replacing food, shelter or nest sites, owls occur at lower breeding densities. This applies to subspecies. Of the seven Boobook subspecies in the region covered by Higgins (1999), two are extinct, leaving five subspecies (races).

### Extinction

With mounting concern over global warming and habitat loss, there is considerable press given to the ultimate consequence of degrading habitat – extinction. What makes some species more secure, and others more at risk of extinction?

Extinction can be defined as when the distribution and abundance of a species or subspecies is reduced to zero. Newton (1998) said that the long-term security of an organism depends largely on three factors: (1) the extent of its geographical *range*, (2) the number and extent of *habitats* the organism can occupy and (3) the average *density* of the species or subspecies within those habitats. Together, these factors determine the organism's overall numbers and security. Different