

Historical bird records from the Goonoo forest

Historical records can tell us a lot about how local environments have changed over time and also provide insights into the reasons for these changes, some of which are ongoing and will continue to affect the biodiversity and health of our local natural habitats and bird populations.

The earliest detailed survey of the bird fauna of the Goonoo forest that I have located is an unpublished list that was produced by two of the most prominent Australian ornithologists of the 20thC, Keith Hindwood and Michael Sharland. They spent 2-3 days in late October 1952 recording bird species within a mile or so of No 1 Bore Dam (now known as Riley's Dam) on the Mogriguy-Mendooran Rd. In addition to examining a large active Malleefowl mound (12ft diameter) they identified 60 different species. They returned in early November 1959, adding another 21 species to their earlier list and examining an even larger active malleefowl mound of 17ft diameter. In early October 1963, prominent ornithologists and bird banders, Harry Battam and Selwyn Lang also visited Riley's Dam, banding 55 birds from 21 species and adding another 6 species to Hindwood and Sharland's earlier lists.

The first published list of Goonoo birds appeared in 1973 in Vol 73 of The Emu journal by a respected amateur ornithologist, Rev. SJ Heron. He spent significant periods of time observing birds throughout the forest between May and December 1972 and collated the earlier observations mentioned above. He added another 11 species to the total including several winter visitors and mallee birds unrecorded by earlier observers.

Birds in decline ?

What is notable about early observations is the abnormally high number of species they identified in the vicinity of Riley's Dam that are currently considered to be very uncommon to rare in the forest. Twenty-one or about 1 in 5 of the total of 98 species observed fall into this category. Removing those species that could reasonably be categorised as vagrants or very occasional visitors leaves 15 unusual records (15% of total). You would be hard pressed visiting anywhere in the forest today, let alone at Riley's Dam, to record any of these species. In addition, there are also a number of species now common in the forest we would expect to be included in these lists but are missing or under-represented.

How do we explain these anomalies? and, what can it tell us about how the forest has changed over the last 70 years?

The 15 birds recorded between 1952 and 1972 that are now considered rare in the forest are;

Malleefowl	Ground Cuckoo-shrike
Banded Lapwing	Hooded Robin
Bush Curlew	Restless Flycatcher
Little Lorikeet	Black-chinned Honeyeater
Crested Bellbird	Southern Whiteface
Crested Shrike-tit	Diamond Firetail
Chestnut-rumped Thornbill	Gilbert's Whistler
Spotted Nightjar	

in 1999 Julian Reid from CSIRO Wildlife and Ecology Unit completed a study, "Threatened and Declining Birds in the New South Wales Sheep-Wheat Belt" for the NSW NPWS the findings of

which have been confirmed by more recent papers. His detailed analysis identified 20 species along the western slopes of NSW, including the Goonoo forest, as “decliners”, species identified as suffering from or at risk from range contraction and local extinctions in the area.

Characteristically most of these birds are sedentary species feeding on low to ground invertebrates with more specific habitat requirements than others, in particular a preference for open arid environments. Eight of the species of unusual birds identified by early observers are listed by Reid as decliners, Southern Whiteface, Hooded Robin, Crested Shrike-tit, Crested Bellbird, Restless Flycatcher, Chestnut-rumped Thornbill, Spotted Nightjar and Diamond Firetail. An additional six can be shown to share similar characteristics and risk factors, Malleefowl, Gilbert’s Whistler, Banded & Masked Lapwing, Bush Curlew and Ground Cuckoo-shrike. Reid identified ongoing habitat loss through land clearance and modification as the ultimate driver of these declines and local extinctions on the western slopes. In particular the removal of dead timber and changes to the forest and woodland understory are thought to have significantly affected the type and abundance of insect prey and foraging grounds for these species. As low to ground feeders they are also more likely to fall prey to feral carnivores such as cats and foxes.

Michael Sharland, in a Field Note published in the Bird Observer journal in 1966, discusses the unique nesting habits of Malleefowl in the Goonoo Ironbark forests, and suggests that this species has been pushed into this unusual habit by ongoing clearing and modification of more suitable habitat in the surrounding areas for farming purposes. This process could apply equally to many of the other unusual species identified by early observers.

It may also be relevant to consider the environmental history of the forest, particularly in the Riley’s Dam area as it was significantly different in the 1950’s to today. Since the 1880’s this area was a major focus for logging activities as it was easier to access from Dubbo and nearby settlements on the western edge of the forest. The expansion of the railway network at this time increased the demand for Ironbark railway sleepers and three hundred sleeper-cutters are reported to be working in the forest by the beginning of the 20thC, many of them in this area. All the larger Ironbarks in the area were soon removed along with smaller trees of this and other species for fencing, firewood and other uses. This opening up of the forest along with the introduction of weed species and compaction of the soil through human traffic would have had significant effects on the forest understory and insect populations.

The need to conserve and manage the forest to ensure future ironbark timber supplies was identified early and in 1917 it was declared a State Forest. Riley’s Dam was constructed and it became the site for the main headquarters of State Forestry logging operations in the forest with a semi-permanent Ranger’s house, loggers’ tents and other operational buildings. The introduction of a permanent water supply, although having an overall positive effect on local bird populations, would have changed the competitive dynamic between different species in drawing in birds from the surrounding area as well as introduced species. The forest was managed to maximise Ironbark supply and various management practices carried out with ongoing effects on the Riley’s Dam area, e.g. removal of non-required species, clearing of dead timber, propagation and planting of ironbark seedlings. In addition during WW2 an internment camp was set up nearby and gangs of “aliens”, mostly Italian nationals, were set to harvesting young Ironbarks and other small trees to produce charcoal for fuel production during wartime, further changing the habitats in the area. Michael Sharland in his 1966 Field Notes observes that since 1952: “I have visited Goonoo three times. Each time there has been a change, with

the scrub getting scarcer, the screen between the cleared lands more transparent, the Ironbarks more aggressive”.

Forestry management practices changed again after the declaration of parts of the Goonoo forest as conservation areas from 2005. Since that time the forest has been managed for conservation purposes by the NPWS. Practices such as controlled burning, weed and feral animal control are all designed to maintain a natural habitat that protects wildlife and maximises its biodiversity. The conservation status of the park also means that previous local use of the forest such as hunting, timber cutting and dumping of waste are policed and reduced in its effects.

Notes on individual species in decline

The first three bird species listed here, Bush Thick-knee, Ground Cuckoo-shrike & Banded Lapwing are all ground-based birds with a strong preference for specific types of open grassy habitat. Their presence in early records can be attributed to the effects of logging in creating these habitats and pressure from ongoing habitat loss outside the forest. They have declined in NSW because of habitat loss, feral predation and the effects of agricultural chemicals on insect populations and egg viability.

- **Bush Thick-knee** (1959)
Classified as Endangered in NSW. There are relatively sparse recent records from the western slopes of NSW & QLD and it has never been recorded in Goonoo on eBird. A population identified at Wellington Caves in 2025 is the most relevant records for the last 20 or so years within the general area.
- **Ground Cuckoo-shrike** (1963)
Never recorded in Goonoo on eBird. There are sparse recent records in the surrounding area but a resident population is known at Dubbo Airport, and it was recorded near Ballimore in 2025.
- **Banded Lapwing** (1959)
One eBird record from 1982. Records from surrounding area are few and sparse.

The following seven species are all birds generally associated with various types of woodland habitats found more commonly to the west of the forest in more arid zones. These habitats have seen significant modification and clearing for agricultural and pastoral use and all are recorded as declining in parts of their range. Three species are ground based like the previous species, Malleefowl, Crested Bellbird and Spotted Nightjar and particularly prone to significant levels of feral predation.

- **Malleefowl** (1952, 1959, 1972)
Almost exclusively a resident of mallee, Goonoo is the only known area where it nests in woodland/forest environments. Reliant on high levels of leaf litter and hence susceptible to changes to the frequency, extent and strength of fire regimes. Classified as Endangered in NSW. Various historical records and reports confirm it as being common in the area before the mid 20thC. Significant fall off in forest sightings after extensive fires in 2008 and 2018. 2008 is the latest eBird record but there are regular reports of sightings, most recently by NPWS staff in 2025.

- **Gilberts Whistler** (1972)
 Ground and low feeding bird inhabiting mallee and dry shrubby woodland. Classified as Vulnerable in NSW. Goonoo forest is located at the extreme east of its range. Declining due to habitat loss and fragmentation, feral predation and competition from other birds. Only 2 Goonoo eBird records from 1982 and 2006. Very few records from the surrounding area although a resident population was known at Burrendong Arboretum between 1982 and 2017.
- **Crested Bellbird** (1952)
 The Crested Bellbird is a relatively common ground foraging bird of arid woodlands. Goonoo forest is located at the extreme east of its range in NSW. Only one eBird record from 1982. There are some eBird records from the 2020's to the north in the Warrumbungles and in particular, the Pilliga region.
- **Chestnut-rumped Thornbill** (1952, 1959, 1972)
 An inland and semi-arid woodland/shrubland species. Declining due to agricultural practices degrading habitats particularly in reducing an adequate supply of ground invertebrates and subsequent increased competition with other birds. Some contemporary records from Goonoo (7), the latest being 2021. May be under-reported due to difficulty in distinguishing from other thornbill species.
- **Hooded Robin** (1952, 1959, 1963)
 An inhabitant of woodland and drier forests. Recently listed as a Vulnerable species in NSW. Declining due to a number of factors including feral predation and habitat modification, in particular, removal of perching and foraging grounds. There are few Goonoo eBird records or contemporary records from the immediate surrounding area. A resident breeding pair is known from the last 5 years on farming land bordering the forest in the northwest although extensive clearing was carried out at this location in 2024. Hooded Robins were recorded in 2026 in the forest adjacent to the cleared area.
- **Southern Whiteface** (1963)
 A small finch-like bird inhabiting semi-arid grassy woodlands and dry-country scrublands along the southern half of Australia. Reasons for decline related to loss of grassy Box woodlands cleared and modified for agriculture. One eBird record from Goonoo (1988) and very few other records in the general area following significant drought period at the turn of the century. Records from early 20thC indicate it was once the most common bird in the Talbragar Valley to the east of Goonoo.
- **Spotted Nightjar** (1952, 1959)
 A nocturnal ground based insectivore inhabiting dry and open country with good leaf litter cover. Roosts during day on the ground and particularly prone to feral predation. Also sensitive to grazing animals and fires that destroy leaf litter layers. No eBird records and very few in the Dubbo area generally. The first sighting of this species in the forest since 1959 was recorded in November 2025. Almost certainly under-reported due to nocturnal and cryptic nature and similarity to other Nightjar species.

The following birds are species inhabiting forests and woodlands that are generally well represented in the forest. While habitat loss/fragmentation and modification are undoubtedly associated with their decline, specific reasons for their scarcity in the forest are varied and, in some cases, unclear.

- **Black-chinned Honeyeater (1952)**

The Black-chinned Honeyeater is an active noisy honeyeater usually seen in small groups inhabiting the forested and woodland areas of the Great Dividing Range, where it is generally uncommon. Classified as Vulnerable in NSW. Aside from habitat loss it is suggested that increased competition with expanding populations of other aggressive honeyeaters such as Noisy Miners is responsible for this species decline within its range. Only twice recorded in the forest on eBird from 1989 & 1991. There are a number of recent records from surrounding areas. It is possibly an occasional visitor to the forest if not resident in small numbers.

- **Diamond Firetail (1952, 1959, 1963)**

A finch that requires grassy undercover in open forest, woodland and scrub. Classified as Vulnerable in NSW. Aside from loss and modification of habitat through agricultural processes, it is believed to have suffered from competition with expanding populations of other finches, primarily Double-banded and Red-browed finches. The bird on this list most likely to be observed today although still uncommon. The only finch recorded by 3 of the 4 early observers. There are regular records from Goonoo and surrounding areas with resident populations known at least from Geurie Cemetery, Toongi Hall and Spicers Creek at Gollan.

- **Eastern Shrike-tit (1952, 1959, 1963)**

A generally common bird within its range that inhabits open forest to woodland and feeds on insects located under bark. In decline due to habitat loss from urbanisation and habitat fragmentation. A 2025 sighting is the first recorded in the forest since the 1963 record. There are minimal eBird records for the surrounding area outside of along the banks of the Macquarie River. On the face of it should be more common in the forest however it relies on trees with loose bark which are in short supply in the thick barked forests of Ironbark and Box which dominate Goonoo.

- **Restless Flycatcher (1959)**

A common resident of open forest and woodland. Sensitive to habitat degradation, particularly removal of loose timber and scrub on agricultural land reducing perching spots and foraging grounds. Although still common within its range, the reasons for its recent decline in various areas apart from habitat loss are unclear. There are several recent post 2020 eBird records (4) from Goonoo and surrounding areas. Goonoo records are notably along the margins of the forest, bordering farming land.

- **Little Lorikeet (1959, 1963, 1972)**

The Little Lorikeet inhabits forest and woodland favouring open country, watercourses and paddock trees in the Great Dividing Range and coastal areas. It is a wide-ranging species often appearing in great numbers where there is good food supply but will reside in areas if conditions are right. Goonoo is at the western edge of its range. Localised populations within its range have recorded declines in recent years due to habitat loss

reducing food and nesting site supply. Could be categorised as an occasional visitor to the forest but the fact that early observers recorded it consistently is unusual. A 2024 record is the only eBird record of this bird in the forest since 1963. It continues to be recorded regularly in areas to the north and south of the forest, particularly near urban/cultivated areas.

If you have any additions, corrections or comments to add to this report I would be most appreciative if you could email them to me at ken.klippel@gmail.com.

Birds expanding ?

In this section I will comment on those birds that were under reported in those early surveys and which are now common in the forest. An update on some of the species included in the November newsletter is also included at the end of this report.

Changes to bird populations in an area are determined by the level and nature of changes to the environment and habitats in that area. The forest was managed between 1917 and 2005 as a State Forest and the focus during this time was on the productivity of the Ironbark in the forest for commercial use. Probably the greatest threat to this productivity were bushfires which also threatened damage to farms around the forest. The newspapers of the 20thC contain numerous reports of uncontrolled bushfires in the area. To effectively fight bushfires on this scale in the forest both water and access are required, neither of which were available to any great extent before WW2.

The Goonoo forest is a very dry environment. None of the creeks hold permanent water predominantly because of the sandy soil and other geological characteristics. In pre-colonial times the forest's Aboriginal inhabitants actively maintained chains of small ponds in some of the creeks particularly the western sections of Goondy, Ranters and Branch Creeks. With the removal of aboriginal people from the forest at the end of the 19thC and forestry operations throughout the 20thC these ponds are now greatly modified and reduced in extent. By the 50's there were only 3 significant dams in the forest proper: Riley's (then called No 1 Bore), No 2 Bore and Paddy's Dam, with a handful of small farm dams near the forest edge but outside of the forest.

Access to most of the forest at the beginning of the 1950's was limited to the Mendooran and Mogriguy Forest roads and some boundary roads plus a network of winding, generally unmaintained sleeper cutter trails, mostly in the southwest and along some creek lines in the western and northern parts of the forest. In 1951 it was reported that there was just 105 miles (160kms) of constructed trails in the forest. Over the next couple of decades the fire trail network was expanded with the construction of a grid of straight trails (approximately 2kmx2km) and by 1983 there were around 400km of maintained fire trails in addition to about 100kms of the older winding loggers trails. Following this a range of dams were constructed along the newer fire trails and today there are around 20 dams within the forest most of which hold some water throughout long drought periods. Ongoing road maintenance practices (e.g. runoff channels) have also provide more semi-permanent watering points. This increase in the amount of water available to wildlife throughout the year over the last 50 years has benefitted most local animal populations and enabled some once uncommon species to now maintain viable populations within the forest.

Notes on expanding species

The following three species are suggested to have directly benefitted from this expansion of the fire trail network and subsequent dam construction.

- **Emu**

Given how common the Emu is today in the forest it seems incredible that only one of the four early surveys recorded a sighting of this bird. Today it is very common to see them throughout the forest particularly along fire trails and at dams. A recent sighting in the forest of a male with 28 chicks indicates how suitable conditions are for them today. Outside the forest Emus have been identified as declining on the NSW western slopes, no doubt due to ongoing hunting and culling by landowners because of the damage they do to crops and fencing. Nevertheless their lack of presence in early surveys is surprising. The expanded fire trail network has given them access to all parts of the forest and, being water hungry birds, the dams have provided them with a year round supply of water. Reduced human activity in the forest in the second half of the 20thC and conservation status within the forest in the 21stC has also provided some refuge from persecution.

- **Spotted Pardalote**

There are two types of Pardalotes in the forest today, the Striated and the Spotted. The Spotted is common today but was not recorded by early observers until 1963. This Pardalote nests almost exclusively in earthen tunnels and is commonly seen along fire trails in Spring/Summer using the shallow banks of soil along the edges of trails produced by road maintenance activities. The Striated Pardalote has a greater variety of alternative nesting options. The Spotted has undoubtedly benefitted from the 400km network of maintained fire trails appearing in the forest since the 1950's and is now arguably more commonly seen than its Striated cousin.

- **Glossy Black Cockatoo**

Two early observers reported anecdotal evidence of a Red-tailed Black Cockatoo in the forest. Only in 1972 was it first suggested they may be Glossy Black Cockatoos due to their noted preference for feeding on Casuarina nuts. The current population is monitored and estimated to be relatively large and healthy, albeit with annual variations, and it is regularly reported by observers in most parts of the forest. Cockatoos are water hungry birds and an increased access to a reliable year round water supply via the expansion of the dam network has undoubtedly played a role in the forest now maintaining healthy populations. Its future in the forest appears promising given that logging has now ended and the stock of suitable mature trees with hollows for nesting is expected to grow in the future. Inappropriate fire regimes and uncontrolled bushfires may represent a threat to their preferred Casuarina food source but these specific trees are known as early colonisers of burnt areas and produce nuts within a relatively short period of time.

Changes outside the forest have also led to some species expanding their presence in the forest over the last 50 or so years. It is well documented that some native bird species have increased their range and numbers in NSW since European colonisation and the resulting large scale modification of natural environments and landscapes. These species have generally been shown to have broad habitat or food requirements, are flexible in adapting to urban and

agricultural landscapes, are of medium to large size and show some aggression in protecting feeding, nesting and watering locations. As they expand into new urban and modified agricultural areas, nearby natural environments become accessible also.

- **Sulphur-crested Cockatoo**

This bird was not recorded by any early observer but small flocks are now commonly encountered in the forest. A bird well known to have expanded its numbers and range in local urban and agricultural areas and forms large noisy flocks in these areas. Increased availability of year round water in forest dams have assisted their spread. Numbers are kept at a lower level in the forest than in urban areas by the lack of large mature trees for nesting sites and lower food availability. It competes with other hollow nesting birds and mammals in Goonoo forest.

- **Noisy Miner**

The Noisy Miner was only recorded by two early observers. An aggressive honeyeater species that actively protects its feeding and breeding areas, the spread of the Noisy Miner into urban and modified agricultural areas and its impact on other animal populations is well documented. They have been shown to cause local extinctions excluding almost all smaller birds from the areas they occupy. In addition, there is evidence that in areas they have colonised there is also an increased presence and predation by larger-bodied birds that feed on eggs, nestlings and small birds (e.g. Crows, Butcherbirds and Currawongs) and other larger bodied birds that compete with smaller birds for food (e.g. Wattlebirds, Orioles and some parrots). Although the forest generally is large and diverse enough to provide alternative living space for smaller birds the Miner may have significant long term effects during times of drought or climate change if food and water resources become further restricted to certain areas.

- **Red Wattlebird**

Only recorded by early observers in 1972, but now common in the forest. A large honeyeater species, the Red Wattlebird has been identified as having increased its range in the last few decades owing to its adaptability to modified landscapes and aggressive defence of feeding and nesting sites.

- **Pied Butcherbird & Pied Currawong**

The Pied Butcherbird was recorded in the forest in 1972 and the Currawong in 1959 and 1972. Both are now common in the forest with the Pied Butcherbird arguably now more common than its near relative, the Grey Butcherbird. These adaptable predatory species have increased their range in the last few decades. Both species have been shown to have a positive association with the spread of Noisy Miners and a negative effect on small bird and other animal populations in areas that they occupy.

- **Double-barred Finch & Red-browed Finch**

Early observers mainly recorded Diamond Firetail finches which is now identified as Vulnerable in NSW. Double-barred Finches were first recorded in 1963, and this finch along with Red-browed Finches are now the most common finches encountered in the forest. Both have expanded their range via modified environments. The expansion of the dam network in the late 20thC has also provided a reliable water supply and they have benefited from an increasing amount and density of shrubby understories to the

exclusion of the grassy areas favoured by the Diamond Firetail since the forest gained conservation status.

- **New expanding species ?**

These birds are known to have expanded their range in NSW but have only recently been recorded in the general area for the first time. Time will tell whether they establish populations in the forest and how this might affect other bird populations.

- The **Channel Billed Cuckoo** is a summer migrant from PNG & Indonesia that lays its eggs in the nests of other large birds known to have expanding ranges such as ravens and currawongs. First recorded in Goonoo forest in 2025.
- The **Brown Honeyeater** is a small honeyeater common in nearby urban areas and is aggressive in defending food sources. First recorded in Goonoo forest in 2025.
- The **Common Mynah** is a well known introduced omnivorous species which forms large communal flocks and is particularly common in urban and modified environments, but rarely in natural environments. It has not yet been recorded in the forest.

The following two bird species were not recorded by early observers and can now be considered common in the forest although they are not believed to be expanding their range in NSW as for the previous group of birds.

- **Grey-crowned Babbler**

There are two types of Babbblers in the forest today, the Grey-Crowned and the White-browed. Although they are probably equally common today, only the White-browed was recorded by early observers. The Grey-crowned has been identified as a declining species on the western slopes, particularly in the south of its range due to the loss of its preferred open woodland habitat, but has found refuge in the forest since the mid 20thC. It is believed to require a structurally diverse habitat particularly in terms of the leaf litter layer and the presence of large trees for nesting. Both species, despite similar lifestyles and habitat requirements, appear to be cohabiting in the forest. Grey-browed Babbblers are more likely to build their large messy nests higher up in large shrubs/trees than the White-browed.

- **Fan-tailed Cuckoo**

In 1952 & 1963 three cuckoo species, the Pallid, Horsfield's Bronze and Shining Bronze were reported. Cuckoos are generally summer visitors to the forest and despite the large number of suitable host species for their eggs these particular species are now considered uncommon in the forest. A cuckoo not recorded by any early observer but now the most common and present throughout the year in the forest is the Fan-tailed Cuckoo. Its host species are small birds that build dome nests such as Fairy-wrens and Thornbills. Increased competition for these hosts from the larger Fan-tailed may be keeping Bronze Cuckoo numbers lower than previous. It is a little harder to explain why Pallid Cuckoo presence in the forest is now so low as it uses different host species to the other cuckoos, i.e. small birds with open nests such as honeyeaters and robins, of which there are ample in Goonoo. The Pallid Cuckoo is known to have a particular preference for unpalatable hairy caterpillars shunned by most other species, with the notable exception of Fan-tailed Cuckoos.

Birds declining on the western slopes but common in Goonoo forest

Earlier in this report I made reference to a paper that identified those bird species in the sheep-wheat belt of the western slopes for which there was evidence of decline in numbers and/or range. An update to that paper was published in 2024. The following list is of those birds mentioned in the update as declining on the western slopes, predominantly in fragmented landscapes, but which were reported as common by early observers in Goonoo forest, a status they have maintained to this day.

Emu	Dusky Woodswallow
Brown Treecreeper	Varied Sitella
Speckled Warbler	Rufous Whistler
Grey-crowned Babbler	Jacky Winter
White-browed Babbler	Eastern Yellow Robin
White-browed Woodswallow (Summer only)	Red-capped Robin

Bennett, AF., Haslem, A., Garnett, ST., Loyn, RH., Woinarski, JCZ., Ehmke, G. (2024) Declining but not (yet) threatened: a challenge for avian conservation in Australia., *Emu – Austral Ornithology*; 124(1), 123-145.

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