

## Two new species of earwigs along with new record of *Kosmetor bosei* Bharadwaj and Kapoor from Nepal (Dermaptera)

by

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**ABSTRACT.** — Based on a collection of earwigs made from Kathmandu, two new species, *Forficula nepalensis* and *Eudohrnia subuniformis* have been described. Besides, *Kosmetor bosei* Bharadwaj & Kapoor, 1967, is recorded for the first time from Nepal.

A lot of taxonomic work on earwigs has been done in other parts of the world. Over 1400 species are known from the world; of these 250 species are from India alone. There are not many records of earwigs from Nepal. Burr (1910) included only 6 species from Nepal. Yamasaki (1965) reported *Forficula schlangintweiti* (Burr) and *Timomenus neville* (Burr) for the first time from Peda Pathi-Chambas and Resingo (2200 m), and Chitare (2200 m) in Nepal; these species were also referred from Nepal by Numata (1963). Bei-Bienko (1968) recorded 6 species from Nepal of which 2 were new records. Brindle (1974) described two new species (*Anisolabis nepalensis* and *Allodahlia martensi*) and recorded 8 species for the first time from Nepal. Kapoor & Malla (1977a), in their review on earwigs of Nepal and India, listed 240 species from India and only 17 species from Nepal. In the same year (1977b) they recorded 22 species of earwigs from Nepal; of these only 4 (*Euborellia annulipes* Lucas, *Forcipula indica* Brindle, *E. walkeri* (Kirby) and *Eparchus insignis*, de Haan) were new records. They (1978) also found three new species (*Lobia bhaktapurensis*, *Irdex dakshinkaliensis* and *Proreus biratnagarensis*) from Nepal. The present paper includes 2 new species (*Forficula nepalensis* and *Eudohrnia subuniformis*) and one new record (*Kosmetor bosei* Bharadwaj & Kapoor, 1967). Taking all these into an account, only 28 species of earwigs are so far known from Nepal.

### FORFICULIDAE

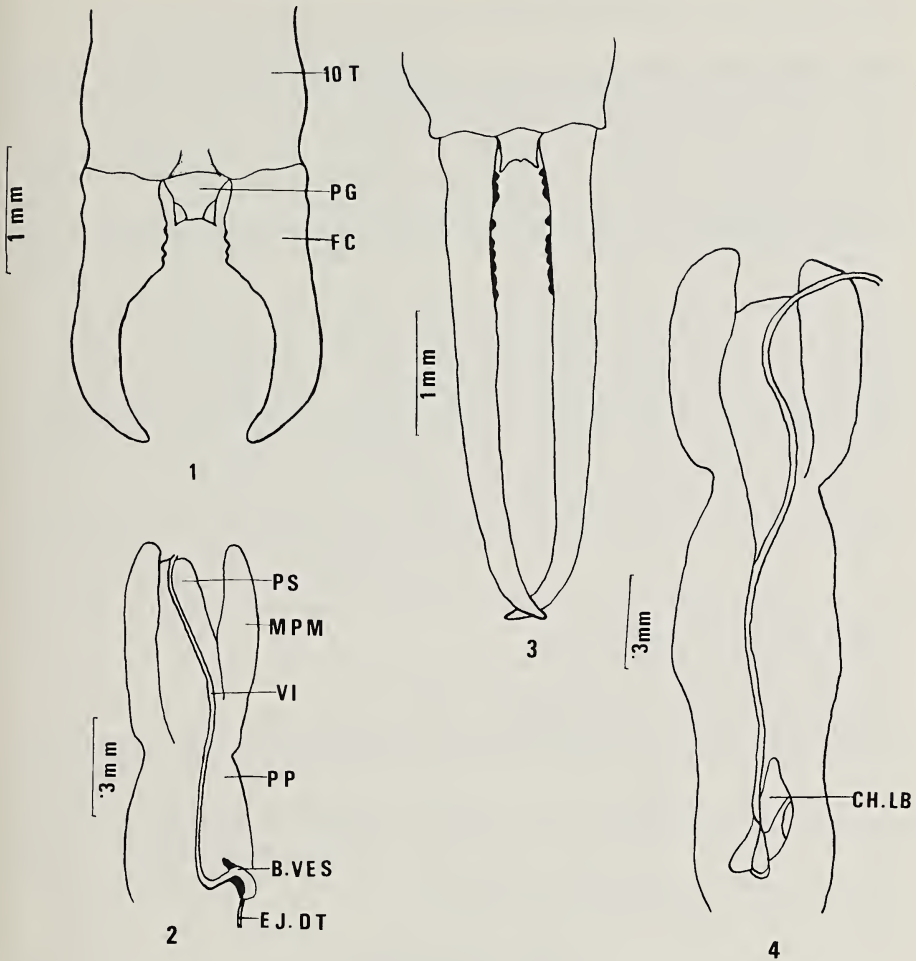
#### Forficulinae

#### *Forficula nepalensis* sp. n. (figs. 1 and 2)

Male: small; reddish-yellow, head smooth, distinctly longer than broad; frons dark, moderately tumid; occiput light brown, slightly depressed; posterior margin prominently sinuate in the middle; sutures feeble. Eyes small, distinctly smaller than genae. Antennae dark red, 12-segmented (?), 1st segment little smaller than the combined length of 2nd and 3rd segments; 2nd segment small, little less than 0.5 or ½ of 3rd; rest segments lengthening gradually, becoming slightly longer than the 1st. Pronotum dark red, nearly square; anterior margin straight; side and posterior margin gently rounded; prozona prominently tumid; metazona depressed; sulcus feeble. Tegmina brownish-yellow, almost as long as the head and pronotum combined. Wings coloured like tegmina, exposed portion about ½ the tegmina. Legs normal, brownish-yellow. Abdomen reddish brown, shining, slightly depressed, tubercles distinct on 3rd and 4th segments; 10th tergite small, rectangular, with a deep depression postero-medially. Pygidium small, transverse, slightly sinuate posteriorly. Forceps about half the abdomen, about 1/3rd basal side dilated and its inner margin nearly straight, denticulate with teeth blunt and ending in a blunt tooth, almost facing straight; beyond this the forceps gently arcuate, unarmed and with moderately pointed apices. 9th sternite small, rounded posteriorly. Male genitalia: metaparameres with gently convex outer margin and sinuate inner margin with slightly pointed apices. Virga little smaller than the whole genital armature, more than 1.5 times as long as the metaparameres, forming an angle at the junction with the basal vasicle. Length of body (excluding forceps) 4.0 mm; forceps 2.0 mm. Female unknown.

Material examined: Holotype male, Godavari, Kathmandu, under stones, 17.VI.1977, coll. A. P. Michael. Paratype one male, same data.

This species may be placed near *Forficula beelzebub* (Burr). The new species is readily



Figs. 1-2, *Forficula nepalensis*; 1, 10th tergite and forceps; 2, male genitalia. Figs. 3-4, *Eudohnria subuniformis*; 3, 10th tergite and forceps; 4, male genitalia. Abbreviations: B. VES: Basal Vesicle; CH. Lb: Chitinous Lobe; DL: Distal Lobe; EJ. DT: Ejaculatory duct; FC: Forceps; MPM: Metaparameres; PG: Pygidium; PM: Proparameres; 10T: 10th tergite; Vi: Virga.

separated from it by its very small size and by the characters of antennae, pronotum, forceps, pygidium and male genitalia.

Eudohnrinae

*Kosmeter bosei* Bharadwaj & Kapoor:

*Kosmeter bosei* Bhardwaj & Kapoor, 1967: 6. Type locality: Shillong, Meghalaya, India. Material examined: One male, Godavari, Kathmandu, under stones, 17.IV.1977. Collected by A. P. Michael. This species is so far known only from India. Its presence in Nepal is a new record of the species from this country.

*Eudohnia subuniformis*, sp.n. (figs. 3 and 4)

Male: medium size, reddish-brown, rather with brown shining lustre; pronotum, tegmina, wings and abdomen deeply punctured. Head smooth, blackish-brown, longer than broad; frons tumid; occiput moderately depressed; sutures distinct. Eyes black, small, much smaller than genae. Antennae dark chestnut, 12 segmented; 1st segment large, a little smaller than the distance between the antennal bases, about twice as long as the 2nd and 3rd segments combined; 2nd segment quadrate; 3rd about two and half times as long as broad; 4th little smaller than 3rd; rest segments lengthening but none larger than 1st. Pronotum blackish-brown, nearly as broad as head anteriorly and widening posteriorly; anterior margin straight; sides oblique and posterior margin broadly rounded; prozona tumid on either side of the middle line; metazona distinctly depressed. Tegmina reddish-brown; slightly keeled; about four and half times as long as broad and about as long as head and pronotum combined. Wings similarly coloured, less punctured; very small, less than even one fourth of tegmina. Abdomen almost cylindrical, dark chestnut; segments 3-6 with prominent tubercles. 10th tergite small, rectangular, tumid antero-dorsally and depressed postero-medially; tumid protuberances above roots of forceps distinct. Forceps long, slender, about one-third of the body gently arcuate; inner basal margin denticulate; apices gently curved. Pygidium very small transverse with sinuate posterior margin and bearing stumpy protuberances latero-posteriorly. Legs moderately long and slender, reddish-brown; tarsi slender, 1st segment shorter than the 3rd. 9th sternite rounded posteriorly. Male genitalia large, metaparameres equally broad throughout their lengths except the bluntly pointed tips, outer margin distinctly convex; and about one-third of the length of virga; virga long, a little longer than the whole genital armature, and bearing chitinous lobes posteriorly. Length of body 11.5 mm; forceps 3.0 mm.

Material examined: Holotype male, under stones, Godavari, Kathmandu, 19.IV.1977, coll. A. P. Michael. Paratype (allotype), one female same date.

This species comes very close to *Eudohnia uniformis* Brindle (1975), described from Bhutan (due to which the present new species is named as *E. subuniformis*). It can be separated from *E. uniformis* in having no triangular depressions between the antennal bases; 1st antennal segment relatively larger; pronotum broadly convex posteriorly; forceps much smaller than the body and inner basal margin (in male) with relatively well seen crenulations and pygidium with posterior margin less concave but with distinct postero-lateral tubercles. These characters are quite sufficient to suggest the designation of this new species. The male genitalic characters can not be compared as Brindle did not figure it for *E. uniformis*.

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APATURA IRIS (LINNAEUS) IN GELDERLAND (LEP., NYMPHALIDAE). Meer dan 60 jaar geleden was ik bevriend met een jongen wiens ouders geabonneerd waren op het geïllustreerde weekblad „De Prins”, ongeveer te vergelijken met „Panorama” van nu, al verschillen opmaak en tekst natuurlijk enorm. Mooi gebonden jaargangen ervan zullen nu ongetwijfeld een gezocht verzamelobject zijn. De hoofdinhoud hield uiteraard verband met actuele gebeurtenissen, maar de afleveringen bevatten in de regel ook artikelen van algemene aard, soms zelfs entomologische. Twee daarvan zijn me altijd bijgebleven. Het ene was van R. A. Polak over het kweken van *Xanthia*-rupsen uit wilgekatjes, het andere van G. J. Klokman over de Weerschijnvlinder, beide geïllustreerd met uitstekende foto's.

Klokman heeft alleen dagvlinders verzameld. Daarvan was in het begin van deze eeuw ook in Nederland nog een fraaie collectie bijeen te brengen. Hij was verbonden aan een kostschool te Doetinchem en één van zijn leerlingen is de latere G. A. Graaf Bentinck geweest. Zodoende!

Een geliefd verzamelterrein van Klokman was de Slangenburg. En hier was *Apatura iris* toen geen zeldzaamheid. Hij vertelt o.a. dat hij bij een boerderijtje kwam en daar een *iris* op de mestvaalt zag zitten. Volgens de boerin was dat dier daar een heel gewone verschijning. Dat Klokman niet overdreef bleek vele jaren later, toen zijn collectie veilig belandde in het Zoölogisch Museum te Amsterdam.

Later is *iris* in Gelderland veel zeldzamer geworden, zodat we slechts af en toe van een vangst hoorden. Het lijkt me daarom de moeite waard een paar waarnemingen te vermelden die me de laatste jaren bekend werden.

Op 12 juli 1977 tijdens een excursie van de afdeling Arnhem van de K.N.N.V. vond de heer G. J. W. Kets een dood exemplaar met uitgespreide vleugels in het struikgewas van het hellingbos aan de weg onderlangs de Duno (gem. Oosterbeek), mogelijk geraakt door een auto. Op 17 juli 1978 ving de heer D. Jansen (Eefde) een exemplaar in de omgeving van zijn woonplaats, waarvan hij de volgende dag een aantal fraaie dia's maakte. Twee daarvan stuurde hij me toe en schreef erbij, dat zijn buurman in 1977 ook al de Weerschijnvlinder had waargenomen.

Tenslotte schreef de heer S. van der Molen me, dat hij op het landgoed Rhederhof te Rheden op 26.VII.1967 een hoogvliegend exemplaar gezien had, terwijl op 9.VII.1978 twee mannetjes en een vrouwtje bij een opengescheurde vuilniszak in de tuin zaten en 7.VII.1979 een ♂ bij het bronnetje op het landgoed. — B. J. Lempke.

(Nadat het bovenstaande reeds gezet was, belde de heer M. Kolvoort uit Arnhem mij op. Men had hem verteld, dat in de bossen van Hoog-Keppel een *Limenitis populi* (Linnaeus) rond vloog. Op 14 juli ging hij kijken. Toen hij na twee uur nog niets gezien had, keerde hij naar zijn auto terug. En daar zat vlak bij zijn wagen in plaats van de (ongetwijfeld verkeerd geïdentificeerde) *L. populi* een fraaie *A. iris*!).

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#### RECTIFICATIE

In vol. 39: 101, 1979, is de Dermestide *Trogoderma augusta* Solier als nieuw voor de fauna vermeld. De kever is echter reeds als zodanig vermeld in vol. 37: 86—87 (1967).