

The North Queensland Naturalist

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No. 56

NORTH QUEENSLAND NATURALISTS' CLUB

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

BUSINESS FOR NEXT MEETING MONDAY, 12th DECEMBER, 1938.

REPORTS OF MEETINGS:

19th September, 1938.

Annual General Meeting. Election of Officers. Presidential Address by Dr. H. Flecker, entitled "Reasons and Need for Preservation of Native Flora and Fauna."

The following Office Bearers were elected:—

- President: Dr. H. Flecker.
- Vice-Presidents: Miss Hooper; Mr. J. G. Brooks, B.D.Sc., F.R.E.S.
- Hon. Secretary: Mr. J. Wyer.

Hon. Treasurer: Mr. R. B. Williams. Committee: In addition to above ex officio: Messrs. R. J. Gorton, J. Foster.

New Members Elected:

- Mr. and Mrs. Izatt, Spence Street, Cairns.
- Mrs. Runcie, 70 Abbott Street, Cairns.

10th October, 1938:

Address by Mr. S. H. Martin on the Australian Aboriginal.

THREE DIMINUTIVE NORTH QUEENSLAND ORCHIDS.

(Including a New Species)—Contd.

By W. H. NICHOLLS.

By inadvertence the name *D. dimorphum* appears on the Key to Plate instead of *D. variabile*, in No. 55.

(Supplemented Descriptions).

No. 1. *Dendrobium Prenticei* (F.v.M.) W.H.N. (*Bulbophyllum Prenticei*, F.v.M.). (1) (After Dr. Prentice).

Rhizomes creeping on the branches of trees, often branched, the sheathing bract at the leaf base soon breaking into threads. Leaf ellipsoid or narrow-cylindrical, 2-3.5 c.m. long, more or less curved, blunt; nerveless, faintly marked from foveolar dots. Flower solitary on very short pedicels, very small, about 5 mm. in diameter, dingy white, pink at the base only; lateral sepals oblique-deltoid semi-lanceolar, extended into a semi-

ovate basal prolongation; dorsal sepal lanceolar; petals narrow-lanceolar; labellum as long as the lateral sepals, erect, lobeless, yellow with some red at the base, thick, oblong, cuneate at the base; the margins toward the base pubescent; tip broad and very blunt. Column short with two short teeth at the apex.

Figs. A to F.

Habitats: Bellenden Ker Range (Karsten); North Toohey Creek (Dr. H. Flecker); spm. no. 3322.

Note: The above species has a superficial resemblance to *Bulbophyllum crassulaefolium*, Cunn. (1839) (*B. Shepherdii*, F.v.M.).

No. 2.

Dendrobium lichenastrum (F.v.M.) W.H.N. (*Bulbophyllum lichenastrum*, F.v.M.) (2) (Lichen-like).

Rhizomes creeping, flexuose, often forming dense patches on the bark of trees or on rocks; the sheathing bracts soon breaking into long and abundant cilia. Leaves thick, about 1 cm. long, covered evenly with foveolar dots; from almost globular to ellipsoid, slightly channelled. Often more brown than green. Flower solitary, very small, about 5 mm. in diameter. on long pedicels, dingy white, densely lined with branching red veins on both surfaces; sepals broadly-ovate; spur curved, obtuse; petals lanceolar, much narrower, but little shorter than the sepals; labellum erect, orange-coloured, marked with red; thick, oblong; base wide; tip (or mid-lobe) rounded; the lateral lobes represented by rounded margins, which are pubescent downwards.

Column short, the wings small and blunt.

Figs. G to L.

Habitats: Sea View Range, Rockingham Bay (Dallachy); Ranges near Cairns (Bailey); "Rain forests on the very high country of Mt. Fox—on the Burdekin River—growing on *"Lindersia Brayleyana"* (A. Glindeman); Specimen No. 3983, Clohesy River (H. R. Thurston).

No. 3. *Dendrobium variabile*, sp. nov. (variable in reference to the foliage). (Incorrectly appears in Key as *D. dimorphum*).

Planta parvissima, *Rhizoma breviter repens*. *Folium ovato-oblongum vel oblongum vel lanceolatum, crassum; apice obtusum. 1.3-1.7, cm. longum. Inflorescentia uniflora, parvissima, tri-colorata; basis comparate magna;*

calcar obtusum; sepalum dorsale late lanceolatum; lateralia latiora; petala breviora angusta; labellum aureum angust-oblongum obscure trilobatum; marginibus pubescentibus; lobus intermedius. Columna brevissima.

Rhizomes apparently short and dense on the bark of trees. Leaves thick, 1.3-1.7 cm. long, ovate-oblong-oblong to lanceolar, occasionally curved, blunt; marked with foveolar dots.

Flower solitary, very small, about 5 mm. in diameter on very long pedicels, white with prominent red striae; the lip orange, the red striae chiefly on the outside of the segments; dorsal sepal lanceolar; lateral sepals oblong-lanceolar, very wide at base; the spur comparatively large, blunt; petals small; labellum longer than the lateral sepals; thick, narrow-oblong, cuneate; base rather narrow; tip very broad and rounded; yellow marks with red; the lateral lobes represented by rounded margins, which are pubescent to the base. Column very short, the wings short and blunt.

(This plant is figured by R. D. Fitzgerald as *Bulbophyllum lichenastrum*,

F.v.M. (3).

Figs. M to S.

Habitats: Campbell's Creek (Dr. H. Flecker); Mt. Fox (A. Glindeman).

- (1) Wings Southern Science Record 1, 173 (1881).
- (2) Fragm. VII., 60 (1869).
- (3) Aust. Orch., II.

Acknowledgments.

I wish to acknowledge the courtesy of the National Herbarium Officers (Melb.), especially Mr. P. F. Morris, in the examination of Mueller's type material.

NOTE BY THE REV. H. M. R. RUPP.

Mr. Nicholls has kindly allowed me to read his paper on "Three Diminutive Orchids of N. Queensland," and to examine his illustrations, before sending them on for publication. I cannot feel sure that I have ever seen the plant which he identifies with F.v.M.'s *Bulbophyllum Prenticei*, but after inspecting his drawings I can

assert definitely that it is not the orchid in the Queensland National Herbarium labelled *B. Prenticei* (coll. by S. J. Kajewski). In my opinion, however, Mr. Nicholls has correctly depicted Mueller's species. In my own herbarium, alongside a specimen of Kajewski's *Bulbophyllum*, is a solitary flower very like that of Mr.

Nicholls, with the note: "Flower from Cairns, which appears to me much nearer Mueller's *Prenticei*." Kajewski's plant is undoubtedly a *Bulbophyllum* allied to, but differing from, *B. crassulaefolium* Cunn. I agree with Mr. Nicholls that the plant he depicts, which seems identical with Mueller's type specimens, should be placed in the genus *Dendrobium*. I

am also in accord with his treatment expressing this view in print. But Mr. Nicholls has dealt with these difficult little orchids more adequately than I could have hoped to do, and he is to be heartily congratulated on his achievement. It should now be less difficult to elucidate the proper position and nomenclature for the plant which I have above called Kajewski's *Bulbophyllum*.

CURIOUS INSECTS.

By J. G. BROOKS, B.D.Sc., F.R.E.S.

Fireflies.

Most people have noticed the phenomenon of small lights moving during the night. These, although called fireflies are not flies at all, they are small beetles of the Family *Lampyridae* and the common North Queensland varieties are usually no more than a quarter of an inch in length and less than an eighth of an inch broad. In colour they vary from tangerine to black and combinations of these colours. The striking feature of these insects when observed in captivity is the unusually large size of the eyes in comparison with the size of the body. The luminous patch, which is about one sixteenth of an inch square, is situated on the rear underside of the body.

Science has not revealed the cause of the light but it is believed to be due to the oxidation of fat in certain specialised cells. The light is a love call; the male by flashing his lamp attracts the attention of the female, who responds with a weaker flash.

The writer has observed fireflies on the Gillies Highway on a dark wet night in thousands, but the prettiest sight was obtained on a dark wet night in Eubechangee Swamp. A tree, the size of the back-yard lemon tree, was covered with them and one could easily imagine that one had been allowed to visit the fairies' New Year festival.

Insect Mimics.

Some insects of different orders by their bodily construction resemble members of other orders. This camouflage is for protective purposes. Wasps and bees (Order *Hymenoptera*) which are universally known to

be able to administer painful stings are the commonest types mimicked. One of the laws of nature is "Eat or be eaten," hence a harmless beetle with the appearance of a vicious wasp can instil fear into its enemies which often are much larger and stronger than itself, though this is not always the case as many parasites are minute in size.

Typical among these mimics are some varieties of beetles (Order *Coleoptera*) Family *Cerambycidae*. In appearance they resemble beautiful wasps (Order *Hymenoptera*) flying around blossoms on trees. If one looks closely at such a specimen one sees that there is only one pair of large transparent wings. The upper wings are short and meet in the mid line, which is typical of beetles.

Some flies (Order *Diptera*) by their bodily appearance resemble bees (Order *Hymenoptera*). Often when the uninitiated person removes bark from a log small dark insects resembling earwigs (Order *Dermaptera*) dart about—usually these are harmless beetles (Order *Coleoptera*) Family *Staphylinidae*.

Other insects though mimics do not mimic insects but mimic plant life. Such are stick and leaf insects (Order *Orthoptera*) and moths and butterflies (Order *Lepidoptera*) which are often mistaken for dead sticks and leaves. Some beetles grow coatings on their backs and are mistaken for the bark of trees or plant growth on the trunks of trees and logs. Such is nature!

Ants' Cows.

Many insects either in the larval or mature form secrete wax which, if allowed to remain on their bodies, causes

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the death of the insects. Ants attend most of these insects and remove the wax for them. Amongst such types of insects is a family of bugs (Order Hemiptera). This is the Family Jassidae. It is a large family of leaf hoppers and is commonly called "Ants' Cows." To the casual observer it would appear that the ants which are attending them, have obtained easy food—such is the case but the ants are simply remov-

ing the waxy secretion and not devouring the insects themselves. In America the Jassidae are known as "sharp shooters" on account of the way they jump when disturbed. Most of the forms are small and inconspicuous, but on account of the immense number in which they occur, they do a great deal of damage to plant life, though the individual punctures which they make on leaves are often not noticeable.

HERMIT CRABS GO HOUSE HUNTING.

By BRUCE CUMMINGS.

(An account of these interesting creatures from the motion pictures by Mr. Cummings).

The August tide was receding rapidly and being the day before the new moon was an exceptionally low tide. As one wandered about, the reef became more and more exposed, forming crystal clear pools in which brightly-coloured fish darted in and out of the coral which abounded in the pools. All around, the numerous other creatures were on the move, food being the chief concern for most of them, but not the only reason for others. Carrying his house, the shell of a Tonna on his back, a hermit crab (*Dardanus megisthos*) was noted clambering over the broken coral and it was evident that it was by no means very comfortable, as it was perhaps more roomy than necessary. He suddenly came to rest as another member of the same species came to view from out of the coral a foot or so ahead of him. Watching each other for some time, the new arrival withdrew into its home, a cone shell, *Conus*. The other crawled alongside and thrust one of his claws into it, then both claws, but not being able to get a proper grip on his rival, he withdrew a few inches to consider the position. Having decided upon a plan of attack he again crawled over to the cone shell, destined to become his future palace and grasping it with his smaller nippers, with the larger one, he scooped sand into it, then taking hold of the shell with both chelae he rocked it backwards and forwards several times, the purpose being to distribute the sand within it so as to make its occupant uncomfortable. Evidently it did, for after the lapse of a couple of minutes, the outraged crab moved out a little, whereupon the assailant made another attack, and with chelae clenched tightly together, they struggled

and pulled with all their might, at the same time striking their shells together hard and often.

The wrestle had proceeded for about half an hour, when with a herculean effort, the occupant of the cone shell was lifted completely out and cast on the sand. The invader then took possession of the empty house which he seized with both claws so as to empty out all the sand, which accomplished, he turned the shell around with the opening facing him, at the same time bringing his own shell close up to it. After making sure by a surreptitious glance around him that all was secure, he evacuated his old residence and clambered into the new one tail first. With a quick jerk he pulled himself into his new home, after which his head and chelae were popped out so as to get a good glimpse of things and once more retreated into his shell.

The ejected crab, which had been resting near by, made an attempt to return to his old home, only to receive a nip on the soft unprotected portion of his tail. However, the usurper promptly turned out and chased him off the field. Looking very pleased with his new and more comfortable quarters, the victor moved the cone up and down on his back a few times, then wandering over the coral, his next important quest was something to eat.

Wandering on, one wondered what was to become of the homeless crab without any protection to his soft defenceless body until he could find another residence. Either he had to find a new uninhabited shell or he would in similar manner need to evict another crab from his home. Is this an instance of the survival of the fittest?