

Appendix A: Australian owls

This section is not a comprehensive summary of each Australian owl. Rather, it gives a brief description of each of nine species and points to questions for further research. For comprehensive descriptions of the biology of each species consult Fleay (1968), Hollands (1991), Higgins (1999), König *et al.* (1999), Garnett and Crowley (2000), Garnett *et al.* (2011), Newton *et al.* (2002) or Debus (2009).

The world's owls are divided into two families: (1) the Tytonidae or 'barn owls', and (2) everything else fits into Strigidae or 'typical owls'. The two families show similarities in breeding and methods of hunting; owls are similar around the world in behaviour and appearance. Many of the differences between the two families are anatomical. Tytonidae owls have inner and central toes of about the same length, while Strigidae have an inner toe that is shorter than the middle toe. The claw of the central toe in Tytonidae is serrated on the underside, in Strigidae it is not. The skull of Tytonidae appears to be long and pinched, in Strigidae comparatively short. The shape of the sternum (breastbone) is different in the two families. In Tytonidae the sharp edge of the sternum, the carina, is broad and narrows towards the abdomen, while in Strigidae it is narrow at the upper part and broadens towards the abdomen. In Tytonidae the sternum has two shallow notches near the abdomen, in Strigidae there are two deep emarginations on each side (Figure 2.3).

Tytonidae are said to be distinguished from Strigidae by a sharply defined facial disc, typically heart-shaped (Higgins 1999; Figure 2.1) but, to my eye, the differences are not that clear between some Tytonidae species like the Sooty Owl in Australia and Northern Hemisphere Strigidae like the Boreal Owl *Aegolius funereus*. Even some individual Southern Boobooks have a fairly well-defined facial disc.

Tytonidae is said to have only one genus, *Tyto*, though recent taxonomists add *Phodilus*, the Bay Owls. Strigidae has about 24 genera, give or take a few depending on taxonomic treatment. Though even small countries like England have six owl species across five genera, the Australian mainland has only eight species in two