

## MISCELLANEA

### INSECTS.

NOTES ON CICADIDAE.—The following notes are upon a collection of Cicadidae made in the Eastern Himalayas between April, 1912, and May, 1913, by His Excellency Lord Carmichael, to whom I am greatly indebted for his kindness in sending them to me. My thanks are also due to Dr. N. Annandale, Superintendent of the Indian Museum, Calcutta, for his courtesy in inviting me to publish this contribution in this Journal. In all the collection contained 12 species, the most striking of which are the two beautiful species of *Tosena*, and several of the series are very large. The range in altitude is from 500 feet at Sukna to 7000 feet at Darjiling. Several of the species, notably *Huechys sanguinea* and *Scieroptera splendidula*, have an immense range over India and Malaysia, while others, such as *Platylomia saturata*, *Meimuna tripurasura*, and *Haphsa nicomache*, are typically and exclusively Indian.

#### Sub-family CICADINAE.

##### Division TACUARIA.

##### Gen. *Tosena*, Am. et Serv.

1. *T. melanoptera*, White.  
Two males, taken at Singla, Darjiling District (1500 ft.), in June, 1912.
2. *T. mearesiana*, Westw.  
A series of 11, males and females, from Ghumti (4000 ft.), taken in August, 1912, and one from Sevoke, 1000 ft. (May, 1913). All perfectly typical.

##### Division DUNDUBIARIA.

##### Gen. *Platylomia*, Stål.

3. *P. saturata*, Walk.  
Six specimens from Government House grounds, Darjiling.

##### Gen. *Haphsa*, Dist.

4. *H. nicomache*, Walk.  
A large series, about 30, from Darjiling. In the whole series there is only one female. Taken in May, 1912.

Gen. *Meimuna*, Dist.

5. *M. tripurasura*, Dist.  
A still larger series of about 60 specimens, all males.  
Darjiling, May, 1912, and Singla.

Gen. *Pomponia*, Stål.

6. *P. thalia*, Walk.  
A single specimen, male, very much mutilated. Taken  
at Sevoke in April, 1912.

Subfam. *GAEANINAE*.Division *CICADATRARIA*.Gen. *Terpnosia*, Dist.

7. *T. clio*, Walk.  
One female from Sukna (April, 1913) and one male  
from Sevoke (April, 1913).

Gen. *Gaeana*, Am. and Serv.

8. *G. festiva*, Walk.  
One male from Singla, May, 1913. A typical specimen,  
resembling closely the figure in Distant's *Mono-*  
*graph of Oriental Cicadidae*.

Gen. *Balinta*, Dist.

9. *B. octonotata*, Westw.  
A typical series from Singla, taken in May, 1912. All  
males.

Gen. *Mogannia*, Am. and Serv.

10. *M. conica*, Germ.  
One male from Singla, April, 1913. Rather more  
distinctly marked than usual, the central stripe  
being very well defined.

Subfam. *TIBICININAE*.Division *HUECHYSARIA*.Gen. *Huechys*, Am and Serv.

11. *H. sanguinea*, de Geer.  
A fairly large series from Sukna, April, 1913. Most of  
them are females, and curiously enough, in other  
series of this species I have had from Tonkin and  
Japan the females have largely predominated. These  
Sukna specimens are very typical of the species,

with beautiful deep black tegmina and very rich red front to head, mesonotum, and abdomen.

Gen. *Scieroptera*, Stål.

12. *S. splendidula*, Fabr.

Four specimens from Singla. They are of the variety named as *cuprea*, with very distinct yellow costal membranes to the tegmina.

HOWARD ASHTON.

BATRACHIA.

LARVA OF *Rana curtipes*, Boul. ("Fauna," p. 458).—According to Dr. Boulenger, *R. curtipes* is reported to occur in the West Coast of India, and all the specimens in my collection were taken in Coorg. It is not essentially aquatic, but is found concealed under stones and dry vegetation, coming out in the night for food. The species is often mistaken by natives for *Rhacophorus maculatus* (the chunam or tree frog) and, because of the superficial resemblance, is often called "kal therai." The frog enters the water during the breeding-season, which begins with the appearance of the S. W. monsoon. The males which are smaller are very lively and their call notes may be denoted by the short syllables "Thrub, Thrub," quite characteristic of the species. Last May, specimens of larvae were secured illustrating practically the different stages in the metamorphosis.

*Larva*.—The tadpoles are plentiful in small jungle streams and occur in April, May and June. They may be described as follows:—

*Head and Body*.—The body is oval; the dorsal and ventral surfaces are flat. It is much longer than broad. Snout broadly rounded. Mouth ventral. Tip of tail moderately rounded. Skin quite smooth.

*Nostril and Eye*.—Interorbital space slightly more than twice the distance between the eye and nostril. Eyes moderate, dorso-lateral. Pupil round, becoming horizontal as the forelegs develop. Nostril dorsal, nearer the eye than to snout. (In the adult, the nostril is nearer the snout, and the interorbital space less than  $1\frac{1}{4}$  times the distance between the eye and nostril).

*Mouth*.—Ventral, fairly large, with the lower lip better developed. It is directed slightly backward. The upper margin of the upper lip devoid of papillae; but the sides of the upper lip and corners of the mouth fringed with two or three rows of big tubercles. Smaller ones fringe the lower lip. The dental formula may be expressed thus; 3 : 3—5 + 3—5 | 1 + 5 : 5—7, meaning that in the upper lip there are from three to five inner broken and three outer complete rows of short horny teeth, and in the lower lip there is one inner interrupted and from five to seven complete series. The beak consists of an upper and a lower horny provi-