

BIRDS SEEN IN FOREST RESERVES IN SOUTH AUSTRALIA

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A checklist of birds seen in the different growth stages of planted pines, mainly *Pinus radiata* D. Don, and associated areas of native vegetation, has been compiled for some State forests from the Southern Flinders Ranges to the South-East of South Australia. The locations of these forests are shown on the accompanying map (see page 13).

PINE PLANTATIONS

Planted pines can be described in terms of four successive growth stages:—

1. Young:

(a) Very Young (0-2 yrs.): rows of small trees 0.5-2.0 m high with pasture grasses and some low native vegetation, e.g. bracken, yaccas, gorse, between them.

(b) Juvenile (2-5 yrs.): rows of trees 2.0-9.0 m high with the beginnings of a needle litter and a reduced amount of native vegetation.

2. Unthinned (6-15 yrs.): rows of trees 10-20 m high, forming a completely closed canopy and

dense needle carpet with patches of bracken as the only living understorey.

3. Middle-aged (15-30 yrs.): trees 20-30 m high, thinned once or twice with the initial stocking (trees/hectare) reduced by about one half at each thinning. Some grasses and bracken re-emerge in patches among logging slash and an extensive needle carpet.

4. Old (30-50 yrs.): trees 30 m+ high, thinned three times or more with the stocking further reduced by about one third. Native vegetation and grasses continue to re-emerge beneath a partially open canopy. Logging slash occurs in irregular patches.

OPEN AREAS

Comprising firebreaks, roads, swamps, creek-lines, dams and margins; these usually support grasses, patches of bracken, low shrubs, and scattered eucalypts between the compartments of pines.

NATIVE FOREST

Wirrabara: Dry sclerophyll forest: with common species *Eucalyptus cladocalyx* and *E. gonio-calyx*, some areas of *E. leucoxyton* and *E. camal-*

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dulensis with or without a continuous dense understorey.

Bundaleer: Savannah Woodland: dominated by *E. odorata* and *E. leucoxyton var. pauperita* "Scrubby Blue Gum."

Mt. Crawford and Kuitpo: Dry sclerophyll forest: dominated by *E. obliqua* and *E. baxteri*, with areas of *E. goniocalyx* and *E. fasciculosa* all over a dense understorey.

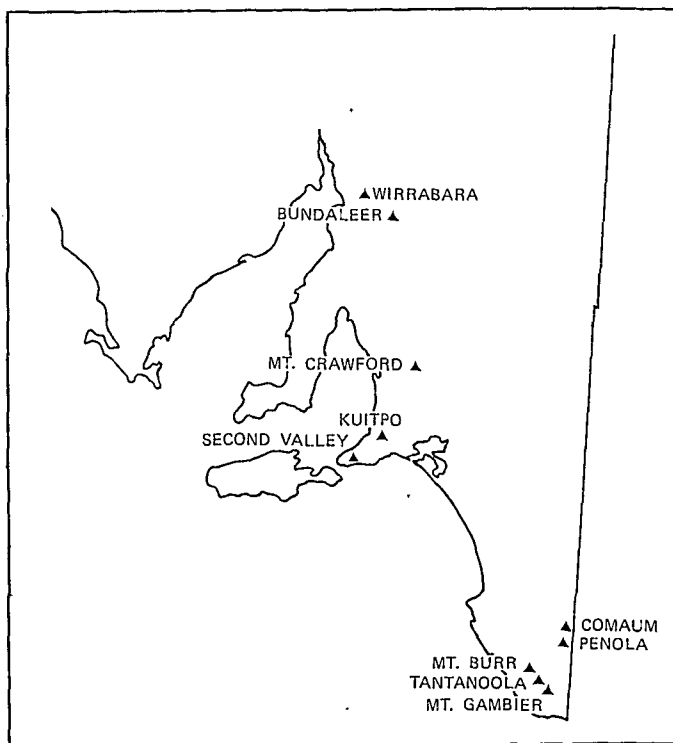
Second Valley: Essentially the same as for Kuitpo and Mt. Crawford but with areas of

depauperate *E. baxteri* codominant with *E. obliqua*.

Penola, Comaum, Mt. Burr and Mt. Gambier: Dry sclerophyll forest usually dominated by *E. baxteri* with some areas of *E. obliqua* and *E. vitrea*, all with a dense understorey. Open swamps, some with permanent water, associated with *E. ovata* and/or *E. camaldulensis*: dense understorey of *Leptospermum pubescens* and *Melaleuca squarosa* often occurs with other woody species and herbs.

EXPLANATORY NOTES

1. The entries in the checklist are based only on sight records except where indicated. Only birds that were perching, feeding or nesting in their respective habitats were recorded as being present.
2. Status mainly applies to the pine plantations and is indicated wherever possible, i.e. common — Co; occasional — Oc; uncommon — Uc. A species is regarded as being common if it can be seen on most visits to similar habitats. However, not all growth stages have necessarily been visited equally and/or in each season. The numbers given in brackets indicate the size of groups or averages, unless otherwise indicated.
3. Sightings of birds in the growth stages of the pines will be used to relate their occurrences to the different vegetation structures in a subsequent article.
4. The list does not claim to be exhaustive.
5. All sightings have been made by the authors except where indicated. Most observations at Wirrabara, Mt. Crawford, Kuitpo and Second Valley Forest Reserves were made by B. C. Gepp, and those in the South-East by A. J. Fife. To date, observations in the South-East have been concentrated in pines in Penola Forest Reserve. However, incidental sightings have been made in Bundaleer, Comaum, Mt. Burr, Tantanoola and Mt. Gambier Forest Reserves.
6. Observation Periods on Forest Reserves: Wirrabara (W) — May, 1974
Mt. Crawford (MC) — January, 1974+
Kuitpo (K) — January, 1974+
Second Valley (SV) — January, 1974+
Penola (P) — November, 1974+
Wirrabara Forest Reserve is predominantly native forest, whereas in other Reserves pine plantations predominate.
7. The nomenclature is in accordance with that of Condon, H.T. (1969) *A Handlist of the Birds of South Australia*, third edition.
8. The observations made by K. Shurcliff were extracted from her unpublished Honours B.A. Thesis (1974), "Diversity of Bird Species in a Pine Forest Reserve" (copy held in Woods and Forests Department Library).



	FOREST RESERVES	Pine Plantations				Open Areas	Native Forest	COMMENTS
		Young	Untinned	Middle-Aged	Old			
Emu	All South-East Forests	x	x	x	x	x	x	Co: family groups or pairs.
Little Grebe	W, MC, K, SV	-	-	-	-	x	-	feeding on swamps, nesting K, SV.
Hoary-headed Grebe	P	-	-	-	-	x	-	Co: feeding on swamps.
Black Cormorant	MC	-	-	-	-	x	-	feeding in reservoir and large dams.
Little Black Cormorant	MC, SV	-	-	-	-	x	-	ditto
Little Pied Cormorant	MC, K, P, Comaum	-	-	-	-	x	-	feed on dams and swamps, perch in nearby trees.
White-faced Heron	W, MC, K, SV, P	-	-	-	-	x	-	Co: alone or in flocks (15) about dams, pasture and swampy areas, nest SV.
White-necked Heron	SV, P	-	-	-	-	x	-	Oc: alone or in pairs on pasture and swampy areas.
White Egret	W, P	-	-	-	-	x	-	Oc: alone or in small groups (5) on and about swamps.
White Ibis	K, SV, P,	-	-	-	-	x	-	Co: often mixed flocks (up to 50+) feed on and about swamps and pasture.
Straw-necked Ibis	K, SV, P	x	-	-	-	x	-	ditto
Royal Spoonbill	P	-	-	-	-	x	-	Co: feed on swamps, often alone.
Yellow-billed Spoonbill	MC, P	-	-	-	-	x	-	Co: small groups (10) feed on swamps and dams.
Black Swan	MC, P	-	-	-	-	x	-	Co: nest MC on reservoir; on swamps and grazing in flocks (100) P.
Mountain Duck	P	-	-	-	-	x	-	Co: flocks (50+) graze on pasture, near swamps.
Black Duck	MC, K, SV, P	-	-	-	-	x	x	Co: pairs and small groups (5) on dams and swamps.
Chestnut Teal	K	-	-	-	-	x	-	nesting on dam.
Grey Teal	MC, K, P	-	-	-	-	x	-	pairs on reservoir, dams and swamps.
Blue-winged Shoveler	P	-	-	-	-	x	-	Oc: small groups (5) seen on one swamp.
White-eyed Duck	K	-	-	-	-	x	-	pair on dam.
Wood Duck	W, MC, K, SV, P	-	-	x	-	x	x	small groups (7) and pairs graze about dams and swampy areas.
Black-shouldered Kite	SV, P	x	-	-	-	x	-	nest SV; hunt over young pines and pasture.
Fork-tailed Kite	SV	-	-	-	-	-	-	single sighting on very windy day by D. H. Close.
Whistling Kite	MC, P	-	-	-	-	-	x	soaring over whole forest; nest in native forest P.
Brown Goshawk	SV, P	x	-	-	-	-	x	hunting over young pines SV; at P by K. Shurcliff.
Little Eagle	MC, K, SV	-	-	-	-	-	-	soaring over whole forest.
Wedge-tailed Eagle	W, MC, K, SV, P	-	-	-	-	-	-	soaring over whole forest, usually in pairs; nest SV; sighted Bundaleer forest by D. R. Page.
Brown Falcon	SV, P	x	x	-	-	x	x	hunts in groups (5) over young pines at SV.
Little Falcon	SV	-	-	-	-	x	-	single sighting, soaring over forest.
Peregrine Falcon	SV, P	x	-	-	-	x	x	nesting rocky area SV, by R. W. Smith.
Nankeen Kestrel	W, MC, K, SV, P	x	-	-	-	x	-	two birds often nearby at-SV.

Stubble Quail	K, SV	x	-	-	-	x	-	in grass between young pines.
Painted Quail	SV	x	-	-	-	x	-	single sighting in short grass.
Dusky Moorhen	MC, K, P	-	-	-	-	x	-	flocks (10) feed on reservoir, dams and swamps.
Eastern Swamphe ...	SV, P	-	-	-	-	x	-	flocks (10-50) feed about swamps and on ploughed land.
Coot	MC, K, P	-	-	-	-	x	-	nesting on dams, reservoirs and swamps.
Spur-winged Plover	W, MC, K, SV, P	-	-	-	-	x	-	pairs on pasture near swampy areas.
Black-fronted Dotterel	P	-	-	-	-	x	-	single sighting, feeding about margin of swamp.
Red-kneed Dotterel ...	MC	-	-	-	-	x	-	margin of reservoir, by N. C. H. Reid.
Peaceful Dove ...	W	-	-	-	-	x	-	pairs perching in trees adjacent open areas.
Common Bronzewing Pigeon	W, MC, K, SV, P, Comaum	x	x	x	x	x	x	Oc: feeding among low vegetation.
Brush Bronzewing Pigeon	SV, K	x	-	-	-	x	x	Uc: ditto.
Crested Pigeon	W, SV	-	-	-	-	x	-	pairs perching in trees adjacent open areas.
Yellow-tailed Black Cockatoo	K, SV, P	-	x	x	x	x	x	Co: flocks (200+) feed on cones; on all other pine plantations in South-East.
Red-tailed Black Cockatoo	P	-	-	-	-	-	x	by K. Shurcliff.
Sulphur-crested Cockatoo	W, MC, K, SV, P	-	x	x	x	x	x	Co: flocks and pairs feed on pasture, perch in pines and eucalypts.
Long-billed Corella	P	-	-	-	-	x	-	Oc: perching in eucalypts.
Galah	W, MC, K, SV, P	x	-	-	-	x	x	flocks (20) feed on ground, nest in native forest.
Rainbow Lorikeet	SV, P	-	x	-	-	x	-	perch in pines, feed on eucalypt flowers, often in pairs.
Purple-crowned Lorikeet	K, P	-	-	-	-	-	x	K by R. Ellis; P by K. Shurcliff.
Adelaide Rosella (Yellow Form	W	x	x	x	x	x	x	Rosellas feed on ground beneath pines in flocks (20). Commonly perch in pines. At K, SV, feed on seeds of young cones and on apical shoots of trees.
Adelaide Rosella	MC, K, SV	x	x	x	x	x	x	
Crimson Rosella	P	x	x	x	x	x	x	
Eastern Rosella	P	-	-	-	-	-	-	
Red-rumped Parrot ...	W, MC, K, SV	x	-	-	-	x	x	Oc: flocks (10), both sexes, feed on ground among pines.
Elegant Parrot	SV	x	-	-	-	x	x	Oc: small flocks (5) feed on ground, nest in eucalypt.
Pallid Cuckoo ...	P	-	-	-	-	-	x	by K. Shurcliff.
Fan-tailed Cuckoo	W, MC, K, SV, P	-	x	x	x	-	x	Co: perch in eucalypts and pines.
Horsfield Bronze Cuckoo	P	-	-	-	-	-	x	by K. Shurcliff.
Boobook Owl	SV, P	-	-	-	-	-	-	R. W. Smith by call SV.
Tawny Frogmouth ...	P, Comaum	-	-	-	-	-	x	Bundaleer by D. R. Page; K by A. H. Gray; Mt. Burr by call G. Lamont.
Owlet Nightjar	MC	-	-	-	-	-	x	by call, N. C. H. Reid.
Spine-tailed Swift	P, Mt. Gambier	-	-	-	-	-	-	soaring in flocks (15).
Azure Kingfisher	P	-	-	-	-	x	-	by J. F. Hare.
Laughing Kookaburra	W, MC, K, SV, P	-	-	x	x	x	x	Oc: groups (5) perch in pines; nest in eucalypts.
Sacred Kingfisher	MC, SV	-	-	-	-	-	x	SV by R. A. Jones.
Welcome Swallow	MC, K, SV, P	x	-	-	-	x	x	Oc: groups (5-10) skimming over young pines.
Tree Martin	W, K, SV	-	-	-	-	x	x	groups (5-10) circling about eucalypts and along creeklines.
Fairy Martin	SV	-	-	-	-	x	-	Uc: circling among Red Gums, near bridge, adjacent forest.

FOREST RESERVES	Pine Plantations				Open Areas	Native Forest	COMMENTS
	Young	Unthinned	Middle-Aged	Old			
Pipit	SV, P	x	-	-	-	x	Oc: often in pairs among grass, P by K. Shurcliff.
Black-faced Cuckoo-Shrike	W, K, SV, P	x	-	x	x	x	Oc: perch in trees, feed on ground, groups (5).
Little Cuckoo-Shrike	P	-	-	-	-	x	by K. Shurcliff.
Blackbird	W, MC, K, SV, P	x	x	x	x	x	Co: in low vegetation and near settlements.
Ground Thrush	MC, K, SV, P, Tantanoola	-	x	x	x	-	Oc: usually in pairs, fossick among needle litter. alone or in pairs among grass.
Brown Songlark	W	-	-	-	-	x	Oc: feed in flocks (10) including both sexes, on ground.
White-fronted Chat	SV	x	-	-	-	x	small groups (5) feed in outer foliage of eucalypts.
Little Thornbill	W	-	-	-	-	x	Co: flocks (10) forage in foliage, never seen in pines at SV.
Striated Thornbill	MC, K, SV, P	-	x	x	x	x	Oc: nesting in pines SV, flocks (10) feed mainly on ground.
Yellow-tailed Thornbill	W, MC, K, SV, P	x	x	x	x	x	Oc: flocks (10) feed mainly near ground; P. by K. Shurcliff.
Buff-tailed Thornbill	MC, K, SV, P	-	x	x	x	x	Co: feeding all over pines at SV in small flocks (10).
Chestnut-tailed Thornbill	W	-	-	x	-	x	Oc: beneath pines where low regrowth.
Brown Thornbill	K, SV, P	-	x	x	x	x	
White-browed Scrub-Wren	K, SV, P	x	x	x	x	x	
Chestnut-tailed Heath-Wren	SV, P	-	-	-	-	x	Uc: among low shrubs; P by K. Shurcliff.
Southern Emu-Wren	SV, P	-	-	-	-	x	Uc: near permanently wet area; P. by K. Shurcliff.
Superb Blue Wren	MC, K, SV, P	x	x	x	x	x	Co: groups (5-8) both sexes feed mainly in low shrubs and on ground.
Purple-backed Wren	W	x	-	-	-	x	Oc: ditto.
Grey Fantail	W, MC, K, SV, P	x	x	x	x	x	Oc: in pines adjacent areas of native forest.
Willie Wagtail	W, MC, K, SV, P	-	x	-	x	-	usually associated with low vegetation and open areas, common near settlements.
Restless Flycatcher	P	-	-	-	-	x	usually occur alone.
Jacky Winter	W, P	-	-	-	-	x	often in pairs, perching on eucalypts; P by K. Shurcliff.
Scarlet Robin	W, MC, K, SV, P	-	x	x	x	x	Co: both sexes nearby; common in pines.
Red-capped Robin	W	-	-	-	-	x	pair feeding among shrubs, by K. Shurcliff at P.
Hooded Robin	K	x	-	-	-	-	Uc: pair on area just planted adjacent patch of native vegetation.
Southern (Yellow) Robin	P	-	x	x	x	-	Oc.
Golden Whistler	MC, K, SV, P	-	x	x	x	x	Co: forage on upper limbs, both sexes nearby.
Rufous Whistler	W, MC, P	-	-	x	x	-	Oc: forage on upper limbs, both sexes nearby; P by K. Shurcliff.
Grey Shrike-Thrush	W, MC, K, SV, P	x	x	x	x	x	Co: often in pairs or small groups (4), fossick on ground.
Eastern Shrike-Tit	SV, P	-	-	-	x	-	Uc: pair forage on limbs of pines at SV; at P by K. Shurcliff.

Black-capped Sittella White-throated	MC, SV, P	-	-	-	x	-	x	Uc: groups (5) feed in foliage of trees; P by K. Shurcliff.
Treecreeper ...	MC, K, SV, P	-	x	x	x	-	x	Co: pairs forage on trunks and limbs of pines and eucalypts.
Spotted Pardalote	P	-	-	-	-	-	x	by K. Shurcliff.
Striated Pardalote	W, MC, SV	-	-	-	-	-	x	Uc: forage in outer foliage of eucalypts, often in pairs.
Grey-backed Silvereye	W, MC, K, SV, P	x	x	x	x	x	x	Oc: groups (10) feed on ground and low shrubs.
Yellow-faced Honeyeater	W, MC, K, SV, P	-	-	-	x	x	x	Oc: perch in pines adjacent native forest, feed on eucalypt flowers.
Purple-gaped Honeyeater	W	-	-	-	-	-	x	feed among foliage of eucalypts.
White-plumed Honeyeater	MC, K, SV	-	-	-	-	x	x	Oc: often associated with Red Gums near water.
White-eared Honeyeater ...	P	-	-	-	x	-	x	by K. Shurcliff.
Brown-headed Honeyeater	W, SV, P	-	-	-	-	-	x	feed among foliage of eucalypts (flowers); P by K. Shurcliff.
White-naped Honeyeater	MC, K, SV, P	-	-	-	x	x	x	Oc: feed on outer limbs of eucalypts, perch in pines.
Crescent Honeyeater	MC, K, SV	x	x	-	-	x	x	Oc: often in pairs, feed on flowers, among pines when shrubs present.
Yellow-winged Honeyeater	MC, K, SV, P	x	-	-	-	x	x	Oc: often in small groups (5) feed on flowers.
White-fronted Honeyeater	W	-	-	-	-	-	x	feed in foliage of eucalypts.
Tawny-crowned Honeyeater	W, K	x	-	-	-	-	x	feed among foliage of eucalypts; at K on flowers of shrubs between pines.
Eastern Spinebill	W, MC, K, SV, P	-	x	-	x	x	x	Co: often in pairs; feed on insects and nest in pines SV.
Noisy Miner	K, P,	-	-	-	-	x	x	adjacent open areas, feed in foliage of eucalypts and on ground in small groups (5).
Little Wattle-Bird	MC, P	-	-	-	-	-	x	feed on eucalypt flowers; at P by K. Shurcliff.
Red Wattle-Bird	W, MC, K, SV, P,	-	x	-	-	x	x	Oc: often alone or in small groups (4), feed in foliage of eucalypts and shrubs.
Goldfinch ...	SV, P	x	x	x	x	x	x	flocks (up to 200) feed on ground, shrubs and in foliage of trees.
Red-browed Finch	MC, K, SV, P	x	-	x	x	x	x	Oc: flocks (10) feed on low shrubs and ground.
Beautiful Firetail	K	x	-	-	-	-	-	Uc: single sighting, feeding on low shrubs among pines adjacent native forest.
House Sparrow		-	-	-	-	-	-	about settlements.
Starling	MC, K, SV	-	-	x	-	x	x	flocks (200) perch in trees, feed on pasture.
Magpie Lark	K, SV, P	x	-	-	-	x	-	pairs and small groups (4) feed on ground near trees.
White-winged Chough	W, MC, K, SV, P	-	-	x	x	x	x	flocks (10-20) feed on ground; nest in pines MC; isolated group adjacent forest at SV, by R. W. Smith.
Dusky Wood-Swallow	K, SV	x	-	-	-	x	x	Oc: groups (5-10), circle in open areas; K by R. Ellis.
Grey Currawong	P	-	-	x	x	x	x	Uc: small groups (5) perch in pines and eucalypts.
Black-winged Currawong	W, MC, K, SV, P	x	x	x	x	x	x	Oc: small groups (5) pairs and alone, feed on ground, perch in trees.
White-backed Magpie	W, MC, K, SV, P	x	x	x	x	x	x	Co: territorial flocks (10) feed on ground in open areas and beneath pines.
Australian or Little Raven (species uncertain)	W, MC, K, SV, P	x	x	x	x	x	x	Co: flocks (10) and pairs feed on ground among pines and open areas, nest in pines SV.