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

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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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GENERAL MEETING for discussion, lectures, screenings and display of specimens are held on the second Tuesday, 8 p.m., at the Old Kuranda Barracks, Esplanade.

FIELD DAY excursion usually fourth Sunday.

VISITORS are welcome, especially members of Australian and Overseas Clubs and Societies.

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The Rough Scaled Snake.

(TROPIDECHIS CARINATUS.)

A 36 inch specimen of Tropidechis carinatus was picked up by the author on the road near Mt. Molloy, Nth. Queensland. This in itself would not be of any interest if it were not for the fact that this is over 1000 miles from the previously known habitat of this species. The known area where this species was previously known was the Clarence River district of New South Wales and northwards to just inside the South Queensland border. A couple of years ago a head of one was sent into the Cairns Ambulance for identification and this was sent down to the Australian Museum, Sydney where it was identified as Tropidechis carinatus, since this however Mr. Lloyd Staunton, Herpetologist of Atherton has captured one on the Atherton Tableland. This is all very interesting and shows that this particular species has a much wider distribution than was originally thought. This is a very poisonous snake and a specimen of this species bit and killed a man in Sydney in two minutes a couple of years ago. This snake could very easily be mistaken by the amateur for one of the harmless fresh water snakes like Enhydris pinctata, Myron richardsoni, or Fordonia leucobalia, or also the poisonous Tiger Snake Notechis scutatus of which it is very similar. For those who are not familiar with the species a description of the one found near Mt. Molloy is as follows.

COLOURATION. Olive Green to Brown above with approximately 60 dark cross bands, these crossbands becoming irregular towards the tail and terminating before the tail, there being no crossbands on the tail itself. The Ventral scales are white with iridescent mother of pearl sheen, infra labials white, supra labials Olive Green to Brown.

DENTITION. Fangs 5 mm in length with an interfang measurement of 8 mm.

SCALATION. There are 23 scales around the body, 177 Ventral scales, 53 Sub Caudel scales, all being single, Anal scale single. The Dorsal scales are keeled. Scalation 4 centimetres posterior to the centre of the eye is also 23. Rostral scale 2½ times as long as broad, visible from above, Internasals half the width of prefrontals, Nasal scale three times as long as wide, Preoculars one being in contact with 2nd and 3rd Supra labials, Frontal twice as long as wide, Parential 1¼ times as wide and 1½ times as long as the Frontal shield, Postoculars two, one being in contact with the 4th and 5th Supra labials, both being in contact with the Temporal scales, Temporal Scales three times as long as wide, Supra labials number 6 the first and second being in contact with the nasal and the third and fourth being in contact with the eye, the 5th and 6th being the largest. The Infra labials number 6 of which the 4th and 5th are the largest. The Prefrontals are twice as long as wide—Diameter of the eye 3½ mm.

REMARKS. Tail short being 14mm in length without any crossbands. Head distinct from neck, with slight canthus rostali. I would be very grateful to receive further specimens alive or dead of this Species from North Queensland areas, these could be sent to me to 271 Lake Street, Cairns and would be highly appreciated.

VINCENT M. REILLY,

P.O. Box 136, Cairns.

LYMANTRIA LUNATA STOLL

Family lymantriidae Tussock Moth.

By E. C. CORBET.

These moths invaded Cairns in plague proportions during the early part of August 1962, so much so that they were a real embarrassment for several days, depositing their eggs over the illuminated windows in the business portion of the town inside and outside the Hotels, Accommodation Houses and Private Homes. Some of the electric light standards looked white at the top, gradually vignetting to a mottled grey towards the bottom.

For a time it was thought that the ornamental trees and garden plots in the streets would suffer from the resultant caterpillars, for they too got their full quota of eggs but fortunately this did not eventuate, as none of the trees or shrubs proved to be the food plant and the young larvae died within a few days. The eggs on the electric light standards and wherever possible were destroyed by spraying with power kerosene, but the ones on the shop fronts and homes had to be removed with the scrubbing brush.

I collected quite a number of larvae in different Jars beside having cardboard boxes containing egg masses and although I had leaves from every tree and shrub in the vicinity in the jars with new leaves every morning the larvae were dying.

In one cardboard box in which I had placed a female moth for further study, I discovered she had discharged her eggs and died on completion of the operation, the body appearing to be glued to the egg mass and later it was surprising to see the larvae, on hatching, immediately start devouring the egg cases and then the moth itself. This kept them going for several days.

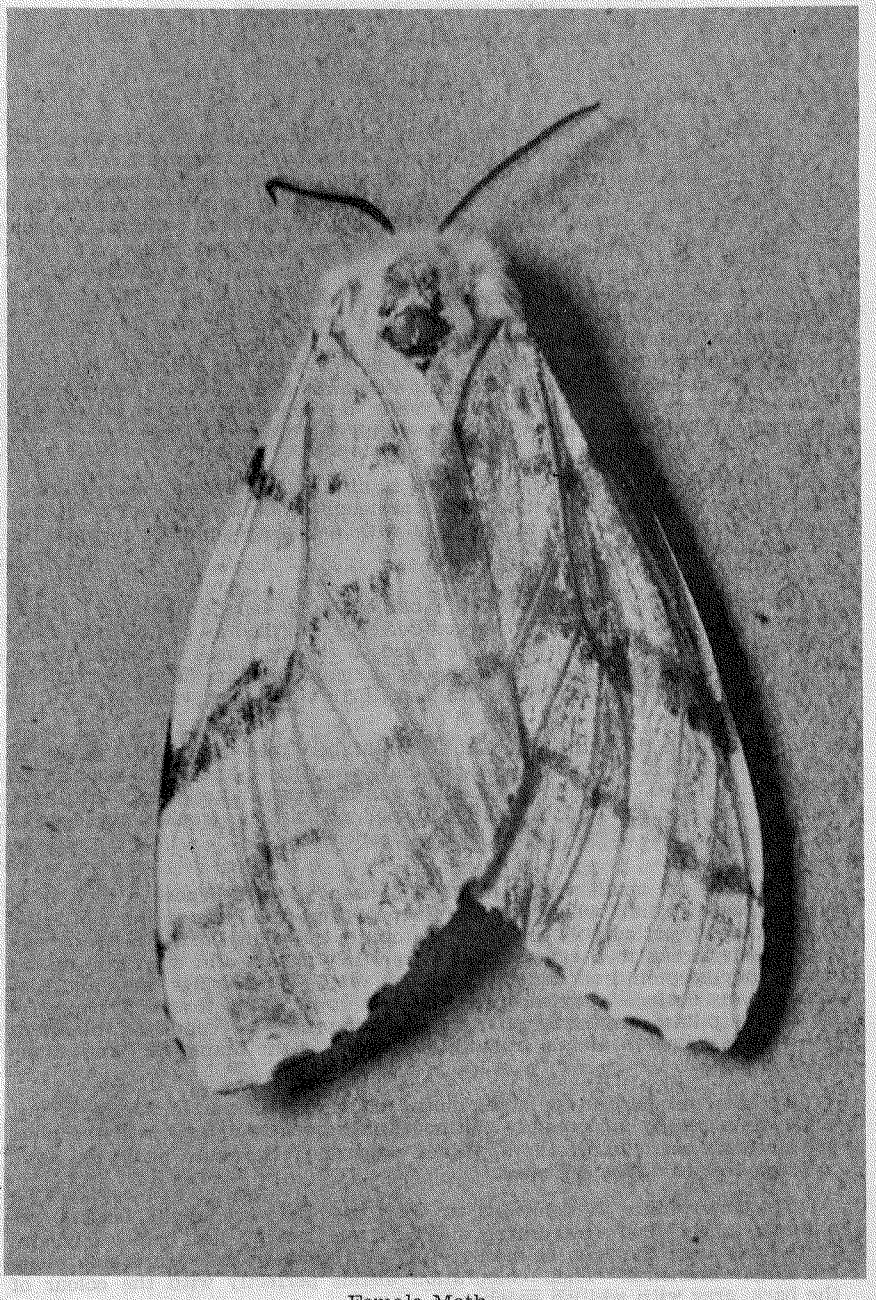
It was about this time that I noticed a Mango Tree (mangifera indica) in my own back yard covered with caterpillars of all sizes and not a blemish on any of the leaves, on further search it was discovered that they were living on the flower sprays and the newly formed fruits. The trouble was over as far as feeding the larvae in the jars was concerned.

The eggs are small with a pearl like sheen and are deposited in a hard mass encased in fluff which appears to come from the body of the moth and the incubation period is 14 days. On hatching, the young larvae fasten a very fine silken thread to that part of the tree they are on and drop into midair where they keep on dropping to the ground, or the wind swings them and they cling to any obstacle they touch on the way down. This thread is typical of these caterpillars. A friend of mine was amazed to see countless thousands of them dangling in midair from the branches of the Mangrove Trees along the foreshores.

Quite a large percentage of the moths died on completion of the egg laying, being cemented by a seemingly glutineous substance combined with the mass of fine hairs surrounding the abdomen, apparently the moth being too weak to break free from the egg mass.

The caterpillars, if domiciled in their food tree are night feeders, remaining in the food area during darkness and leaving just before daylight. In the day time they can be seen resting all round the tree trunk and along the larger branches. Their colouration blends perfectly with the colour of the bark, grey with whitish patches.

Lymantria lunata Stoll — Continued



Female Moth.

Lymantria lunata Stoll — Continued

From about 7 p.m. to 9 p.m., with the aid of a strong torchlight one can see them, all moving up and outwards towards the flower sprays although the very small larvae would rest on the underside of the leaves close to the flower sprays in the day time.

It was interesting to see the larger of the caterpillars using the thread to drop to the ground and then moving along to the trunk of the tree and up, rather than crawl all the way down from the heights as it got towards daylight. Then again if an impediment was placed underneath whilst they were dropping and the impediment removed when they stopped, they could wind themselves back up the thread by a movement of the head which twisted the thread around a tuft of hairs at the head. It was a slow job but quite affective. If the caterpillars of any size were touched with any object, the thread came into play again and they would drop immediately to the ground or a considerable distance down the trunk of the tree. A sudden or violent movement of a branch has the same effect. On one occasion I was standing underneath a branch when this happened and was immediately covered with the hairy creatures on my head and arms which resulted in quite an itchy rash for a few days. There hairs seem to have a detrimental effect on any foreign caterpillars. I had occasion to place a few **L. lunata** caterpillars in quite a spacious container with some larvae of **Papilio ambrox, P. aegeus** and **P. anactus.** In the morning all the Papilio larvae were dead, much to my sorrow.

On the trees more prolifically effected by the tussock caterpillars, there was a large area of the trunk covered with silken web which on normal or sunny days did not seem to have any connection with the caterpillars but on wet or overcast days the web was invariably covered with little clusters of sevens or eights or more caterpillars huddling together.

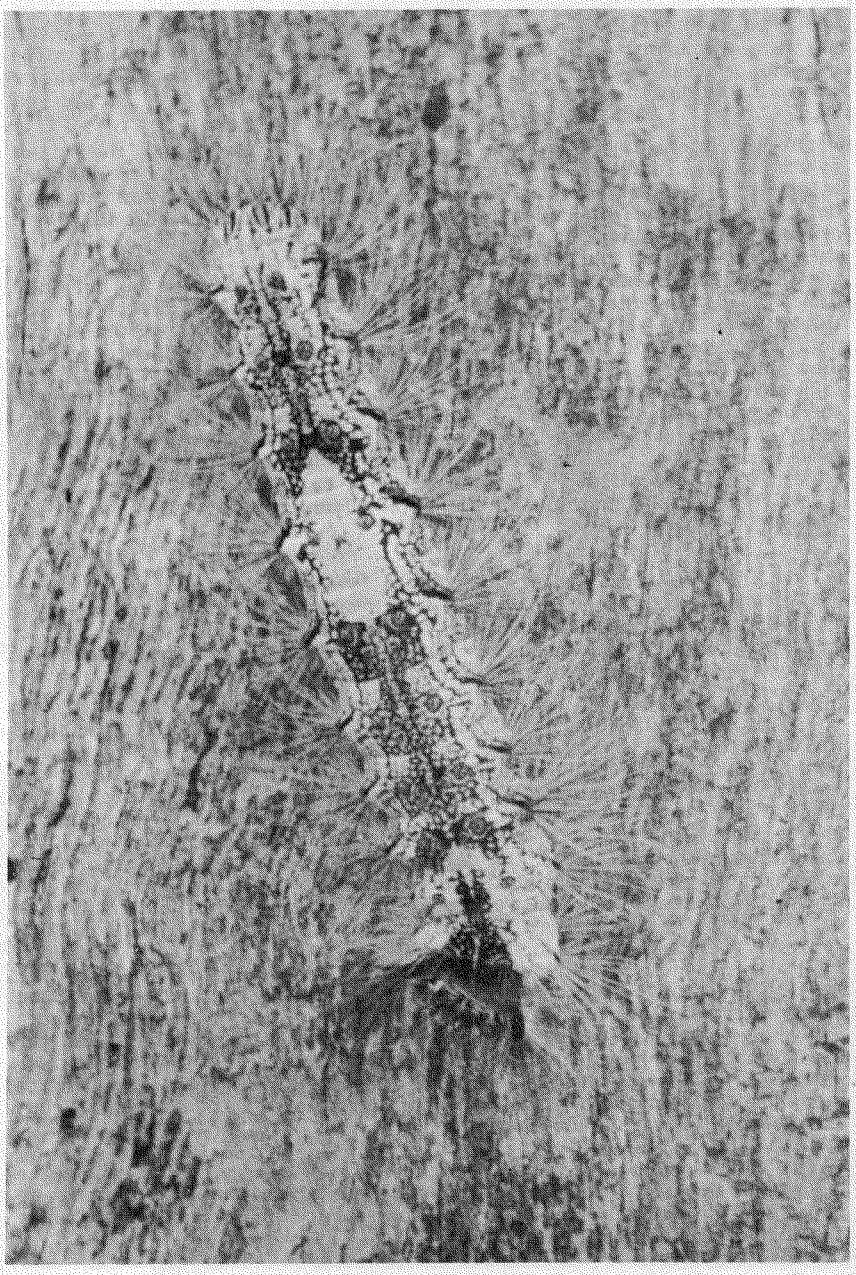
With the establishing of the Mango as the host tree and knowing that there were several species of the same family in the area I searched and found a Buchanania mullarii which was covered with well grown larvae but here they were feeding on the leaves. The tree looked a very sorry sight. Later I found two Tar trees on which were a great number of large larvae and pupae. Here they were eating the flowers. Then a weeping fig (Ficus banamina) although not of the same family was playing host to a very large number of caterpillars of all sizes and they were eating the leaves. On placing specimens which had well grown on the leaves of B. mullerii and F. benjamina in a container they immediately changed to the flowers of the Mango tree if such were placed in the container.

The exact time lapse between the hatching of the egg and the pupation of the caterpillars was unfortunately impossible to get, as, in the first instance the young larvae were dying off daily until the food tree was found and the larvae on the tree when found, were fairly well advanced but it would certainly be a good two months. The colour was constant in some right through growth, others varied to much darker whilst others again changed to considerably lighter as they developed.

The female moths in general hatched from the larger pupae whilst the male came from the smaller pupae but there again the caterpillars were pupating from about 1½" to 2¼" so that it was impossible to nominate a male or a female from the size of the pupae.

On emerging from the pupae the female is whitish and the male almost

Lymantria lunata Stoll — Continued



Young Caterpillars Huddling on Web.

Lymantria lunata Stoll — Continued

Caterpillar, Natural Colour before changing to Black.

Lymantria lunata Stoll — Continued

black, this however in the case of the male soon changes to lighter streaks in the wings according to the amount of activity displayed.

It was really amazing to note the similarity of this moth to that of a butterfly, the colours and beauty of form is very striking.

On watching the emergence from the pupae of the first male I could not help thinking what a totally different specimen he was in every way from the female, smaller, darker, great feathery antennae and the magnificant eyes, like two glowing red hot coals, they were the most strikingly noticable as he was emerging into his true form, these were the thoughts running through my mind but following is the correct discription of the male lunata.

Body length 21-22 m.m. **Abdomen** gradually tapered, abdomen diameter 5 m.m. **Thorax** diameter 8-9 m.m. Wing spread 60 m.m **Antennae,** light brown doubly pectinate 7-8 m.m. long, 3 m.m. broad. **Head** small brownish black.

Colour Dorsal, reddish orange on abdomen, greyish black on Thorax, Ventral, greyish brown on abdomen, reddish on Thorax.

Fore Wings, dorsal surface light grey with two blurred dark bars, venbral surface light grey. **Hind wings,** light grey posteriorly slightly darker on anterior half. **Frenulum** single spined. Body and legs densely pubescent, tips of torsi red.

Notes on larvae collected from Buchanania 18/9/1962. Larvae about half grown, most had pupated by 11/10/1962, average time from collecting larvae to moth emerging 34 days, moths laid within two days, max. Temp. 100° F. Min. Temp. 58° R.H. 9 a.m. 38%. Eggs took 14 days to hatch average daily Max. Temp 95° F. Average Min. Temp. 59° F. Average daily R.H. 9 a.m. 49%.

I feel that the possibility of a follow-on plague, as the aftermarth of this one has gradually appeared more and more remote.

There was definately an absence of their food plant as far as Cairns was concerned, in consequence the mortality rate of the larvae was enormous, both in the early stages from lack of food and again later just before the general pupation stage, for the same reason, the food ran out.

Thousands and thousands of the well grown caterpillars left the trees, traversed the 50 to 60 yards of sand and grass to the backs of the homes (in my particular centre of observation) where they covered the external walls, then inside and over the furniture looking for food. They had to be forcibly destroyed. Then again, the death rate from their natural enemies was very high both from the fly and the assasin bugs. The bulk of the caterpillars which reached the pupa stage whilst the food supply lasted, seemed to have been parasitized, as witness most of the few cases I found hanging on the trees were empty.

At the first appearance of this moth in Cairns, there was same considerable confusion as to its real identity and I feel sure that if I quote from a portion of a letter I received from Mr. A. Brimblecome of the Department of Agriculture and Stock, Brisbane, it will tend to illuminate some of the confusion which might still exist. "Quote" When the Lymantriid moth appeared in large numbers in North Queensland we received specimens from several sources.

As it was not named in our collection we forwarded material to the Commonwealth Institute of Entomology in London and were advised that the name is Lymantria lunata, Stoll.

Lymantria lunata Stoll — Continued

In the meantime various people in Australia came forward with the name Lymantria diversa Turner.

Advice was then sought from the Commonwealth Institute concerning the validity of the two names.

The Institute has made a close comparision of the two species including a study of the genitalia and the decision is that L. diversa is a synonym of L. lunata.

The species occurs through New Guinea to India.

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In an Edge Hill Garden

During the first part of July, the red bottlebrush (Calistemon) and the white (swamp ti-tree?) in our garden were flowering side by side, and were alive with birds that came and went throughout the day. For about an hour one early morning I watched the breakfast merry-go-round of yellow, brown, and dusky honeyeaters, friar birds and drongos. Possibly another variety of small honeyeater was there also, like, but a shade larger than, the brown; but as none of them remained still and in view for a minute, I could not be sure.

The birds seemed generally to prefer the red flowers, flitting or hopping actively from brush to brush; but when chased from these the white were a good alternative. And chasings were rife. Of the little honeyeaters, browns chased browns, four or five of them in a wild figure-of-eight around the two trees; a pair of the tiny dark brown duskies dashed about at intervals; while the bigger yellows, cheery "bush canaries", chased both these and each other as well.

Contrary to its appearance and reputation, the drongo was not being aggressive and it was (or appeared to be) seeking nectar, applying its thick strong beak to individual florets along the sprays and swinging clumsily from one to the next, even though it also swooped away once or twice after an insect. Its mate came by and they exchanged a few words, but the mate did not stay.

Then the despot arrived—a Helmeted friar bird. With fierce rustling lunges this character proceeded to drive every other bird out of the red tree. After a few attempted re-entries, the drongo withdrew to another tree nearby, where it sat chirruping to itself in much the same way as a minah bird does; and soon even the irrepressible yellow honeyeaters were showing some caution in their swift "nuisance" raids.

Presently another pair of friar birds came, settled for a moment in the red tree, then, though they were not challenged, moved to the white. Here they tolerantly shared the blossoms with fidgety little birds, and before long with the drongo too, till presumably home duties called them away.

Almost un-noticed, then, one and another of the little birds were also gone—the doves that had been preening and cooing on the fence, too, and the busy wagtail. (There must surely be a pattern in birds' daily movements, that so often in the garden all the familiar varieties are present at the one time, or all are absent).

Now only the despot was left in undisputed possession of the tree it had claimed. At last a mate joined it there, and they carrolled in noisy duet before flying away together. The breakfast session was over.

(Birds identified—some a trifle doubtfully—from "What Bird is That")

K. J. MORRIS.

Tribute to Club Member.

"To William Hosmer, my companion throughout the Expedition, technical assistant in my own Department in the University of Melbourne, I express my appreciation for his hard work at all times, and pay tribute to his courage in moments of stress. Not once in the seven or eight exacting months of gruelling hard work in the heat and isolation of the desert, did he question a decision or fail to carry out an order".

This acknowledgement, appended to his report on the Bindibu expedition to the desert aborigines of Western Australia by Dr. Donald F. Thomson, O.B.E., Head of the Department of Anthropology, University of Melbourne, to the Royal Geographical Society in London, is high praise indeed.

Some of the Club's older members will remember a blue-jeaned 'teenager, fresh-out from England, who joined the Club some eleven or twelve years ago, and, becoming interested in herpetology, came under the influence and guidance of the late Dr. Flecker.

Little did we think, in those not-so distant days, that Young Bill Hosmer was starting, through the Club, on a career which would bring him to the summit of an exacting and precise profession.

I well remember, on the day he went South to make his way as a naturalist and herpetologist, and later as an anthropologist, interviewing him on behalf of the Australian Broadcasting Commission. Due to mis-timing, the interview took place on the verandah of the old-time "Sunshine Express", and was carried on whilst passengers made themselves comfortable for the long journey ahead.

Bill caused some consternation when, asked whether he was taking any specimens south with him, he replied casually "Only one death-adder",—and produced a container holding the reptile for my inspection.

Youthful ambition, plus expert guidance, and a determination to succeed at his chosen (and apparently unusual) profession, has placed William Hosmer very close to the top. Praise is not lightly bestowed through such a conservative and essentially factual publication as the "Proceedings" of the Royal Geographical Society.

As our Founder will always be "The Old Doc", so will William Hosmer always be "Young Bill" to those who knew him. One feels that the tenacious spirit of dedicated persistency is being carried on by the Doc's protegee, giving an example which Junior Members could well emulate. J.O.

Observations on the White Nymph Family Nymphalidae

Mynes geoffroyi querini WALLACE 1869.

By J. McLOUGHLAN.

This butterfly is not uncommon in the North of Australia and may be taken in heavy rain forests from Mackay to Cape York.

The general coloration is as follows.

MALE : Upperside, white with black margins, broadest at the tip of forewing. Underside varies from white to lusterless black, always with a yellow band near the apex, a scarlet or bright orange spot near centre of margin of forewing and a scarlet streak at the base of the hindwing.

FEMALE : As above with broader margins on the upperside, and usually the colours are duller on the underside.

It is difficult to enlarge further on coloration of this butterfly, as the underside of the wings carry a wide range of colours from bright reds and yellows down to the more sombre shades of grey, black and dark green.

The eggs of this beautiful butterfly are laid on the tender new leaves of the large stinging tree of the tropical scrubs.

The larva are dark brown or black in colour, with rows of black spines along the body.

The pupa is brown or black, elongated with short black spines on the dorsal surface of the abdomen. The anterior end has two short projections, with a gold spot behind each one.

I have taken quite a few pupae from different areas in the North, but one point remains uniform in each case. The entire lava population of one stinging tree congregate under one or two leaves to enter their pupal stage. I have found as many as fourteen pupae hanging head down from beneath one leaf. On a tree at Ravenshoe I found eight pupae under one leaf and seven under another on the same tree.

Another interesting point is the selection of the food plant. There may be a dozen or so trees growing in close proximity, but the butterfly selects one, occasionally two trees on which to deposit her eggs. They are the host trees from then on.

I have let a breeding area go for twelve months without revisiting it, and sure enough, the same poor tree is being continually ravaged by the Nymph larva while one growing in perfect health, three feet away has not a caterpillar on it.

I can offer no explanation for this strange preference of one particular tree, unless of course, the leaves of one tree are sweeter than the rest.

EDITORIAL.

Field Days have been arranged for each month except December, but they are not well attended. It is felt that it is up to the Specialist members to try and make an effort to come to these Field Days so that they can help other members interested in their particular field of interest. Endeavours are made to go to different types of country in order to please all members and it is very disappointing when only a handful of members take advantage of these study days.

A very enjoyable Barbecue was held just before Christmas at the beach home of Mr. and Mrs. Gorton. All members had a very happy time with plenty of Christmas fare to please the palate, films to please the eye and a friendly gossip with friends. The Club would like to express their sincere thanks to Mr. and Mrs. Gorton for making their home available.

Thanks go to various people for books and pamphlets for our Library namely Miss Taylor and the Victorian Museum.

In reading Ian Orrells article on the Orb weaving spider, one point struck the Editor and the Editor would like it cleared up if possible. It was stated that the Spider repaired a hole in her web. Was this actually seen by Ian? I ask because on reading Henri Fabre's "Life of the Spider" he emphatically states that though he purposely damaged webs and watched and also watched other webs that were damaged in the course of their duties, at NO time did he see evidence of the Orb weaving spider having the sense to repair her web. When the web was too tattered for further use, it was cleared away and a new one built. Perhaps Ian you could let us know if you actually saw the web being repaired or just presumed that it was done.

Another parcel of crabs has been received and will be dispatched to the Sydney Museum as soon as possible. We have to thank Mr. C. Lee for these.

It is now time for subscriptions to come in so please, all members who have not already paid, please forward your subs to the Treasurer without delay.

Juniors—I hope you are thinking and watching ready to write up your essays for the Flecker Medallion. It is no good waiting to the last minute to do this, now is the time for observation and collecting notes. Let us see if we can have a few more entries from Junior Club Members.

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Pot - Pourri.

Shortly after I moved into this camp on the spring at Spring Creek, a tributary of the Lynd River on the southern central part of Cape York Peninsula, I found a Great Bower Birds bower under some low hanging branches of a black tea tree.

One day in October, whilst doing some washing by the spring I noticed a lot of rubbish in the "banjo" I was using for a tub. Looking up, I saw a mud nest belonging to some Apostle Birds, and sitting on the edge of the nest busily tossing all the grass and fibre lining out on the ground was a Great Bower Bird. Having done this to its satisfaction, it then began to pick soft twigs off the Black Tea Tree and line the nest with them. Suddenly came the chatter of the returning Lousy-jacks. They chased away the Bower Bird, threw out all its workmanship, and began to replace it with their own. This

Pot - Pourri (Continued)

went on for some days, until both the Bower Birds and the Apostle Birds got tired of the game, deserted the nest in dispute and apparently nested elsewhere. CHARLIE LEE.

Some years ago a young soldier was travelling out in the bush in pursuance of his duties. He had occasion to stop whilst his Officer was busy and his eyes strayed around the bush till suddenly he espied a large frilled lizard sitting on the branch of a tree. The lizard was busy catching insects for a meal when the soldier noticed something that amused him very much. The lizard would catch a beetle or other tasty morsel, but instead of eating it straight away, he placed it behind the frill much like someone parking a piece of chewing gum behind his ear. This went on for some time and the soldier came to the conclusion that the lizard collected a number of insects, parked them in his frill and then ate them later on at his leisure.

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THE BIRDWING BUTTERFLY.

This beautiful insect belongs to the family PAPILIONIDAE and is represented by 7 different species. In the majority of cases the male is handsomely clothed in green and black. The following colour description may be taken as representing the four races found in Australia.

MALE : Upperside, velvet black and brilliant green, with a deep brown sex mark on the forewing. The hindwings are mainly green with a series of black and golden spots. The abdomen is a bright yellow. The underside of the wings is mainly green tinged with gold.

FEMALE : Upperside, deep velvet black or in some races dark brown. The underside is similar, with yellow or dull gold markings on the hindwings. Both male and female are bright red at the base of wings.

One striking member of the family is PAPILIO PRIAMUS LINNAEUS. This butterfly was found on the Island of Batjan in 1859 by A. R. WALLACE and in his book "THE MALAY ARCHIPELAGO" he describes this capture I quote "The beauty and brilliancy of this insect are indescribable and none but a naturalist can understand the intense excitement I experienced when I at length captured it. On taking it out of my net and opening the glorious wings my heart began to beat violently, the blood rushed to my head, and I felt much more like fainting than I had done when in apprehension of immediate death. I had a headache the rest of the day, so great was the excitement produced by what will appear to most people a very inadequate cause" Unquote. In this race, the green on the upper surface of the wings is replaced by brilliant orange, thus Mr. Wallace's excitement.

Another remarkable race is PAPILIO PRIAMUS URVILLIANUS from the Solomon Islands. Dark blue replaces the green in the male and the affect is very admirable indeed. I have one of these beautiful butterflies and its beauty really defies description.

LIFE HISTORY : Egg, large and round, laid individually on the vine ARISTOLOCHIA. The larvae are grey-black in colour, some times with a tinge of deep blue. They have a number of long and pointed spines, mainly shiny black in colour on their backs. One spine either side near the centre of the body is usually pink or white.

The pupa is large and multi-coloured and is supported by a heavy cremaster. This life history may be taken as general for all PRIAMUS.

These butterflies are not only brilliant in colour, but rank among the worlds largest. The female of a race found in New Guinea has a wing span of over 12". I bred a female PAPILIO PRIAMUS EUPHORION with a wing span of 9¼". J. McLOUGHLIN.