

Through a Drought-Stricken Land

By Dr. W. D. K. MacGILLIVRAY, R.A.O.U., Broken Hill,
N.S.W.

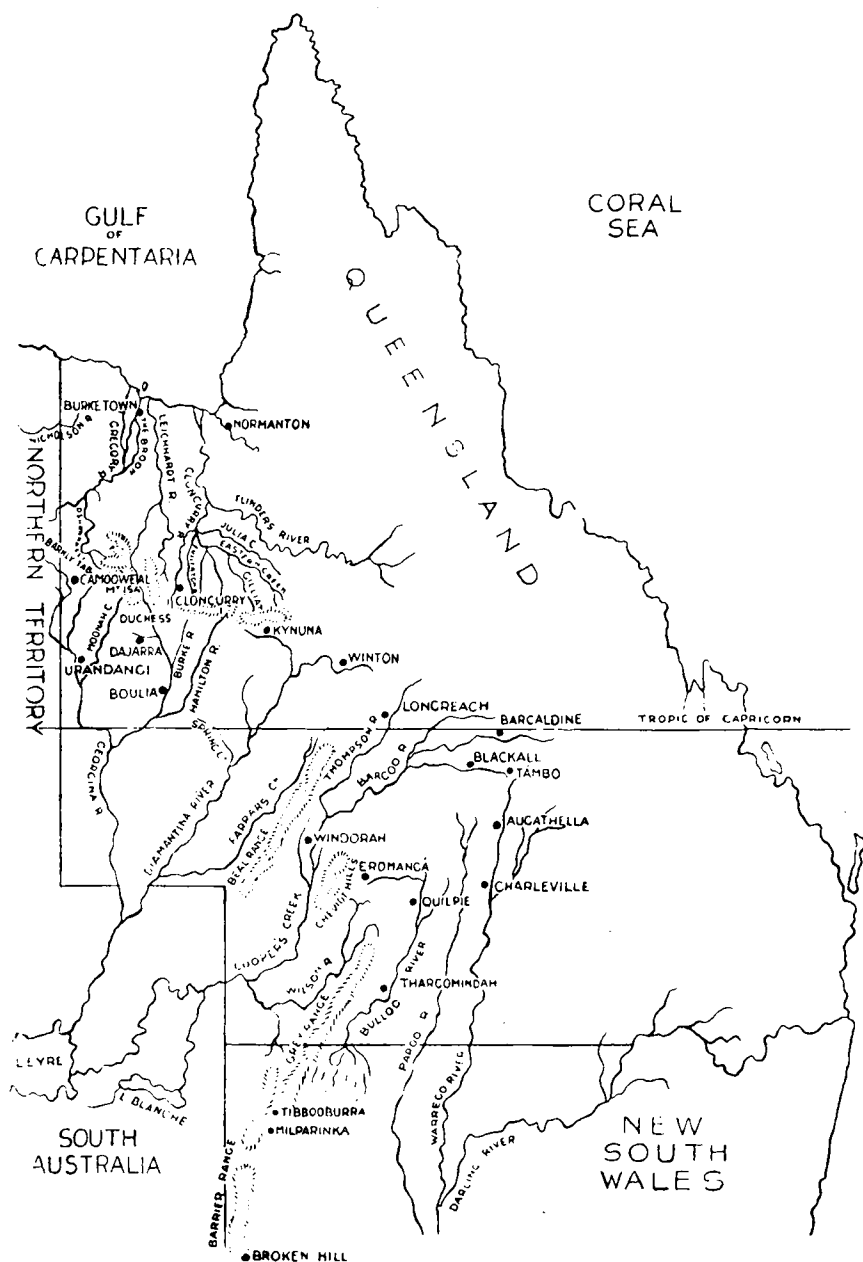
Many considerations led me to make a trip from Broken Hill into those parts of Queensland that had been, and still were, suffering severely from the effects of the longest spell of dry weather that the country had experienced since its settlement. I wanted to see how it had reacted on the bird and other animal life, and to note, if possible, the direction of migration of many of the birds. My friend Mr. F. L. Berney, of Barcarolle, near Jundah, well known as an ornithologist, who had lived for many years in the back country, had written to me about the Flock Pigeon (*Histriophaps histrionica*), stressing the fact that its numbers were rapidly diminishing, and expressing his fears that it was bordering upon extinction. I made it my business to collect all information that I could concerning this interesting form.

From 1870 to 1877, as a boy, I had lived in the "Gulf country," as that area, drained by the rivers that empty themselves into the Gulf of Carpentaria, is known to all Queenslanders, and knew its bird and other animal life at the beginning of settlement. I now wanted to see the effect brought about after the country had been stocked with cattle and sheep for over 50 years—a country the rolling downs of which, clothed with a carpet of luxuriant grasses and herbage, from season to season, had from time immemorial had no grazing or browsing animals other than a few kangaroos. Even these were constantly kept in check by the aborigines inhabiting a country, where fine permanent waterholes, well stocked with fish, crayfish, mussels and water birds, provided permanent camping places, from which the surrounding plains were scoured for other animal and plant foods.

The late A. S. MacGillivray, my eldest brother, lived all his life in this country, and he sent me, from time to time, specimens of, and notes on, its natural history.

Mr. W. R. McLennan, early in 1910, made a collecting trip for me from Cloncurry, down the Cloncurry, Leichhardt, and the lower part of the Gregory Rivers as far as Burketown, and sent me much valuable information.

During favourable seasons in western New South Wales, the Australian Pratincole (*Stiltia isabella*) and the Australian Dotterel (*Peltohyas australis*) appear in great numbers, occupying and breeding freely on the gravel plains. The latter remains in greatly diminished numbers, the former vanish for years at a stretch. Whence come they,



and where do they go? The Dotterel is a local migrant within Australia. The Pratincole, in my opinion, leaves Australia in the winter and during very dry seasons, though a few, according to Berney, remain during some winters in North Queensland.

To help solve some of these questions we went north, leaving Broken Hill on 13th July, 1928. Our party consisted of my wife, Mr. P. D. Riddell, who was ethnologically interested, our driver—Roger MacFarlane—and myself. Our means of conveyance was a Dodge trolley. Leaving by the northern road we soon found that the country was very dry, and bird-life, as far as the Queensland border, was limited to a few resident species. After leaving Tibooburra, we went over the Grey Range and crossing into Queensland gained the banks of the Warri, which flows north, to join the Wilson, before that river turns to empty itself into the Cooper.

Our camp on the banks of the Warri was broken up at an early hour by heavy rains, and we moved on to a daylight breakfast at Yanco Station. We followed on through mulga and gidgee scrub and over open stony plains until we came to Big Dingera, an old ruin, where we camped for a night and a day, to allow the road to dry, as the going had been heavy. A grave and many old camp fires marked by clusters of stone and scattered flints are all that remain of the blacks. Several ducks were on the waterhole and a pair of Little Falcons (*Falco longipennis*) had a nest in a coolibah tree. While we were there a drover arrived with a mob of cattle, and asked that we report to the police at Nocundra, that the decayed remains of a man, bicycle and swag were to be found near a certain yard.

Leaving so as to skirt the Wilson River at a distance, we travelled over bare gibber plains, with odd bushes of Cassias of two species. The creeks crossed were bordered with coolibah, red gum, *Acacia stenophylla* and whitewood, of stunted growth on the bare plains but better on the sandhills. Galahs (*Kakatoë roseicapilla*) were plentiful, and occasional flocks of Cockatiels (*Leptolophus hollandicus*) and Budgerygahs (*Melopsittacus undulatus*) were observed. One stony plain was covered with fine bushes of *Eremophila Macgillivrayi*. We crossed the Wilson River at Nocundra, where we reported the dead man as requested, and went on to Nockatunga Cattle Station, which overlooks a fine permanent waterhole. Going north we recrossed the river. *Bauhinia carroni* became a feature of the vegetation, with *Eremophila bignoniæflora* well in flower. Crossing a gibber plain Mr. Riddell noticed some stone circles and heaps, the remains of an old aboriginal

ceremonial ground. Some of the gidgee (*Acacia cambagei*) was in flower, and also the yapunyah (*Eucalyptus orchrophloia*).

We followed up the Wilson over flooded country, with the Grey Range away to the right. Sandhills of a bright terra-cotta colour intervened at intervals. *Acacia ligulata* had finished flowering and *Eremophila dalyana* appeared. A few Orange Chats (*Epthianura aurifrons*), Crimson Chats (*E. tricolor*), Black-faced Wood-Swallows (*Artamus melanops*) and Whitefaces (*Aphelocephala leucopsis*) were observed. Nearer the river, in timber, we disturbed about one hundred Yellow-tailed Black Cockatoos (*Calyptrorhynchus funereus*) that were going to roost, and we made our camp on the Long Waterhole, a billabong of the Wilson. An Owlet-Nightjar (*Ægotheles cristata*) called at night, and the Crested Bell-bird (*Oreoica gutturalis*) soon after daylight. Grey Thrushes (*Colluricincla harmonica*), Grallinas or Magpie-Larks (*Grallina cyanoleuca*), Black-throated or Pied Butcher Birds (*Cracticus nigrogularis*), Willy Wag-tails (*Rhipidura leucophrys*), Brown Tree-creepers (*Climacteris picumnus*), Yellow-throated Miners (*Myzantha flavigula*), White-plumed Honeyeaters (*Meliphaga penicillata*) and Brown Weebills (*Smicrornis brevirostris*) were common in the trees, which included bloodwood, coolibah, yapunyah, gidgee, mulga and queamurra, with some shrubs.

Conbar Station we visited at an early hour. There an aboriginal camp interested us for a time. Then we followed the river for 50 miles to Mt. Margaret Station, where, being disappointed at not being able to get petrol, we changed our route, and went to Eromanga town. On the way we passed through a fertile patch where trees and shrubs were flowering, and birds plentiful—Pied (*Certhionyx variegatus*), White-fronted (*Gliciphila albifrons*) and Black Honeyeaters (*Myzomela nigra*), Red-capped Robins (*Petroica goodenovii*) and others. Eromanga has a boiling artesian bore, which was enveloped in a cloud of steam, the surplus water forming a small swamp.

The country became drier as we proceeded north on the Windorah road. Ground Cuckoo-Shrikes (*Pteropodocys maxima*) and a wild pig were seen on this stage, also a few red kangaroos and Emus (*Dromaius novæ-hollandiæ*). We camped by Kyabra Creek. A flock of Maned Geese (*Chenonetta jubata*), Pink-eared Ducks (*Malacorhynchus membranaceus*) and Grey Teal (*Querquedula gibberifrons*) were on the waterhole, and Black-fronted Dotterels (*Charadrius melanops*) and Red-kneed Dotterels (*Erythrogonyx cinctus*) around its margin. We passed Kyabra Station and pulled up at Lulu Selection, a new house on a fine permanent waterhole. This house has a good fruit

and vegetable garden, and there are pretty beds of violets and other flowers.

We went on over the Cheviot Range, on which *Eucalyptus papuana*, with its milk white trunk and stems and light green foliage, makes its appearance. Porcupine grass clothed several of the ridges. The trees were leopards, dead finish, mulga, beefwood and a stunted acacia in bud. We passed over plains where the blue bush (*Chenopodium auricomum*) had been eaten down to dry sticks, alternating with forest rises and handhills. At Springfield Station we admired a fine garden in the wilderness. Many miles over the same class of country brought us to the first channel of the Cooper, with a picturesque crossing place. Soon after we gained the main bed of the Cooper, and after crossing and running out over country subject to inundation and through a thick scrub of a stunted acacia, we pulled up at Windorah, where we replenished our petrol before tackling the road to Boulia. Thence over bare plains to Whitula Creek, and on for three miles to a fine waterhole, where we camped. Very few birds were on this creek—several pairs of the Red-tailed Black or Banksian Cockatoos (*Calyptorhynchus banksi*), which left early for some feeding ground, White-plumed Honey-eaters and Yellow-throated Miners in the timber, and a few Maned Geese on the water were all. Going west from there we soon came to a party of Brolgas or Native Companions (*Megalornis rubicundus*) feeding on a plain. After this we crossed level plains, bare of vegetation, intersected at long intervals by sandhills, the plains being of a light chocolate loam or of ironstone gravel. On some of the sandhills Porcupine grass (*Triodia irritans*)—the spinifex of the bushmen—grew in scattered clumps, and a few whitewood trees (*Atalaya hemiglaucæ*) also were seen. We crossed claypans bounded by sandhills, then sandy rises supporting beefwood, whitewood, *Dodonæa viscosa* and *Eremophila*. No herbage grew, as very little rain had fallen for years, the plains and flats being quite bare. We passed through a gap in a big sandhill on which we noted some fine plants of *Crotalaria cunninghami* in full flower, possibly the result of a local shower. We entered the Beal Range, our road leading through rugged hills, covered with mulga and gidgee scrubs, with dead finish and an under scrub of *Eremophilas*. This Range would well repay a more leisurely examination in a good season.

Emerging from the Range we came to the Canterbury or J.C. Hotel. Our road then took us over interminable bare plains till we came to another range, with some thick mulga scrub and flooded creek country, where we met, for the first and last time, with red mulga (*A. cyperophylla*)

—the Minnarichi of the Cooper's Creek blacks—and also some Hakeas. We called at Currawilla Station on Congabulla Creek, in a howling duststorm, obtained a billy of tea from the cook, as lighting a fire was an impossibility, and went on to camp on a dry creek. Then followed another long run over desolate plains, where we had great difficulty in following the road at times. At Palparara Station on Farrar's Creek four dogs and two aborigines emerged from a humpy, where they were sheltering from the wind, and the latter gave us directions. We went on and camped at a waterhole six miles out, but the night became so stormy that we decided to proceed farther, and this took us over seemingly endless bare plains, until we came to the main channel of the Diamantina River at Devonport Downs. A blackfellow there gave directions as to the road, which followed the river as far as Diamantina Lakes Station, where we camped at the foot of a sandhill and were almost buried by drifting sand before morning. Very few birds were observed on the river, but Black Kites (*Milvus migrans*), Whistling Eagles (*Haliastur sphenurus*), Ravens (*Corvus coronoides*), White-plumed Honeyeaters and a pair of Jacky Winters (*Microeca fascians*) were noted. The Diamantina there is lined with red gum, coolibah and bloodwood. More bare plains of black, shining gravel, alternating with light grey loam absolutely devoid of anything that could sustain animal life were passed; the remains of cattle, dry and rotted were everywhere. Most of the stations had moved the survivors to the Gulf, or into the Northern Territory. Odd showers had fallen during the winter, but only sufficient to bring up a few ephemerals. On one large plain where our motor held us up I collected a few plants on sand-drifts and in depressions, and there were the dead remains of many perennial shrubs. We came to Spring Creek and later Spring Vale Station, where the owner's wife, Mrs. M. Wilson, told us that she had six children, none of whom had ever seen *heavy* rain, and the youngest five years of age had his first experience of rain a few months previously when 75 points fell. Salted meat was obtained from Urandangi, 200 miles away, where the remnants of their cattle were on agistment. We proceeded then to Boulia over open gravel plains either absolutely dry or showing a green tinge in depressions, with patches of scanty and very dry feed. Several kangaroos were disturbed, but all seemed very poor. We camped on a dry gidgee creek. White-plumed Honeyeaters, Harmonious Thrushes and a Grallina or Magpie-Lark were the only birds seen, although an Owlet-Nightjar called during the night, and a few Ravens and Galahs flew over after day-break.

We next came to an artesian bore. Without these this series of dry years would have resulted in the abandonment of most places in Western Queensland. Many kangaroos near the water looked very weak; Emus were in the same plight and the carcasses of both animals were scattered in all directions, the more recent being attended to by Ravens and Wedge-tailed Eagles (*Uroaëtus audax*). The remains of cattle were just as numerous. We passed endless black, gravelly plains again, without a vestige of herbage, crossed the Hamilton River and noted a number of green bushes, from which Yellow-throated Miners (*Myzantha flavigula*) flew. Examination showed that the birds had been eating the fruits, which are oval, ribbed and filled with pulp surrounding black seeds. We found out when we came to Boulia that the local children were just as fond of this fruit as the birds were, and to them the plant is known as the Wild Guava, botanically it is *Capparis nummularia*. Boulia is a neat, well-kept, little town, with well-made footpaths and crossing places. It has a hospital and local medico. An operation for appendicitis had been performed a week before our arrival by the flying doctor of the Inland Mission, who is stationed at Cloncurry. It is the boast of the Queensland flying service that every case of serious illness can be reached within two hours of the call being received. The official rainfall recorded by the Boulia postmaster shows an average of 5 inches 9 points for the last seven years, and this in small amounts of no pastoral value. The average for the last two years was under 3 inches.

Leaving Boulia we travelled in a northerly direction to Dajarra, the terminus of the branch railway from Cloncurry, which is destined some day to go on to Darwin. Dajarra is in hilly country, part of the Divide separating the Gulf rivers from those of the central system. On our way we first crossed gravelly plains, to a bore fourteen miles out, where we replenished our water supply, then across a dry gidgee creek, and later some porcupine-clad hills, on which *Eucalyptus papuana* was a conspicuous tree. Termite mounds in numbers made their appearance. Birds were almost wholly absent, a Singing Honeyeater (*Meliphaga virescens*) in a bunch of prickly climbing *Capparis* being exceptional. Several interesting plants of *Eremophila* were found here, and two fine plants of *Cassia*. We camped on a dry creek, bordered by four species of *Eucalyptus*—red gum, coolibah, bloodwood and *E. papuana*, but not a bird was seen. We then ran through hilly country till we came to Dajarra. This town is somewhat exceptional in that it has no hotel. We went out through a picturesque gorge in the hills, and later left for the open

country, our objective being Urandangi on the Georgina River. More bores and dry country with miserably poor sheep were passed. We crossed dry beds of creeks, lined with timber. Many open plains were then passed over, and the vegetation began to improve before we came to Urandangi, where we obtained supplies before proceeding to a camp on the banks of the Georgina River. Making a very early start on the 23rd July, and arriving at Headingly Station before daybreak, we waited until the cook arose. We obtained from him some fresh meat, the first that we had seen since leaving Broken Hill. Crossing a bare plain we pulled up at a bore to breakfast on the tough Headingly steak. Carcasses were everywhere, radiating in all directions, from the bore—carcasses of cattle and horses that had evidently struggled to reach it, or endeavoured to get away from it to find a mouthful of dry feed on the barren plains. More bare, loamy or gravelly plains, with patches of gidgee were crossed before we came to the Templeton River. Then followed lightly-timbered porcupine country where termitaria of all sizes, up to about 6 or 7 feet were a feature of the landscape. We called at Barclay Downs and then at Camooweal, a pretentious town, with huge aeries for relaying to Darwin. We found that time would not permit our going on to Darwin, so decided to proceed along the Burketown road, which ran down to and along the Gregory River. We were told by a local storekeeper that the Gregory was the place for sport, "any number of wallaby, wild pigs, and Black Cockatoos to be had." We questioned the "sport" of shooting the last-named, but he instanced their numbers as a reason, and told us that parties from Camooweal and Mount Isa, often spent a week shooting and fishing on this river. Mount Isa is destined ere long to be a populous town, and one can vision a rude awakening for the native mammals and birds of this beautiful river, which has, by its inaccessibility, hitherto been a natural sanctuary.

We left Camooweal late in the afternoon with directions to enable us to locate a well on the O'Shanassy River. A number of kangaroos was seen soon after leaving the town boundary, on plains with much varied timber. Bloodwoods were flowering and birds were more numerous. We arrived at the well before dark and upon drawing water by windlass and bucket found a large green frog (*Hyla*) perched on the rim of the bucket. We arose early, anxious to see what birds were about. Our first visitors were a pair of Diamond Doves (*Geopelia cuneata*), then a fine pair of Cloncurry Parrots (*Barnardius macgillivrayi*), which were disappointed at finding no water in the trough.

Several flowering bloodwoods over the creek were attracting honey-loving birds—Little Friar-Birds (*Philemon citreogularis*), Miners (*Myzantha*), White-plumed, and Yellow-tinted Honeyeaters (*Meliphaga flavescens*), Varied Lorikeets (*Psittentetes versicolor*) and Brown Honeyeaters (*Gliciphila indistincta*). Amongst the *Acacia farnesiana* were a company of Babblers (*Pomatostomus*), a pair of Hooded Robins (*Melanodryas cucullata*), three immature Red-capped Robins (*Petroica goodenovii*) and a female Rufous Whistler (*Pachycephala rufiventris*). Down the creek, after breakfast, my wife and I came across the Blue-winged Kookaburra (*Dacelo leachi*), Red-winged Parrots (*Aprosmictus erythropterus*) three pairs of Jacky Winters, much smaller and lighter coloured than the southern birds, several Black-faced Wood-Swallows (*Artamus melanops*) and a Restless Flycatcher (*Seisura inquieta*). Although the vegetation was more varied, the grasses and herbage were dry and wanted rain. *Achyranthes aspera*, a plant which is a nuisance on the Capricorn Islands, is here also, but of stronger and harsher growth. The bird and plant life were very heartening after the desert country that we had passed through. A Spotted Bower-Bird (*Chlamydera maculata*) was seen here and further down the river the Great Bower-Bird (*C. nuchalis*).

We left camp on the second morning, passing over sandstone ridges clothed in a varied vegetation, and crossed a well wooded creek with fine paper-barks (*Melaleuca*) and other trees, and much rank grass. Two other creeks of like nature were also crossed. We came late in the afternoon to a selector's home, where we saw Plumed Pigeons (*Lophophaps plumifera*) watering at a trough. Proceeding on through forest country, we camped at the site of an old native police camp on Curl Creek, now a cattle camp, and very dusty. Here we obtained a young Black Cockatoo, which became a member of the party for the rest of the journey. These birds were plentiful all the way down the Gregory and also on the Leichhardt. The Gregory River is a fine, crystal, clear-running stream, flowing over a gravelly or sandy bed, narrowing and rapid at times, or broadening out into large and deep holes, with melaleucas, palms, figs and pandanus palms on the sides of the steep banks, and eucalypts, bauhinias, acacias of several species, and other trees and shrubs bordering the stream. Birds were plentiful and varied, but owing to the flowing river they were not concentrated at waterholes as they were on the upper reaches of the Leichhardt, a river that runs only during the wet season. Here in the Gulf country were numbers of birds that had sought refuge from the dry interior.



Bower of Great Bower-Bird.

Photo. by Dr. W. MacGillivray.



Leichhardt River below Falls.

Photo. by P. D. Riddell, Esq.

We spent a night at Gregory Downs Station and were greatly impressed with Mr. Watson's efforts to encourage birds about the house. No cats were kept and as a consequence a Restless Flycatcher and a Willy Wagtail were familiars on the verandahs and even in the rooms. Numbers of Finches of several species came to the garden tap for water. The household cat more than the cat gone wild is one of the principal destructive agents of useful insectivorous birds. Each cat about a station or farmhouse kills several birds a week; a bird's death is often a daily occurrence. Each country house usually keeps at least three cats, and one has only to multiply by the number of homesteads to see that the birds destroyed annually run into thousands, and the cats for the good that they do are not worth it!

Leaving Gregory Downs we followed the Burketown road through either light timber or over open plains. Birds were numerous—Wood Swallows of four species, Restless Flycatchers and Willy Wagtails, Black-tailed Tree-Creepers (*Climacteris melanura*), Brown Hawks (*Falco berigora*), Kestrels (*F. cenchroides*) and Black-breasted Buzzards (*Hamirostra melanosterna*). From a dead beast we disturbed a cloud of Ravens and Kites and a few Whistling Eagles (*Haliastur sphenurus*). We camped for lunch on The Brook not long after crossing a small running stream, the Barclay, both anabranches of the Gregory. These streams junction later to form the Albert, which is really a short tidal inlet, opening into the Gulf of Carpentaria, near the mouth of the Leichhardt with the mouth of the Gregory not far to the west. The road ran parallel to The Brook through lightly timbered and well-grassed country. Birds were very numerous, Cockatiels and Budgerygahs being constantly flushed from the roadside, the latter in immense flocks. Peaceful Doves (*Geopelia placida*) and Diamond Doves (*G. cuneata*) were also in great numbers. There were many wallabies (*Macropus agilis*), light fawn in colour, carrying the tail curved upwards in a half circle, with forelegs held straight downwards and forwards. The forelegs are very strong and have powerful claws, and I found many places where the wallabies had apparently used them for scratching up the roots of grasses. After a night spent on this stream we pushed on to Burketown, passing first through a mixed forest, and on through an open, well-grassed plain before entering the township, which is a ramshackle hamlet of two broad streets with about twenty scattered buildings. We then ran down the Albert to Landsborough's marked tree, known locally as a coolibah, although it differs from the coolibah of southern Queensland.

After some purchases in Burketown we made back to the site of the old Brook Hotel and took the road to the Gregory for a two days' camp. We camped where the river was a fine clear stream running over a gravelly bed. Birds were numerous, especially about a mile or two lower down where three species of paperbark (*Melaleuca*) and the bloodwood were flowering freely. Some of the paperbarks were very fine specimens; many palms, some 50 to 60 feet tall, and pandanus or screw palms lined the stream. The latter were not stilted like the coastal species (*P. pedunculatus*). The seed cones are also smaller and break up easily and the seeds are eaten by pigs. These creatures also eat the centre out of the young plants. These trees are also much resorted to by finches of several species for nesting purposes. Kites, Whistling Eagles and Ravens were familiars about the camp, always on the look out for scraps. Several butterflies came about—*Euploea corinna*, *Acraea andromacha* and the common ground butterfly (*Precis orythra*). Mr. Riddell captured a fine Buprestid beetle on a pandanus, but it was too early and too dry for insects to be abundant.

We packed after two days, that were all too short, and took the road across to the Leichhardt, crossing The Brook and the Barclay, and making our way across dry Mitchell grass plains, some of which had been left black and bare by bush fires. A rough road eventually brought us near to the Normanton crossing, the river bed there being broad and stony and holding a succession of waterholes of varying sizes and depths. We followed upstream to the falls, where the river has a drop of about 70 feet over a tumbled mass of rocks. Below are deep holes with small rocky islands. Basking on these islands were several small crocodiles. We camped for the night nearby and made a more thorough inspection in the morning. In flood-time the falls must present a very fine sight, as the river bed is about 500 yards wide. There were many pools above the falls, well stocked with the young of the small river crocodile (*Crocodilus johnstoni*). We had, however, no means of capturing any.

Continuing our journey up the Leichhardt, we crossed it below Augustus Downs Station, lunching at the crossing beneath some shady paperbarks, in which a Brown Honey-eater was singing continuously. We called at the station and obtained beef, and information as to the road, and the bird-life. As the river was followed up it gradually narrowed and the waterholes got smaller and further apart, consequently the bird-life at each became increasingly concentrated. The two small Doves were very numerous, as was also the Crested Pigeon (*Ocyphaps lophotes*) gathered

into flocks of from 100 to 150. The road was cut up and dusty on account of the dryness of the season, and from the number of starving cattle that had been driven into the Gulf from the drier areas. The Red-tailed Black Cockatoos (*Calyptrorhynchus banksi*) were again numerous, and nesting. Honey-eating birds kept up an incessant medley of notes from the flowering bloodwoods. We crossed the river above Lorraine. To the right a line of hills that divide the head waters of the Leichhardt from those of the Gregory, and where the Mt. Oxide Copper Mine is located, were noted. The open forest and plain country was being left to enter scrubby porcupine-clad hills. After leaving Dajarra—the railhead of a line from Cloncurry—we followed a rough track through the ranges, and came to a habitation where a family was working a copper mine. Numerous goats, lambs, fowls, turkeys and dogs were about the place. A small wallaby (*Petrogale purpureicollis*) was seen in the hills here. This animal was first obtained by Mr. W. R. McLennan when collecting for me in 1910 at Cloncurry. Wallaroo (*Macropus robustus*) also inhabit these hills and dig soaks for themselves in the sandy creek beds. There were six of these soaks at one place with beaten paths from the porcupine-clad hills leading to them. These animals prefer to water at these soaks, rather than go to a waterhole.

Our next camp was at a small waterhole, to which thousands of birds came for water. Most numerous were the Diamond Doves, then Peaceful Doves, Crested Pigeons and Common Bronzewings (*Phaps chalcoptera*), the last-named only before daylight and after dark in small lots. White-plumed Honeyeaters were constantly bathing, and drinking the water sparingly. One spot was particularly favoured by finches—Black-throated (*Poëphila cincta*) and Double-barred or Banded (*Steganopleura bichenovii*)—a small sandy beach below a dead bough, to which they went after their bath to sun themselves and preen their feathers. Cloncurry Parrots and “Redwings” came, and also some Spotted Bower-Birds (*Chlamydera maculata*). A pair of Blue-winged Kookaburras watched for little fishes, and tried to take toll of the Doves and Finches as they drank, so that on account of these and other enemies the smaller birds drank rapidly and took flight on the least movement, as a Black Falcon (*Falco subniger*) or Little Falcon (*F. longipennis*) might dash amongst them at any moment. This went on all day long. About 2 p.m. a number of Plumed Pigeons put in an appearance and ran down to drink as eagerly and apprehensively as the others. After dark a Nightjar (*Eurostopodus*) flew over the water,

Southern Stone-Curlews (*Burhinus magnirostris*) sometimes called, and a Boobook Owl (*Ninox boobook*) came about the camp.

Our next camp was within two miles of Mt. Isa, on a creek bordered by red gum and grey box with bloodwood out from the banks. Next morning we ran into Mt. Isa, a township in the making, set in porcupine-clad hills sparingly covered with stunted eucalypts and gidgee. After two hours spent in and about the mines we proceeded along the road to the Duchess. This road was very cut up and dusty with the motor traffic from the railhead to Mt. Isa, numbers of motor lorries, with loading for the mines passing us and empty ones on their way to the railway overtaking us. Grey-stemmed eucalypts of mallee-like growth, gidgee in clumps, *Eremophila mitchelli* and a small *Santalum* with rough bark and lanceolate, drooping leaves covered the porcupine-clad hills. Red gums bordered the creeks and *Eucalyptus papuana* grew well on the flats. The prickly climbing *Capparis* mounted the stems of the rougher barked trees to form masses in the branches. On the following day we reached the Duchess, a pretentious township, the centre of which has recently been burnt out.

We picked up the Cloncurry road there and proceeded on through dry, open, stony country. We were now on the outskirts of the ranges and everything was most dry, there being no ground vegetation. Very few birds were observed and those few were not nesting. Babblers (*Pomatostomus*), however, had nests. After passing Malbon, a small rail-side settlement, we entered hilly country again, camped on a dry creek and the following day entered Cloncurry—a busy town with fine, wide, clean streets, with concrete guttering and footbridges and street trees. The essentially tropical trees do not grow well on account of the dryness and stony nature of the ground. Two of the local residents had a number of birds in aviaries and cages. We stayed for nearly a week, leaving on 13th August by the eastern road, which leads through hilly country as far as the Williams River, after which it opens out into Mitchell grass downs interspersed with clumps of gidgee. We camped at the site of my eldest brother's old homestead on a bore stream. Several Brolgas and Emus, and a few Kangaroos came to water, also thousands of Galahs.

We left after lunch on the following day, coming to Eddington Station on Eastern Creek, late in the afternoon. This was my old home, but overstocking of the country and droughts had greatly changed the character of the country. The fine waterhole that I remembered, with its eleven species of fish, is now smaller, the water



Wash-away on Leichhardt River.

Photo. by Mrs. W. MacGillivray.



Malbon-Cloncurry Road, Cloncurry Ranges.

Photo. by P. D. Riddell, Esq.

undrinkable, and having no fish in it. The plains, once clothed with a thick covering of grasses and herbage, are bare, the butts of the Mitchell grass having the tussocks alone showing. We went on to Julia Creek township and took the road to Kynuna, camping for the night on Eastern Creek. The country became even drier as we travelled south towards Kynuna. This place is on the head waters of the Diamantina River, the surrounding country being utterly dry and drought-stricken.

Winton was our next objective. Very few birds were seen by the way. At Kynuna I learned that the camp of McKinlay the explorer, which was on a fine waterhole of the river named after him, is now shared by four selections and its historic associations are forgotten. We camped near the Ayrshire Downs homestead on an artesian-filled waterhole. Ravens, Kites, Whistling Eagles, White-plumed Honeyeaters, Magpies and Jacky Winters were about the camp. *Eucalyptus microtheca*, *Acacia stenophylla*, *Acacia farnesiana* and a *Parkinsonia*, which has become feral from cultivation, were growing. *Eremophila bignoniæflora* was also met with on the upper waters of Eastern Creek. Winton is a prosperous, clean and well-kept town with many fine residences. The town bore is in the centre of a dam, the water being sprayed through perforated pipes to cool it and get rid of any gases in solution.

Our next objective was Longreach, the road to which, for part of the way, is bordered with *Acacia farnesiana* through the seeds having been dropped by travelling animals, probably horses as they are not ruminants. We lunched on a dry creek fourteen miles out, sheltered by coolibahs, baubins, *Acacia farnesiana* and queamurras. We passed the lonely grave of a child, which has marked the spot for 36 years. Brigalow made its appearance by the roadside with whitewood and beefwood, and along a creek a fine lot of tall trees—*Albizzia basaltica*—were seen. *Acacia farnesiana* was flowering freely and scented the air. We crossed the Thompson into Longreach, a thriving and progressive town. As we proceeded on towards Barcaldine it was noted that the country had had more rain and was improving all the way. At one place we obtained a number of fossils, fragments of ammonites and other shells scattered on the surface of the ground. *Eremophila mitchelli* and *E. maculata* were flowering, the latter attracting many honey-loving birds. We passed the town bore, retaining tank and stream before entering Barcaldine, the best planted and cared-for town visited on our travels. The streets are well made, roads good, and well planted with fine trees. Flower gardens were all in

a flourishing state. This was a very refreshing sight after the country that we had passed through.

At Barcaldine we replenished and then went out by the Blackall road, passing through sandy country on which *Olearia subspicata* was flowering profusely, making large areas silvery-white and perfuming the atmosphere in the most delightful manner. We entered an avenue of stately forest trees, crossed the Alice River, sandy-bedded and bordered by fine trees, to run through thick timber or brigalow scrub, until we crossed Patrick Creek, a branch of the Alice, which latter is a tributary of the Barcoo River.

Boobook Owls called that night, and we were awakened very early by Kookaburras (*Dacelo gigas*) and Sulphur-crested or White Cockatoos (*Kakatoë galerita*). Yellow-throated or Little Friar-Birds (*Philemon citreogularis*) were numerous and noisy in the flowering gums. Coming to the bore stream for water were Ring-Necks (*Barnardius*), Red-winged Parrots and Pale-headed Rosellas (*Platycercus adscitus*). Wandering through a field of flowering *Olearia*, three Australian Bustards (*Eupodotis australis*) were disturbed, and several Jacky Winters, Willy Wagtails and Brown Tree-Creepers were observed. There are some fine foliaged trees here—*Eucalyptus papuana* and *E. ochrophloia* being conspicuous. Others included grevilleas, singly or in clumps, bauhinias, *Albizzia basaltica* and the shiny bimble. We went on through scrubby and more or less open country, lunching at a water-hole on Douglas Downs Creek. Leopard trees became more frequent as we began to enter Blackall. The town bore was redolent of sulphuretted hydrogen and the water was jetted into the air to get rid of the gas. The streets are rough and uncared for; a few noticeable trees are date palms and bottle trees.

Tambo was our next objective, and as we left Blackall we took the right hand road, the left leading to Jericho. A camp was made for the night at a fine waterhole on the Barcoo. Bronzewing Pigeons came to water in the dusk, and Diamond and Peaceful Doves were again numerous. Owlet-Nightjars and Koalas or native bears serenaded us during the night. Brolgas trumpeted at dawn, after which there was a general awakening of "Greenies" and Doves; then Babbler, Thrushes (*Colluricincla*) and Bell-Birds (*Oreoica*) were heard, followed by the notes of Whistling Eagles, Kites and Ravens. The river here was bordered by red gum, coolibah, grey box, queamurra, *Santalum lanceolatum*, *Pittosporum phylleroides*, *Acacia salicina*, and some flowering Cassias. An orchid, *Cymbidium canaliculatum* grew on the gums. Our road



Dying eucalypts, Bulloo River.



Falls on Leichhardt River. A large volume of water goes over when river is flooded.

Photos. by P. D. Riddell, Esq.

from there ran parallel with the river for some distance, through a mixed forest of bimble, *E. papuana*, leopard, bauhinia and gidgee, with odd specimens of *A. salicina* and groups of *A. harpophylla*.

Tambo was passed through on a Sunday afternoon. It is remarkable, chiefly for the number of bottle trees grown for ornamental purposes, and for its lagoon or lake formed by surplus bore water. This was alive with water fowl and presented a fine sight. It speaks volumes for the beneficent results of protection. Maned Geese, Grey Duck (*Anas superciliosa*), Grey Teal, Tree-Ducks (*Dendrocygna arcuata*) and (*D. eytoni*), Pink-eared Ducks (*Malacorhynchus membranaceus*) and White-eyed Ducks (*Nyroca australis*) were recognised in large flocks. Other birds noted were Coots (*Fulica atra*), White-headed Stilts (*Himantopus leucocephalus*), Yellow-billed Spoonbills (*Platalea flavipes*), and other waders, including Dotterels (*Charadrius*).

Our road next took us away from the Barcoo and the central river system to gain the waters that find their way into the Darling. It is a stock route along which cattle from the drought-stricken areas have travelled, and it is bordered by the dead carcasses of those that have dropped out to die. We travelled through open forest and afterwards scrub, that border the Nive Creek, a tributary of the Warrego, on which we camped. Much dry grass and some fine trees line this waterhole. Our camp there was entertained by the singing of a number of Striped Honey-eaters (*Plectorhyncha lanceolata*). On the following day we crossed the Warrego at Barduthulla, where we met with the Red-backed Parrot (*Psephotus hæmatonotus*).

The right bank of the Warrego was followed through well-timbered country to Charleville, a much improved town since my last visit, five years previously. The road to Quilpie was then taken, crossing successively the Ward, Paroo and Bulloo Rivers. The last-named stream was followed down to where it loses itself in vast lignum, cane-grass, and salt-bush swamps, all now dry. This forms a single river system of its own, which intervenes between the Darling-Murray system, and the rivers that flow to Lake Eyre and the surrounding lakes.

We entered New South Wales by the Adelaide Gate and ran parallel to the border fence through miles of utterly dry and desolate country, until we came to Tibooburra, thus regaining the road by which we had travelled northwards six weeks previously. Retracing our route in this manner we reached Broken Hill on the 26th August, 1928.

The following are my notes on various species of birds observed by us on the journey:—

Dromaius novæ-hollandiæ. Emu. — A large bird requiring much food, consisting mostly of green vegetable matter and insects, the Emu is capable of travelling great distances when "dried out" of any one locality. When, however, a drought is almost universal, great numbers perish from starvation, or, in their weakened condition, fall victims to Wedge-tailed Eagles or Dingoes. A few were seen by us near Kyabra Creek, and the drought-stricken plains between Windorah and Boulia were bestrewn with numbers of their skeletons and dried carcasses. One was seen on the Gregory River, and several came to water at Leilavale, on the Fullerton River, where they were feeding on the plum-like fruits of a local tree and on those of the Moulie (*Owenia acidula*), known locally as the Emu-apple tree. Odd birds were seen on the Bulloo on our way back.

Turnix (Sp.). Three small Quail were disturbed from the grass and low scrub on the Gregory River, but could not be identified. These were the only Quail seen.

Geopelia placida. Peaceful Dove. — Common at times in Western New South Wales, but we did not see any until after we left Camooweal on our way to Burketown. On this road they were in great numbers, being flushed every few yards from where they were feeding on the ground, either alone, or in company with the Diamond Dove. The farther we went down the Gregory the more numerous they seemed to become. They were in great numbers on the Leichhardt, and were more concentrated at the smaller waterholes in its upper reaches. They were fewer in numbers to the east of Cloncurry, and were not again met with in numbers until we left Barcaldine to run down the Barcoo, and on the Warrego, where conditions were more favourable. It seemed to me that all the birds of this species that normally inhabit the Central and Western districts of Queensland had moved, influenced by the drought conditions, to the more-favoured regions near the Gulf and to the Eastern side.

Geopelia cuneata. Diamond Dove. — About 120 miles north of Broken Hill, when running into a place called Packsaddle, after dark, we flushed about half a dozen of these little Doves from where they were roosting on the ground. One flew against the wind-screen and fatally injured itself. It was not seen again until two came to water at a well at our first camp in the Gulf Country on the O'Shannassy River; thereafter they became more numerous, and were at their maximum on the Gregory and Leichhardt Rivers, being flushed every few yards from where they were feeding by the roadside, either alone or in company with the preceding species. They were always the more numerous in about the proportion of ten Diamond Doves to every Peaceful Dove. Their numbers were, if anything, more noticeable at the smaller waterholes in the upper reaches of the Leichhardt, where they came to water all day long, in vast numbers. They were always on the alert, especially when at the water's edge, as nearly every waterhole had its pair of Falcons in attendance, either the Little Falcon or the Black, which levied constant toll from the Doves and other small birds. To the East of Cloncurry, as the country opened out, the Diamond Doves became fewer, and were altogether absent in the dry country about Kynuna and Winton. They reappeared on the Barcoo and Warrego, and were well represented on the Bulloo.

(To be Continued)