

# The trophic structure of the breeding raptor guild of the Canberra region and its relationship with other Australian guilds

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This study examines the trophic structure of the raptor guild near Canberra, Australia, and also provides the first comparison of the trophic structure, dietary diversity, and overlap of three breeding raptor guilds across the Australian subcontinent. The study guild was very diverse in its diet, as shown by its trophic structure, with only three clear sub-guilds identified and five species that did not fit any particular sub-guild. There was little overlap in the diet of the various species. The three sub-guilds identified were raptors eating: (i) mammals and large birds (Wedge-tailed Eagle *Aquila audax*, Little Eagle *Hieraaetus morphnoides*, Whistling Kite *Haliastur sphenurus*); (ii) small vertebrates and insects (Brown Goshawk *Accipiter fasciatus*, Brown Falcon *Falco berigora*); and (iii) insect dominated (Nankeen Kestrel *F. cenchroides*, Southern Boobook *Ninox boobook*). The other species and prey were the Black-shouldered Kite *Elanus axillaris* (rodent specialist); White-bellied Sea-eagle *Haliaeetus leucogaster* (animals of aquatic origin); Collared Sparrowhawk *Accipiter cirrocephalus* (small birds and insects); Australian Hobby *F. longipennis* (aerial prey specialist: small birds, insects and bats); and Peregrine Falcon *F. peregrinus* (bird specialist). The Canberra guild had a higher dietary diversity and less overlap than the other Australian guilds. The potential role of intraguild predation is discussed.

**Keywords:** Raptors, Guild, Trophic Structure, Dietary diversity, Apex predator, Intra-guild predation, Australia.