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ZOOLOGICAL RESULTS
OF THE
ABOR EXPEDITION.

EDITORIAL NOTE.

We had hoped to have the collections made on the Abor Expedition worked out completely, and to have published a final summary with figures of characteristic animals. The war, however, interrupted the progress of the work, which has continued for 10 years. As there seems little prospect of completing it now and as the delay is causing serious bibliographical inconvenience owing to the lack of an index to the volume, we have decided to bring it to a close. At some future date it may be utilised in a general study of the Himalayan fauna.

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Director,
Zoological Survey of India.

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XIV. ARACHNIDA, II: OPILIONES.

By DR. C. FR. ROEWER, *Bremen*.

The collection of Opiliones, collected by Mr. Kemp in 1911-1912 in the Abor country (N. E. Assam), contains 122 specimens representing fifteen species and eight genera.

This collection consists of:—

A. Subord. **PALPATORES.**

I. Fam. PHALANGIDAE.

(a) Subfam. GAGRELLINAE.

1. **Gagrella feae** (form. typ.) Thorell.

- 17 specimens: Sadiya (N. E. Assam), 25-xi-1911, under logs.
8 „ : Kobo (400 ft.), 30-xi-1911, under logs.
10 „ : Kobo (400 ft.), 30-xi-1911, from rotten wood and under bark.

2. **Gagrella feae-humeralis**, Thorell.

- 7 specimens: Janakmukh (600 ft.), 18-xi-1911, under decomposing plantain leaf-stem.
13 „ : Sadiya (N. E. Assam), 25-xi-1911, under logs.

3. **Gagrella lepida**, Thorell.

- 2 specimens: Egar stream, between Rotung and Reunging, 9-i-1912.
1 „ : Rotung (1300 ft.), 1-i-1912.
1 „ : Upper Rotung (ca. 2000 ft.), 11-i-1912.

4. **Melanopa varians** (With) Roewer.

- 3 specimens: Dibrugarh (N. E. Assam).

5. **Melanopa atrata** (Stoliczka) Roewer.

- 4 specimens: Kobo (400 ft.) 30-xii-1911, from rotten wood.
8 „ : „ (400 ft.), 30-xi—8-xii-1911, under bark.
1 „ : Rotung (1300 ft.), 26-xii-1911.
1 „ : Upper Rotung (ca. 2000 ft.), 9-i-1912.

6. *Zaleptus sulphureus*, Thorell.

- 2 specimens: Yembung (1100 ft.), in small stream on E. side of Dihang.
 1 ,, : Rotung (1300 ft.), 20-xii-1911.
 4 ,, : Upper Rotung (ca. 2000 ft.), 5-6-i-1912, found when road-making and under leaf-stem of plantain.

B. Subord. LANIATORES.

I. Fam. ASSAMIIDAE.

(a) Subfam. ASSAMIINAE, Roewer.

7. *Assamia sexdentata*, Thorell.

- 2 specimens: Rotung (1300 ft.), 30-xii-1911, under bark.
 1 ,, : Kobo (400 ft.), 30-xi-8-xii-1911.

8. *Assamia aborensis*, sp. nov.

- 2 specimens: Upper Rotung (ca. 2000 ft.), 31-xii-1911.
 1 ,, : Sirpo, near Renging (1000 ft.), iii-1912.

Measurements in mm.: Length of body 5; of 1st leg 7; 2nd 15; 3rd 10; 4th 13.

Dorsal scutum nearly rectangular; laterally, beyond the 1st transverse groove, very little rounded, with five distinct transverse grooves; its surface and also that of the free dorsal segments of the abdomen not roughened, but deeply shagreened; on each of the 1st-3rd areas of the abdominal scutum there are two and two submedian distinct tubercles, which are nearly thorn-like on the 3rd area; 4th and 5th area entirely unarmed. Under the *anterior margin* of the cephalothorax there are projected five horizontal teeth (one of them in the middle, the four others in pairs on either lateral corner); the upper anterior margin of the cephalothorax is, moreover, finely granulated all over and presents one erected tooth in the middle. *Ocular tubercle* twice as far from the 1st transverse groove of the scutum as from the anterior margin of the cephalothorax, transversely oval, low, only over either eye scattered with a few blunt granules. *Free ventral segments* of the abdomen deeply shagreened, also the 1st-4th *coxae*, the first of which however has one frontal and one median longitudinal row of blunt tubercles, and the second coxa has only a median one. Spiracula hidden under several bridge-teeth, which overarch the groove between the 4th coxa and the 1st free ventral segment. *Mandibles* small; the 1st segment with a well-separated, entirely smooth apical hump. *Palps* slender, crossed over one another; trochanter with two ventral tubercles; femur forming an **S**, compressed laterally, scattered dorsally with 4-5 small tubercles, armed ventrally with a complete series of pointed teeth; there is an inner apical tooth in addition; patella flattened ventrally with

both of its edges armed with a series of small pointed teeth; tibia and tarsus flattened ventrally with both edges armed with a longitudinal series of small pointed teeth; besides these teeth there are on the inner edge of the tibia one stout apical spine, on the outer edge of the tibia and on the outer and inner edge of the tarsus two and two prominent spines. *Legs* slender and long; trochanters unarmed and femora only scattered with very small granules. Number of the tarsal segments: 6; 11; 7; 8. There are two segments in the apical part of the 1st tarsus and three segments in that of the 2nd tarsus.

Dorsal surface of the body dark brownish; cephalothorax with one ferruginous median line and on either side of this line much sprinkled with the same colour. Also the transverse grooves of the abdominal scutum as well as the point of the two thorns of the 3rd area ferruginous. The lateral edges of the abdominal scutum present a large whitish band. *Ventral surface* of the body ferruginous, closely sprinkled with black, as well as the *mandibles* and *palps*. *Legs* ferruginous; trochanters, femora and tibiae with small and distinct black apical rings; only the patellae entirely black.

9. *Pygoplus trifasciatus*, Thorell.

8 specimens: Kobo (400 ft.), 30-xi-1911, from rotten wood and under bark.

1 ,, : Rotung (1300 ft.), 21-xii-1911, under stones.

10. *Macrobunus singularis*, Roewer.

5 specimens (2 ♂, 3 ♀): Kobo (400 ft.), 30-xi-1911, from rotten wood and under bark.

11. *Macrobunus longipes*, sp. nov.

1 specimen: Upper Rotung (ca. 2000 ft.), 6-i-1912, under leaf-stem of plaintain.

Measurements in mm.: body 5.5; 1st leg 18; 2nd 35; 3rd 24; 4th 34.

Differing from *Macrobunus singularis*, Rwr., only in the following particulars:

Measurements of *legs* comparatively much longer and more slender than those of the allied species; number of segments of the tarsi: 7; 12; 10; 11.

Colour of the cephalothorax and of the eye-tubercle unicolourous pale yellowish, also the median region around the two cones of the abdominal scutum, which is on the lateral and posterior margins almost black, thus surrounding on either lateral margin of the abdominal scutum one very white trilobate spot. This spot is much larger than that in *Macrobunus singularis*, Rwr. Free dorsal segments of the abdomen black, but edged by a narrow white transverse line on every posterior margin as well as on that

of the scutum. *Mandibles* and *palps* unicolourous pale yellowish. *Legs* pale yellowish; trochanters, femora and tibiae with small, but very distinct black apical rings; only the patellae entirely black.

12. *Macrobunus aborensis*, sp. nov.

- 7 specimens (2 ♂, 5 ♀): Renging, 19-xii-1911, under bark.
 1 ,, (♂): Upper Rotung (ca. 2000 ft.), 6-i-1912, under leaf-stem of plantain.
 1 ,, (♀): Yembung (1100 ft.), 13-17-i-1912.

Habitus, *armature* and *measurements* entirely the same as in *Macrobunus singularis*, Rwr., differing from this species only in the absence of the two trilobate white spots on the lateral margins of the abdominal scutum. There is a very distinct and very narrow pale ferruginous line on each lateral margin of the scutum and on the posterior margin of it and of every free dorsal segment of the abdomen.

II. Fam. PHALANGODIDAE.

(a) Subfam. EPEDANINAE.

Metathyreotus, gen. nov.

This new genus has precisely the same diagnosis as the genus *Thyreotus*, Thorell (cf. Roewer 1912 in: Arch. f. Naturg., A. 3, p. 226), except that the femur of the palp has no inner apical spine and is unarmed there, while *Thyreotus*, Thorell, shows there two long spines.

13. *Metathyreotus aborensis*, sp. nov.

2 specimens: Rotung (1300 ft.), 30-xii-1911, under stones.

Measurements in mm.: body 3; palp 7; 1st leg 7; 2nd 13; 3rd 9; 4th 11.

Habitus and *armature* of the body, of the mandibles and of the legs entirely the same as in *Thyreotus bimaculatus*, Roewer (1912), except for the following particulars:

Palp with the same habitus as *Thyreotus bimaculatus*, Rwr., but differing in the armature. Coxa dorsally entirely smooth; trochanter dorsally with one small granule and ventrally with two; the long cylindrical femur dorsally and at the inner apical tip entirely smooth, ventrally with four or five short tubercles (no spines!); patella on the inner tip with two and on the outer one with one long spine; tibia with three inner and four outer long spines; tarsus with three inner and four outer long spines.

Number of the tarsal segments 10; 20; 7; 7; terminal part of the 1st tarsus with 2, of the 2nd tarsus with 3 segments

Colour of the body and of the limbs the same as in *Thyreotus bimaculatus*, Rwr.; but wanting only the two white spots on the cephalothorax of the latter.

14. *Metathyreotus kempfi*, sp. nov.

1 specimen: Rotung (1300 ft.), 21-xii-1911, under stones.

Measurements in mm.: body 3.5; palp 7; 1st leg 9; 2nd 14; 3rd 10; 4th 13. *Number* of the tarsal segments: 7; 17; 7; 7. Terminal part of the 1st tarsus with 2, of the 2nd tarsus with 3 segments.

Habitus, *armature* and *colour* of the body and the limbs entirely the same as in *Metathyreotus aborensis*, except that the femur of the palp is entirely unarmed ventrally.

III. Fam. ONCOPODIDAE.

15. *Pelitnus aborensis*, sp. nov.

1 specimen: Upper Rotung (ca. 2000 ft.), 31-xii-1911.

1 ,, Rotung (1300 ft.), 21-xii-1911, under stones.

Measurements in mm.: body 6; 1st leg 7; 2nd 10; 3rd 7.5; 4th 9.5.

This new species agrees almost entirely with the diagnosis of *Pelitnus annulipes*, Pocock (1897), but differs from it in the following particulars:

The *intraocular area* of the cephalothorax is elevated in the form of a large blunt and rounded dome, at the base of which the eye is situated on each side.

Abdominal scutum formed by 8 segments, distinctly indicated by deep transverse grooves; an equal longitudinal median groove connects the first transverse groove (between cephalothorax and abdomen) with the eighth, running through the 1st-7th segments of the abdominal scutum; the last (8th) of these segments of the scutum shows no longitudinal median groove.

Femur of the *palp* entirely unarmed ventrally, without any tubercle.

Colour of the body and of all the limbs blackish-brown throughout, except the tarsi of the legs, which are pale yellowish.

