

North Queensland Naturalist

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NORTH QUEENSLAND NATURALISTS' CLUB

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

Next Meeting—Monday, February, 10th, 1936.

Lecture by Dr. H. I. Jensen.

Election of Members.

Mr. Will R. Holloway, Box 185,
Gordonvale.

Excursions.

Will those who desire to organise or participate in excursions at short notice, kindly communicate with the Honorary Secretary.

The January Meeting.

Mr. J. Manski, chose as his subject, "The Structure of Orchids as Compared with Other Flowers." This lecture was of the instructive type, and with the aid of specimens, points of distinction, were ably demonstrated. It was a great pity that the Weather Gods were so unthoughtful, as many members thereby missed one of the best lectures given for some time, and it is to be hoped that the Club will always endeavour to obtain the services of instructive lecturers.

Quite a number of orchids are to be found in this district and a few collectors have taken up their culture. Some are difficult to identify as orchids, and the following hints on the identification of the orchid flowers may not be out of place in helping those interested to readily identify them.

An orchid flower has but three sepals and three petals; usually the third or bottom petal is totally different from the other petals and is called the labellum or tongue. The stamens with anthers attached, containing the pollen and the pistil, plainly seen, in other flowers, are not seen separately in the orchid flower, but are united to form the column which is placed under the top or dorsal sepal and is connected to the pedicel and seed stem. The

Proposer

Mr. J. Wyer

Seconder

Mr. R. Hunter

apex of the column contains the pollen hidden behind the stigma and rostellum, and by lifting the point the pollen can be seen. The seeds of the orchid are contained in a capsule, and are extremely small and resemble fine powder, but when magnified are spindle shaped and not unlike miniature bananas.

Exhibits.

Mr. Tierney—Orchid blooms preserved in methylated spirits. It was noted that all colours except yellow disappear from the blooms. This method is useful, in that it shows the shape and structure, etc., of the blooms, the club appreciates Mr. Tierney's gesture in presenting these specimens to the club.

Stethopachis formosa, Baly, the orchid beetle and its larvae, were also displayed.

Mr. J. Manski—Orchid blooms, *Dendrobium Phalaenopsis*, *Calanthe veratrifolium*, etc.

Mr. Pat. Flecker—Specimen of *Astacopsis fleckeri* from Root's Creek, and two species of yabbies from Brooklyn Station and Herberton.

Mr. H. Chargois—Photograph of cassowary chicks.

Rev. Rupp—Photograph of *Dendrobium Cunninghamii*, the only *Dendrobium* of New Zealand.

Dr. Flecker: Herbarium specimens.

Contributions for this Page.

Observations of nature will be greatly appreciated and can be forwarded to J. G. Brooks, Box 545, Cairns.

THE HAUNT OF THE NORTH QUEENSLAND SPINY CRAYFISH

By Dr. H. FLECKER and PAT. O. FLECKER.

It was in February, 1935, that Mr. Tom Carr, a member of the North Queensland Naturalists' Club, reported the fact that a crayfish obtainable at Root's Creek was good eating, but when after cooking, a portion was given to a pup, which had partaken of the thoracic viscera, it became sick within half an hour and died next day! He was therefore requested to forward a specimen for the determination of its identity, etc. In due course there arrived at Cairns, in a hermetically sealed tin, which had previously contained golden syrup, a very fine specimen of a crayfish in spirit. After removal from the tin, it was dried in the sun and later referred to the Director of the Queensland Museum, Mr. Heber W. Longman, who discovered it to be the male of an entirely new species of *Astacopsis*. Hitherto this genus had never been known to occur further north than the Tambourine Mountains, south of Brisbane. The new crayfish was found to resemble the Tasmanian form, *A. franklini*, more closely than the southern mainland species, *A. serratus*, and as no species of *Astacopsis* has definitely been recognised from New Guinea, the origin of these crustacea in North Queensland is as yet a matter of speculation.

A description of the new species, *Astacopsis fleckeri*, by Miss Watson, together with the plates which appear as a supplement to this issue, has appeared in the *Memoirs of the Queensland Museum*, Vol. X, Part V, October, 1935.

Inquiries from a number of individuals previously working in the Root's Creek area indicated that the crayfish was well-known to the residents of the district for many years, and that they had been frequently cooked and eaten, but it was suspected that other crustacea may have been mistaken for this species, for example, a large shrimp, exhibited in spirit at a hotel in Mareeba was obviously different. Another large crustacean caught in the Mitchell River, at Brooklyn Station was likewise not the object of our search, as it possessed quite insignificant chelae. During the winter of 1932, Dr. Darlington, an American collector for the Harvard Museum, who was accompanied by Mr. George

Curry, the Curator of Lake Barrine, endeavoured to procure specimens, but was unsuccessful. Evidently he was unaware that this species was undescribed for he would otherwise have certainly persisted in his efforts.

Through the courtesy of Mr. Montague, of Mount Mulligan, formerly at Root's Creek, we were supplied with a crayfish trap, and with it we set out to seek specimens of the new *Astacopsis*, which was so greatly desired by the authorities at the Queensland Museum. Having set out from Mount Molloy on New Year's Day, 1936, a 16-mile journey by the weekly motor lorry service brought us to Brooklyn Cattle Station, where, through the courtesy of the manager, Mr. Paul E. Hawkins, we stayed the night, incidentally baiting the trap with a large piece of raw meat and casting it into the Mary Creek, which flows into the Mitchell River, some two miles further on and thence to the Gulf of Carpentaria. Next morning, although the meat had disappeared entirely, the trap contained only a yabbie, the species of which is not yet determined, but as discovered later on, certainly not the *Astacopsis*.

We were greatly assisted by Mr. and Mrs. Hawkins in our preparations for the object of our search, especially with provisions, swags and pack horses, etc., so accompanied by their juvenile son, Alva, who was much more familiar with equestrian management than we were, we set off from the droughty conditions prevailing at the station for Mount Spurgeon, some 10 miles eastward, whence we travelled a further six miles eastward to a clearing formerly known as Uralla, over which a new Zarda Tin Sluicing Company has taken a lease, and which it is proposed to call Zarda. Here we found shelter and congenial company from a number of "tin scratchers," to whom we are much indebted for their hospitality. The prevailing continuous moist conditions were in striking contrast to the exceedingly dry conditions of the plains.

Mount Spurgeon is said to be 3,800 feet and Zarda 4,000 feet above sea level, the latter situated on the Upper Mossman River. The trap was set at once, but found to be of very little value, only one specimen being caught,

not inside, but actually outside the trap to which it clung. Observation showed that the crayfish were able to seize the bait from outside the trap with the limbs bearing the smaller chelae.

It was not long before the first specimens were sighted, recognised and captured, the process of securing them being surprisingly simple. They are often seen in quite shallow waters, only a few inches deep, and upon approach, unlike the much more alert yabbies, do not suddenly dart beyond reach with a jerk or two of the tail, although obviously quite capable of doing so. If seen in deep water they can easily be lured into shallower reaches by the tempting meat bait. The water is everywhere absolutely clear despite much rain, and sandy bottoms are frequent, and as these creatures are not excessively timid and not easily alarmed, all that is necessary is for the captor, wearing sandshoes, to place his foot firmly over the back of the crayfish, then seizing it well behind the legs bearing the chelae to lift it out of the water. Great respect for the large chelae (claws or nippers) is essential, as it is calculated that a nip from these might cause serious injury to the fingers. Alternatively the crayfish may be seized by firmly embracing the legs containing the chelae.

Like yabbies these crustacea live in burrows on the banks of the streams. The banks of drains at Stewart's Creek and at the Upper Mossman River were continuously destroyed by these tunnels, and at Root's Creek had to be replaced by concrete.

Upon securing these specimens alive, the colour is seen to be a bright royal blue below, and much duller blue above, the spines affording a striking contrast being a deep red. A few immature specimens were noted to possess a somewhat ruddy colour above. Upon the first day nine specimens were secured altogether, including one from Platypus Creek, a tributary of the Mossman, which was easily driven out of the shallow water with a canecutter's knife on to the sandy bank, from which it was picked up. The whole nine were placed together in a four gallon petrol tin, standing upright and covered over by an ordinary kitchen dish used for washing up, but next morning it was discovered that with one exception, all

had escaped. It appears that they stand upright on their chelae in a corner of the tin, tail uppermost, until a portion of the telson catches against the cut edge of the tin, thence they were able to lift themselves over the edge and escape. None of these could be found in the morning.

However another 18 or so were captured later, the localities being all east of the Great Divide, namely, the Upper Mossman River and two of its tributaries, the Platypus and Root's Creeks. One was caught in a water race constructed by the miners, and another on the steep, jungle-clad slope of a hill, three chains from the nearest water. This latter did not appear to be an isolated freak, as the miners report having secured a number in the jungle away from the creeks. It is to be understood that the whole undergrowth is decidedly damp. Although informed that some were obtainable at Stewart's Creek, the head waters of the Daintree River, none were found after a considerable search, although burrows provided evidence of their presence.

Root's Creek was originally reported by one of us to be 90 miles west of Cairns, but this is incorrect, but it must be understood that there are no roads, and that none of these localities, Mount Spurgeon, Upper Mossman River and its two tributaries have been surveyed. As a matter of fact, Root's Creek Falls, near the Root's Creek mining camp, is but two miles from the Zarda clearing, and is only 10 miles north-west of Mossman, from which it may be reached by a difficult foot track.

Although capture of these specimens proved simple enough, the problem of bringing them down in good condition was much more difficult. It was, of course, impracticable to bring sufficient spirit to preserve them in, and even if such were available, to secure suitable receptacles and to carry them by pack horses was quite beyond our resources, so it was decided to make an attempt to bring to Cairns alive in moist sugar bags. The showers which fell from time to time greatly assisted us in this direction. Our largest specimen measured ten and a half inches from the tip of the rostrum to the end of the telson, as compared with the nine inches of the original type, and this was carefully kept separately in a bag, the others being all kept together

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in another bag. At Brooklyn Station, where two nights were spent awaiting the weekly lorry and train service, the bags were placed out in the rain, where all except five survived. The inevitable damage of limbs by mutual combat was taken into account and it was calculated that the detached fragments might be reassembled at a later date. Carriage in a railway compartment was negotiated by placing the sacks in a botanical vasculum.

Arrived at Cairns, the crustacea were at once immersed in a bucket of methylated spirit and allowed to re-

main there two days. They were then taken out for the purpose of drying, and it is believed that had the weather been fine this process might have sufficed as with the type specimen, but the seasonal summer rains had set in well, and the problem of keeping off the ants proved a difficult one. It is unfortunate, perhaps that pressure of other work prevented returning the specimens to suitable spirit containers, so that they were eventually placed in a cream tin full of diluted formalin, ordinarily intended for botanical purposes.

CENSUS OF NORTH QUEENSLAND PLANTS (Continued)

(Figures after plants indicate flowering months)

- Eucalyptus**
- pruinosa**, Schau. Kullingal. 10 and 12.
Is. of G. of Carp. (R.Br.), Normanston (Blakely), Etheridge (Blakely), Cloncurry (F.M.B.), Herberton (Bates).
- populifolia**, Hook. f. Bimble Box. 2, 3.
Is. of G. of Carp. (F.M.B.), Atherton Highlands (Swain), Burdekin R. southward (F.M.B.)
- bicolor**, Cunn. River Black Box. 1, 2, 8 to 11.
Flinders R. (F.M.B.), Gilbert R. (F.M.B.), Pt. Denison (F.M.B.)
- hemiphloia**, F.v.M. Grey Box. 1 to 4.
Atherton Table. (Swain).
var. **parviflora**. Leichardt's Box.
Mt. Elliott (F.M.B.)
- melanophloia**, F.v.M. Silver-leaved Ironbark, 9 to 2.
Gilbert R. (F.v.M.), Leichardt Ra. (Bowman), Croydon (Blakely), Reid R. (Blakely).
- drepanophylla**, F.v.M. Bowen Ironbark. 8 to 10.
C. Sidmouth (Moore), Palmer R. Gulliver, Stannary Hills (Blakely), Trinity B. (Hill), Nr. Atherton (Blakely), Mt. Elliott (Blakely), Ch. Towers (Blakely), Reid R. (Blakely), Cleveland B. (Blakely), Pt. Denison (Fitzalan).
- leptophleba**, F.v.M. Bastard Gum-leaved Box. 1 to 12.
Gilbert R. (F.v.M.), Chillagoe (Blakely), Alma-den (Blakely), Stannary Hills (Blakely), Palmer R. (Blakely), S. Coen R. (Blakely), Endeavour R. (Blakely), Daintree R. (Blakely), Cairns (Blakely),
- Rockingham B. (Blakely), Ravenswood (Blakely), Burdekin R. (Blakely).
- racemosa**, Cav. Narrow-leaved Ironbark. 1 to 12.
Betw. Flinders and Lynd. Rs. (F.M.B.), Mt. Mulligan (Flecker), Cape R. (Blakely), Stannary Hills (Blakely), Lizard I. (Blakely), Range Rd. (Kajewski), Burdekin R. (Blakely).
var. **macrocarpa**, Domin. 3, 4.
Stannary Hills (Blakely), Atherton (Blakely), Castle Hill (Blakely).
- Staigeriana**, F.v.M. Lemon-scented Ironbark.
Palmer R. Sellheim, Cooktown Dist. (Swain).
- Howittiana**, F.v.M. Howitt's Gum 3.
Gilbert R. (Blakely), Glendhu (Stafford), L. Lucy (Dall.), Herbert R. (Stafford).
- Cloeziara**, F.v.M. Queensland Messmate. 10 to 4.
Mt. Mulligan (Swain), Stannary Hills (Bancroft), Herberton (Swain), Ravenshoe (Swain), Nr. Cardwell (Blakely).
- Ravertiana**, F.v.M. Iron Tree. 1, 12
Pt. Denison (Fitzalan).
- microtheca**, F.v.M.
Cloncurry (Palmer).
- miniata**, Cunn. Melaleuca Gum. 5 to 8.
Croydon (Blakely), Little R. (Blakely), Alma-den (Blakely), Walsh R. (Barclay-Millar), Lynd R. (Leichardt), Palmer R. (Gulliver).
- multiflora**, Poir. Swamp Mahogany. 5, 9 to 11.
Dunk I. (F.M.B.).