# BIRDS

of the

# Illawarra District

by

Ellis McNamara



ILLAWARRA NATURALISTS' SOCIETY

WOLLONGONG

1948

### **FOREWORD**

The name Illawarra has been used with a great deal of latitude, even being quite erroneously used for those suburbs of Sydney which were gazetted as components of the St. George County Council in October, 1920. Actually no defined boundaries of the Illawarra district have been gazetted, but its limits, for the present purpose, may be taken as Stanwell Park on the north, the Crookhaven River on the south, the Illawarra and Cambewarra Ranges on the west and the Pacific Ocean on the east.

This region, owing to its geological structure, includes a considerable variety of life zones, which makes it an extremely interesting area to the biologist. The sea and the adjoining coast support a great variety of marine life, including a fishing industry of an annual value of many thousands of pounds. The narrow coastal plain has a considerable variety of animal and plant life and the gullies in many cases have their own characteristic features. The sandstone areas on the top of the escarpment likewise support a fauna and flora which has much in common with that of the Hawkesbury Sandstone around Sydney.

Hawkesbury Sandstone around Sydney.

"There is no doubt that the Illawarra district offers greater facilities of the study for Nature, to the enthusiast, than any other locality within an equal distance of Sydney. There are to be found, as I have said, dense brush, open flats, sandy country, and swamps, and all within reach in a single day. And when to this is added the charms of pure air and beautiful scenery, what more can the most exacting naturalist require?" So wrote Alexander G. Hamilton in

1890.

Some of the early biologists visited the district, for example the botanist Robert Brown was here in 1804 and another botanist, Allan Cunningham, made several trips to this locality, the first being in 1818. The celebrated ornithologist John Gould was a visitor in 1839, and it is recorded that the entomologist Masters collected more than a thousand insects of all orders from Kiama over 80 years ago. A. G. Hamilton was another well-known naturalist of the early days. During this century a number of biologists have published articles on the natural history of the district, the ornithologists being particularly active.

The Illawarra Naturalists' Society was founded in 1946 by a group of people interested in the study of animal and plant life in the district. The first officers were: President, Mr. C. E. Chadwick; Secretary, Mr. D. A. Walsh; Treasurer, Miss J. Giles. Ellis McNamara became a member of the Society and at the meeting in September, 1947, delivered a lecture on the Birds of the Illawarra District. The material of the lecture was then set out in the form of a paper in "The Australian Naturalist." As it is felt that the study of ornithology should be encouraged the Society has decided to issue this paper in the form of a reprint, thereby increasing its availability to those likely to be interested.

Mr. McNamara's paper, summarising the observations of twenty years, mentions 201 species of birds which have been recorded from the district at various times. His work seems to indicate that some birds, formerly more or less common, are now extinct or very rare in the district e.g. the brush turkey, purple-crowned, wompoo and white-headed pigeons, spur-winged plover, southern stone curlew, straw-necked ibis, rainbow lorikeet, white cockatoo and king parrot; on the other hand, some birds have actually increased in numbers, e.g. the wonga pigeon, lyrebird and eastern whip bird; other birds have been recorded as being rare, e.g. white ibis, crested hawk, noisy pitta (a doubtful record), satin flycatcher, little cuckoo shrike, olive whistler, fuscous and yellow-tufted honeyeaters and the spangled drongo. It is of interest to note that Wollongong is the type locality of the wompoo pigeon and Mt. Kembla for the spine-tailed logrunner.

#### BIRDS OF THE ILLAWARRA.

#### By ELLIS McNamara.

(Communicated by C. E. Chadwick.)

The notes which follow refer mainly to the birds observed around the Cordeaux River district, which is a valley in the Illawarra Ranges, some ten miles west, by road, from Wollongong, New South Wales. Its altitude varies from 1,000 to 1,880 feet above sea level.

Most of the flatter land which had been cleared has largely grown up again into bush and scrub in more recent years.

There are areas of rain forest in most of the gullies, and the mountain sides are covered, principally with heavy forest. Behind the ranges, to the west, are considerable areas of heathland.

The soil on the eastern side of the river is of sandstone type, and that on the western side mostly of volcanic origin. The area, generally, may be considered typical of much of that in the Illawarra Ranges.

The coastal lowlands are mostly cleared, but have scattered clumps of open timber, and some of the gullies have heavier timber with thick scrub beneath.

The writer has done little field work in the lowlands, or along the sea shores, and these notes, necessarily, are incomplete so far as these areas are concerned. The references to the birds of the Five Islands have been taken from an article by J. A. Keast, which appeared in "The Emu," Vol. XLII., Part 3.

Brush Turkey, *Alectura lathami*.—During the early days of settlement brush turkeys were present in the Illawarra brushes, but I can find no record of them being seen during the last 50 years.

STUBBLE QUAIL, Coturnix pectoralis.—During good seasons they are fairly plentiful in grasslands and crops.

Brown Quail, Synoicus australis.—Small parties appear in grassland and about cultivation paddocks during some seasons, and I have also noted them in bracken fern areas.

PAINTED QUAIL, *Turnix varia*.—A few years ago small numbers of this beautiful little quail appeared in my district. They seemed to prefer the scrubby areas, particularly ti-tree scrub, and were more often heard than seen. Their small, roughly circular scratchings were a feature

of the areas they frequented. I have not seen one during

the last three years.

TOPKNOT PIGEON, Lopholaimus antarcticus.—When its food supply is plentiful quite large flocks of these fine pigeons still appear in the brushes, mainly in the autumn and winter months. This is gratifying, when it is remembered that it has always been much persecuted by "pot hunters." The vast flocks, containing thousands of birds, spoken of by early settlers, however, are a thing of the past. The subspecies Lopholaimus antarcticus minor occasionally appears in the district.

Purple-crowned Pigeon, *Ptilinopus superbus*.—Early settlers spoke of a beautiful little bronzewing which was rarely seen. It was almost certainly this species. I have been told of one that was shot about 20 years ago near

where the Mt. Keira Boy Scouts' Camp is now.

Wompoo Pigeon, Megaloprepia magnifica.—Wollongong is the type locality of this beautiful pigeon. I have been told of one that appeared for a few days around this district about 1920. It has not been seen since.

WHITE-HEADED PIGEON, Columba norfolciensis.—During earlier years this species was fairly plentiful at times, but I have only one record of it since 1928.

Brown Pigeon, *Macropygia phasianella*.—Small numbers may usually be found in most of the brushes. They show a marked preference for patches of ink berries.

PEACEFUL DOVE, Geopelia placida.—My only record is of a single bird that appeared in the orchard in April, 1929.

GREEN WINGED PIGEON, Chalcophaps chrysochlora.— Though not common this handsome little pigeon is holding its own fairly well. They are occasionally seen about roadways.

COMMON BRONZEWING, *Phaps chalcoptera*.—I have few records of this species which is decidedly rare in this district.

Brush Bronzewing, *Phaps elegans*.—Much more plentiful than the previous species. During 1945 they suddenly appeared for a time in places where I had not previously seen them. It was a common occurrence to flush them when driving along roadways.

Wonga Pigeon, Leucosarcia melanoleuca.—It is pleasing to be able to record that this fine bird is increasing in numbers in this district. When I commenced observations in 1928 it was rare, due chiefly to the depredations of "pot hunters." During the last ten years their numbers have

steadily increased, and one is constantly meeting with the bird in unexpected places, while their distinctive calls have become one of the common sounds of the district.

Banded Landrail, *Hypotaenidia philippensis*.—Well distributed, though seldom seen. It is particularly fond of the blackberries surrounding water soaks.

SPOTLESS CRAKE, Porzana plumbea.—Occasionally appears in the reeds about dams and swamps.

Eastern Swamp Hen, Porphyrio melanotus.—Common about some swampy areas and appears to be spreading.

COOT, Fulica atra.—Rarely seen about the shores of dams.

LITTLE GREBE, *Podiceps ruficollis*.—Common and can be seen on most sheets of water in the district.

FAIRY PENGUIN, *Eudyptula minor*.—This species nests on the Five Islands and inhabits the surrounding area throughout the year.

WHITE-FACED STORM PETREL, *Pelagodroma marina*.—Also breeds in numbers on the Five Islands.

Wedge-tailed Shearwater, *Puffinus pacificus*.—Breeds on the Five Islands in large numbers. Large numbers are not uncommonly seen close to the shore, and dead specimens are frequently washed up on beaches.

GIANT PETREL, Macronectes giganteus.—Has been recorded from the Five Islands.

FAIRY PRION, Pachyptila turtur.—Also recorded from the Five Islands.

BLACK-BROWED ALBATROSS, Diomedea melanophris.—Has been noted in the vicinity of the Five Islands.

SHY ALBATROSS, Diomedea cauta.—Also seen in the same area as the foregoing species.

CRESTED TERN, Sterna bergii.—Is a common bird at places along the coast and breeds in large numbers on the Five Islands.

LITTLE TERN, Sterna albifrons.—In lesser numbers than the preceding species. It breeds on the coast adjacent to the Five Islands.

SILVER GULL, Larus novae-hollandiae.—Very common along the coast and areas adjacent. In stormy weather they are sometimes seen some distance inland. They breed in large numbers on the Five Islands.

Pomarine Skua, Stercorarius pomarinus.—Has been noted at the Five Islands.

SOOTY OYSTER-CATCHER, Haematopus unicolor.—An in-

habitant of the Five Islands. It has been recorded as

breeding there.

Spur-winged Plover, Lobibyx novae-hollandiae.—Found in suitable areas throughout the district. In the early days of settlement at Cordeaux they were quite common, but in more recent times they have been seldom seen. Occasionally they are heard passing over at night.

RED-CAPPED DOTTRELL, Charadrius ruficapillus.—Recorded

from the Five Islands.

BLACK-FRONTED DOTTREL, Charadrius melanops.—Is not uncommon about shores, gravel beds, water holes, etc.

WHIMBREL, Numenius phaeopus.—I recently noted a flock of these close to the sea near Bass Point. They were feeding both at the seaside and in adjacent grassland.

SOUTHERN STONE CURLEW, Burhinus magnirostris.—In the early days of settlement at Cordeaux this bird was often seen along the river flats, now covered by the storage reservoirs, and their weird calls were a feature of the nights. They have been heard only once in the last twenty years.

WHITE IBIS, *Threskiornis molucca*.—My only record of this species is of a single bird that spent some time about the shores of the storage reservoirs during the dry summer

of 1942.

STRAW-NECKED IBIS, Threskiornis (Carphibis) spinicollis.—In earlier times numbers of straw-necked ibises frequently appeared at Cordeaux. In more recent times they have appeared only once, in the summer of 1942.

ROYAL SPOONBILL, *Platalea regia*.—I saw a pair of these about one of the storage reservoirs a few times during February, 1938.

WHITE-FACED HERON, Notophoyx novae-hollandiae.—Is commonly met with throughout the district wherever there is water and sufficiently open country.

PACIFIC HERON, Notophyx pacifica.—For some time during the summer of 1941 a single bird was often to be seen about two creeks at Cordeaux. It has been recorded from the Five Islands.

REEF HERON, Demigretta sacra.—Seen occasionally at the Five Islands.

BLACK SWAN, Chenopis atrata.—Occasionally appears on sheets of water at Cordeaux and may be seen on other lagoons, etc., in the district.

Wood Duck, Chenonetta jubata.—This fine and hand-

some duck appears and breeds about water holes in some

seasons. It is quite rare, however.

GRAY (BLACK) DUCK, Anas superciliosa.—The common duck in this district. Flocks may be seen at almost any time on sheets of water wherever there is sufficient cover of reeds. They breed locally.

GRAY TEAL, Querquedula gibberifrons.—In earlier times gray teals were sometimes seen at Cordeaux, but I have no

record of their appearance in more recent times.

Musk Duck, Biziura lobata.—A few of these may usually

be seen on the storage reservoirs at Cordeaux.

BLACK CORMORANT, *Phalacrocorax carbo*.—Always present about sheets of water at Cordeaux and other places. Also recorded from the Five Islands.

LITTLE BLACK CORMORANT, Phalacrocorax sulcirostris.—

May usually be seen about the Five Islands.

PIED CORMORANT, *Phalacrocorax varius*.—Very common about the storage reservoirs at Cordeaux, where parties of twenty or more are usually to be seen about the fringes of water, particularly where there are stumps to provide perches.

LITTLE PIED CORMORANT, Phalacrocorax melanoleucus.— Seen about the same places as the foregoing species but

much rarer.

Australian Gannet, Sula serrator.—Recorded from the Five Islands.

Australian Pelican, *Pelecanus conspicillatus*.—Numbers of pelicans may usually be seen on Lake Illawarra. On rare occasions they have appeared on the storage reservoirs at Cordeaux.

SWAMP HARRIER, Circus approximans.—Has been recorded from the Five Islands and adjacent mainland.

GRAY GOSHAWK, Astur novae-hollandiae.—One of our commonest hawks. Usually seen about forested mountainsides, where it breeds.

WHITE GOSHAWK, Astur novae-hollandiae.—I have only three records of this lovely bird. When seen gracefully floating round above the dark green of jungle areas, it is a sight that lives in the memory. Its appearance causes a great commotion among the pied currawongs in the vicinity.

Australian Goshawk, Astur fasciatus.—Is rather rare. I have seen only one nest. It was in heavy forest country.

COLLARED SPARROWHAWK, Accipiter cirrocephalus.—I have seen this species only once. The bird was perched in

a small sapling by the roadside and allowed me to approach quite close before darting off.

Wedge-tail is frequently seen, particularly about the mountainous parts, and breeds in the more remote areas. It does little, if any damage, from an economic point of view, in this district, and must destroy considerable numbers of rabbits.

WHITE-BREASTED SEA EAGLE, Haliaeetus leucogaster.—A few specimens of this noble bird may be met with about shores and around the edges of storage reservoirs. They nested for some years in the cliff face below Robertson's Lookout.

WHISTLING EAGLE, Haliastur sphenurus.—A few appeared in the dry summer of 1944, but I have seen none since.

BLACK-SHOULDERED KITE, *Elanus axillaris*.—This graceful and lovely hawk is sometimes seen, perched near, or hovering above, cultivation paddocks. I have also met it in lonely swampy areas.

CRESTED HAWK, Baza subcristata.—A small flock appeared about 1880, but none have been seen since.

PEREGRINE FALCON, Falco peregrinus.—A falcon believed to be of this species was seen attacking a white cockatoo in November, 1939, near a ravine, in wild mountain country. This is my only record.

Brown Hawk, Falco occidentalis.—This well known hawk is only occasionally seen about here.

NANKEEN KESTREL, Falco cenchroides.—The attractive and very valuable nankeen kestrel is common and well distributed both about the settled areas and in lonely swamp areas.

OSPREY, Pandion haliaetus.—I saw a pair fly over in October, 1936.

BOOBOOK OWL, *Ninox boobook*.—Is quite common in timbered country. On warm spring nights the familiar calls may be heard coming from a dozen or so different points at once. It is found both in the more lightly timbered areas and in the dense gullies.

POWERFUL OWL, *Ninox strenua*.—This largest of our owls is to be found in some of the densest mountain gullies. The loud "whoo-hoo" call may frequently be heard from such places on clear winter evenings. The blood-curdling screech, presumably uttered by this bird, has startled many residents when heard for the first time.

BARN OWL, Tyto alba.—Is seldom seen, but its screech-

ing call is not infrequently heard, usually from the more open timbered country.

RAINBOW LORIKEET, *Trichoglossus moluccanus*.—During the early days of settlement, and up till about 40 years ago, large numbers of rainbow lorikeets passed through and fed on flowering trees, but I have seen none during the last 20 years.

Musk Lorikeet, Glossopsitta concinna.—Was also present in large numbers at the same time as the previous species, but a few still pass through.

LITTLE LORIKEET, Glossopsitta pusilla.—In some seasons, the autumn of 1938, and again in 1945, for example, vast numbers of little lorikeets pass through and some feed on flowering eucalypts. Smaller numbers may be observed during other years.

YELLOW-TAILED BLACK COCKATOO, Calyptorhynchus funereus.—Small flocks of up to twenty or more birds frequently appear, particularly during rainy weather. They are especially fond of wattle scrubs.

RED-TAILED BLACK COCKATOO, Calyptorhynchus banksi.— During the early days these were frequently seen, but I have seen only one party of four birds during the last 20 years.

GANG-GANG COCKATOO, Callocephalon fimbriatum.— Small flocks of up to a dozen or so are frequently seen in forest country, particularly about the top of mountain ranges. They are handsome birds, and the peculiar wheezing calls are very distinctive.

WHITE COCKATOO, Kakatoe galerita.—During the early days of settlement at Cordeaux flocks of white cockatoos were common, but I have seen only two birds since I commenced observations.

KING PARROT, Approximictus scapularis.—This beautiful parrot was present in great numbers during the early days and did much damage to orchards and corn crops. It is now rare, but small parties sometimes appear in orchards towards the end of the apple season. They show a preference for the heavily timbered country.

CRIMSON ROSELLAS, *Platycercus elegans*.—Is one of our commonest birds, being well distributed through all types of timbered country, even the poorest swamp country. It is very destructive to orchards, attacking not only the ripening fruit, but also frequently eating the fruit buds during the winter. Large numbers are sometimes destroyed

in orchards, but they always appear in undiminished numbers the following season.

EASTERN ROSELLA, *Platycercus eximius*.—Is quite common, but not widely distributed like the preceding species. It is usually found in lightly timbered areas. At Cordeaux they show a marked preference for basalt country, and are seldom seen in the sandstone areas. They are very destructive to orchards and corn crops, so it is fortunate that most of the orchards are in the sandstone soils.

Turquoise Parrot, Neophema pulchella.—A few of these lovely little parrots inhabited a restricted area at Cordeaux in the early days. They have long since vanished, but they may still be seen in a locality a little to the west.

SWIFT PARROT, Lathamus discolor.—Like the lorikeets mentioned earlier, these were once much more plentiful, but small flocks still occasionally pass over.

GROUND PARROT, *Pezoporus wallicus*.—Odd specimens were noted at Cordeaux during the early days, but it now appears to be confined to a particular area of suitable habitat at the southern end of the district, where it is not uncommon.

TAWNY FROGMOUTH, Podargus strigoides.—Is found wherever there is timber throughout the district, and is much more often seen than other nocturnal birds. They are frequently seen perched on posts by the roadside.

DOLLAR BIRD, *Eurystomus orientalis*.—The showy, and noisy, dollar bird is generally found in forest country where there are tall dead trees. They are also fond of ring-barked areas adjacent to forest. They are migratory, arriving towards the end of October.

AZURE KINGFISHER, Alcyone azurea.—The beautiful azure kingfisher is rare in my experience. I have met with it only occasionally about timbered streams.

LAUGHING KOOKABURRA, Dacelo gigas.—Common throughout the district in all types of country. Many of them succumbed during the dry winter and spring of 1946, but their numbers are not noticeably diminished to-day.

SACRED KINGFISHER, *Halcyon sanctus*.—Is quite common throughout the district, particularly in ring-barked and lightly timbered country. It is migratory, arriving early in September.

WHITE-THROATED NIGHTJAR, Eurostopodus mystacalis.—Is seldom seen, but its peculiar call notes are not infrequently heard in forest country.

SPINE-TAILED SWIFT, Hirundapus caudacutus.—During

dry seasons large flocks are frequently seen hawking in the upper air. Their appearance is almost always the prelude to a period of drought, and the higher they are flying, the longer the dry spell.

FORK-TAILED SWIFT, *Micropus pacificus*.—I have only one record. Four were seen hawking in the upper air during a terrific windstorm on December 10, 1938.

PALLID CUCKOO, Cuculus pallidus.—Common throughout in open timbered country, and in some of the heathlands.

Fan-tailed Cuckoo, Cacomantis flabelliformis.—Very common in scrubby forest country. They are partly migratory, some birds remaining throughout the winter, the others returning during the latter part of August. They call but little during the winter.

Brush Cuckoo, Cacomantis pyrrhophanus.—May be found in rain forest and mountain gullies during spring and summer. I have no record of it during the cooler months. They sometimes call throughout spring nights.

HORSFIELD BRONZE CUCKOO, Chalcites basalis.—Quite common in both forest and jungle country. A few apparently stay during the winter, but the main body arrives back during August, about the same time as the fan-tailed cuckoo.

GOLDEN-BRONZE CUCKOO, Lamprococcyx plagosus.—Not nearly as plentiful as the foregoing species, but is not altogether rare in some forest areas.

KOEL, *Eudynamys orientalis*.—A small party appeared about the district for a couple of weeks in December, 1945, and did considerable damage to ripening stone fruits.

Superb Lyrebird, *Menura novae-hollandiae*.—Despite fears expressed about their survival when foxes became plentiful, the lyrebird seems to have maintained its position well and has probably increased in the last decade or so. There does not appear to be any need for concern as to their survival.

Noisy Pitta, *Pitta versicolor*.—There is a noisy pitta in the Australian Museum, Sydney, said to have been collected near Wollongong about 1870. It is possible that it had escaped from captivity, for this is far from its usual range. I have not seen it during extensive wanderings in rain forest areas during the last 20 years.

Welcome Swallow, *Hirundo neoxena*.—Very common about towns and buildings in farming areas. They may also be found about cliff faces in more remote areas.

TREE MARTIN, Hylochelidon nigricans.—Flocks appear at

times in the summer and autumn. Their movements are rather irregular, and I have no record of them breeding here.

FAIRY MARTIN, Hylochelidon ariel.—Flocks of this species also appear in summer and autumn, but their numbers are fewer than the foregoing species.

JACKY WINTER, Microeca fascinans.—Is very common and one of the best known birds in open and lightly tim-

bered country.

SCARLET ROBIN, Petroica multicolor.—During the cooler months scarlet robins may be found in fair numbers in the lowlands and open country. In the spring they retire to the mountain and more remote areas to breed, usually well away from civilisation.

FLAME ROBIN, Petroica phoenicea.—More plentiful than the preceding species and, like it, may be met with in the open country in the cooler months. It is not so retiring in its breeding habits, and commonly nests about clearings in the mountain country, clefts in outbuildings on farms being a favourite site.

Rose Robin, *Petroica* (belchera) rosea.—Fairly common and well distributed in rain forest and heavily timbered mountain gullies. Some few birds remain in the mountain country throughout the winter, but most of them depart about early April, and return during late August. Its nest, usually placed high up in an inaccessible position, is one of the daintiest in "birdland." The peculiar "winnowing" action of the wings and tail is a good means of identification. On cold, wet days in spring, they often leave the tree tops, and search for food quite close to the ground.

WHITE-THROATED WARBLER, Gerygone olivacea.—At Cordeaux this species is quite rare and restricted to a few patches of open forest. They are migratory, arriving early in October.

Brown Warbler, Gerygone richmondi.—One of the commonest birds in rain forest areas, their rather feeble calls and small forms fluttering around the outside of trees being one of the most noticeable features of such areas. On winter days I have often seen them leave their jungle home and descend to adjacent orchard country, returning to the jungle about sundown. The beautiful nest is usually hung from thorny vines that grow over jungle trees.

GRAY FANTAIL, Rhipidura flabellifera.—One of the commonest birds in almost all types of country where there is sufficient timber cover.

Rufous Fantail, *Rhipidura rufifrons*.—This beautiful bird, with the charming tinkling call-notes, is fairly common in rain forest and heavy forest country, usually in the vicinity of gullies. It is migratory, leaving during April, and returning about the first week in October. They do not normally begin to nest until December, and so are among the latest nesting birds. Odd that this bird should be migratory, while its closely similar gray relative is stationary.

WILLIE WAGTAIL, Rhipidura leucophrys.—Very common in open country, particularly about farm buildings.

LEADEN FLYCATCHER, Myiagra riubecula.—Comparatively rare, usually found on heavily forested hillsides. It is migratory, arriving during the first half of October. The peculiar quivering movement of the tail is a good identification point. In the autumn, they sometimes appear in orchards, and more open country.

SATIN FLYCATCHER, *Myiagra cyanoleuca*.—I have only one record of this species. A single bird was seen in heavy forest country on October 6, 1936.

RESTLESS FLYCATCHER, Seisura inquieta.—In my experience this species is comparatively rare and is confined to open forest country. Its hovering habits and rasping callnotes are notable points.

BLACK-FACED FLYCATCHER, Monarcha melanopsis.—Fairly common in rain forest and scrubby mountain gullies. Migratory, arriving during late September. It is a handsome, showy bird, and the loud, clear call-notes attract attention. The beautiful moss-covered nest is not often built before December.

BLACK-FACED CUCKOO SHRIKE, Coracina novae-hollan-diae.—Common in open forest and ring-barked country. It is part migratory, or nomadic in habits, normally arriving late in August, but sometimes they may be seen about during the winter months.

LITTLE CUCKOO SHRIKE, Coracina robusta.—Early in September, 1942, a pair of little cuckoo shrikes appeared in an area of heavy forest on a mountain side. They remained throughout the spring and summer, but much searching failed to reveal a nest. They appeared in the same area for a few days in the following September, but I have seen nothing of them since.

CICADA BIRD, *Edoliisoma tenuirostris*.—Comparatively rare and usually confined to heavily timbered areas, about the tops of mountain ranges. Apparently strictly migra-

tory, it arrives about the end of October, or early in November. It is seldom seen, but the distinctive cicadalike call is frequently uttered.

WHITE-WINGED TRILLER, Lalage tricolor.—In some dry seasons, this handsome bird, with the fine canary-like song, appears in fair numbers in open forest areas and orchards, which latter are favoured nesting sites. At Cordeaux it shows a marked preference for and, indeed, is virtually confined to basalt country.

SPOTTED QUAIL THRUSH, Cinclosoma punctatum.—Odd pairs of spotted quail thrushes are scattered about the forest mountain country, particularly in sandstone areas, where the undergrowth is not very thick.

SPINE-TAILED LOGRUNNER, Orthonyx temmincki.—Mount Kembla is the type locality of the logrunner, the first specimen having been collected there in 1804 by Robert Brown, the famous botanist. It is found in almost all areas of rain forest in the district favouring the areas where there is plently of undergrowth. Blackberries growing about the fringes of rain forest and along the banks of creeks are favourite haunts and they occasionally even nest in such places. Prior to the series of droughts, which began in 1939, logrunners were to be found in many places not truly rain forest, such as gullies in forest areas where a few rain forest trees and scrub grows. Droughts, and bush fires, have since driven them from some of these places, and the total numbers of birds in the district has probably shown a slight decline in the last decade, due entirely to drought conditions. There is no reason to fear for their survival, however.

PILOT BIRD, Pycnoptilus floccosus.—This sweet voiced songster is quite common throughout the mountainous areas, in rain forest, as well as hardwood areas. They are most numerous in heavily timbered places, where there is a dense growth of scrub, particularly near the tops of ranges. An early morning spent in such areas, with the beautiful calls coming from all directions, is an experience that lingers in the memory. They are also fond of blackberry bushes, growing along creeks and over once cleared hillsides. Pilot birds are particularly fond of areas that have been burned during the previous season, and on which the undergrowth is beginning to grow again, and are among the few ground birds that are to be found on areas recently swept by fires. They do not appear to have any defined

territories, individual pairs wandering over a large tract of country.

HEATH WREN, Hylacola pyrrhopygia.—This accomplished little mimic dwells in heath lands throughout the district, but is comparatively rare in the more southerly areas, becoming more numerous as one travels northwards. It is quite plentiful in the heathlands to the west of Mt. Keira.

Eastern Whip Bird, Psophodes olivaceus.—Quite common throughout the district, where there is sufficient growth of scrub to provide cover in both forest and jungle areas. Perhaps more so than any other bird, they have taken wholeheartedly to the blackberries, particularly those growing along gullies and creeks. Most of their nests are now built in blackberry bushes, and the safety afforded by such sites may account, in part, for the marked increase in the numbers of whip birds during the last 20 years. In areas nearer the coast, where blackberries do not thrive, lantanas provide similar sanctuary. There is considerable local variation in their calls.

Brown Songlark, Cinclorhamphus cruralis.—I have a few records of this fine songster in grassland and crops.

Australian Ground Thrush, Oreocincla lunulata.— Though not common, the ground thrush is found throughout the rain forest areas, and in some ti-tree scrubs, and "half brush" areas. They are also frequently found in blackberry areas. In the winter, when the apple leaves have fallen, they often appear in orchards adjacent to scrubs. The beautiful song is often heard at dusk, and early in the morning, in the early spring, about the time the beautiful moss-covered nests begin to take shape.

WHITE-FRONTED CHAT, Epthianura albifrons.—I have only one record of this species at Cordeaux. However, it is not uncommon about the coastal lowlands.

REED WARBLER, Acrocephalus australis.—May be found among the reed beds in lagoons about the coastal lowlands.

FANTAIL WARBLER, Cisticola exilis.—Recently I saw several in an areas of low reeds, tussocks and grass around Tom Thumb's Lagoon.

LITTLE GRASSBIRD, Megalurus gramineus.—Has been recorded from the Five Islands and adjacent mainland.

ROCK WARBLER, Origma rubricata.—Found about all timbered sandstone mountain ranges and gorges, particularly where there are large rocks and cliff faces. They are

particularly numerous in areas to the north-west of Cordeaux.

LITTLE THORNBILL, Acanthiza nana.—I have only once seen little thornbills at Cordeaux. They are found in some areas nearer the coast, generally where there are turpentine trees.

Brown Thornbill, *Acanthiza pusilla*.—Much the commonest thornbill in the mountain areas, where it may be found in all types of country where there is a sufficient cover of scrub. Once cleared areas, grown up with bracken and blackberries, are favourite haunts, and patches of low bracken are the favourite nesting sites.

STRIATED THORNBILL, Acanthiza lineata.—Common in open and scrubby forest areas in both the mountains and lowlands, but it is not so widely distributed as the brown thornbill and keeps more to the forest tree tops.

YELLOW-TAILED THORNBILL, Acanthiza chrysorrhoa.— Very common in cleared areas, cultivation paddocks, and orchards, where there are a few scattered trees to provide cover in both mountain and lowlands.

BUFF-TAILED THORNBILL, Acanthiza reguloides.—In my experience the buff-tailed thornbill is rather rare, and I have only seen isolated parties in the scrubby timber growing about heathlands, usually far from civilisation.

YELLOW-THROATED SCRUB WREN, Sericornis lathami.—Very common in all rain forest and half brush areas in the mountain country. The bulky hanging nest is a feature of all gullies in such places.

WHITE-BROWED SCRUB WREN, Sericornis frontalis.—Probably the commonest bird in the mountain country, where it is found everywhere there in scrub in all types of country. It is one of the few birds commonly found in areas overgrown with bracken fern, and may also be found in patches of scrub in the coastal areas.

LARGE-BILLED SCRUB WREN, Sericornis magnirostris.— Rare and confined to rain forest areas. It seems to be half-way between scrub wrens and thornbills in appearance and habits, for most of its food is obtained about masses of vines and jungle trees.

SUPERB BLUE WREN, Malurus cyaneus.—Very common throughout the district in gardens, and partly cleared areas, and in heathlands. It is most plentiful in mountain areas, partly overgrown with blackberries and bracken fern.

VARIEGATED WREN, Malurus lamberti.—This lovely bird is sparsely distributed over the mountain country, sometimes

in company with the blue wren, but generally in more heavily timbered areas, and about the fringes of heathlands.

SOUTHERN EMU WREN, Stipiturus malachurus.—Found in most heathland areas, and is much more plentiful than a casual search would indicate, owing to its retiring habits. It is occasionally found well away from its true home, in areas of blady-grass and bracken fern, and in autumns, when there was a heavy growth of grass and weeds, I have even seen it in orchards.

Eastern Bristle Bird, Dasyornis brachypterus.—Further searching is needed to indicate the range of this rare and little known bird. At present it appears to be confined to the densest parts of one particular tract of heathland.

DUSKY WOOD SWALLOW, Artamus cyanopterus.—Common in open timbered country, particularly ring-barked areas, in both the mountains and lowlands.

Magpie Lark, Grallina cyanoleuca.—Very common throughout in open country, generally in the vicinity of water.

GRAY THRUSH, Colluricincla harmonica.—Common throughout the timbered areas. In the winter it is commonly found about orchards and open country, but in the spring it usually retires to the heavily timbered mountainsides to breed.

EASTERN SHRIKE TIT, Falcunculus frontatus.—Found throughout the heavily timbered areas, but not plentiful anywhere.

Golden Whistler, *Pachycephala pectoralis*.—This beautiful songster is quite common throughout the timbered areas, particularly about the mountain areas, where it is equally at home in rain forest, scrubby forest, and open forest.

RUFOUS WHISTLER, Pachycephala rufiventris.—Common in the open and scrubby forest areas. It avoids the rain forest, but extends farther into the lonely heathlands than its golden relative, unlike which, it is migratory, arriving back about the end of September.

OLIVE WHISTLER, *Pachycephala olivacea*.—On September 9, 1934, I heard strange notes coming from a blackberry bush on a hillside. It proved to be an olive whistler. Soon afterwards it disappeared up the mist-covered hillside, calling repeatedly. It was in the vicinity the two following mornings, and then I heard it no more. The following

April, one appeared for a few days in an adjacent locality. These are my only records.

Southern Yellow Robin, *Eopsaltria australis*.—Very common in all types of timbered country in both mountain and lowland areas.

EASTERN WHITEFACE, Aphelocephala leucopsis.—I have a few records of this species in dry, lightly timbered country.

Orange-winged Sittella, Neositta chrysoptera.—Rather rare. I have seen them occasionally in heavily timbered mountain country where they keep to the big trees.

Brown Tree-creeper, Climacteris picumnus.—I have seen this bird a few times in the poor forest country to the west of Cordeaux.

WHITE-THROATED TREE-CREEPER, Climacteris leucophaea.—Common and widely distributed throughout the timbered country in both mountains and lowlands. It is just as much at home in rain forest as in the poor forest surrounding heathlands, it being one of the few birds one may be sure of seeing in such places.

RED-BROWED TREE-CREEPER, Climacteris erythrops.—Comparatively rare, being found in heavily timbered mountain areas, often in association with its white-throated relative, which it much resembles. The call-notes, however, are quite distinctive.

SILVER EYE, Zosterops halmaturina.—Very common in rain forests, orchards and gardens, and areas overgrown with blackberries. It may do a small amount of damage to ripening orchard fruit, but the balance is much in its favour. Generally speaking, fruit it attacks is too ripe to market. During early April vast numbers pass over at night travelling northwards.

MISTLETOE BIRD, Dicaeum hirundinaceum.—Found throughout the timbered areas, and occasionally in orchards and gardens. In this district, it is more numerous in autumn and early winter, than at other seasons.

RED-TIPPED PARDALOTE, Pardalotus ornatus.—Rare, and as it keeps to the tree tops in heavy timber, is seldom seen.

SPOTTED PARDALOTE, Pardalotus punctatus.—Very common and well distributed through all types of forest country, in both mountains, and lowlands. Its small size, and tree-top habits, make it difficult to observe, except during the breeding season, when they come to the ground, and are quite fearless.

WHITE-NAPED HONEYEATER, Melithreptus lunulatus.—Is not found throughout, but is common enough in favoured

areas. Usually they keep well up in big trees, in heavy forest country, preferring the more level country, rather

than mountain ridges.

Brown-Headed Honeyeater, Melithreptus atricapillus.— My only experience of this species at Cordeaux was a small flock that was often seen in timbered country during the I have also seen them in the scattered winter of 1945. timber about heathlands behind Mt. Keira.

SCARLET HONEYEATER, Myzomela sanguinolenta.—This beautiful little bird seems to be quite rare in this district. On infrequent occasions, they appear when the crimson bottlebrush and ti-tree are in blossom, and I once saw one

in an apple tree.

EASTERN SPINEBILL, Acanthorhynchus tenuirostris.—Quite common throughout in most classes of timbered country. It is one of the few birds often seen about mountain tops, and poor timbered heathlands. It is also a common bird about orchards and gardens.

TAWNY CROWNED HONEYEATER, Gliciphila melanops.— Found in the heathlands, in the northern end of the district. The most southerly point that I have seen it was in the vicinity of Broker's Nose Lookout, where it showed a preference for low scrub.

REGENT HONEYEATER, Zanthomiza phrygia.—I have seen this handsome bird only once, but in the early days of

settlement at Cordeaux, flocks were often seen.

Fuscous Honeyeater, Meliphaga fusca.—Four of these birds appeared among an irruption of honeyeaters at Cordeaux during the dry summer of 1940-1941.

LEWIN HONEYEATER, Meliphaga lewini.—One of the commonest birds in rain forest and heavy forest country. It is very common in orchards and does some damage to ripening soft fruits, and in earlier days considerable numbers were destroyed, because of this. However, as an orchard bird, the balance is very much in its favour.

YELLOW-FACED HONEYEATER, Meliphaga chrysops.—Very common in both open and scrubby forest country and titree scrubs. It is also frequently seen in orchards, and does some little damage to soft fruits.

WHITE-EARED HONEYEATER, Meliphaga leucotis.—Is not widespread, but common in certain favoured areas, such as ti-tree scrubs, fringes of rain forest towards the heads of mountain gullies, and in some heathland areas.

YELLOW-TUFTED HONEYEATER, Meliphaga melanops.—I have seen this fine honeyeater at Cordeaux only once, during the dry summer of 1941. It is occasionally seen in timbered gullies in the heathlands to the west.

CRESCENT HONEYEATER, *Phylidonyris pyrrhoptera*.—Common in favoured areas, chiefly towards the heads of gullies in heavily forested mountain country, in places where bloodwoods grow, and occasionally in heath country. It sometimes appears in orchards when the trees are in blossom.

YELLOW-WINGED HONEYEATER, Meliornis novae-hollan-diae.—Very common in heathlands, ti-tree scrubs, and forest country, where the undergrowth consists of ti-trees, banksias, etc. Large numbers sometimes appear when the ti-trees are in blossom.

WHITE-CHEEKED HONEYEATER, Meliornis niger.—Quite rare in my experience. I have seen them only in company with the foregoing species on blossoming ti-trees.

NOISY MINER, Myzantha melanocephala.—Rare about the mountains, but very common in open timber about the coastal lowlands.

RED WATTLE BIRD, Anthochaera carunculata.—The vast flocks, early residents speak of, are not now seen, but small flocks frequently pass through during the winter months. Their appearance usually coincides with frosts.

LITTLE WATTLE BIRD, Anthochaera chrysoptera.—Small parties are often met with in heath country, interspersed with eucalypts, particularly during the summer months. Sometimes larger numbers appear when the ti-trees are in blossom.

Noisy Friar Bird, *Philemon corniculatus*.—Sparsely distributed through both mountain and low country, in more open timbered areas. It does not seem to be common anywhere.

AUSTRALIAN PIPIT, Anthus australis.—Common wherever there is open grassland, in both mountain and low country. It is also found in many of the more open patches of heathland.

DIAMOND FIRETAIL, Zonaeginthus guttatus.—Common about the coastal areas in suitable spots, but decidedly rare in the mountains.

BEAUTIFUL FIRETAIL, Zonaeginthus bellus.—Thinly distributed through the more open heathland areas, usually in the vicinity of timber. This beautiful bird is very quiet and shy, and easily overlooked. It seems to be more numerous behind Mt. Keira than elsewhere.

RED-BROWED FIRETAIL, Aegintha temporalis.—Very common in open country, cultivation patches, orchards and

gardens. Clearings partly overgrown with blackberries, in hill country, are favourite haunts.

Banded Finch, Steganopleura bichenovii.—In recent years small parties of these finches have occasionally appeared in orchards at Cordeaux. They have also been noted in the vicinity of Wollongong.

OLIVE-BACKED ORIOLE, Oriolus sagitatus.—Thinly distributed through the mountain areas, usually in fairly heavy forest. They appear in the spring, being seldom seen at other seasons. It is one of our finest mimics.

Spangled Drongo, Chibia bracteata.—One of these appeared towards the end of February, 1948. It remained only for about a week, and then disappeared. One had appeared at Mangerton, near Wollongong, about a fortnight earlier.

SATIN BOWER BIRD, Ptilonorhynchus violaceus.—Fairly common in rain forest and half brush areas. There is considerable seasonal variation in their numbers which, generally, are greater in the late autumn and winter months. During this period, in 1944, great numbers appeared in the district. They do considerable damage to orchards, sometimes attacking fruit before it is half-grown, and sometimes are very destructive to some kinds of vegetables. Bowers are frequently made in patches of scrub adjacent to orchards.

GREEN CAT BIRD, Ailuroedus crassirostris.—Odd pairs are scattered through the true rain forest areas. They seem to be more numerous on the coastal side of the ranges, but are nowhere plentiful. They are usually quiet and shy through the day. The peculiar cat-like wail being frequently uttered as night approaches.

AUSTRALIAN RAVEN, Corvus coronoides.—Common in all classes of open country, including heathlands.

LITTLE CROW, Corvus bennetti.—During the late spring of 1936, when cicadas were in plague numbers at Cordeaux, a small flock of little crows appeared, and fed on them for a few weeks. They kept more to the heavy timber.

WHITE-WINGED CHOUGH, Corcorax melanorhamphus.—In the early days of settlement at Cordeaux, a small flock of these appeared during a dry season.

PIED CURRAWONG, Strepera graculina.—Very common about the mountain areas, in all classes of timber, being more plentiful in rain forest, but found even in heathlands. During the winter they congregate in flocks on the flats during the day, returning to the mountain tops to roost.

The flocks break up in the spring, when breeding pairs are found scattered throughout the forest country. It is, by reason of its numbers, and cosmopolitan tastes, the most destructive bird in our orchards, and sometimes damages vegetable and other crops.

GRAY CURRAWONG—RAVEN, Strepera versicolor.—During the winter, odd birds appear with flocks of their pied relatives, about flats in the mountain country. A few pairs are scattered through the heathlands, where they breed in

odd clumps of trees.

GRAY BUTCHER BIRD, Cracticus torquatus.—Not very common. Found scattered throughout the forest areas and in orchards and gardens.

BLACK-BACKED MAGPIE, Gymnorhina tibicen.—Very common in open timber and cleared areas, as well as orchards

and gardens. Also found in heathlands.

WHITE-BACKED MAGPIE, Gymnorhina hypoleuca.—During the early days there were a few white backs in some localities, but since then they have interlived with the black-backs, to such an extent, that true white-backs are now an extreme rarity.

#### INTRODUCED BIRDS.

The following introduced birds also occur in the district.

Indian Turtle Dove, Streptopelia chinesis.
Red-whiskered Bul-bul, Otocompsa emeria.
Skylark, Alauda arvensis.
Goldfinch, Carduelis carduelis.
House Sparrow, Passer domesticus.
Starling, Sturnus vulgarus.

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