
THE NORTH QUEENSLAND NATURALIST

CAIRNS

Journal of
NORTH QUEENSLAND NATURALISTS CLUB

Founder Presd. the late Dr. HUGO FLECKER.

OBJECTS—The furtherance of the study of the various branches of Natural History and the preservation of our heritage of indigenous fauna and flora.

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MEETINGS—Second Tuesday of each month at Oddfellows Hall,
Lake Street, 8 p.m.

FIELD DAYS—Sunday before meeting. Notice of place and time given
in "Cairns Post."

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NOTES

The Club is forming a collection of photographic slides of mainly N. Q. natural history subjects for the interest and enjoyment of members and visitors. If you have any good slides which you could donate to the collection, please do!

Members are reminded that subscriptions are now due.

Also, please send more contributions for this Journal.

To all readers we extend the worn but ever-hopeful Season's Greetings.

OBITUARY

We regret to report the death of one of our very valued members, Mr. Kendall Collins. Ken was a member for many years and was most generous in his gifts to the Club. He was a keen geologist and had a wonderful collection of rocks, minerals, fossils and gemstones. He was always happy to help people and to give them the benefit of his wide knowledge. He will be missed by all the members who will always remember his cheerfulness, humour and quiet kindness.

M. L. C.

BOOK REVIEW

Agony in the Pacific by L. G. Wilson, published by the author, whose address is: c/o Feez & Ruthing, Solicitors, G. P. O. Box 210, Brisbane, Q.

This book is a damning indictment of the abuse and exploitation suffered by the indigenous peoples and the wildlife of Australia and the Pacific region since Captain Cook mapped the Pacific for European whalers, sealers, traders and settlers to follow. A commercial, industrial, political motive for Cook's voyages is suggested in the competitive demand for vast quantities of oil in Britain and France through the Industrial Revolution period 1750-1850 ... Fossil oil was found in Pennsylvania in 1859. By the late 1700's, whales had been exterminated in the Mediterranean and were dwindling in the North and South Atlantic. Settlements on the Australian coast provided ports for whaling, and for the "great Bass Strait seal hunt" which, within thirty years, had almost totally destroyed the incredibly rich fur-seal colonies which Flinders reported there, and the local Aboriginal tribes who were brutally enslaved in this brutal trade. The author finds crudity and cruelty still characteristic of Australians today, with people and Government departments alike in their greed to exploit natural resources regardless of the havoc caused to the environment, and with an equal disregard for the rights of the Aboriginal people. However, I fear the bitterness expressed in this book will not greatly help the cause of Aboriginal land rights or of conservation.

TWO LIZARDS

In and around the Cloncurry district there is a remarkable small lizard, about four or five inches long. It is to be found on Gidya trees, mostly on the main trunk of the tree. I have never found it on anything else. It is very dark coloured, matching the colour of the Gidya bark. The most remarkable thing about these lizards is that, if you touch or annoy them, they do not attempt to bite you but they literally squirt a fine spray of sticky liquid from the various joints of their tail. Of course most of the local children call them "Squirt Lizards". The various museums in the South have not been able to enlighten me about these lizards.

In and around the Hughenden and Richmond district there is a little ground lizard about five or six inches long. It is the colour of the earth about there, mostly light brown. If these harmless little lizards are disturbed they will run away for a couple of yards and then, almost without fail, they will shake or wave one of their little front legs. Some people call them "Little Round Heads" but most of the children call them "Ta-ta Lizards". I have never been able to find out what is the significance of this action after being flushed.

H. R. Thurston, Mareeba.

AN EARLY NATURALIST IN QUEENSLAND

By G. P. Whitley.



John Macfarlane (1821-1867).

"One of the best naturalists that ever left the shores of the British Isles", said Gregory Mathews in his *Birds of Australia*, was John MacGillivray who was born at Aberdeen in 1821 and died in Sydney in 1867.

The son of a famous ornithologist, John knew how to shoot and dissect birds from the age of ten and was of an adventurous disposition. The Earl of Derby sent John as assistant naturalist aboard H. M. S. Fly which explored the Great Barrier Reef between 1842 and 1844. He collected thousands of specimens but seems to have left no journal of that voyage; however short papers in the Zoologist recall some of his experiences. On Raine Islet, where a beacon was erected, innumerable sea-birds were found, some new to science. In June 1844 alone, MacGillivray estimated the shore party had eaten 3,000 birds and 1,410 dozen eggs, besides turtles.

By 1846, MacGillivray had left Britain with T. H. Huxley in H. M. S. Rattlesnake and he wrote a book about the voyage abounding in interesting natural history observations. He spent ample time in what is now Queensland in 1848 - 49, but the expedition came to an end in Sydney next year.

His third voyage to Australia was in H. M. S. Herald, arriving in 1853 and is less known than the earlier ones. Unfortunately he did not write another book, but his notes are in the Admiralty, London. Evidently MacGillivray left the vessel before she went to the Swain Reefs and the Great Barrier Reef. In the mid-1850s he traded in the Pacific Islands, visiting remote places in search of sandalwood, beche-de-mer and gold, and he sold specimens to museums in Australia and Britain. Human skulls fetched two guineas apiece and the skins of fishes five shillings. The oldest fish specimen in the Australian Museum, Sydney, is a Surgeonfish which he collected in the New Hebrides in 1858. Times were dangerous in the South Seas: cannibalism and widow-strangling were practised in the New Hebrides when he was there and more than once he had to shoot men in self-defence. "When there is any fighting going I must always go in for my share", he wrote, and "little do the people at home know the fearful risks I have run to enrich the national collection with specimens." MacGillivray had been a great friend of Ben Boyd and searched for his remains after his murder. Yet he was kind to his native employees who called him 'Bilbo Baccy' because of his gifts of tobacco to them. As a medical man, he treated their sicknesses, including cases of cone bite and fish poisoning in 1858.

He was a very great naturalist and collector with broad interests in zoology and botany, making many discoveries, but perhaps his particular interests were bats among the mammals, birds generally (for which John Gould was beholden to him), snakes, fishes, molluscs and insects, besides horticulture.

His last visit to Queensland was in 1860 in the Julia Percy, captained by William Banner, who was later to gain fame as a pioneer pearl-seeker in Torres Strait. MacGillivray was back at his old Rattlesnake haunt on Lizard Island and on the mainland in July 1860, at various places up to Albany Island (December 1860), then back to Lizard Island (where he slept in a grass hut on 235 consecutive nights) and down to Rockhampton in December 1861.

He then applied for the job of Assistant Curator of the Australian Museum, Sydney, but Gerard Krefft was appointed, remarking some years later, "this gentleman would certainly have carried the day had not the Macleays hated him thoroughly because he was a clever man. I confess Mr. Macgillivray (with all his failings) was superior to myself. . . ."

In 1862, MacGillivray met Dr. J. C. Cox in Sydney and helped him greatly with his Catalogue of Specimens of the Australian Land Shells.

In 1864 MacGillivray settled at Grafton, New South Wales, and died in Sydney of coronary disease in 1867.

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THE EFFECTS OF THE 1951 DOWNPOUR AT SIMPSON POINT

E. C. F. Bind

Geomorphologists study landforms. They seek to explain the evolution of the land surface, and to relate the changes taking place to processes of erosion and deposition. Some landforms (especially on coasts) have developed rapidly and are still changing at rates that can be measured by repeated surveying; others have evolved slowly over long period of geological time - millions of years - and may be changing little, if at all, under present conditions. It is often difficult for a geomorphologist to decide whether a particular landform - a valley, or a hill-side slope - has been shaped gradually by the slow but cumulative effect of ordinary processes, or whether it owes its salient features to rare catastrophic events, such as an earthquake, a storm surge, or a heavy downpour of rain.

In the Cairns district, ordinary processes include the runoff of water resulting from an annual average rainfall between 70 and 90 inches on the coastal lowlands, rising to over 100 inches up on the ranges. Much of this rainfall comes in the wet season, from December to March or April, but there is considerable variation from year to year. Rainfall data from Cairns airport for the decade 1961-70 (obtained for me by Mr. Robert Brown) show a maximum of 102.84 inches in 1964, a minimum of 36.50 inches in 1966, and an annual average of 74.79 inches. Actual incidence of rainfall is more important in generating runoff than yearly totals, especially in the tropics, where much of the rain comes in occasional heavy downpours. Rain fell at Cairns on an average 148.3 days a year during this decade, and news-worthy registrations of more than an inch in a day occurred, on average, 19 times a year. The wettest day was 12th March 1967, with 1586 points, and the second wettest 4th February 1967, when 1127 points fell - so that two wet days produced 27.13 inches, nearly one third of the 1967 total rainfall of 92.48 inches.

Such downpours lead to widespread runoff and extensive flooding, and may accomplish more erosion and deposition in a few hours than is achieved by ordinary processes over many years. Often the effects of a single storm may be visible many years later.

The steep slopes of hillsides in the Cairns district are marked by gulleys, down which there is stream flow after rain, and towards their base is an apron of deposited material - typically with boulders and stones in a matrix of red or yellow silty clay. Asked to explain the features of these slopes, a geomorphologist would have to consider three possibilities:

- 1, that there is a gradual movement of weathered material down slope under ordinary conditions, so that slope-foot aprons are being slowly built up;
- 2, that the movement of material down the slopes occurs only during occasional episodes of very heavy rainfall; or
- 3, that the slopes and the aprons developed under different conditions in the geological past, and are now simply relict features, no longer being shaped by present processes.

North of Buchan Point (15 miles up the Captain Cook Highway from Cairns) one sector of hillside slope, the north-east flank of Macalister Range, descends steeply to the coast, past Ellis Beach to Simpson Point and Redcliff Point. The basal apron of rocky debris in an earthy matrix has been cut back by the sea and incised by streams to expose sections at a number of points, and road-side cuttings also show this heterogeneous, poorly sorted material, structureless except for faint layering suggestive of successive episodes of deposition.

In the wet season the numerous creeks that flow down this slope carry water swiftly to the sea, and sediment, including gravel, moves down the watercourses. After rain has fallen, the outflowing streams extensively discolour the adjacent sea with brown, muddy water. Tunnels and conduits allow the streams to pass under or over the Highway, and piles of gravel accumulate near these after wet weather. However, under ordinary conditions, changes occur only along the watercourses: on the intervening slopes runoff is brief and down-slope movement limited. In 1968, paint was applied to four square-metre quadrats on the hillside above Simpson Point, and these were inspected for evidence of down-slope movement during the next four years. No major downpour occurred during this period, and the surface remained almost intact. Similar painted quadrats in the watercourses disappeared during each wet season. Slope-foot deposition occurred only near the mouths of the creeks.

This is in sharp contrast with the changes that occurred during a single torrential downpour on the afternoon of Friday 12th January 1951. Details of this downpour and its consequences have been obtained from reports in the Cairns Post, the Townsville Daily Bulletin, and the Brisbane Telegraph on the following Monday (15th January), from a report prepared by Mr. R. D. Gallop for the Department of Main Roads, and from local information assembled by Mr. R. Brown.

Between 25 and 30 inches of rain fell at Buchan Point in just under five hours, 8 inches falling in one hour at the height of the storm. On the slopes of Macalister Range the rainfall was probably even higher, and vast quantities of water cascaded down the slopes. As the downpour proceeded, thousands of tons of rocky and earthy debris flowed and slid down across the Captain Cook Highway and into the sea. Trees were uprooted, and boulders up to 10 feet high strewn over the slope-foot apron and on to the rocky shore. Water rushing down the creeks carved out ravines, entrenched stream beds, swept away culverts, and carried rubble and earth into the sea.

When the storm had subsided it was found that the hillside was scarred with landslips, the largest of which was 240 feet long, in front of a scar 50 to 70 feet high. Boulders, rubble and earth lay in heaps and ridges up to 10 feet high at the base of the slope, and the beaches and rocky shores were covered with debris. A six mile stretch of the Highway was breached in several places, notably near watercourses. The bitumen had been undermined and moved away in large slabs, and on some sectors the roadway was buried by rubble. Much of this was subsequently removed, but near Simpson Point it was found more practical to rebuild the road at a higher level on top of the rubble. The partly-buried old road can still be seen below it on the seaward side.

Twenty years later the writer examined this area, locating features with the aid of the photographs and measurements that accompany Mr. Gallop's report. Vegetation has largely recovered, but the 1951 landslip scars and debris flows can still be traced near Simpson Point. The internal structure of the 1951 deposits is very similar to that of the slope-foot apron, indicating that the earlier slope-foot deposits were probably the outcome of earlier such downpours. There is no record of any other rainfall on this scale in the Buchan Point area since Cairns was first settled in 1876, but the 1951 downpour could well have been 'the storm of a century' the kind of event that occurs only rarely in the Cairns district. Nevertheless, it changed the form of the slope, and added fresh material to the slope-foot apron.

A geomorphologist would therefore reject the first of the three possibilities mentioned above, and prefer the second, relating downslope movements to occasional episodes of very heavy rainfall. The third may also be ruled out, since an occasional heavy downpour is still capable of re-shaping the hillside slopes. It is, however, possible that such downpours occurred more frequently in the past, permitting slope evolution to proceed more rapidly than it does now. This is a problem for further research - in the meantime it will be interesting to await the next heavy downpour in the Cairns district and see what kinds of landform change result.

Reference: E. C. F. Bird 1970 The steep coast of Macalister Range,

Journal of Tropical Geography, 31, '33-39.

BIRDING TO MT. ISA AND BACK

During the 1972 Christmas holidays my wife and I had the opportunity to make a trip to Mount Isa. Although we knew that it would be very hot out there, we were keen to see new birds and decided to give it a go. After all, in an area totally different from Cairns and its surrounding districts and approximately 600 miles distant, it was reasonable to expect to find many new birds that could not be seen at home. During the eleven days spent on the journey to Mount Isa and back, we recorded about 120 birds, all but ten of which we had seen before.

It would be tedious to mention all those we saw so I shall list mainly the ones that were new to us. Leaving Cairns at 4.00 a. m. the Thursday before Christmas, we moved smartly along through Mount Garnet to Normanton and reached there about 3.30 that afternoon. Travelling at that speed did not permit much bird watching but camping at the Norman River that night gave us an opportunity to look around. Here the Little Friar Bird was much in evidence and our first new bird, a Pied Heron, was spotted - first a lone bird and later a flock of a dozen. Back from the river a bit were parrots galore feeding in the flowering eucalypts, mainly Varied and Rainbow Lorikeets, the former being another new one to us. The adult is a handsome bird with his brilliant red cap and is easily identified by the prominent white ring around the eye and the rather short tail. Next day we sped to Quamby (with not so much as one house in over 200 miles but sealed road all the way), then down to Cloncurry and out to Mount Isa.

The country was badly in need of rain with temperatures very high and millions of flies. Birding was possible early in the morning, but throughout the rest of the day, bird movement (and our own) was very restricted. New birds seen here included: Spotted Bower Bird, sitting quietly in the shade, mouth open and panting with the heat; Plumed Pigeon, a pretty little bird whose camouflage enabled him to disappear completely from view in dusty rocky surroundings; Cloncurry Parrot, whose plumage was noticeable to me because of the complete absence of red in it; Silver Crowned Friar Bird, and Little Corella.

Homeward bound we could afford to take a more leisurely pace, leaving Mount Isa late in the afternoon to avoid the heat, and camping by the road side about 70 miles south of Normanton. It is a delightful sensation to camp in the open, miles from anywhere, with absolute quiet and the stars shining brilliantly overhead - a welcome change from smog and traffic noise, barking dogs, blaring T. V., etc. we get at home.

The most rewarding part of the trip was when we started off next morning and for the next two hours. We saw a couple of finches, thought at first to be Black Throated but they proved to be Pictorellas (another new one); also one of the prettiest wood swallows I have yet seen, the Masked. Closer to Normanton was low lying country that had had good rain and was in prime condition with new grass between one and two feet high. This was literally alive with birds. Pratincoles which I had seen only once before, were along the road in hundreds. There were flocks of Glossy Ibis, Little Corellas, Galahs, Bush Larks, White Necked Herons, with some White Headed Stilts, a few Brolgas, Grey Teal, Royal Spoonbills, a lone Jabiru and, further on, some Bustards and Emus. Not far from Normanton we saw six Sarus Cranes.

The rest of the trip was uneventful and we then went through Mareeba to our old stamping ground, Station Creek near Mount Carbine. For many years we have been camping here at odd times, and only now we recorded a new bird for this area, the Common Bronzewing Pigeon.

To conclude - we must have missed seeing many new birds because of the heat so I imagine the best time to visit there would be during the cooler months of the year. Our route took us over bitumen road all the way (770 miles) with the exception of 140 miles between the Gilbert River and Normanton. This was dirt road but nevertheless permitted speeds of 50 m. p. h. It could be a hazard in wet weather.

Items which are essential on this trip are a vehicle in good mechanical condition, five good tyres (not retreads) plenty of water plus a water bag and of course ample petrol. Fruit like water melon and grapes are well worth carrying.

Marion and I are enthusiastic about returning to the area 70 miles south of Normanton for we feel sure there must be quite a few more different species there yet to be seen.

Jack Cassels.

ROBBERS

While I was cooking in a mustering camp at Saxby Downs Station, two butcher birds came every day to be fed. I placed small pieces of meat on a log for them, and they would carry it up to the branches of the nearby gidyea trees. Then their trouble began. Their nest was a quarter of a mile away. As soon as one of them flew off with a piece for their babies, the crows darted down so close that Butch dropped the beef and a crow would have it before it hit the ground. Occasionally one of the crows took a hurried flutter into our camp to try to take the meat from the gidyea trees, but then I would get the .22 to work and shoot a crow if possible. If I happened to knock one they would keep clear for the rest of the day. Butch and his better half did not mind a shot being fired.

Following the butcher birds once, I located their nest. I intended putting meat on a log near thier home, but no, they would not come while I was near the nest. yet, if I carried a few buckets of water morning or evening before feeding them, they flew within a few feet of me continuously, uttering their friendly call, until I fed them.

The late Stanley H. Boyd

Each author is responsible for the opinions and facts expressed in his or her article.