
THE NORTH QUEENSLAND NATURALIST

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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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EDITORIAL

Another year is ending, dry now and hazard with smoke. However, some most frequently burnt hillsides around Cairns have been spared this year (to date). It is encouraging to think that more people are becoming more consciously careful. The Cairns District Fire Prevention League has achieved the appointment of a Rural Fires Officer to this district, and the regular dry-season burning of coastal ranges, which was so carelessly or so helplessly accepted as inevitable, may yet prove to be almost completely preventable.

Recently formed branches of the Wildlife Preservation Society and the Littoral Society in North Queensland are other welcome signs that more people in the North are becoming actively concerned about the steering, brakes and exhaust fumes of that monstrous vehicle called Development. We wish them well and look forward to co-operating with them wherever interests overlap.

Early this century a market was discovered abroad for koala skins. The slaughter reached a peak in 1924 when more than two million skins were exported, mostly to America. By 1927 this trade, combined with bushfires and expanding settlement, had reduced koala numbers to an estimated 10% of the original in Eastern states, while in South Australia they had been exterminated. Yet a last open season was allowed in Queensland in 1927, during which more than 500,000 koalas were killed, before public opinion forced the Government to pass protection laws. Even then some illegal trade in skins continued until President Hoover in 1930 banned the importation of koala skins into the United States. An epidemic disease has also taken its toll at intervals but, adequately protected from exploitation for money, the koala now seems safe from extinction (barring excessive bushfires and land clearing).

Even the most stringent precautions may leave our Government little time for second thoughts if an "open season" is allowed on the Reef for mineral exploitation. Here many thousands of inter-dependant forms of life are at stake, all subject to currents, tides winds and cyclones which can never be regulated by Government lease or licence of "limited" areas.

A SPIDER THAT MIMICKS THE GREEN TREE ANT

Most residents of North Queensland, and other tropical areas of Australia, are familiar with the Green Tree Ant (*Decophylla smaragdina*) and with the ingenious way in which a colony of these ants will 'stitch' living leaves together to make a hollow nest in a tree or shrub.

But I wonder how many people - even keen amateur naturalists - have seen the spider (*Amyciaea albomaculata*) that mimicks it. This little spider has no common name, and the Latin one is quite a mouthful. So, too, is the name I have given it - The Green-Tree-Ant-Mimicking Spider - but perhaps my mouthful can be more readily swallowed!

I first came across these spiders in a paperbark swamp in a Cairns suburb during a night walk with a torch. *I wasn't looking for anything in particular, and didn't need to. Every leaf and every tree and the spaces between, and the ground, had something to offer. I had something to offer, too - blood! The mosquitos never had it so good - a barelegged female, thin-skinned from a sunless southern winter, at large in their territory. But it was a small price to pay.

Close to a column of Green Tree Ants moving up and down the branch of a prickly shrub, and a foot or so away from them, my torch beam caught what looked like a pair of ants clinging to each other, suspended from a few inches of spider silk. A closer look showed that while one was certainly an ant, the other, instead of having six legs and a three-segmented body, had eight legs and only two body segments. It was a spider. And it held the quiescent Green Tree Ant firmly in its jaws. I took some close-up flashlight photos and then captured the two specimens.

Having found one spider and 'got my eye in', I located two or three more, all fairly close to ant trails, but never on the actual twig or branch that the ants themselves were using.

The G.T.A.M. Spider (it was too much of a mouthful after all!) is about the same size as the ant it mimicks and apparently preys on. The general colour is a light, translucent green like the ant, though the front segment of the body (the cephalothorax or prosona) has an orange tinge. The abdomen is green with an irregular pattern of small white spots on top, and, towards the rear, a pair of dark, oval patches.

The first thing you notice is that from behind, because of its pointed abdomen and the dark 'eye' patches, the spider looks like the front end of the ant. But to make assurance doubly sure, it also looks like the ant from in front, because it has a habit of waving the first pair of legs above its head like an insect's antennae! The legs are yellowish and light green, and the first two pairs are much longer than the others.

The physical points of resemblance are noticeable even in a dead spider, but in a living one, besides the habit mentioned above, there are certain behaviour traits that emphasize the mimicry.

For instance, the spider is very active when it is not actually in ambush, and moves with the purposeful brisk jerky motion of a foraging ant. The legs are not laterigrade (flattened and curved forward) like those of many of its close relatives; and it moves forwards not sideways.

When the spider is in ambush, no doubt waiting for a straying ant to come and 'investigate' it as a possible food supply for the colony, it hangs on a short thread of silk by the third pair of legs - upside down, of course. The first two pairs of legs - the long ones - are held stiffly together on either side, at right angles to the spider, each pair bent together in a slight curve.

A spider which is moving about will stop occasionally and go through a sequence of delightful, rhythmical movements with its first four legs. These are raised by a series of jerks until the patellæ or knee-joints of each pair almost meet over the spider's back. Then with the same jerking movements they are thrown out sideways, and drawn upwards again, or finally lowered. During the movements, the legs also appear to 'shiver' slightly in a lateral direction.

Although the paired legs on either side move in unison with each other, the two pairs of legs may move slightly out of phase, the second pair reaching their highest point while the first pair is being lowered. The reason for these movements is one of the many mysteries waiting to be solved by some keen field naturalist.

I found seven of these spiders in the swamp, all of them females, and would be interested to know if any member of the Society have been lucky enough to find the males, or have anything to add to my own observations of these interesting spiders.

Densy Clyne.

OBSERVATIONS OF THE BLACK BUTCHERBIRD

The following observations of the Black Butcherbird (*Cracticus quoyi*) were first made as a boy, exploring an area of dense rainforest near the family home at Smithfield. Butcherbirds were plentiful in this area and many nests were found. The clutch of eggs varied from two to four. Fledglings seen were all brown (although Cayley in "What Bird Is That?" states that both the black and the brown phase often occur in the same brood). Young birds in their first moult were discovered secreting themselves in dense undergrowth in the scrub, always near water; they could not fly very well while moulting for the complete plumage was changed within a fortnight to three weeks. When they emerged from hiding they were fully attired in black.

Many people, quoting Cayley, have disputed these observations. However, wife and friends have now seen for themselves a brown Black Butcherbird change to the black. About two years ago a butcherbird nest with four eggs in it was noticed near the newly

extended Martyn Street cemetery. A few days later, two almost naked nestlings were found on the ground below, covered in green ants. They were taken to two homes and successfully reared on a diet of oatmeal mixed with milk and water, graduating to meat, fruit and insects. Both, when fledged, were brown. When nearly a year old, one bird was fed an obviously sickly grasshopper and within a few hours this bird died - of insecticide poisoning. The other continued to thrive. First sign of its colour change was the appearance of black feathers on the back of its head and back. Other feathers then were rapidly shed and replaced, and within three weeks the change was complete. This handsome black Black Butcherbird continues to be a most companionable pet, and proof to all doubters of some little known facts about its species.

J. Moore, Edge Hill.

BOOK REVIEW

A GUIDE TO AUSTRALIAN SPIDERS, by Densey Clyne. Published by Thomas Nelson Ltd., 403 George Street, Sydney, 2000. A well illustrated and detailed work on Australian Spiders with keys for the identification of the most common families. The chapter on silk and the spider's way of life is one of absorbing interest, and the details of spider form, colour and mating behaviour, shown in the numerous colour photographs, should help dispel fear and dislike of a most useful order of animals that are always interesting, often beautiful, sometimes bizarre.

N. C. Coleman.

POT POURRI

From Miss A. Taylor, now settled at Manganui, New Zealand, has come a leaflet describing Kapiti Island Bird Sanctuary in Cook Strait, just off the west coast of North Island, New Zealand. About 1822 Kapiti Island was settled by a Maori tribe who traded with the seven whaling stations established around the island. By 1840, whaling had declined, most of the Maoris had moved to the mainland and farming became the main industry. Before long about half the island was clear of forest. Sheep, cattle, goats, pigs, deer, opossums, cats and rats were introduced. An Act of 1897 restricted the sale of land but farming continued on the Crown Land for many years. However, concerted efforts removed most of the wild animals, rats and opossums remaining. Today Kapiti is a bird sanctuary inhabited by many species which are becoming uncommon on the mainland. Among the forest birds are the kaka, parakeet, tui, bell-bird, weka ... Many species of water birds frequent the coast and the Okupe Lagoon. The forests are regenerating. Kanuka stands cover nearly 1500 acres, interspersed with pockets of kohekohe forest on rocky ground. Some time in the past fire swept the whole island. The old forest it destroyed contained many large rata trees, mostly terrestrial, forms only a minor part of the present forest but rata flowers are still an important food source for the nectar feeding birds. Tawa stands are not very extensive but will increase as the

vegetation becomes older.

Quoted freely from leaflet prepared by A. E. Esler
for Dept. of Lands and Survey, Wellington, 1967.

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DEATH OF A CURLEW

Today in an Edge Hill garden a curlew died - a slow painful death, presumably caused by pesticide poisoning. Primary Industries Department officer advised that, because of their residual properties the use of D.D.T. and similar insecticides is now banned on poultry farms, but they may still be used elsewhere. If large numbers of birds in an area were dying, his Department would then investigate to find the cause. However the death of one curlew was not of serious interest.

K.J.M.

BUTTERFLIES IN NEW CALEDONIA

The island of New Caledonia is about 250 miles long and 30 miles wide with a chain of forest-clad mountains dividing it in two halves: West and East. The northern part of the West consists mostly of grassy hills used for cattle breeding, while the southern part is almost barren with one of the world's biggest nickel deposits. The coast has hundreds of deeply cut bays and small islands. The Eastern half, covered by dense rain forest with Sumatra deer and wild pigs, is cut by numerous rivers and lagoons and edged with gleaming white coral beaches. Coral reefs encircle the whole island, so there is no surf, but an abundance of fish of many kinds. The temperature is about 80° all year round.

New Caledonians are Melanesian, friendly and easy-going. The majority still continue their tribal life in small villages on the jungle-clad East coast, with the local chief as authority. The work force necessary for the nickel mines had to be brought from abroad, mainly from New Hebrides and Indonesia. But there is no racial problem, as all consider themselves French and freely mix together. Life, even in Noumea, is leisurely, with three hours of siesta from 11 to 2, during which shops are closed and streets empty. Bars, cafes and small shops are open every night and on Sundays as the custom requires.

The major part of any New Caledonian forest consists of bush-like "Niaouli" trees, Melaleuca leucadendron, which belongs to the Eucalypt family but looks more like a mimosa. Lantana is the next most prevalent plant. The rainforest includes banians and fern trees, with the Cocos palm on the sea shore. Much of the jungle is now being cut for coffee plantations.

About 60 miles south of Noumea is the beautiful Island

of Pines, owing its name to the abundant tall pines, Araucaria columnaria.

I had been told that there were few butterflies in New Caledonia, so arranged my trip as a tourist. Therefore my hunting was limited to a few days on the East Coast, to the vicinity of Noumea and to the Island of Pines. Here I found certain species in astonishing numbers.

The number of New Caledonian Rhopalocera is supposed to be 47, but I found a few species which have not been listed. There are 14 species considered local; the others are migrants which settled on the island centuries ago. Of these, 20 come from Indo-Malayan region, i.e. New Guinea and Indonesia; 10 come from Australia; 1, Borbo cinnara, a Hesperid, from Formosa; 1, Pieris rapae, from Europe; and Danaus plexippus is a cosmopolitan. They are distributed as follows:

a. PAPHIIONIDAE - 3 species: Papilio gelon, local; P. iloneus amyntha, a variation of the Australian P. fuscus; and P. montrouzieri, a variation of Australian P. ulysses. These are found at Noumea and the Island of Pines. P. montrouzieri, a very variable species with different width of the black band, is the most common and is also found on the East Coast.

b. PIERIDAE - 14 species: 4, local; 6, Indo-Malayan; 3, Australian; 1, European. Two Delias, D. nysa and D. elipsis, found on central mountains, are both supposed to be Australian. D. nysa is, but I do not know any D. elipsis in Australia. Most of the Pieridae are found at Noumea and Island of Pines. The commonest one is Anapheis java - Indo-Malayan, not Australian type; it is quite common on the East Coast, even more at Noumea, and in hundreds on Island of Pines. There are found, also, Appias, Cepora and Catopsilia. Elodinas are found both on East Coast and Island of Pines. The only yellow one, Terias (Eurema) hacabe, is found everywhere.

c. DANAIDAE - 8 species: 2 local; 2, Indo-Malayan; 3, Australian; 1, cosmopolitan. Of four Danaus, D. neomelissa, Indo-Malayan, is confined to the Central Chain; and D. plexippus, cosmopolitan, D. cryssipus, Australian, and D. pumila, local, are found at Noumea and Island of Pines. Of four Euploea, E. boisduvalii and E. tulliolus, both Australian, are found on East Coast; E. helcyta and E. schmeltzi, both local, on Island of Pines.

d. NYMPHALIDAE - 10 species: 2, local; 6, Indo-Malayan; 2, Australian. The two Australian, Accrea andromacha and Precis villida, are found in hundreds on Island of Pines; few Precis have been seen at Noumea. Atella sinha and Hypolimnas bolina, both Indo-Malayan, have been seen only on Island of Pines. The female of H. bolina is even more variable than in Australia: at least six different forms have been listed. Also on the Island I found a species of Cyrestis, Indo-Malayan, which is not listed anywhere. The other five H. alimena and H. octocula, Doleshallia bisaltide, Polyura clitarchus and Libythea geoffroyi, are found mostly on the Central mountains.

e. SATYRIDAE - 2 species: 1, local; 1, Indo-Malayan. Both Paratisiphone lynessa (local) and Melanitis leda have been found only on the East Coast and seem to be scarce.

f. LYCAENIDAE - 6 species: 2, local; 4, Indo-Malayan. Two Thysonotis caledonica and Chilades cleota exellens, both local, are found on the Central mountains. Lampides boeticus, Catochrysops strabo, Eucrysops cneyus and Zizeria otis are found around Noumea.

g. HESPERIIDAE - 4 species: 2, local: 1, Indo-Malayan; 1, Formosan. Two local species, Hasora khoda and Badamia atrox, are found around Noumea and on Island of Pines. Borbo impar (Indo-Malayan) and B. cinnara (Formosan) are found on the Central mountains.

There is no record of any kind on the Heterocera of New Caledonia and I saw very few of them. A couple (one Ophideris) were caught on the East Coast, and two Sphingidae, Teretra nessus and, probably, Psilogramma, on Island of Pines.

The most spectacular specimen I acquired was, without doubt, a Giant Grass hopper of the Island of Pines. I saw one flying across a road, but then could not find it. Another was reported falling into the sea. Then on my last evening, the manager of the guest house where I was staying brought me one which attracted by light, flew into his bungalow. It was a monster with a wingspan of almost ten inches.

E. B. Skreen, Bondi.

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