

155

The North Queensland Naturalist

The Journal and Magazine of the North Queensland Naturalists' Club.

Vol. XI.

CAIRNS, 1st MARCH, 1944.

No. 70

NORTH QUEENSLAND NATURALISTS' CLUB

Meets at Cairns Public School, Abbott Street, Cairns,
usually on second Monday in March, June, September,
and December, at 8 p.m.

NEXT MONTHLY MEETING, MONDAY, 13th MARCH, 1944.

BUSINESS : General.

MEETINGS OF CLUB.

Monday, 27th September, 1943, Annual General Meeting, Election of Officers, Balance Sheet.

Monday, 13th December, 1943, Demonstration of Preparation of Crustacea by Corporal Alfred Read, D.C.R.E.

ENEMIES OF SAWFLIES

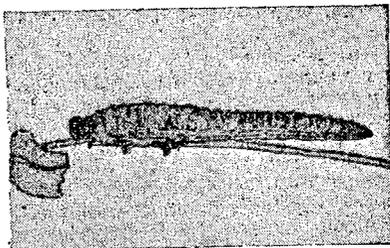
(Hymenoptera. Tenthredinidae.)

(By MAURICE F. LEASK, Memb. F.N.C.V.; Memb. Anthr. Soc., Vic.)

The larvae of these insects may be exposed, or in galls, or in leaf-mines. Enemies can more readily reach the exposed feeders.

It is doubtful whether birds attack the repulsive-looking sawfly larvae. Thus, it is not certain that peculiar habits of the grubs, as when small pink ones shelter within a cluster of large black ones, are designed as protection from birds. The larvae are probably evil-tasting to birds; it is not a disadvantage, then, for them to be so conspicuous. Details of attacks on larvae by birds would be welcomed.

Records show that a particular genus of bugs noted for being carnivorous definitely attack live sawfly larvae. *Cuspicoma* sp. (1) belonging to the family PENTATOMIDAE, the Stink or Shield Bugs, was found sucking the blood of a dead Perga larva at White Horse (Vic.). A large number of sawfly grubs are nocturnal feeders, but those under observation which scattered by day to feed in the rain may have been attempting to avoid such enemies.



A Typical Perga Structure.

19/2/38 Actual length, 3.15 c.m. (x2).

Insect parasites take comparatively heavy toll. One finds that insects generally have no effective method of combating parasites—the parasite always wins, which is fortunate. Even the most highly evolved Aculeates are fools when it comes to dodging parasites. Besides BRACONIDS, the TACHINIDS (2) are a large group

(2) Based on "Observations on Sawflies of the Genus Perga, with notes on Some Reared Primary Parasites of the Families Trigonallidae, Ichneumonidae, and Tachinidae," by Janet W. Raff, Proc. Roy. Soc., Victoria, Vol XLVII (New. Ser.), Pt. 1.

(1) Identified by the Department of Agriculture, Victoria.

of DIPTERA resembling "blow-flies," mostly parasitic on the larvae of other insects.

In one of my experiments, two TACHINIDS emerged from one sawfly larva; this is not unusual, and depends on the size of the host.

The following table shows the relative order of emergence of some typical imagos. (1)

Experiment No. 62 :

- Pupated 9/1/39.
- 28/10/39, two sawflies, females.
- 2/11/39, one sawfly, female.
- 3/11/39, one sawfly, male.
- 14/11/39, one parasite, Tachinid.

Experiment No. 17 (Pseudoperga sp.) :

- Pupated 4/2/38.
- 25/12/23, one parasite, Tachinid.

- 5/1/39, two parasites, Tachinids.
- 13/11/39, one sawfly, female.
- 19/11/39, one sawfly, male.

An indication of the extent of parasitization is given in results of experiments as follow :—

Experiment No.	Original Number of Larvae	IMAGOS			
		Sawflies		Parasites	
		Males	Females	Diptera	Hymenoptera
9	15	—	—	—	1
13	12	—	—	2	—
17	28	1	1	3	—
24	31	—	1	1x1	2
27	3	2	1	—	—
108	33	2	29	—	—
	122	5	32	7	3

SAWFLIES IN THE FIELD

(Hymenoptera, Tenthredinidae)

(By MAURICE F. LEASK, Memb. F.N.C.V.; Memb. Anthr. Soc. Vic.)

There is a large group of Australian sawflies belonging to the sub-family Euryinae, probably frequenting tea-trees, of which no larvae are yet known. Most of the larvae of the species of *Perga*, which is a large genus, have never been described.

In the course of my observations in the Central Victorian bush throughout the year it was quite noticeable that larvae made a sudden appearance in that area on approximately the first day of June. Numerous larvae of different species are in the feeding stage in February, but they, together with species bridging the gap by feeding in late autumn are in the minority, and it seems definite that a certain big group, the Pergidae, are to be found on the leaves from June to December.

The immature stages of these insects, in a vast majority of cases, favour EUCALPT "suckers" rather than mature trees, though they occur equally on suckers in hill and gully sites. Those with day-feeding habits predominate. *Platypsectra cyaneus*, when very young, eats the surface off the leaves, leaving a lace-like network of veins. Many species of larvae spread out in twos and threes, side by side on the leaves. Some rap with their abdomens even when alone, and are prone to drop off when touched.

One cluster found on *Eucalyptus australiana* (2) held the record for longevity, being under observation for seven months and two days.

It was equally noticeable that large numbers of the grubs disappeared from the leaves in December. Not all species pupate "en masse"; one individual was observed singly to bore into the earth with a spiral motion. It seems very common for the Australian Pergas to remain up to three years in pupal stage before emerging. Usually they burst out of the soil straight to freedom; in one case five adult insects came out of the same hole.

One or other of the adults is abroad at any given time of the year except, perhaps, in June. Among the more notable captures were one female of *Pseudoperga guerinii*, 24/2/40, on *Eucalyptus* sp., and two females of *Perga* sp. on 24/2/40. It was somewhat unusual in sawfly collecting to take. On 22/3/40, five adults in the morning at Glen Park (Vic.) and four adults in the afternoon at White Horse (Vic.). All nine were females of the same species, *Perga* sp. Of these, one flew, while the others permitted themselves to be picked from the leaves.

(2) Identified by an officer of the Forests Commission of Victoria.

(1) Experiments by Leask.

PLAYGROUND OF TOOTH-BILLED BOWER-BIRD

(*Scenopoeetes denti-rostris*)

(By MAURICE F. LEASK, Memb. F.N.C.V.)

These notes are prepared with Cayley's "What Bird is That?" on hand, and are intended as an elucidation of the description therein.

On 14th November, 1943, at 2 p.m., we were following a disused jungle path about a mile east of Lake Eacham, on the Atherton Tablelands of North Queensland. Continued bird calls attracted our attention. They came from a spot 30 yards off the track, and resembled parrot's cries, varied and tending to warbling. The bird was located close to the ground, and identified as the TOOTH-BILLED BOWER-BIRD.

Compared with book-plate the bird was more distinctly speckled underneath and more strongly, sheeny brown on the upper side. At the spot where the bird was first located was a cleared patch of earth, with no green leaves thereon, and situated beside a mass of lawyer cane forming loops two feet high. It is probable that the bird perched on these loops at intervals; the absence of green leaves indicates that this specimen was just beginning its mating activities.

Half a mile to the east, near the top of a slope in the middle of dense scrub a second bird was heard emitting similar notes. It, too, was close to the ground. On flushing, it flew a short distance only, and was seen to be identical with the former. At the spot from which it rose was a cleared patch of earth about 3ft. by 4ft., and on this were a dozen fresh leaves all apparently similar. This cleared spot, under a Scrub Pandanus, was made between six tiny growing saplings two feet high, with stems 1/2-inch in thickness. The birds may pass between these stems in their gambols.

On 23rd November, 1943, we paid a second visit to the same locality at 7 p.m. in the last hour of daylight for the

express purpose of guiding Capt. J. A. Marshall to the playgrounds. At the first spot the bird was repeatedly twittering, rather like the imitation of a parrakeet. When Capt. Marshall made a sucking sound, a pair of birds responded by flying excitedly nearer and making a call similar to his.

The cleared space had over a dozen leaves on it, placed underside uppermost, i.e., whitish side up. They are said to be similar to the leaves used in the Cape York area, namely *Litsea* leaves (1). *Litsea* is a Brown Bollywood of the family Lauraceae, occurring at intervals in the fringing jungle from Eungella to Cairns and possibly further north. (Swain.)

One of the leaves under examination was very fresh, being much whiter; all gave the impression of being pressed to earth, as though by the bird's feet.

The second playground was revisited; it was indicated by the bird calling in a twitter as abovementioned. The cleared space had about twelve fresh leaves arranged on it. Scratchings on the "circus-ring" were made, probably, by bandicoots. A pair of birds responded in the same way as at Site 1, to Capt. Marshall's sucking sound.

In conclusion, it will be noted that no description of the display can yet be given. There appears to be an extended range of the Tooth-billed Bower-bird to Lake Eacham on the West and Cape York Peninsula on the north. A discrepancy may occur in naming the species of leaves or in Swain's range of the *Litsea*.

It is expected that further more scientific records of this bird will be given by Capt. Marshall in due course.

(1) The leaf is probably that of *Litsea dealbata*.—H.F.

THE NORTH QUEENSLAND NATURALIST.

GERANIACEAE :

33. *Geranium dissectum* L., Native Geranium.
Fruits eaten roast or raw. (Q.A.J., LI, p. 300.)

OXALIDACEAE :

34. *Oxalis corniculata* L., Wood Sorrel.
May be chewed. Acid flavour.

MALVACEAE :

35. *Urena lobata* L., Urena.
Kernel eaten raw.
36. *Hibiscus ficulneus* L., Cooreenyan.
Stem and root of young plant roasted in ashes and eaten like potato.
(Palmer.)
37. *H. rhodopetalus* F. Muell.
Buds eaten raw.
Young stems eaten raw or roasted.
38. *H. divaricatus* Grah., Ngargolly.
Buds eaten raw (Palmer).
Thick root peeled and eaten raw (Palmer).
39. *H. heterophyllus* Vent., Batham.
Roots of young plants, young shoots and leaves eaten raw (Thozet).
40. *H. tiliaceus* L., Coast Cottonwood.
Roots and young growth eaten for food.
Mucilaginous bark sucked for food.
41. *Thespesia populnea* Corr.
Smooth leaves, flower buds and flowers eaten raw or cooked.

STERCULIACEAE :

42. *Sterculia quadrifida* R. Br., Ko-ral-ba.
Seeds edible.
43. *S. Garrawayae* Bail., Morna.
Fruit eaten raw (Roth).
44. *S. ramiflora* Benth., An-gi-ur.
Seeds roasted and eaten (Roth).
45. *S. Trichosiphon* Benth., Broad-leaved Bottle Tree.
Roots of young plants and seeds eaten by natives (Thozet).
46. *S. diversifolia* G. Don, Kurrajong.
Roots used for food.
Seeds roasted, ground and steeped in boiling water, drunk as coffee.
(Q.A.J., LI, 1939.)
47. *S. rupestris* Benth., Narrow-leaved Bottle Tree.
Roots of young plants and seeds eaten by natives (Palmer, Thozet).
Natives refresh themselves with mucilaginous sweet substance from tree (Thozet).
48. *S. foetida* L., Native of
Seeds eaten raw or roasted.

TILIACEAE :

49. *Grewia polygama* Roxb., Koolin.
Fruit eaten by natives (Bailey).

ELAEOCARPACEAE :

50. *Elaeocarpus Bancroftii* F. Muell. et Bail., Ebony-heart Quandong.
Seed has agreeable flavour. Eaten by settlers (Bailey).
51. *E. grandis* F. Muell., Northern Silver Quandong.
Fruit eaten (Bailey).

EUPHORBIACEAE :

52. *Flueggea microcarpa* Blume, Tharginyah.
Fruit eaten raw by natives (Palmer and Roth).
53. *Antidesma Ghaesembilla* Gaertn., Black-Currant Tree.
Fruit used for jam making by settlers (Bailey).
54. *A. Dallachyanum* Baill., Je-jo.
Fruit eaten by aboriginals (Roth).
Fruit used for jam and jelly making.

(To be Continued.)