

122

# The North Queensland Naturalist

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No. 54

## NORTH QUEENSLAND NATURALISTS' CLUB

Meets at Girls' and Infants' School, Abbott Street, Cairns,  
usually on second Monday in each month, at 8 p.m.

### REPORTS OF MEETING:

14th March, 1938.

New Members Elected:  
Mr. and Mrs. R. C. Watts, Townsville.  
Miss Nancy Hopkins, Townsville.  
Mr. E. McKeown, Tully.

11th April, 1938.

Address by Mr. F. P. Kelly: "Production of Ramie Fibre (*Boehmeria nivea*.)"

New Members Elected:  
Mr. E. Evans, 122 Grafton Street, Cairns  
Mr. S. H. Parlett, 58 McLeod Street, Cairns.

Mr. R. Underwood, Church Street, Gordonvale.

Mr. J. B. Holton, St. John's Rectory, Cairns.

Junior Member:

Mr. R. B. Williams, 370 Severin Street, Cairns.

12th May, 1938.

Address by Mr. A. Nicholson on "Tides."

New Members Elected:

Miss Costello.  
Mr. S. W. Willats, Jaggan.

## NOTES ON SOME NORTH QUEENSLAND UTRICULARIAS.

By Francis E. Lloyd, D.Sc., F.R.S.C., F.L.S., Carmel, California, U.S.A.,

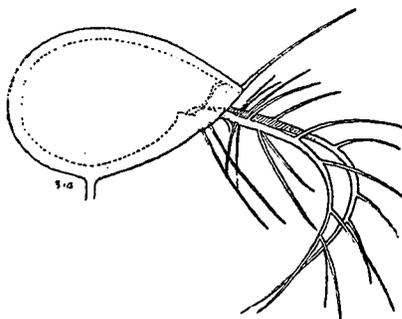
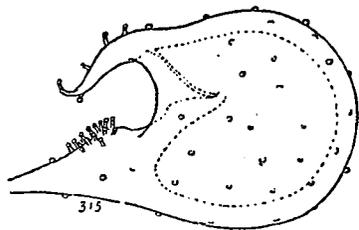
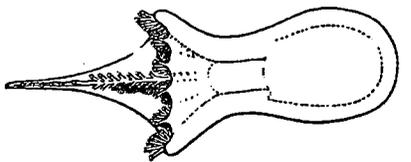
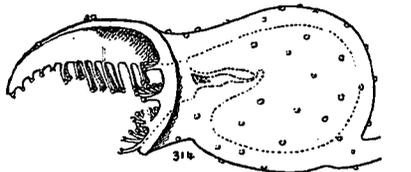
Through the generous help of your Honorary Secretary, I have been the recipient of specimens in spirit of three species of *Utricularia* which were found by Dr. H. Flecker in North Queensland. At his kind suggestion I send some notes on these plants, in the hope that interest in these interesting organisms will be stimulated. It is a curious fact that, in spite of the long history of this genus, our knowledge of the most important and interesting details about the various species, of which there are about 250, is singularly deficient. In addition to this, there are in Australia probably a number of still undiscovered species—rather certainly than probably—and this should serve as a stimulus to students of nature to look for them whenever opportunity offers. But here one may sound a warning, that collections should be made with very great care. If found in wet, swampy soil or mud, their underground parts should be very

carefully exhumed and the whole, flowers, fruits, and particularly the, as far as possible, undamaged underground parts should be preserved in spirit. In the case of the specimens before me, this has been done sufficiently so that I am able to give an account of the structures which at the moment particularly interest me, namely, the bladders or traps.

L.314 (your no. 3595) *Utricularia* aff. *nivea*. I am unable to be sure of the species as there were no flowers, but the affinity is certain. It is related to a group of Asiatic species in which the traps are very characteristic. The body of the trap is about 1 mm. long. It is constricted about the mouth, in front of which the wall expands to form a funnel with the entrance at the bottom. The upper part of this funnel is drawn out into a knife-blade shaped extension which bears along its inner edge two rows of glandular hairs. The rest of the funnel tube bears four pairs of rows of

similar hairs which converge toward the entrance. This arrangement serves as a guide toward the entrance, so that minute living forms may be led thereto.

The body of the plant is inconspic-



3595. Growing in water sodden edge of Bessie's Creek, Trinity Bay. H. Flecker, 18/7/37.

3596. Ditto.

4053. Floating on water, with yellow flowers raised above surface. Edge of Station Creek, Chillagoe. H. Flecker, 15/11/37.

ous, the leaves being minute and spatulate, rising from the thread-like stolons which permeate the substratum. The inflorescence is relatively very tall, 15 c.m. more or less. The underground parts are so delicate that it is difficult to exhume them. It grows in wet places.

L315 (your No. 3596). This plant again represents a group of species peculiar to Asia and Africa, chiefly if not entirely tropical. The specimen showing no flowers, the best that can be done is to indicate its affiliation, which is with a plant which has been called *U. caerulea*, possibly incorrectly. This is a taxonomic difficulty which has not been ironed out. However, I have described the trap of the supposed *U. caerulea* (Biol. Reviews 10:72. 1935) and it is this plant which may serve as the type. It grows in India and probably otherwise.

The trap is rounded (in lateral view) and there are two cow-horn like antennae projecting from above forward and sideways of the entrance. The stalk is approximated to the antennae, and has a slight hump on its upper side. This, and the antennae are armed with short stalked glandular hairs, which elsewhere over the surface are without stalks. This is altogether different from the trap of *U. nivea*, as will be seen from the figure herewith, but is very similar to that of the Australian *U. cyanea*, R. Br., which I found under the guidance of my colleagues in the University in Sydney, in that vicinity.

The leaves are similar to those of *U. nivea*, but somewhat broader, and the scapes have about the same habit and size.

L316 (your no. 4053) *U. exoleta*. This is undoubtedly the plant which passes under this name. It is a semi-floating plant, or even entirely floating. The many stolons make a floating mat of interlaced fibres bearing small leaves with a single forking near the base. The flower stalks arise from the axils of the leaves, and the bases send out a number of branch stolons which are of three kinds. One kind consists of descending stiff stolons armed with short branches with tightly curled leaves. These serve to anchor the inflorescence either in the

mass of floating fibres, or by penetrating the substratum if the water is not too deep. These are called the rhizoids, very well developed in your plant. Second, there are branches which bear much reduced leaves, but numerous traps. These also descend into loose mud if available. Most of the catch of prey is probably accomplished by these branches, merely because of the superior numbers of traps. The third kind of branch is the ordinary stolon which spread abroad and can give rise to additional flower stalks, and bears simple once-forked leaves each with a trap on one of the segments.

The traps are pear-shaped viewed laterally, and have long slender branched antennae, with additional slender uniseriate hairs projecting away from the entrance from above and from the sides. This is the type of trap found in various species all over the world. My working type for this kind of trap is *U. minor*. The

Australian *U. pygmaea*, R. Br., is similar, but in this species I have found no rhizoids nor the exuberant development of other branches from the base of the inflorescence. This species is moreover generally much smaller, with short scapes which are one flowered.

The flower of *U. exoleta* is small (5 mm. long) yellow, gibbous with a prominent palate which is two lobed.

All the three above noted species have close affinities with Asiatic species, and like many plants in the tropical regions of Australia, betray origins in far removed centres. The peculiarly Australian, or better Australasian type, such as *U. dichotoma*, Labill, *capilliflora* and others, has a distinct form of trap found nowhere else than in Australia and New Zealand. To this lot belongs *U. tubulata*, F. v. M., which is the only floating but truly Australian form, and is found in your general region. It is hoped it will again be collected.

### STRIPED MARSUPIAL CAT.

Although no specimen of such an animal has yet reached the hands of a zoologist, Le Souef and Burrell in their book on the Wild Animals of Australia give descriptions from quite a number of different observers of a

very little known marsupial, which they had provisionally named "striped marsupial cat." Owing to the above circumstance, the following description is certainly worthy of being added to the literature.

### DESCRIPTION OF WILD ANIMAL SEEN ON ATHERTON TABLELAND.

By J. McGeehan.

About the year 1900, I was walking through the scrub accompanied by two dogs, on what is now the farm of Mr. Neil Neilson, Kairi. The particular spot on this holding with which this account deals is estimated to be approximately seven chains, in an easterly direction, from the present junction of the Kairi-Atherton and Kairi-Kulara roads.

The time, I believe, was about 4 p.m. My attention was attracted by fairly loud harsh grating and vibrating sounds from what was evidently a wild animal which the dogs were attacking.

The nearest approach to the sound described would be that of the call of an opossum, but harsher and more deeply intoned.

I hastened to the scene and there saw a strange creature on the ground about to expire and apparently killed by the dogs. It partly resembled a large domestic cat, excepting for the body, which was rather light in build.

The most striking part of its appearance was the well defined hoops of colour which encircled its body. These hoops or bands appeared to be about 2½ inches in width, and the colours were white and dun alternating in perfectly marked circles.

As far as I can remember the alternate colours did not extend to the head, legs or tail. I think that the colour of these parts was dun.

The neck was short and stout, and the head was shaped more like that of a Pomeranian terrier than of a cat,

V 6 #54

but the pricked ears were not as large.

I noticed that, when the mouth was opened, the top and bottom jaws, at the front, contained long fine fangs, but regret that I cannot now recollect whether the number on each jaw was two or four. Whichever number it was the fangs were in sets of two and about a quarter of an inch apart.

I further regret that I do not remember the length or shape of the tail but think that this member was similar to that of a large domestic cat in all particulars. The eyes were dark in colour and vicious. The fur which covered the body was finer and shorter than that on a domestic cat.

**Measurements:**

After a good deal of consideration I would say that the following would probably be correct:—

From the point on the backbone immediately behind the shoulders to the butt of the tail, 14 inches. Length of front legs from the bottom of the paws to junction with the chest, 7½ inches. Height (from ground to back) 11½ inches to 12 inches.

I should have stated earlier that the length from behind the shoulders to

a point on the skull, between and level with the centre of the ears, would be about 5 inches.

I have no hesitation in stating that if the creature were standing upright the line of the trunk would be level; that is, the back portion would not be raised as would be that of a wallaby in that position.

I have occasionally seen a brownish black and white opossum, but the animal described was not one.

I did not arrive at any definite conclusion at the time as to what the age of the animal would be, but judging by its apparent good health and vigour it was not very old.

I took particular notice of the straightness of its front legs which indicated great speed in action.

I may mention that I have, at times, spoken of having seen this strange animal but the great majority seemed to doubt my word, and this discouraged me from writing an account of it earlier.

Last year, however, a person at Bahinda informed me that he had seen similar specimens in the scrubs in that locality.

**PHAEDYMA SHEPHERDI SHEPHERDI AND RAHINDA  
CONSIMILIS PEDIA.**

By M. J. Manski, F.R.E.S.

Of the life histories of butterflies I have worked out, none have intrigued me more than those of *Rahinda* and *Phaedyma*.

Of the two, *Phaedyma shepherdii* is the most particular in the placing of the egg, as only on the extreme end of the entire leaf have I ever found the deeply-pitted greenish egg whilst the pearly-white egg of *Rahinda* is placed anywhere on the top or underside of the leaflet.

As the young emerge the first thought they have is for their own protection so they cut out small pieces of the leaf or leaflet, attach silk to them so that they hang down on each side of the midrib or leaflet stem. These portions wither and eventually dry brown, and it is along the stem or midrib that the young caterpillar hides and develops. For protective

colouration it is ingenious as the caterpillar is difficult to see among the dried pieces of leaf dangling around them.

To the collector who knows the food plants one glance at the tree tells him of the presence of the caterpillar, and when looking for the eggs of *Phaedyma shepherdii* only entire leaves need be examined. These plants are *Pongamia glabra*, *Ehretia acuminata*, and *Aphananthe philippinensis*.

As the caterpillars develop and are ready to pupate a reversal of habits takes place. Whereas *Rahinda* is not particular where the eggs are laid the caterpillar is very particular to pupate on the extreme end of the dead portion of the leaf that was its home. The colour being brown is very difficult to distinguish from portion of the dry leaflet. (To be continued)