A Trip to North-West Australia.

-By A. M. Morgan, M.B., B.Ch.-

My wife and I left Fremantle on the morning of June 3rd, 1921, on the s.s. Minderoo, bound for Derby, in the East Kimberley District. The weather was rough and rainy, scarcely any birds were seen the first day out, but next morning a few Mutton Birds, probably the fleshy-footed, were skimming the waves about the ship, and in the distance numbers of a small Grey-and-White Petrel, which, however, kept too far from the ship to be identified. On June 5th we landed at Carnarvon, 487 miles north of Perth. The town is three miles from the mile-long jetty, so we spent the time in looking for birds in the sandhills. Very few were seen; a Silver-eye (Zosterops gouldi), the Singing Honey-eater, and a Sericornis seemed to be the only inhabitants. The extensive sand and mud flats were also almost untenanted; a few Sea Curlews and Silver Gulls only were seen. On June 6th the first flying fish were seen, and on that day also we rounded the N.W. Cape, with the wreck of the cattle steamer Mildura standing up as though The Dampier archipelago begins at this cape, and at anchor. although many interesting looking islands were passed, the only birds seen were a few Crested Tern in winter plumage. Onslow was reached at night, so we saw nothing of the town On June 7th Point Sampson was reached. Here or country. a few Pelicans were seen on an island near the jetty. We spent an hour or two walking about the rocky foreshore, again nearly destitute of birds, the only ones seen being a pair of Sooty Oyster-catchers and a fine pair of White-headed Ospreys, which had their nest on a rocky pinnacle near the sea. rocks here are covered with beautiful oysters, but as we had nothing to get them off the rocks with we had to be content with looking at them. Point Sampson is also famous for a small, conical molluse, with a torquoise blue operculum, much in demand for necklaces, etc.

The next place of call was Point Hedland, 262 miles distant. This is a tidal port, and we had to wait some time for water enough to cross the bar. We had twelve hours here, and spent the time in a walk round the town and along the seashore. Ptilotis sonora was very common here, feeding on the bird flower, a leguminous plant, with a greenish flower shaped like a bird with half-raised wings. Under the stones on the shore were numbers of hermit crabs of a species new to me, and in the sea there was a solitary turtle, the only one seen on the

The next stage was from Port Hedland to Broome, 262 The whole of June 9th was spent at sea with nothing Broome was reached at 11 p.m., with a of interest to be seen. hard bump on the jetty, part of which we carried away. Broome is also a tidal port, and on getting up before breakfast we found our ship high and dry on the mud. We spent a few hours ashore here, posting letters and making small purchases, also keeping a look-out for birds. Those we saw had a very familiar appearance, such as the Pied Grallina, Black-faced Woodswallow, and Black-faced Cuckoo-shrike. The inhabitants of Broome are a sarcastic comment on the "White Australia" policy; almost every colour under the sun is to be found among them. Our last stage was from Broome to Derby, 243 Soon after leaving Broome a few Brown Gunnets sailed past the ship, and soon afterwards we passed for miles through a shoal of large fish, which seemed to feed on some small fry; the water for as far as one could see was broken at intervals as they leapt from the surface. We had to anchor off Cape Leveque for some hours, waiting for daylight before entering King's Sound by the narrow and dangerous Escape Pass. The scenery here is very wild and rugged, but very desolate looking from the sea. As we passed Sunday Island five frigate birds sailed majestically out and over the ship. We did not see any Boatswain Birds, but Captain Courthope, of the Minderco, assured me that they were the white-tailed species, and that he had caught one that came aboard. This point is worth further investigation.

Derby was reached on the evening of June 11th. The town is situated at the extremity of King's Sound, on the estuary of the Fitzroy River, and is a tidal port, the maximum rise and fall being 42 feet. From the sea the prospect is most uninviting; first a belt of mangroves growing in soft mud and then a dry mud flat, known as "The Marshes," about a mile wide, crossed by a causeway for the train and cattle race. The town itself is pretty; the founders, with more foresight than usual, have left the huge baobab trees in the streets, which have been further improved by planting Poinciana excelsis. At Derby we spent three days, waiting for transport, at one of the hotels, of which the least said the better. The first day was spent in a ramble through the scrub, locally called "pindau." at the back of the town. Birds were numerous, the most conspicuous being the Sordid Friar Bird (Philemon sordidus), whose peculiar, not unpleasant, notes were to be heard from I believe this bird has been united with morning till night. Philemon citreogularis, but I think it is at least entitled to sub-

Another bird remarkable for its beautiful song specific rank. is the Black-throated Butcher Bird (Cracticus nigrigularis, subsp. picatus). This bird is quite common, even in the township; its tuneful notes are to be heard all day, but more commonly in the mornings and evenings. In the red-flowered Bohemia trees, probably a corruption of bauhinia, were flocks of Yellow-tinted Honey-eaters (Meliphaga florescens), The two faced Woodswallows, and Pied Caterpillar-eaters. latter birds seemed to have become almost entirely honeyeaters; a specimen of each, shot for museum purposes, had the forehead bright yellow from the pollen of the flowers. the caterpillar birds were in winter plumage, evidently being Small families of Babblers here in their winter quarters. (Pomatostomus rubeculus) were noisily playing about in the Brown Flycatchers (Microeca assimilis) were undergrowth. singing in the scrub, and every now and then a "Kimberley Kookaburra" (Dacelo leachi) would glide past, while overhead small flocks of Red-winged Parrots (Ptistes erythropterus) passed or settled in a fresh feeding tree. On the telegraph wires were occasional Red-backed Kingfishers and any number of Galahs, and now and again a Great Bower Bird (Chlamydera nuchalis) would fly across the street from one garden another, and as evening came on a large flock of Bee-eaters came into the town and settled in the trees for the night.

On June 9th Mr. H. Monger took us crabbing at the end of the jetty. I cannot say too much of the kindness and helpfulness of this gentleman, without whose aid we would have been like lost sheep. The tide was going out when we arrived at the jetty, and the bare mud was covered with walking fish, small, slim fish from four to eight inches long, which crawl about on the wet mud and hop when they are in a hurry, and sometimes make short leaps into the air after flies. Here and there bright scarlet spots showed up vividly; these were scarlet-and-black fighting crabs, which scurried into their holes at the least alarm. The walking fish were very inquisitive, and if a piece of stick be thrown into the mud they will hop up and form an admiring circle around it.

The mangroves near the jetty are small and thickly set, the mud is also soft and deep, and a crocodile track near the jetty not being very reassuring, I did not go into them. From the jetty we saw the Mangrove Thickhead (Pachycephala lanioides), a Fantail (Rhipidura subphastana), the Chestnut-bellied Rail (Eulabeornis castaneoventris), a Mangrove Bittern (Butorides striata), and an unidentified Gerygone. Sacred Kingfishers along the edge of the mangroves were taking their toll

of the walking fish; a fine Sumatran Heron flapped lazily over the jetty, and in the shallow creeks behind the bushes a few large White Egrets were fishing. Many large crabs were caught, as well as a number of large milk-white prawns, both excellent for the pot.

On June 15th Mr. G. Millard, the manager of Meda Station, 30 miles east of Derby, kindly sent in a buckboard to take us out to the station. The first part of the road is over the dry marshes, where there is nothing of interest except an occa-The road then runs through the "pindau," in sional pipit. which birds swarm. Black Cockatoos (Calyptorhynchus banksii), Galahs, Crimson-winged Parrots, Black-throated Butcher Birds, Sordid Friar Birds, Little Wood-swallows (Artamus minor), Black-headed Diamond Birds (Pardalotus melanocephalus), and Cockatoo Parrots were seen in numbers. At a watering place about half-way to the station there were numbers of Long-tailed Finches (Poephila acuticauda) and Chestnut-eared Finches (Tacniopygia castonotus). pindau we also saw, for the first time, the huge white heaps, of a reddish or grey-brown colour, and reaching a height of as much as 12 feet. Near the station the road goes through the open grass country—great, beautifully-grassed plains, the grass being nearly dry at the time of our visit, as it was the middle of the dry season, for although the rainfall of district is from 25 to 30 inches, it all, falls in the summer On these grass plains are numbers of Native Companions (Antigone rubicunda); we never went for a drive without seeing several pairs. They are fortunately not interfered with, and are in consequence very tame; not so the Wild Turkeys (Eupodotis australis) which, though plentiful enough, always rose well out of range of the buggy. Meda Station is a fine, comfortable homestead, built on a sandstone ridge to be out of the reach of floods; within a few hundred vards is a fine, deep billabong, on which were feeding White-necked Herons, White Egrets, and White and Straw-necked Ibis. The gum-trees surrounding the billabong were the home of a big flock of Bare eved Cockatoos. In the bushes near the water I found a playground of the Great Bower Bird. We found three of these playgrounds; two of them were completely arched over, and the third, probably a new one, was slightly open at the top. One which was measured was 43 c.m. in height, 47 c.m. in length, and 44 c.m. broad; almost a cube. The total length of the bower with the platform was 130 c.m. This platform is built entirely of dull white objects, such as stones, bones, shells, etc., at each end; on one side were pieces of dull green glass,

and on the other lumps of charcoal. These were kept quite distinct and the colours were never mixed. There were no other colours, although the birds could have obtained glass and other objects of almost any colour from the station yards. were there any glistening objects, though such were easily obtainable; even the pieces of glass were worn and lustreless, and in each of the bowers examined it was of exactly the same shade of green. The following collection of articles was found in one of the bowers-(1) Bones, (2) clear glass, (3) white shells, (4) white stones, (5) leaden bottle capsules, (6) galvanised nails, (7) tea lead, (8) green glass, (9) charcoal. All the bowers were built among low, dark green bushes, with a small green berry-like fruit, known locally as "kunkleberry More than one pair of birds use each bower; on two occasions I saw three birds at one of them, but never more than When at the bower the birds make only a low, growling sort of noise. I did not hear them do any mimicking, but once at Derby, whilst sitting on a verandah, two birds came into a shadehouse close by and gave a very fair imitation of the Pied Grallina and the Black-faced Grauculus. These birds were very plentiful about Meda homestead and very tame, coming right on to the verandah after scraps. They are frugiferous. and consequently not welcome visitors to the gardens; they are particularly fond of tomatoes. The stomach of one bird collected contained only triturated vegetable matter. They are much more numerous about the stations and stockyards than in the open bush, perhaps on account of the pieces of glass being more available there. Some of the pieces of glass are of quite large size, one piece weighing 26 grammes.

Crows are very scarce in this district, their place as scavengers being taken by the Allied Kites (Milvus migrans), a flock of 100 or more of which birds were constantly hovering over Meda Station; with them were a few Whistling Eagles (Haliastur sphenurus). No Wedge-tailed Eagles or Magpies were seen throughout the trip; the former are said to be very rare and the latter are unknown. There is a great variation in the colour of the Allied Kites, some being as light as Whistling Eagles and others on the wing looked quite black. Other Hawks seen during the trip were Kestrels, Grey Falcons, and Goshawks (Astur novae-hollandiae) and Brown Hawks (Hieracidea berigora), all very dark in colour; I did not see any striped birds.

On June 18th Mr. Millard got some of the blacks to make spear-heads for us; two of them were made of stone, but nowadays bottle glass is more commonly used, being easier to work.

Also in former days they were shaped with a piece of kangaroo bone or hard wood, but now a piece of fencing wire is used. In the afternoon we went in search of native skeletons, which were said to be in some large hollow baobab trees. We found two, and appropriated the skulls for the Adelaide University. On the 19th we had an exhibition of spear and boomerang throwing by the blacks; the boomerang throwing was very poor (apparently this tribe did not use this weapon), but the spear throwing was good.

About a mile from the station is the Lennard River, at the time of our visit a series of long, deep reaches, connected by a small stream of running water. In flood time it is a huge stream, sometimes spreading miles from its banks. The pools are said to be occupied by crocodiles, but we had not the good fortune to see any, but it was pointed out to me that there were no water birds on the deep pools, they having long since found out the danger of these reptiles. The river flats are more heavily timbered than the higher country; many of the trees were quite new to me, but eucalyptus predominates here as elsewhere. A species of paper bark (Melaleuca sp.) here grows to a height of 40 feet or more. Birds are very numerous the most conspicuous being the White-gaped Honey-eater (Meliphaga unicolor). Small flocks were always in evidence, fighting and chattering among the trees of the river bank. Another common Honey-eater was the Yellow-tinted (Meliphaga florescens), very similar in its habits to our common "Greenie" (Ptilotula penicillata). I saw a pair of these birds busily removing a nest from one tree and rebuilding it in another, just as our "Greenie" does. This and the Black-headed Diamond Bird were the only ones we saw showing any signs of Other Honey-eaters were the White-throated (Melibreeding. threptus albogularis), the White-breasted Honey-eater (Gliciphila fasciatus), and the Least Honey-eater (Stigmatops indistincta). Fly-catchers were not at all common; a few Leaden Flycatchers (Microeca assimilis), and the Wagtail (Leucocirca tricolor). These last were seldom seen about the station, perhaps because the blacks dislike them, and kill them whenever they get a chance. They say they listen about the camps and tell secrets to the policeman. This superstition seems to be widely spread throughout Western Australia, as a friend informed me that in the early days of Coolgardie the blacks there believed the same thing. On June 21 Mr. Millard got his fishing net out, and set the blacks to drag the billabong. These billabongs abound in fish and freshwater prawn, the latter of enormous The largest one I saw caught measured 18 inches in

length and weighed nine ounces. They also caught a number of fish locally known as "mud cod," which were excellent for On June 23rd Mr. Chalmers, the manager of Kimthe table. berley Downs Station, kindly sent over for us, and we left for that station, situated 30 miles east of Meda. On the road we came across the Black-tailed Treecreeper (Climacteris melanura), a bird very similar in habits and notes to our Brown They are uncommon, only three birds being seen The only other Treecreeper seen was the during the trip. White-winged Treernner (Neositta leucoptera), which seems to me to be a very distinct species. At Kimberley Downs is the only hill we saw in the district. It is called Mt. Marmion, and is only about 360 feet high. I climbed to the top and found there a large flock of Little Wood-swallows (Artamus minor) in possession of one of the precipitous sides. spent most of our time at Kimberley Downs on the banks of the Lennard River, collecting birds and insects. Near the river is a fine swamp, feeding upon which were hundreds of Magpie Geese (Anseranas semipalmatus), besides Egrets, Spoonbills, Ibises, and White-necked Herons. smaller swamp I had the good fortune to see . fine pair of Jabirus (Xenorhynchus asiaticus). I had a fine view of them from about 100 yards distance, and was so absorbed in watching them with the field-glasses as they hunted frogs in the shallow water that I quite forgot to take a photo. of them. They are not common on the Lennard River, but I was told are much more so on the Fitzroy. In spite of their rather awkward appearance they are nimble enough in the water, and wrought great havoc amongst the frogs whilst I was watching them. On the grass flats the Little Grass Warbler (Cisticola exilis) is very common. They rose like lion butterflies on either side of the track as we drove along, but we saw nothing of the Grass Birds (Megalurus) or of the Reed Warbler (Acro-On the creek near Kimberley Downs homestead were some large pools, the trees about them being, as usual, in possession of a huge flock of Bare-eyed Cockatoos, which regularly at 5.45 a.m. each morning flew screaming over the homestead on their way to their feeding grounds on the plains. There was also a good-sized flock of Nankeen Herons (Nycticorax calculonicus) at this pool and a few Darters (Anhinga novae-hollandiae), all of them with white breasts. Under the verandah of the homestead were the remains of some Fairy Martins' (Lagenoplastes ariel) nests, but we saw none of the Swallows generally were quite rare. A few pairs of Tree Swallows (Hylochelidon nigricans) and a pair of Welcome Swallows (Hirundo neoxcna) about the Derby jetty were all

we saw throughout the trip. Cuckoos also were uncommon—in fact, the only one seen was an immature bird the species of which I could not determine—but I was told that both the Channel Bill (Scythrops novae-hollandiae) and the Keel (Eudynamys orientalis) visit the district during the rainy season. They are known here as elsewhere in Australia as the Big and Little Storm Bird.