

MAMMALS, BIRDS AND REPTILES OF THE WARWICK DISTRICT, QUEENSLAND. 2. BIRDS

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SUMMARY

Habitat types and a measure of abundance are given for 220 species of birds recorded from the Warwick district in south-eastern Queensland.

Methods

Habitat types recognized and areas of intensive study have been described previously (Kirkpatrick 1966). Consistent with the importance to birds of habitat involving water, habitat types described as open water, rivers and creeks and margins of these were recognized where appropriate.

Random traverses of intensively studied areas were made at approximately fortnightly intervals, and specimens collected using guns and rifles. Night traverses were made with the aid of a spotlight. Abundance ratings of abundant, common, uncommon and scarce were given as for mammals, and an additional rating, occasional, used for those species which were observed in small numbers at irregular intervals. In assessing abundance, flocks and parties of gregarious species were treated as individuals, and territorial behaviour was taken into consideration. For species which showed seasonal variations in abundance, including migratory species, ratings were given according to periods of greatest abundance. The annual patterns of movement of most species are well known and may be found elsewhere (e.g. Cayley 1958).

Specimens of all species collected are in the Queensland Museum, Brisbane.

Results

Species collected are listed below together with habitat types and estimated abundance. Some of the larger readily identified species were not collected; this is indicated by an asterisk.

Identifications not made by the author were by the Queensland Museum, Brisbane. Names follow a draft list of the names of Australian birds prepared by the Commonwealth Scientific and Industrial Research Organization in 1965.

- Podiceps ruficollis* (Vroeg). Little grebe. Open water; abundant.
- **Podiceps cristatus* (L.). Great crested grebe. Open water; uncommon.
- **Pelecanus conspicillatus* Temminck. Australian pelican. Open water; common.
- **Phalacrocorax sulcirostris* (Brandt). Little black cormorant. Water; common.
- Phalacrocorax carbo* (L.). Black cormorant. Water; common.
- Phalacrocorax varius* (Gmelin). Pied cormorant. Water; abundant.
- **Phalacrocorax melanoleucos* (Vieillot). Little pied cormorant. Water; common.
- **Anhinga rufa* (Daudin). Australian darter. Water; uncommon.
- **Ardea pacifica* Latham. White-necked heron. Water; common.
- **Ardea noveahollandiae* Latham. White-faced heron. Water and cultivation; common.
- **Egretta alba* (L.). White egret. Open water; uncommon.
- **Egretta garzetta* (L.). Little egret. Open water; uncommon.
- Nycticorax caledonicus* (Gmelin). Nankeen night heron. River margins; common.
- **Threskiornis molucca* (Cuvier). Australian white ibis. Water and adjacent areas; uncommon.
- Threskiornis spinicollis* (Jameson). Straw-necked ibis. Grassland and cultivation; abundant.
- **Plegadis falcinallus* (L.). Glossy ibis. Cultivation; one small group seen during survey.
- **Platalea regia* Gould. Royal spoonbill. Water; common.
- **Platalea flavipes* Gould. Yellow-billed spoonbill. Water; common.
- **Cygnus atratus* (Latham). Black swan. Open water; common.
- Dendrocygna eytoni* (Eyton). Plumed tree-duck. Water; occasional.
- **Tadorna radjah* (Garnot). White-headed shelduck. One small flock reported from a creek during survey.
- Anas superciliosa* Gmelin. Black duck. Water; abundant.
- Anas castanea* (Eyton). Chestnut teal. Water; occasional.
- Anas gibberifrons* Muller. Grey teal. Water; abundant.
- **Anas rhynchos* Latham. Blue-winged shoveler. Open water; occasional.

- **Malacorhynchus membranaceus* (Latham). Pink-eared duck. Open water; occasional.
- **Aythya australis* (Eyton). White-eyed duck. Open water; abundant.
- Chenonetta jubata* (Latham). Maned goose. Water; abundant.
- **Oxyura australis* Gould. Blue-billed duck. Open water; occasional.
- Elanus notatus* Gould. Black-shouldered kite. Cultivation and adjacent open forest; common.
- Baza subcristata* (Gould). Crested hawk. Rain forest; uncommon.
- **Milvus migrans* (Boddaert). Fork-tailed kite. Numbers seen around slaughter yards in mid-1965.
- **Haliastur sphenurus* (Vieillot). Whistling eagle. Seen only near large areas of open water; occasional.
- Accipiter novaehollandiae* (Gmelin). Grey goshawk, both colour phases. Rain forest margins; uncommon.
- Accipiter fasciatus* (Vigors and Horsfield). Australian goshawk. Rain forest and margins; common.
- Aquila audax* (Latham). Wedge-tailed eagle. Open forest; abundant.
- Circus assimilis* Jardine and Selby. Spotted harrier. Grassland, cultivation; uncommon.
- **Circus approximans* Peale. Swamp harrier. Cultivation; one specimen observed.
- **Falco peregrinus* Tunstall. Peregrine falcon. Open forest; uncommon.
- Falco longipennis* Swainson. Little falcon. Cultivation, open forest; uncommon.
- **Falco cenchroides* Vigors and Horsfield. Nankeen kestrel. Cultivation; abundant. Open forest; uncommon.
- Falco berigora* Vigors and Horsfield. Brown hawk. Cultivation, open forest; uncommon.
- Alectura lathamii* Gray. Brush turkey. Rain forest; common. Open forest; uncommon.
- Coturnix pectoralis* Gould. Stubble quail. Cultivation; abundant.
- Synoicus ypsilophorus* (Bosc). Brown quail. Cultivation; abundant.
- Turnix varia* (Latham). Painted quail. Open forest and adjacent grassland; common.
- Hypotaenidia philippensis* (L.). Banded landrail. Grassland adjacent to river and creek margins; uncommon.
- **Tribonyx ventralis* (Gould). Black-tailed native hen. Water; common.
- Gallinula tenebrosa* Gould. Dusky moorhen. Rivers and margins; uncommon.
- **Porphyrio porphyrio* (L.). Swamphen. Rivers and margins; uncommon.
- **Fulica atra* L. Coot. Open water; abundant.
- **Rostratula benghalensis* (Gould). Australian painted snipe. Water; occasional.

- **Lobibyx novaehollandiae* (Stephens). Spur-winged plover. Grassland; common.
- **Zonifer tricolor* (Vieillot). Banded plover. Grassland; common.
- Charadrius melanops* Vieillot. Black-fronted dotterel. Water margins; common.
- **Himantopus himantopus* (L.). White-headed stilt. Open water margins; common.
- **Recurvirostra novaehollandiae* Vieillot. Avocet. Open water margins; uncommon.
- **Burhinus magnirostris* (Latham). Southern stone curlew. Open forest; occasional.
- **Larus novaehollandiae* Stephens. Silver gull. Open water; occasional.
- Ptilinopus regina* Swainson. Red-crowned pigeon. Rain forest; uncommon.
- Lopholaimus antarcticus* (Shaw). Top-knot pigeon. Rain forest; abundant.
- Columba norfolciensis* (Latham). White-headed pigeon. Rain forest; scarce.
- Columba livia* (Temminck). Domestic pigeon. Cultivation and adjacent open forest, towns; common.
- Macropygia phasianella* (Temminck). Brown pigeon. Rain forest; common.
- **Streptopelia chinensis* (Scopoli). Indian dove. Towns; uncommon.
- Geopelia humeralis* (Temminck). Bar-shouldered dove. Rain forest and open forest; uncommon.
- Geopelia striata* (L.). Peaceful dove. Open forest, cultivation; uncommon.
- Chalcophaps chrysochlora* (Wagler). Green-winged pigeon. Rain forest; uncommon.
- Phaps chalcoptera* (Latham). Common bronzewing. Open forest; abundant. Cultivation adjacent to open forest; uncommon.
- Ocyphaps lophotes* (Temminck). Crested pigeon. Open forest and cultivation; abundant.
- Geophaps scripta* (Temminck). Squatter pigeon. Open forest; uncommon.
- Leucosarcia melanoleuca* (Latham). Wonga pigeon. Rain forest and adjacent open forest; common.
- Trichoglossus haematodus* (L.). Rainbow lorikeet. Open forest; common.
- Trichoglossus chlorolepidotus* (Kuhl). Scaly-breasted lorikeet. Open forest; common.
- Glossopsitta concinna* (Shaw). Musk lorikeet. Open forest; abundant.
- Glossopsitta pusilla* (Shaw). Little lorikeet. Open forest; abundant.
- Calyptorhynchus funereus* (Shaw). Yellow-tailed black cockatoo. Rain forest and open forest; common.
- Calyptorhynchus lathami* (Temminck). Glossy black cockatoo. Open forest on Dividing Range; uncommon.

- Cacatua galerita* (Latham). Sulphur-crested cockatoo. Rain forest, cultivation and adjacent open forest; common.
- Cacatua roseicapilla* Vieillot. Galah. Open forest, grassland and cultivation; common.
- Leptolophus hollandicus* (Kerr). Cockatiel. Cultivation and adjacent open forest; abundant.
- Aprosmictus scapularis* (Lichtenstein). King parrot. Rain forest; common. Open forest; uncommon.
- Platycercus elegans* (Gmelin). Crimson rosella. Rain forest and adjacent habitat types; abundant.
- Platycercus eximius* (Shaw). Eastern rosella. Open forest and cultivation; abundant.
- Platycercus adscitus* (Latham). Pale-headed rosella. Open forest; uncommon.
- Psephotus haematonotus* (Gould). Red-backed parrot. Cultivation and adjacent open forest; abundant.
- Neophema pulchella* (Shaw). Turquoise parrot. Open forest; uncommon.
- Cuculus pallidus* (Latham). Pallid cuckoo. Open forest; common.
- Cacomantis pyrrhophanus* (Vieillot). Fan-tailed cuckoo. Open forest; common.
- **Chrysococcyx lucidus* (Gmelin). Golden bronze cuckoo. One specimen observed in open forest adjacent to rain forest.
- Scythrops novaehollandiae* Latham. Channel-billed cuckoo. Open forest; uncommon.
- Centropus phasianinus* (Latham). Pheasant coucal. Open forest; scarce.
- Ninox novaeseelandiae* (Gmelin). Boobook owl. Open forest and cultivation; common.
- Tyto alba* (Scopoli). Barn owl. Open forest and cultivation; common.
- Podargus strigoides* (Latham). Tawny frogmouth. Open forest; abundant.
- Aegotheles cristatus* (Shaw). Owlet-nightjar. Open forest; common.
- Eurostopodus mystacalis* (Temminck). White-throated nightjar. Open forest; uncommon.
- Hirundapus caudacutus* (Latham). Spine-tailed swift. Flying above all habitat types; abundant.
- Alcyon azurea* (Latham). Azure kingfisher. River margins; scarce.
- Dacelo gigas* (Boddaert). Laughing kookaburra. Open forest; abundant.
- **Halcyon macleayi* Jardine and Selby. Forest kingfisher. Open forest; common.
- Halcyon sancta* (Vigors and Horsfield). Sacred kingfisher. Open forest; common.
- Merops ornatus* Latham. Rainbow bird. Open forest; common.
- Eurystomus orientalis* (L.). Eastern broad-billed roller. Open forest; common.

- Pitta versicolor* Swainson. Noisy pitta. Rain forest; scarce.
- Menura alberti* Bonaparte. Albert lyrebird. Rain forest; common.
- Mirafra javanica* Horsfield. Singing bushlark. Grassland and cultivation; abundant.
- Cheramoeca leucosternum* (Gould). White-backed swallow. Grassland and cultivation and adjacent open forest; uncommon.
- Hirundo neoxena* Gould. Welcome swallow. Cultivation and adjacent open forest, towns; abundant.
- Petrochelidon nigricans* (Vieillot). Tree martin. Open forest; common.
- Petrochelidon ariel* (Gould). Fairy martin. Cultivation and grassland, particularly near road bridges, and adjacent open forest; abundant.
- Anthus novaeseelandiae* (Gmelin). Australian pipit. Open forest, grassland and cultivation; abundant.
- Pteropodocys maxima* (Ruppell.) Ground cuckoo-shrike. Open forest; occasional.
- Coracina novaehollandiae* (Gmelin). Black-faced cuckoo-shrike. Open forest; common.
- Coracina robusta* (Latham). Little cuckoo-shrike. Open forest; uncommon.
- Edoliisoma tenuirostra* (Jardine). Jardine triller. Open forest; uncommon.
- Lalage sueurii* (Vieillot). White-winged triller. Open forest; abundant.
- Zoothera dauma* (Latham). Australian ground thrush. Rain forest; common.
- Orthonyx temmincki* Ranzani. Southern chowchilla. Rain forest; uncommon.
- Cinclosoma punctatum* (Shaw). Spotted quail-thrush. Open forest; common.
- Pomatostomus temporalis* (Vigors and Horsfield). Grey-crowned babbler. Open forest; common.
- Pomatostomus superciliosus* (Vigors and Horsfield). White-browed babbler. Open forest away from Dividing Range; uncommon.
- Cisticola exilis* (Vigors and Horsfield). Golden-headed fantail-warbler. Grassland adjacent to water; uncommon.
- Megalurus timoriensis* Wallace. Tawny grassbird. Grassland adjacent to water; uncommon.
- Acrocephalus stentoreus* (Gould). Reed-warbler. Grassland adjacent to water; uncommon.
- Cinclorhampus cruralis* (Vigors and Horsfield). Brown songlark. Cultivation and open forest; common.
- Cinclorhampus mathewsi* Iredale. Rufous songlark. Cultivation and grassland; common.

- Malurus cyaneus* (Latham). Superb blue wren. Open forest, particularly in areas with shrubs; abundant.
- Malurus lamberti* Vigors and Horsfield. Variegated wren. Rain forest margins; common.
- Malurus melanocephalus* (Latham). Red-backed wren. Brush along creek margins; scarce.
- Gerygone olivacea* (Gould). White-throated warbler. Open forest; uncommon.
- Gerygone richmondi* (Mathews). Brown warbler. Rain forest; abundant.
- Acanthiza lineata* Gould. Striated thornbill. Open forest; abundant.
- Acanthiza nana* Vigors and Horsfield. Little thornbill. Open forest; abundant.
- Acanthiza pusilla* (Shaw). Brown thornbill. Rain forest; abundant.
- Acanthiza reguloides* Vigors and Horsfield. Buff-tailed thornbill. Open forest; abundant.
- Acanthiza chrysorrhoa* (Quoy and Gaimard). Yellow-tailed thornbill. Cultivation and adjacent open forest; common.
- Sericornis frontalis* (Vigors and Horsfield). White-browed scrub-wren. Rain forest and margins; abundant.
- Sericornis lathamii* (Stephens). Yellow-throated scrub-wren. Rain forest; common.
- Sericornis magnirostris* (Gould). Large-billed scrub-wren. Rain forest; common.
- Smicrornis brevirostris* (Gould). Weebill. Open forest; abundant.
- Aphelocephala leucopsis* (Gould). Whiteface. Open forest; uncommon.
- Chthonicola sagittata* (Latham). Speckled warbler. Open forest; common.
- Microeca leucophaea* (Latham). Jacky winter. Open forest; abundant.
- Petroica multicolor* (Gmelin). Scarlet robin. Open forest adjacent to rain forest; common.
- Petroica goodenovii* (Vigors and Horsfield). Red-capped robin. Open forest; uncommon.
- Petroica phoenicea* Gould. Flame robin. Open forest; uncommon.
- Petroica rosea* Gould. Rose robin. Rain forest; common.
- Petroica cucullata* (Latham). Hooded robin. Open forest; uncommon.
- Eosaltria australis* (Shaw). Southern yellow robin. Rain forest; abundant. Open forest with underbrush; uncommon.
- Tregellasia capito* (Gould). Pale yellow robin. Rain forest; uncommon.
- Rhipidura fuliginosa* Sparrm. Grey fantail. Rain forest clearings, open forest; common.
- Rhipidura rufifrons* (Latham). Rufous fantail. Rain forest; common.
- Rhipidura leucophrys* (Latham). Willie wagtail. Open forest; common.
- Myiagra rubecula* (Latham). Leaden flycatcher. Open forest; common.

- Seisura inquieta* (Latham). Restless flycatcher. Open forest; uncommon.
- Monarcha melanopsis* (Vieillot). Black-faced flycatcher. Rain forest; common.
- Pachycephala pectoralis* (Latham). Golden whistler. Rain forest; common. Open forest; uncommon.
- Pachycephala rufiventris* (Latham). Rufous whistler. Open forest; common.
- Colluricincla phaea* (Forster). Grey shrike-thrush. Open forest, rain forest margins; common.
- Falcunculus frontatus* (Latham). Shrike-tit. Open forest; uncommon.
- Psophodes olivaceus* (Latham). Eastern whipbird. Rain forest; common.
- Neositta leucocephala* (Gould). White-headed sitella. Open forest; uncommon.
- Climacteris picumnus* Temminck. Brown tree-creeper. Open forest; abundant.
- Climacteris leucophaea* (Latham). White-throated tree-creeper. Rain forest, open forest; common.
- Dicaeum hirundinaceum* (Shaw). Mistletoe bird. Open forest; common.
- Pardalotus punctatus* (Shaw). Spotted pardalote. Open forest; abundant.
- Pardalotus striatus* (Gmelin). Yellow-tipped pardalote. Open forest; abundant.
- Pardalotus melanocephalus* Gould. Black-headed pardalote. Open forest; uncommon.
- Zosterops lateralis* (Latham). Grey-breasted silvereye. Rain forest; abundant. Open forest; common.
- Lichmera indistincta* (Vigors and Horsfield). Brown honeyeater. Open forest; common.
- Plectorhyncha lanceolata* Gould. Striped honeyeater. Open forest; uncommon.
- Myzomela sanguinolenta* (Latham). Scarlet honeyeater. Open forest; abundant.
- Xanthomiza phrygia* (Shaw). Regent honeyeater. Open forest; occasional.
- Meliphaga lewini* Swainson. Lewin honeyeater. Rain forest; abundant.
- Meliphaga fusca* Gould. Fuscous honeyeater. Open forest; abundant.
- Meliphaga chrysops* (Latham). Yellow-faced honeyeater. Open forest; abundant.
- Meliphaga leucotis* (Latham). White eared honeyeater. Open forest; common.
- Meliphaga melanops* (Latham). Yellow-tufted honeyeater. Open forest; common.
- Melithreptus lunatus* (Vieillot). White-naped honeyeater. Open forest; abundant.
- Melithreptus gularis* (Gould). Black-chinned honeyeater. Open forest; common.
- Acanthorhynchus tenuirostris* (Latham). Eastern spinebill. Rain forest; common.

- Phylidonyris albifrons* (Gould). White-fronted honeyeater. Open forest; one specimen collected.
- Manorina melanophrys* (Latham). Bell miner. Open forest adjacent to rain forest; abundant.
- Manorina melanocephala* (Latham). Noisy miner. Open forest; abundant.
- Anthochaera carunculata* (Shaw). Red wattle-bird. Open forest; common.
- Entomyzon cyanotis* (Latham). Blue-faced honeyeater. Open forest; common.
- Philemon corniculatus* (Latham). Noisy friar bird. Open forest; abundant.
- Philemon citriogularis* (Gould). Little friar bird. Open forest; abundant.
- Zonaeginthus guttatus* (Shaw). Diamond firetail. Open forest; common.
- Taeniopygia castanotis* (Gould). Zebra finch. Cultivation; common.
- Poephila bichenovii* (Vigors and Horsfield). Banded finch. Open forest; abundant.
- Lonchura modesta* (Gould). Plum-headed finch. Open forest; common.
- Estrilda temporalis* (Latham). Red-browed finch. Rain forest margins and adjacent creek margins; abundant.
- Passer domesticus* L. House sparrow. Cultivation and towns; abundant.
- Sternus vulgaris* L. Starling. Towns, cultivation and adjacent open forest; abundant.
- Acridotheres tristis* (L.). Indian myna. Cultivation in northern corner of district only; common.
- Oriolus sagittatus* (Latham). Olive-backed oriole. Open forest; uncommon.
- **Chibia bracteata* (Gould). Spangled drongo. Open forest; occasional.
- Grallina cyanoleuca* (Latham). Magpie lark. Open forest and cultivation; abundant.
- Corcorax melanorhamphus* (Vieillot). White-winged cough. Open forest; abundant.
- Struthidea cinera* Gould. Apostle bird. Open forest; abundant.
- Artamus leucorhynchus* (L.). White-breasted wood-swallow. Open forest; abundant.
- **Artamus personatus* (Gould). Masked wood-swallow. Open forest; uncommon.
- Artamus superciliosus* (Gould). White-browed wood-swallow. Open forest; abundant.
- Artamus cyanopterus* (Latham). Dusky wood-swallow. Open forest; abundant.
- Artamus minor* Vieillot. Little wood-swallow. Open forest; uncommon.
- Strepera graculina* (Shaw). Pied currawong. Rain forest, open forest and towns; abundant.
- Cracticus nigrogularis* (Gould). Pied butcher-bird. Open forest and cultivation; common.

- Cracticus torquatus* (Latham). Grey butcher-bird. Open forest; uncommon.
- Gymnorhina tibicen* (Latham). Black-backed magpie. Open forest, cultivation and towns; abundant.
- Ailuroedus crassirostris* (Paykull). Catbird. Rain forest; common.
- Sericulus chrysocephalus* (Lewin). Regent bower-bird. Rain forest; uncommon.
- Ptilonorhynchus violaceus* (Vieillot). Satin bower-bird. Rain forest and adjacent open forest; abundant.
- Ptiloris paradiseus* Swainson. Paradise rifle-bird. Rain forest; uncommon.
- Corvus ceciliae* Mathews. Australian crow. Cultivation and open forest; abundant.

Discussion

The 220 species recorded during this survey include only two species not generally recognized as occurring in the area, the white-browed babbler (*Pomatostomus superciliosus*) and the whiteface (*Aphelocephala leucopsis*). Both species are known from farther west, and the Dividing Range probably represents the eastern edge of the range of both species in southern Queensland. The Albert lyrebird (*Menura alberti*) is virtually restricted to this district and adjacent areas and is present in most rain-forest areas larger than a few acres. This species is heard more readily than it is observed. The superb lyrebird (*Menura superba* Davies) does not occur in the district but is found nearby at Wyberba, in the Stanthorpe area.

Most species recorded are abundant to common in the preferred habitat; as was pointed out for mammals, the continuing abundance of most species will depend on the retention of suitable habitat. Some species, however, have clearly benefited from the activities of man, particularly water-birds and some of the graminivores. The maned goose (*Chenonetta jubata*) makes extensive use of farm dams and tanks and grazes on cultivation near water. Grain-feeding birds which often reach pest proportions include the white cockatoo (*Cacatua galerita*), the galah (*Cacatua roseicapilla*), the cockatiel (*Leptolophus hollandicus*) and the crow (*Corvus ceciliae*). The eastern rosella (*Platycercus eximius*) and the red-backed parrot (*Psephotus haematonotus*) also make extensive use of cultivated grain. The black duck (*Anas superciliosa*), the crested pigeon (*Ocyphaps lophotes*) and the bronzewing pigeon (*Phaps chalcoptera*) are among those species which glean in grain paddocks after harvest. The barn owl (*Tyto alba*) and the boobook owl (*Ninox novaeseelandiae*) are among the raptors which feed extensively on the house mouse in cultivated areas. The singing bushlark (*Mirafra javanica*), the brown songlark (*Cinclorhamphus cruralis*) and the rufous songlark (*Cinclorhamphus mathewsi*) are species which have extended readily into man-made grassland and cultivated areas. Road and rail bridges have provided greatly increased nesting sites for the fairy martin (*Petrochelidon ariel*);

hundreds of this species are seen flying around bridges during the summer months. The whistling eagle (*Haliastur sphenurus*) has been observed only in the vicinity of the large artificial water impoundments near Warwick.

Many species show seasonal patterns of abundance. Some of the more conspicuous of these include the channel-billed cuckoo (*Scythrops novaehollandiae*), the eastern broad-billed roller (*Eurystomus orientalis*) and the rufous fantail (*Rhipidura rufifrons*). The sudden appearance of this last species in spring is one of the most noticeable events in the rain-forest. The fork-tailed kite (*Milvus migrans*) appeared briefly during mid 1965 for the first time in some years; possibly this was correlated with the dry conditions farther west, where this species is normally abundant.

Several introduced species occur. The starling (*Sternus vulgaris*) and the sparrow (*Passer domesticus*) are probably the most abundant birds in the district. The domestic pigeon (*Columba livia*) is well established but less common, and the Indian dove (*Streptopelia chinensis*) has been seen only near grain stores in towns. The Indian myna (*Acridotheres tristis*) extends from the northern Darling Downs, where it is found commonly, to the northern corner of the surveyed area.

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REFERENCES

- CAYLEY, N. (1958).—"What Bird is That?" (Angus and Robertson: Sydney).
- KIRKPATRICK, T. H. (1966).—Mammals, birds and reptiles of the Warwick district. 1. Introduction and mammals. *Qd J. Agric. Anim. Sci.* 23:591-8.

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