

## Birdlife between Lake Tyers and Marlo, Victoria

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### Introduction

Working in conjunction with Mrs. A. Swan and the Bird Observers Club, I have submitted an objection and appeal against the granting of a permit for a cluster subdivision adjacent to Lake Tyers House Road.

From 1965 to 1967 inclusive and since 1976 I have been resident in East Gippsland and visited the area on a regular basis. During the eight intervening years I averaged two visits per year, usually in May, September or January, and was able to spend a full day birding in the area.

### Description of the Area

Lake Tyers is a relatively quiet, well protected stretch of water surrounded by forest and open grazing land. The small settlement at Lake Tyers has grown rapidly over the last decade. Lake Tyers Aboriginal Reserve is situated between Toorloo Arm and the Nowa Nowa Arm. The lake is generally cut off from the sea by a sandbar, breaking through only in times of very heavy rain and high seas. The small Toorloo Arm Scenic Reserve is one of the few remnants of the *Eugenia smithii* alliances in the region.

Adjacent to the Princes Highway in the Tostaree and Waygara districts, land has been cleared for grazing including the Tostaree Experimental Farm, and Waygara State Forest stretches southward. The eastern boundary is the Snowy River estuary with its fertile flood plain. Lake Corringle is a shallow, very open stretch of water between the river and Ewings Marsh. It is a favoured resting place for water birds, except for very windy days when the surface becomes very choppy. Ewings Marsh is a State Game Reserve and is fairly well sheltered.

The western edges of the marsh are thickly vegetated with coastal scrub, heathland and swamp plants and is heavily populated with many smaller birds such as the Chestnut-rumped Hylacola, Southern Emu-wren, Beautiful Firetail and Brown Quail as well as shy rail and crane species.

The southern edge is the Ninety Mile Beach with its primary dune, generally well covered by coastal scrub. In some sections rabbits are a problem. Although the Brown Goshawk and Marsh Harrier regularly patrol the dune, the thick scrub thwarts their hunting.

The forest consists of *Eucalyptus botryoides*, *E. scabra*, *E. muelleriana*, *E. St. johnii*, and *E. sieberiana*, with bracken and sword-grass a ground-cover. *Banksia integrifolia* and *B. serrata*, *Callitris rhomboidea*, *Leucopogon parviflorus*, *Leptospermum laevigatum*, *Casuarina stricta*, *Melaleuca ericifolia* and *M. squarrosa* are common.

Access over the years has been limited to a few main tracks and a network of rough minor tracks. Very few swimmers or surf fishermen frequented the beach. Logging has been regularly carried out and a re-forestation planting close to the highway is being developed.

### Objections to Development

Any subdivision is a distinct threat to the fragile ecosystem of the coastal area.

1. Although recently widened, Lake Tyers House Road would be of dubious value in the event of a major fire. Future residents would be

cut off from help by the prevailing winds and forest. Such a danger was highlighted at Banksia Peninsula, south of Bairnsdale, in 1978.

2. The provision of septic sewerage will mean increased pollution of the Nowa Nowa Arm and the swampland behind the dune.

3. A greater number of domestic cats and dogs may become feral, increasing the pressure on wildlife. Already the fox problem is of major importance.

4. Major destruction of the dunes has occurred at Lake Tyers, Lakes Entrance, Lake Bunga and Ocean Grange, because of the heavy pressure of people. This has become increasingly apparent at Cape Conran since road improvements brought more people into the area. During the big seas and torrential rain of 1978, the greater part of the Ninety Mile Beach suffered extensive damage. It was evident that the more remote and less used areas were first to return to a normal appearance and that beaches used extensively suffered greatest damage and have still not recovered. Walking tracks across the dune create wind tunnels and major wash-aways. Such damage is minimal at present but with increased population would rapidly escalate.

5. In order to protect the proposed settlement, fire protection burning-off would undoubtedly be employed. It is now widely accepted that much of the Australian bushland benefits from burning on a controlled basis. East Gippsland coastal forest is a relatively high fire hazard in summer, but some species are reasonably fire-resistant and recuperate fairly well. It is recognised that increased regeneration of some species occurs after controlled burning and much "rubbish" presenting a fire danger is consumed.

However, the timing of such burning presents many problems. Generally the operation is carried out in spring and sudden, unexpected windy conditions (such as in 1967) can result in vast areas of forest being destroyed and homes threatened.

This also corresponds with the peak nesting season and the toll of young birds and eggs is extremely high. For survivors, the available food is greatly reduced and protective undergrowth gone. Ground nesting birds have little chance to escape and numbers are depleted. Old, hollow trees are completely destroyed and many tree-dwelling animals killed. Nesting sites for possums, owls and parrots are lost.

Whilst such burning may increase the regeneration of some native plants, burning at the peak flowering period means a great majority are destroyed before seed sets and the germination pattern is thus broken. Many coastal plants germinate after the first good autumn rains and the young seedlings are destroyed when autumn burning-off occurs.

6. Lake Tyers House Road has recently been widened and several extensive areas of *Banksia serrata* and greenhood orchids destroyed. Increased weed infestation, water erosion and wind damage to bordering trees is already apparent.

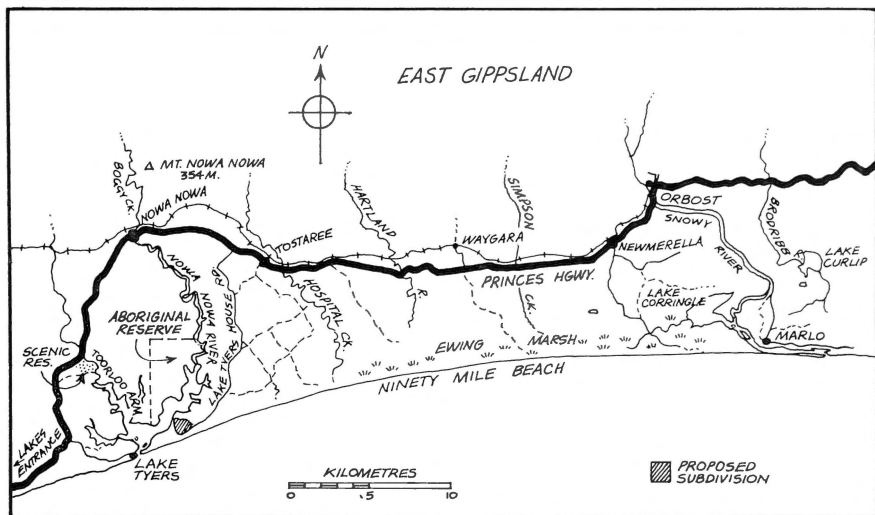
## Summary of Field Observations

### Emu

Sparsely distributed in the forest and heathland, and young were recorded in August 1967. Probably the ravages of foxes and shooters accounts for the decline in numbers over the last 14 years.

### Australasian Grebe

Frequents all lakes in the study area and nests at Ewings Marsh



Map of Coast and Hinterland Lake Tyers to Marlo.

October to December. Thousands of birds invaded East Gippsland during March 1978 and numbers only declined in April 1979 when drought followed a sustained wet period. Small dams supported a few grebes and large stretches of water were often packed by rafts of grebes. An estimated four to five thousand were seen on Jones Bay, near Bairnsdale, during May and June 1978.

### Hoary-headed Grebe

Generally a few birds on the lakes, but unlike *P. ruficollis* experienced only a slight increase in 1978. Present at Lake Corringale and the mouth of the Snowy on most visits and regularly seen on the quiet backwaters of Lake Tyers.

### Little Penguin

Beach-washed, particularly February to May each year. Foxes and ravens devour the remains. Some tracks found on the beach may be those of the Tiger Cat *Dasyurus maculatus*.

### Short-tailed Shearwater

Flocks move along the coast between September and March, the peak being recorded in November. Odd birds are beachwashed, mainly in March.

### Australian Pelican

Common on all large waters. Flocks of 80-100 are usually seen at Lake Corringale. Sometimes seen flying off-shore, parallel to the coast.

### Australasian Gannet

Present all the year, feeding just off-shore. Largest numbers recorded from April to July. A few immatures are beachwashed.

### Great Cormorant

Common in twos and threes, occasionally in small flocks of up to twenty. Numbers decrease from mid-May to mid-October suggesting a movement to breeding areas.

### Pied Cormorant

Common all waters, a flock of 80 plus was recorded at Lake Tyers, March 1978.

**Little Black Cormorant**

Slightly less common than *P. carbo* but found in all waters.

**Little Pied Cormorant**

Very plentiful in all waters, from single birds to flocks of 400. A flight of this species numbering 326 flew westwards along the beach, May 1969.

**Pacific Heron**

Regularly seen, generally single birds or pairs at all water habitat. Nests mainly October to November, sometimes in January if rainfall is good. Nests examined have 3 or 4 eggs.

**White-faced Heron**

Common and widespread around all water and in grazing land. Loose flocks of 20-30 have been recorded at Ewings Marsh in autumn. Nests during September to January. On several occasions young birds barely able to fly have been encountered in open forest.

**Cattle Egret**

Common on the Orbost flats and has been recorded in farmland at Tostaree and Waygara. Absent during the local breeding season.

**Great Egret**

Fairly common in the swamps and farm dams, mostly as single birds or pairs. Twenty-three birds in a loose flock at Ewings Marsh, March 1979.

**Australasian Bittern**

One bird 1966, and two 1967, near Gibbs Track. A pair with three young flushed from the same area in November 1979. Heard calling at Cherry Tree Track on Toorloo Arm on several visits.

**Sacred Ibis**

Common on the Orbost flats and large numbers roost around Lake Corringale and Ewings Marsh. Heavy rain in January to March brings many birds to the dry pastures of Tostaree and Waygara, for crickets, grasshoppers, etc. At Marlo and Lake Tyers, has been recorded feeding in seaweed on the beach.

**Straw-necked Ibis**

Slightly greater numbers than the previous species.

**Royal Spoonbill**

Present as pairs or family groups at various water habitats.

**Yellow-billed Spoonbill**

Slightly more common than the Royal Spoonbill.

**Black Swan**

Common on all large water bodies, and flocks often fly along the coast. Several thousand birds often present on Lake Corringale and Ewings Marsh. Most nesting from late September to early December, but very small cygnets have been seen on Lake Tyers in March.

**Australian Shelduck**

Present at Lake Corringale and Ewings Marsh in varying numbers between mid-April and late November, but majority arrive early June and leave by late September. In 1977 and 1979 very few birds were recorded, but in 1978 several hundred were present. Pairs often visit open farmland. Young have been recorded from June until October, generally in "clutches" of 5 to 8. Although I have records of this species during summer and autumn from other coastal lakes in East Gippsland, it appears that this area is deserted.

**Pacific Black Duck**

Resident nesting species, autumn and winter flocks of hundreds being seen.

**Grey Teal**

During 1965-67 this species was rarely sighted but good numbers have since been recorded. Flocks of several hundreds were seen in 1978. A resident nesting species.

**Chestnut Teal**

Prefers the secluded waters, and is present in varying numbers each year. Several flocks of 40-150 were scattered over the marsh in 1978, and a loose flock of 200 plus were recorded at Lake Tyers in March 1978. Single pairs have been located in very marshy areas with thick scrub.

**Australasian Shoveler**

First recorded in 1970 and present in small numbers on all waters. Nested November 1978 at Ewings Marsh. Mostly seen as pairs, sometimes with other species, but more usually well away from other ducks.

**Hardhead**

First recorded in 1974 and since recorded on all East Gippsland lakes each year. Over 200 were scattered on Lake Corringale and Ewings Marsh during the winter of 1978. They were loosely interspersed with other ducks but tended to keep to the deeper waters. Young noted between June and November.

**Maned Duck**

Frequents farm dams although small groups visit Ewings Marsh. Breeds later than other ducks so that young scarcely able to fly are killed each "duck opening", as shooting commences.

**Blue-billed Duck**

Recorded from March 1978 to April 1979 in small numbers at Lake Corringale and Lake Tyers. During March-April 1979 several pairs frequented the upper reaches of Toorloo Arm.

**Musk Duck**

During May 1970 several birds were present at Ewings Marsh and in October 1978 a pair was recorded at Toorloo Arm. In March 1979 5 or 6 birds were noted on the Devils Hole in the Nowa Nowa Arm.

**Black-shouldered Kite**

A species that until 1968 was not recorded by the writer east of Bairnsdale. By 1975 it was recorded over most open pasture to as far east as Genoa and Mallacoota. In the study area has been recorded over farmland, swamp, heath and dune.

**Whistling Kite**

During 1965-67 was a common resident but since has been recorded rather rarely and then generally in the autumn.

**Brown Goshawk**

Common resident of the stringybark forest. Uses a wide variety of habitat for hunting.

**White-bellied Sea-Eagle**

Frequently seen along the coast and over the lakes. In September 1979 a bird was found feeding on a dead kangaroo beside a bush track.

**Wedge-tailed Eagle**

Pairs and family groups recorded on numerous occasions.

**Marsh Harrier**

Common over all wetlands.

**Peregrine Falcon**

Recorded as lone birds or pairs on many visits.

**Australian Hobby**

Frequently recorded in all habitats.

**Brown Falcon**

Single birds and pairs are common.

**Australian Kestrel**

Common over grazing land, heath and dune.

**Stubble Quail**

Frequents the heathland in small numbers, and a few are found on rank open grassland.

**Brown Quail**

Recorded between August and early April from the marshy heathland adjacent to Gibbs Track. Once flushed it is difficult to relocate.

**Painted Button-quail**

Lightly scattered throughout the stringybark forest, nests November to December. Frequents the heathland each autumn. Favours the Native Cherry *Exocarpos* and is often found feeding in company with the Common Bronzewing amongst the ground litter below this species of tree.

**Buff-banded Rail**

First recorded in September 1979 in the same area. Both species have suddenly appeared in quite open habitat near the Lakes Entrance Golf-course where they frequent the margins of the backwater.

**Lewin's Rail**

First recorded in the western edge of the swamp in 1978 and seen on most trips since.

**Baillon's Crake and Australian Crake**

Both species frequent the reed beds and dense thickets along the swamp.

**Dusky Moorhen**

Numbers fluctuate considerably on all open waters. Extremely plentiful throughout 1978 and nests from September to February, with a peak in November-December.

**Purple Swamphen**

Common nesting resident. Breeding commences in August and may continue until February if summer rain falls.

**Eurasian Coot**

Common nesting resident, but numbers dwindle during dry years. Breeding continues from August to December, but may occur in any month depending on rainfall and available food. Large flocks gather in winter on deep sheltered fresh waters.

**Pied Oystercatcher**

Pairs are scattered along the beach, sometimes 5 or 6 birds forming a winter flock. Two nests have been located in January, but usually nests in October, preferring a sheltered scrape fairly high on the face of the dune. If young are present adults will resort to dragging-wing tricks to attract attention away from the chicks, and will swoop at intruders if all else fails. A pair vigorously and successfully drove off a Brown Goshawk attempting to capture young.

**Sooty Oystercatcher**

Has been recorded in the Cape Conran area on the rocky headlands and once just west of Lake Tyers. One record for the study area, a pair on the beach, September 1979.

### **Masked Lapwing**

Common breeding resident in pasture and around swamp areas. Sometimes it strays on to the beach. Although the main nesting period covers June to October, favourable seasonal conditions may induce breeding at any time. In autumn and winter many small flocks of 8 to 25 birds occur in rough pasture areas.

### **Lesser Golden Plover**

Recorded late October to mid-March, generally in small flocks of 5 to 12 birds on the beach. Seventeen birds in a loose flock at Lake Tyers in February 1978 was the largest flock recorded.

### **Hooded Plover**

Pairs and family groups along the beach, with some flocking during autumn and winter. Nests from October to January.

### **Double-banded Plover**

Fairly common beach migrant from March to August, generally in flocks of 5 to 10 birds although sometimes much larger flocks occur. During several visits on very cold, wet days when the beach was apparently deserted, flocks of 50 to 80 birds have been found sheltering in a hollow in the primary dune.

### **Red-capped Plover**

Common breeding resident along the beach. Nesting commences in early September and continues until late February.

### **Black-fronted Plover**

Prefers the muddy shores of Lake Tyers and dam banks in open pasture. Recorded at Ewings Marsh in 1977 when the water level was low.

### **Eastern Curlew**

Common along the beach from November to late April, although first arrivals are present in September. Loose flocks of up to 30 birds have been flushed at Ewings Marsh and around Lake Tyers. From March to April the species begins to move along the coast, and inland on night flights.

### **Greenshank**

Lightly scattered along the beach from August to March. Sometimes seen around the lake and marsh. Breeding plumage is apparent on many birds by the first week in March.

### **Latham's Snipe**

Usually a regular visitor to the coastal marsh but not recorded during the current season. Records from October to late March appear to indicate a late arrival, as the species is resident by mid-August in many other areas.

### **Bar-tailed Godwit**

Small flocks of 5 to 27 have been recorded in November 1977 and 1979 at Marlo and Lake Tyers.

### **Sharp-tailed Sandpiper**

Sparsely distributed around the swamp and along the beach from September to April.

### **Red-necked Stint**

A few birds at Ewings Marsh November-December 1977, but appeared in flocks of 40-200 from October 1978 to mid-March 1979. A few birds are scattered along the beach in most summers, with a slight build-up of numbers each April just prior to migration.

**Silver Gull**

Common along the beach, and large flocks shelter on the lakes in rough weather.

**Pacific Gull**

Rarely found on the ocean beach, much prefers the populated lake front at Lakes Entrance.

**Caspian Tern**

The large numbers recorded in 1965-7 have not been recorded since. Small numbers are generally present along the beach and over the lake.

**Little Tern**

Odd records along the beach throughout the year but mainly from November to April. It is hoped that the work being done by Mr. and Mrs. Vincent of Bairnsdale in protecting nesting sites will greatly assist this species. (See Pizzey, G. M., January 5, 1980, *The Herald* (Melbourne).)

**Crested Tern**

Plentiful resident. Breeds at Mallacoota and attempted to breed near Marlo in November 1977. At dusk, large numbers will sometimes alight on the beach to roost. They are reluctant to move, allowing an observer to pass slowly through their ranks.

**Common Bronzewing**

Scattered throughout the forest and nests October-December. Often located in the coastal *Acacia* behind the dune and also has a liking for the Native Cherry. Usually found singly or in pairs but occasionally groups of five or six are observed in late winter.

**Brush Bronzewing**

Not as common as *P. chalcoptera*, but fairly widespread throughout the forest. It has a preference for the taller forests closer to Nowa Nowa and the dense thickets close to the marsh.

**Wonga Pigeon**

Frequents the dense forest around Toorloo Arm and Nowa Nowa, but has been recorded in the stringybark in autumn and winter.

**Yellow-tailed Black Cockatoo**

Prefers the taller timber near Toorloo Arm and Nowa Nowa, but flocks are occasionally seen in the stringybark forest.

**Sulphur-crested Cockatoo**

Another species that has extended its range much further east since 1967. Small flocks frequent the open pastures along the highway.

**Galah**

Also extending its range eastward since 1967 and has been recorded at Waygara and Newmerella.

**Rainbow Lorikeet**

Nomadic visitor in small flocks from October to February feeding on *Banksia*, *Casuarina* and various eucalypts.

**Musk Lorikeet**

Small flocks from September to May, and only rarely recorded during the winter. Numbers vary greatly from year to year depending on the flowering of the eucalypt species.

**Purple-crowned Lorikeet**

Slightly more common than *G. concinna*. It spends more time in the heath and coastal scrubs where it feeds on *Banksia*, *Melaleuca* and *Acacia* as well as eucalypts. A small flock was observed clinging to the

slender branches of a *Callitris* (Native Cypress Pine) apparently feeding on a lerp-type of insect.

#### **Little Lorikeet**

Nomadic, being generally recorded in small flocks from September to April in open forest, heathland and coastal scrub.

#### **Ground Parrot**

Mrs. Ailsa Swan (pers. comm.), "re the mention of Ground Parrot . . . it was mentioned to us (i.e. the Hawthorn Jnr. Field Naturalists Club) by a member of the Bairnsdale Field Naturalists Club who was leading us into the area" and she recorded in her field notebook "Sat. 9 April 1977, Ewings Marsh/boundary Lake Tyers House; Ground Parrot recorded few years ago".

Other than the well-known coastal heathland between Mallacoota Aerodrome and Little Ram Head so frequently visited by bird observers, and where Ground Parrots are relatively easy to flush, very little is known of the distribution of the species. Wheeler (1967, *A Handlist of the Birds of Victoria*) indicates that it may appear at any suitable habitat along much of the coastline. As much of East Gippsland's coastal heathland is comparatively inaccessible and lonely, small flocks could remain undetected. Because of the dense nature of the heath and swampland in the study area, Ground Parrots could well be present without being sighted. From recent conversation with Mr. Ron Legge, Bairnsdale, he has recorded the species in the Marlo-Cape Conran area just east of the study area.

#### **Swift Parrot**

Recorded from mid-March to mid-September in flowering eucalypts, in flocks varying from 20 plus.

#### **Crimson Rosella**

Small flocks, mainly immatures, visit the stringybark forest in autumn and winter. Very common in the tall forests at Nowa Nowa and Toorloo Arm.

#### **Eastern Rosella**

Small numbers scattered in pasture near the highway.

#### **Blue-winged Parrot**

Plentiful in coastal scrub and heathland from mid-March until September, but numbers decline sharply during June and July, suggesting a movement further northwards during the colder months and a return just prior to departure for Tasmania.

#### **Pallid Cuckoo**

Numbers vary considerably each year. It was almost absent in 1977, yet hundreds passed through the coastal scrubs in 1978. 1979 has generally been another poor year for cuckoos. Only a few remain during the summer after the spring influx but there is evidence of some birds wintering in the stringybark. The south and westward movement during September-October of the common cuckoos (Pallid, Fan-tailed and Horsfield's Bronze), apparently has no noticeably corresponding exodus in autumn.

#### **Brush Cuckoo**

First recorded in 1969 and seen each October to March since, although it has been recorded from late August to early April in areas other than the study area. Field trips indicate that it may be more common in the far east of Victoria.

**Fan-tailed Cuckoo**

Common migrant between mid-August and December but few birds recorded after Christmas. A few over-winter in the area.

**Horsfield's Bronze-Cuckoo**

First recorded in 1967 and seen each year since. Numbers vary considerably each year. Frequents the marsh and coastal scrub rather than the forest.

**Shining Bronze-Cuckoo**

Found in the stringybark forest, but greater numbers are more evident in the taller forest around Nowa Nowa and Toorloo Arm.

**Southern Boobook**

Very common, nesting from late August to December.

**Barn Owl**

Recorded from Lake Tyres township and Tostaree farmland, and heard at Orbost. Not very common in East Gippsland and numbers seem to be decreasing.

**Tawny Frogmouth**

A common nesting resident, family groups being particularly common over the January-March period when they shelter by day in heavy foliage or along an exposed and gnarled dead branch. Frequents forest, open pasture, heathland and dune. Several have been located as "road kills" on the highway. A pair was located perched among rocks in the dry bed of Hospital Creek. At dusk on summer evenings the frogmouths prey on Christmas beetles, a serious pest to eucalypts in the area, as elsewhere.

**Australian Owlet-nightjar**

Two records in November 1977 and one in June 1979 in the stringybark forest.

**White-throated Nightjar**

Records in summer and autumn along tracks in the stringybark forest of birds hunting moths at dusk.

**White-throated Needletail**

Flocks recorded from mid-January until the end of March, with the first fortnight of March normally seeing the peak of activity. It may appear as a handful of birds flying directly or in flocks of thousands, skimming and dipping.

**Fork-tailed Swift**

Not generally recorded until March when it appears in mixed flocks with the White-throated Needletail.

**Azure Kingfisher**

Several records in Toorloo Arm and Nowa Nowa Arm of Lake Tyers. A pair were sighted hunting dragonflies, March 1978, over Boggy Creek.

**Laughing Kookaburra**

Common nesting resident.

**Sacred Kingfisher**

A common migrant from late August to early April. Nests October to January.

**Welcome Swallow**

Common resident in the farmland and around settlements, also along the marsh. Breeds August-December and occasionally in February and March if good rains fall and weather is warm. Although much flocking takes place in autumn, numbers do not decrease as noticeably as in other parts of Victoria, due perhaps to our milder winter. However dur-

ing the winter they may unexplainably desert a favoured area for a short period (i.e. 7 to 10 days) and just as suddenly return in good numbers.

### **Tree Martin**

Common breeding resident although numbers decrease sharply in winter.

### **Fairy Martin**

Common migrant to creeks and swamps.

### **Richard's Pipit**

Common resident in open pasture, nesting from early August to October, and sometimes seen in the more open grassy areas of the dunes. Small flocks form during the winter months and the birds tend to move into the bracken patches in open country. The Brown Goshawk and the falcons show great interest in these flocks.

### **Black-faced Cuckoo-shrike**

Common nesting migrant, although many winter in the area. Breeding is recorded from September to December.

### **White-winged Triller**

Very common in some years in all lightly timbered country but almost absent in other years. Nests in the stringybark from September to mid-December. The first birds arrive as early as the last week in July and the males commence singing immediately. No arriving migration flights have been noted but from March-April, small flocks of up to 12 or 15 birds are common, moving north and east from this area. Such movement is particularly noticeable along the river valleys and ridges east of Omeo and north of Cann River.

### **Blackbird**

Recorded at Orbost, Marlo, Newmerella and Lake Tyers townships. Found also in dense forest of Toorloo Arm Scenic Reserve and the coastal scrubs.

### **Rose Robin**

Rare visitor in coastal scrub from April to September, mostly plain-coloured birds. Males have also been recorded at the same time feeding in and around *Pittosporum undulatum* along Toorloo Arm.

### **Pink Robin**

Plain-coloured birds are present in stringybark and coastal scrub from late April to mid-July. In 1976, several males were seen in thick *Mela-leuca* and *Leptospermum* near the coast during the winter months.

### **Flame Robin**

Very common autumn and winter visitor.

### **Scarlet Robin**

Autumn and winter visitor to stringybark and coastal scrubs, with numbers varying each year.

### **Hooded Robin**

Lightly scattered throughout all timber and nests October to December. A nest found in 1979 had one male and two females in attendance. A slight increase of numbers occurs during winter, mainly in clumps of trees in grazing land.

### **Eastern Yellow Robin**

Recorded in all areas, nesting from November to February.

### **Jacky Winter**

Numbers fluctuate considerably each year, but generally found in open

grazing land, stringybark and coastal scrubs. Nests September to December.

### **Crested Shrike-tit**

Pairs and small groups throughout the year in all forest and coastal scrub. Prefers tall saplings as nesting sites. Only breeding records are for October to November, but the breeding season may be much greater than this as nests are difficult to locate. The eggs generally described as white with dark olive and pale grey markings sometimes have a pale mauve rather than grey series of splotches.

### **Olive Whistler**

A few records around Toorloo Arm and Nowa Nowa, and a pair seen near Newmerella School.

### **Golden Whistler**

Lightly scattered in all timbered areas, with a preference for the taller forests around Lake Tyers.

### **Rufous Whistler**

Not as common as the Golden but still fairly well represented. Tends to prefer the coastal scrubs and stringybark rather than the denser forest.

### **Grey Shrike-Thrush**

Very common, nests in stringybark and coastal scrubs from August to February.

### **Leaden Flycatcher**

Rare summer migrant recorded in open stringybark and denser forests.

### **Satin Flycatcher**

Rare summer migrant, but slightly more common and widespread than *M. rubecula*. During 1969 a slight influx of this species occurred throughout East Gippsland.

### **Rufous Fantail**

Prefers the denser forest near Nowa Nowa and Toorloo Arm, but has been recorded from all forest and coastal scrub. Nests from October to December. Generally arrives by the second week of September and departs by late April.

### **Grey Fantail**

Common breeding resident, although fewer birds are seen in the winter. Nests have been located in both the stringybark and denser forests but the most favoured site is scrub bordering the marsh, often right over pools. The breeding season extends from September to January, with the majority of nesting in October.

### **Willie Wagtail**

Common resident in open farmland, occasionally seen in open coastal areas and in stringybark clearings. Favoured nesting sites are along creeks in grazing land. Nests from September to December.

### **Eastern Whipbird**

Mainly confined to the denser thickets near Lake Tyers and the coastal scrubs. The nest is often built in a tree surrounded by a Blackberry patch. The few nests located indicate breeding from late September to December, but a pair were seen feeding large flying young at Lakes Entrance in March.

### **Clamorous Reed-Warbler**

Small numbers around the marsh and in clumps of reeds, etc. around the lakes. There is a slight increase in total number each autumn. Only a few over-winter in the area.

### **Little Grassbird**

Small numbers scattered along the coastal marsh and in reeds along the Snowy estuary.

### **Golden-headed Cisticola**

A pair of this species visited the swampy area of Bunga Arm adjacent to the highway from November to January 1978-79. A fleeting glimpse was obtained of a single bird in the study area at Gibbs Track in January 1979.

### **Superb Fairy-wren**

Common resident, nesting in tangled undergrowth from late September to mid-December.

### **Southern Emu-wren**

Common in the narrow band of marsh and heath behind the dune. No nests have been located but young being fed by parents have been recorded from October to December.

### **Eastern Bristlebird**

Wheeler (1967, p. 61) shows this species in the far east of Gippsland, but it has been recorded at Wingan Inlet and Cape Conran. I have recorded two birds about 150 metres apart near the junction of Hospital Creek and the marsh in August 1977.

### **White-browed Scrubwren**

Common nesting resident with a preference for tangled undergrowth and heathland. Begins to nest in late July and continues to March but most nests recorded in October and November.

### **Chestnut-rumped Hylacola**

Single birds, pairs and family groups in the heath. Very shy. Two freshly discarded nests have been found in early October. Adults feeding young have been seen by mid-September, suggesting an early-breeding species. During warmer weather the Hylacola rarely sings but suddenly begins calling if a storm is imminent.

### **Calamanthus**

First recorded in 1972 and since seen in small numbers on most visits to the heathlands. In 1978 it was more plentiful, but numbers were more normal again in 1979. Because the heathlands are more extensive east of Marlo, it is slightly more common in that area. Adults feeding young away from the nest have been recorded in November.

### **Brown Thornbill**

Common nesting resident in all timber. In winter it invades the coastal scrub and visits the rough herbage along the front of the dune. A small flock was busy searching a long trail of seaweed on the high tide mark.

### **Buff-rumped Thornbill**

First recorded in 1969 just east of Marlo and since found in small numbers in the study area.

### **Yellow-rumped Thornbill**

A very common nesting resident in all country except the dense forest. Breeding commences in early August and extends until early April.

### **Yellow Thornbill**

Small numbers in all timber, with a definite movement to the coastal scrubs in winter.

### **Striated Thornbill**

Nesting resident, usually in small flocks, with a preference for the outer foliage of eucalypts in grazing land and the coastal wattles. Nests from August to December.

**Varied Sittella**

Common nesting resident in all timber with a marked increase of numbers each autumn and winter, when flocks of 5 to 20 birds move through the area. Nests from mid-September to December, often in a vertical fork and usually at a considerable height.

**White-throated Treecreeper**

Common breeding resident. From July to November the forest rings with their calls. Nests from August to December.

**Red Wattlebird**

Very common in the coastal scrubs and all timber. Nests from August to December with a peak in October. From March to early July large flocks gather in the heathland.

**Little Wattlebird**

Common in the coastal scrub, nesting from July to September.

**Noisy Miner**

Several small colonies in tall timber in grazing land.

**Lewin's Honeyeater**

Several sightings in the Toorloo Arm Scenic Reserve. Little is known of its distribution or numbers in East Gippsland although it has been recorded in rainforest pockets, from Mallacoota to the Glenaladale National Park.

**Yellow-faced Honeyeater**

Vast numbers along the coast with a major build-up each autumn prior to migration. A small number winter in the area. Nests from September to January.

**White-eared Honeyeater**

Small flocks or pairs at irregular times throughout the year, and bird counts over a decade indicate that numbers have decreased considerably. Generally associated with the *Banksia* and heathland, although to the north around Buchan it may be seen on the dry ridges.

**Yellow-tufted Honeyeater**

Fairly common in the taller forest around Nowa Nowa, and ranges into the stringybark in autumn.

**White-plumed Honeyeater**

Common nesting resident in the stringybark and coastal scrubs; often found close to farm dams, creeks and swampy areas. Nesting in the study area has been limited to October-November, but in adjacent areas extends from September to January. Has been observed feeding large young of Pallid and Fan-tailed Cuckoos in the area.

**Brown-headed Honeyeater**

Common nesting resident in all timbered areas and heathland.

**White-naped Honeyeater**

Lightly scattered resident in all timber.

**Crescent Honeyeater**

Common resident of coastal scrub and all timber. Nests from September to December. There is a movement from the mountains in East Gippsland to the coast each autumn and a return migration in August. Nests from September to December.

**New Holland Honeyeater**

The most abundant honeyeater in the area. Nests from August to October, and again in autumn.

### **Tawny-crowned Honeyeater**

Rare in the heathlands, nesting October-November.

### **Eastern Spinebill**

Scattered along the dune and heathland, with a sharp increase when the heath complex of plants flowers. Nests August to October.

### **White-fronted Chat**

A common nesting resident around the marsh, frequenting grazing land where bracken grows. In winter and early spring this species visits the dune.

### **Mistletoebird**

Recorded more frequently in trees along the highway and in grazing land where trees are more heavily infested with the mistletoe parasite. However it is also found in the stringybark and rainforest.

### **Spotted Pardalote**

Common breeding resident scattered throughout the stringybark forest and nesting in the banks of creeks. It also makes use of banks of soil heaped up after earthworks. In autumn and winter, flocks of a dozen or so form and extend to the dunes.

### **Striated Pardalote**

Common breeding resident with a tendency to flock on the heathland and dunes in late winter. Nests from August to December. The yellow-tipped form has been recorded at Lakes Entrance and Marlo in autumn and seen in the study area in 1978 and 1979, during March and April.

### **Silvereye**

Very common nomad, best seen in the streamside scrub and coastal wattles. Not previously recorded between May and August but since 1974 has been noted throughout the winter months. Nests from September to February.

### **European Goldfinch**

Numbers increasing and common in all open and lightly timbered areas. From March to August flocks form along the dune and marshland. Nests September to December and again from mid-February to March.

### **European Greenfinch**

Far less common than the Goldfinch but seen on most field trips. Seems to be more confined to the dune and heathland, but occasionally visits the bracken in grazing land and forest. Only breeding record was a pair feeding four young, in a clump of *Leptospermum*.

### **House Sparrow**

Found around all farm buildings and all towns.

### **Tree Sparrow**

Fairly common at Orbost and Marlo and several sightings in the open farmland.

### **Red-browed Firetail**

Lightly scattered in all open forest, heathland, grazing land, marsh and dune. Nest in the *Leptospermum* during October and November.

### **Beautiful Firetail**

Small numbers in the dense tangles bordering the marsh and dune, and in winter it sometimes strays to the bracken in farmland and stringybark. Parents feeding young have been recorded from October to December.

### **Common Starling**

Common resident in all pasture land and around lakes. Large flocks on the Snowy River floodplain. Thousands of birds visit the marsh from

early January to April, particularly if the water level is low. Most nesting is recorded from October to December.

### **Olive-backed Oriole**

Lightly scattered in all forest areas each summer. Arrives early October and departs by mid-April. I have no evidence of birds wintering in the study area although the species has been recorded at the Lind National Park in mid-winter. Nests recorded October and November.

### **Satin Bowerbird**

Frequents the heavier forest around Nowa Nowa and Toorloo Arm during summer but wandering flocks of about twenty birds stray into the stringybark during autumn and winter.

### **White-winged Chough**

Small parties in open timber but more common north of the highway.

### **Australian Magpie-lark**

Very common in all open timber near water. Favoured nesting site is a tree near or overhanging a farm dam or creek. In autumn large flocks in the grazing land and the marsh. Most nesting from September to December and again when good rains fall in autumn.

### **White-browed Woodswallow**

Small numbers some years nesting in the stringybark, but may be completely absent for several years. Since recording began, 1977 yielded peak numbers.

### **Dusky Woodswallow**

A regular migrant arriving each year by late September and departing by April. Nests from mid-October to December in the stringybark. Several observers have reported Masked Woodswallows in the area, usually as two or three birds among White-broweds. I have been unable to confirm such observations but as the group has somewhat erratic movements a few may well reach the coast.

### **Grey Butcherbird**

Common resident in all timber nesting from September to January.

### **Australian Magpie**

The white-backed form (*hypoleuca*) is very common in all open areas; a few black-backed are also resident. In a mild year breeding commences as early as July and continues to early November, with a definite peak in September and October.

### **Pied Currawong**

Small numbers from March to September, in flocks of up to ten birds. During the late winter of 1978 and 1979, the build-up of Pied Currawongs was far greater than many residents could ever remember and many birds became emaciated and died.

### **Grey Currawong**

Single birds or pairs, rarely flocks of up to six birds, are regular winter visitors. Odd birds may remain over the summer months.

### **Australian Raven**

Very common resident nesting from late June to early October.