

indien men zich de moeite geeft op den grond te zoeken onder *Ajuga reptans*.

Bij *Tingis ampliata* (H. S.) is ook de kraagrand afgerond, doch minder sterk, zoodat er duidelijke voorhoeken overblijven. Verder wordt het diertje van de vorige soort onderscheiden door het ontbreken der lange beharing, zijn kleinere afmeting (4 mm) en de fijnere mazen op de heele bovenzijde.

Als vindplaatsen zijn bekend Venlo, Sittard, Vlissingen en Delden. Deze soort schijnt vooral op moerasdistels te huizen, doch werd ook aangetroffen op *Verbascum* en zelfs in een mollennest!

Tingis cardui (L.) is een zeer gewone soort en kan waarschijnlijk overal gevonden worden op verschillende distelsoorten. De kraag van dit onbehaarde, $3\frac{1}{2}$ mm groote diertje, heeft een ongeveer rechtlijnigen rand, met een duidelijken hoek achter het midden.

Opvallend is bij deze soort de groote verscheidenheid in tint; ik vond op een enkele Knikkende distel, bij een twintigtal exemplaren, alle mogelijke overgangen van bijna wit naar grootendeels zwart. Nu is het wel waar, dat heel versche exemplaren wit zijn, maar toch ben ik ervan overtuigd, dat ook bij goed uitgekleurde individuen de tint zeer sterk verschilt.

Tingis pilosa (Humm.) is weer behaard, doch zeer fijn en korter dan *reticulata*. Haar lengte bedraagt ongeveer 4 mm en door den smallen omhoog geslagen kraag wordt ze terstond van de andere inheemsche soorten onderscheiden.

Het diertje, dat thuis hoort op verschillende lipbloemige planten, zooals Hennepnetel, Andoorn en Ballote, werd bij ons alleen te Noordwijk gevonden in Augustus 1920.

Nog enkele andere soorten werden aangetroffen in het omliggende gebied, doch ze zijn lastig te determineeren.

Mocht iemand een netwants vinden met den habitus van een *Tingis*, die niet met de afbeeldingen en de beschrijving overeenkomt, dan ben ik gaarne bereid het diertje te onderzoeken.

Trouwens elke aanvraag om hulp, bij het verzamelen van deze wondermooie wezentjes, is mij zeer welkom en zal naar vermogen beantwoord worden! (Wordt vervolgd.)

DESCRIPTION OF NEW INDO-MALAYAN ACRIDIDAE (ORTHOPTERA)

by
C. WILLEMSE.

Part IV.

Continuation.

Eupatrides lobatus Bolivar C.

Description of the male.

General coloration brownish-yellow. Head and pronotum from above blackish, behind each eye with a more yellowish white longitudinal stripe, bordering the blackish brown vertex. Sides of the

pronotum and abdomen from above yellowish-white, the first abdominal tergites from above with a black spot; sides of abdomen with a row of blackish-brown spots.

Elytra brown, apex and two prae-apical spots of a lighter colour.

Wings red-orange, posterior margin bordered with brown along the whole margin, especially near the apex and anterior margin, where the brown band is widened gradually.

Anterior and posterior legs coloured as in the female.

Head rugosely punctured. Fastigium of vertex about twice as long as broad, margins subparallel, anterior margin triangularly produced in the middle, but less indicated in the female; separated from the vertex by a shallow transverse impression. Pronotum rugosely punctured, especially on the disc, anterior margin raised; lateral lobes longer than high, lower margin slightly sinuate, nearly straight, anterior angle rounded, posterior angle near 90° .

Elytra narrow, costal area expanded basally; towards the apex slightly widened, apical margin truncate and slightly emarginate. Wings cycloid.

Anterior femora with the lower outer margin finely serrate, with a small blunt tooth near the apex.

Posterior tibiae with a distinct basal triangular lobe, with a row of 15—16 outer and 12 inner spines; the outer spines small and of about the same length, the inner ones unequal, the 3th, 5th, 7th and 9th longer than the other ones, the 5th and 7th being the longest of all, the 9th as long as the third one, the 3 apical spines somewhat shorter than the 9th, but of about the same length and equal to each other.

Abdomen from above with a fine median keel, the middle tergites with a small sharp tooth on this keel in the posterior half.

Posterior margin of 8th tergite rounded. The 9th tergite composed of a median quadrangular, obtuse tubercle and two lateral lobes, with their posterior margins rounded, provided with 2 very small teeth on each side, in the middle connected by a sunken part forming a shallow sulcus.

Cercus with the basal half strong and thick, the apical half very slender and angulately bent inwards, the apex hid under the 12th tergite.

Supra-analplate triangular, reaching a little beyond the cercus.

Subgenitalplate strongly developed, at the apex divided into two lateral, erected lobes, that at the base of their inner side bear a small tubercle, which surface is excavated, while the middle of the subgenitalplate at the apex is excised. Fig. 8.

Length of body	20 mm
" " pronotum	3 "
" " elytra	13 "
" " wing	12 "
Width of wing	7,5 "
Length of hind femora	9 "
" " hind tibia	10 "

The ♂ was unknown and is described from a series of 3 ♂♂, collected with 4 ♀♀, from the

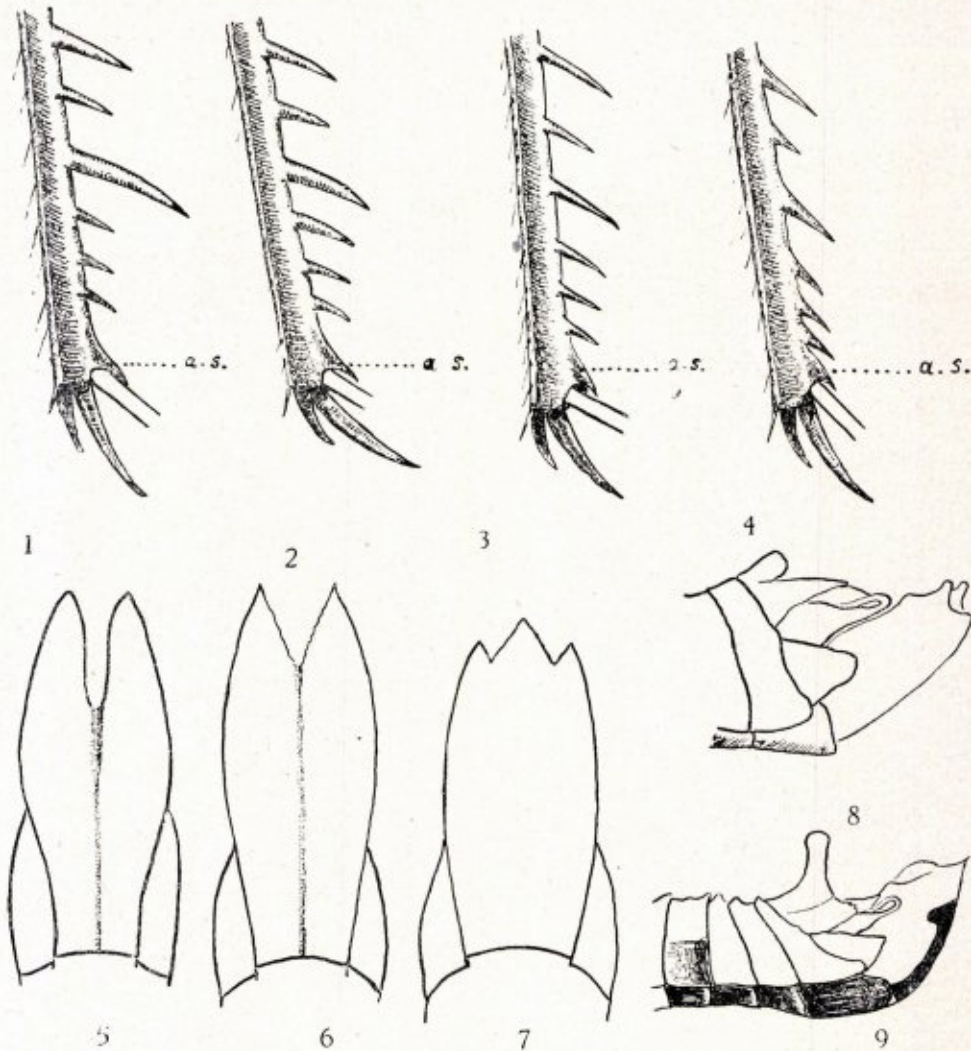


Fig. 1. *Eupatrides bolivari* nov. sp. ♀.
Top of hind tibia, with inner spines.
a. s. = apical spine.

Fig. 2. *Eupatrides brunneri* nov. sp. ♀.
Top of hind tibia, with inner spines.
a. s. = apical spine.

Fig. 3. *Eupatrides soelaensis* nov. sp. ♀.
Top of hind tibia, with inner spines.
a. s. = apical spine.

Fig. 4. *Eupatrides signatus* nov. sp. ♂.
Top of hind tibia, with inner spines.
a. s. = apical spine.

Fig. 5. *Eupatrides bolivari* nov. sp. ♀.
Subgenital plate.

Fig. 6. *Eupatrides brunneri* nov. sp. ♀.
Subgenital plate.

Fig. 7. *Eupatrides soelaensis* nov. sp. ♀.
Subgenital plate.

Fig. 8. *Eupatrides lobatus* Bolivar C. ♂.
Top of abdomen from aside.

Fig. 9. *Eupatrides signatus* nov. sp. ♂.
Top of abdomen from aside.

Malay Penin., Kedah Peak, 2500—3000 ft., 23 March, 1928 (coll. Mus. Singapore).

***Eupatrides signatus* nov. spec.**

♂ : Head rugosely punctured. Fastigium of vertex only somewhat longer than broad, margins

distinctly narrowed anteriorly, apex truncate, indistinctly separated from the vertex by a shallow transverse impression.

Pronotum rugosely punctured, anterior margin raised, lateral lobes somewhat longer than high, lower margin substraight, ascending anteriorly,

anterior angle broadly rounded, posterior angle near 90°.

Elytra narrow, costal area expanded basally; towards the apex not or only slightly widened, apical margin truncate-rounded. Wings cycloid.

Abdomen from above with a fine median keel, without distinct teeth on the tergites.

Anterior femora with the lower outer margin finely serrate, with a small blunt tooth near the apex.

Posterior tibiae with a distinct basal triangular lobe, with a row of 15 outer and 11 inner spines; the outer spines small and of about the same length, the inner ones unequal, the 2th, 4th, 6th and 8th longer than the other ones, the 8th one as long as the 4th one, the 3 apical spines smaller, but equal to each other.

♂: Posterior margin of the 8th tergite rounded. The 9th tergite composed of a median, large, erected, cylindrical tubercle, the apex of it with a slit-like impression in the middle and two lateral lobes connected in the middle by a sunken part, whose posterior margin is roundly incised.

Cercus reaching far beyond the top of the supra-analplate, with the basal half strong, the apical half slender, angulately bent backwards in the shape of U, the slender apical half slightly S shaped.

Supra-analplate triangular, short, apex pointed.

Subgenital-plate strongly developed, at the apex divided into two lateral lobes, the upper margin of these lobes arcuate, near the apex with a small excavated dilatation, the very apex more or less pointed, with a triangular excision in the middle.

General coloration brownish-yellow. Head and pronotum yellowish-brown with some irregular blackish-brown spots, especially from above.

Elytra brown, near the apex with an oblique, transverse, light band.

Wings yellowish-orange, posterior margin broadly bordered with brown.

Anterior and median legs yellowish-brown with darker spots.

Hind femora yellowish-brown, keels black, interrupted by yellowish-brown; area supra with 3 ill limited brown bands, indistinctly continuing on the area externa; some of the transverse keels on the area externa black.

Hind tibiae annulated with brownish-black and yellowish-brown, spines blackish, the larger ones yellow with black tips.

First joint of hind tarsi yellowish with brown top, second and third joint brownish-black.

Tergites of abdomen yellowish-brown, sternites yellow, with a black spot in the middle; the penultimate sternite black with a small yellow spot in the middle of the posterior margin.

Subgenital-plate yellow, with a large black figure, reaching a little beyond the middle of the subgenital-plate, widened at the top on both sides; the apex of the subgenital-plate more yellowish brown.

♀: unknown. Figs. 4, 9.

Length of body	23 mm
" " pronotum	3 "
" " elytra	11 "
" " wing	10 "
Width of wing	7 "
Length of hind femora	10 "
" " hind tibia	11 "

Distribution: S. Celebes, Bua-Kraeng, 5000, Febr. 1896, H. Fruhstorfer (type, Mus. Hamburg, 1 ♂).

KEY TO THE KNOWN SPECIES.

- Hind tibiae without distinct triangular lobe at the base on the outer side 2
Hind tibiae with distinct triangular lobe at the base on the outer side 6
- Posterior margin of subgenital-plate of the female with a more or less deep incision in the middle 3
Posterior margin of the subgenital-plate of the female without incision in the middle, sometimes with lateral incisions on both sides 4
- Hind tibia with the 3 apical, inner spines small (not counting the apical spine), much smaller than the 4th anteapical one, but inter se equal in length *bolivari* nov. spec.
Hind tibia with the 3 apical, inner spines (not counting the apical spine) smaller than the 4th anteapical one, but gradually diminishing in length towards the apex *brunneri* nov. spec.
- Posterior margin of subgenital-plate of the female without lateral incisions *excelsus* Bolivar C.
Posterior margin of subgenital-plate of the female with a lateral incision on both sides 5
- Hind tibia with the 3 apical, inner spines small (not counting the apical spine), much smaller than the 4th anteapical one, but inter se equal in length *cyclopterus* de Haan.
Hind tibia with the 3 apical, inner spines (not counting the apical spine) smaller than the 4th anteapical one, but gradually diminishing in length towards the apex *soelaensis* nov. spec.
- Key to the ♂♂ 7
Key to the ♀♀ 8
- Fastigium of vertex long, about twice as long as broad. Elytra and wing long, reaching beyond the apex of abdomen, elytra narrow, apex truncate. Posterior border of wing only narrowly bordered with brown. Median tubercle on the 9th tergite small *lobatus* Bolivar C.
Fastigium of vertex small, only somewhat longer than broad. Elytra and wing short, not reaching the apex of abdomen, elytra broader, apex rounded-truncate. Posterior border of wing broadly bordered with brown. Median tubercle on the 9th tergite large *signatus* nov. spec.
- Wings red-orange, posterior margin broadly bordered with brown *lobatus* Bolivar C.
Wings yellowish-red, posterior margin very narrowly bordered with brown *curiosus* Willemse.