

ON A NEW GENUS OF DERMAPTERA (INSECTA) WITH  
NOTES ON *PTERYGIDA* VERHOEFF

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ABSTRACT

The genus *Neopterygida* is erected for the reception of *Forficula circulata* Dohrn, 1865. Besides, the genus *Pterygida* Verhoeff, is redefined synonymising *Kosmetor* Burr and placed under the Subfamily Eudohrniinae. *Kosmetor punctata* Srivastava, is synonymised under *P. jagori* (Dohrn).

INTRODUCTION

Verhoeff (1902) erected *Pterygida* and included under it two species, viz., *Forficula jagori* and *Forficula circulata*, both described by Dohrn (1865). Subsequently Kirby (1904) designated former as the type species.

As a result of re-examination of type of both the species it is found they are not congeneric. Therefore a new genus is erected for the reception of *F. circulata* which appears to be quite distinct from other species of Forficulidae in having strongly depressed body and other morphological peculiarities.

Borelli (1918) correctly redefined *Pterygida* Verhoeff, redescribing *P. jagori* on the material from Philippines. This species, on the basis of antennae, sternal plates and other morphological details fits well in the genus *Kosmetor* Burr (1907). For this reason *Kosmetor* is placed as synonym of *Pterygida* which is transferred under the subfamily

Eudohrniinae. Though the type of former, *Forficula annandalei* Burr (1904), has not been examined, the detailed diagnostic characters provided by Burr (1907, 1910, 1911) are sufficient to justify above action.

Family : FORFICULIDAE  
Subfamily : ANECHURINAE  
Genus : **Neopterygida** nov.

*Pterygida* Verhoeff, 1902, *Zool. Anz.*, 25 (665) : 197  
(Partim).

Size medium (29.2 mm including forceps). Head depressed, sutures marked by faint depression. Antennae (broken, only basal segment remaining in the type) with basal segment narrowed basally, about as long as the distance between scapi. Pronotum about as long as broad, quadrate. Elytra and wings well developed, former smooth and ecarinate along the costal margin. Legs long and slender; hind 1st tarsal segment slightly

longer than 3rd and 2nd lobed with hind margin deeply emarginate. Prosternum longer than broad, gently narrowed apically; mesosternum transverse with hind margin entire and metasternum beyond hind coxae projecting as narrow lobe with hind margin faintly emarginate. Abdomen enlarged in middle and strongly depressed; ultimate tergite not sloping backwards. Penultimate sternite rounded posteriorly but with a deep cleft in middle, a small median ridge present apically. Pygidium transverse, subvertical, deeply emarginate in middle. Forceps gently arcuate, compressed.

*Type species* : *Forficula circulata* Dohrn, 1865.

*Remarks* : On account of general facies and shape of sternal plates this genus is included under the subfamily Anechurinae. It is not possible to verify the shape of antennal segments which are used in the separation of various subfamilies of Forficulidae. It can, however, be easily distinguished from various genera of Anechurinae and Opisthocosmiinae by strongly depressed body, shape of pygidium and penultimate sternite.

### *Neopterygida circulata* (Dohrn)

(Figs. 1-2)

*Forficula circulata* Dohrn, 1865, *Stettin. ent. Ztg.*, 26 : 95 (Type ♂; India : Madras).

*Apterygida circulata* : Bormans, 1900, *Das Tierreich*, 11 Forficulidae : 116, fig. 42.

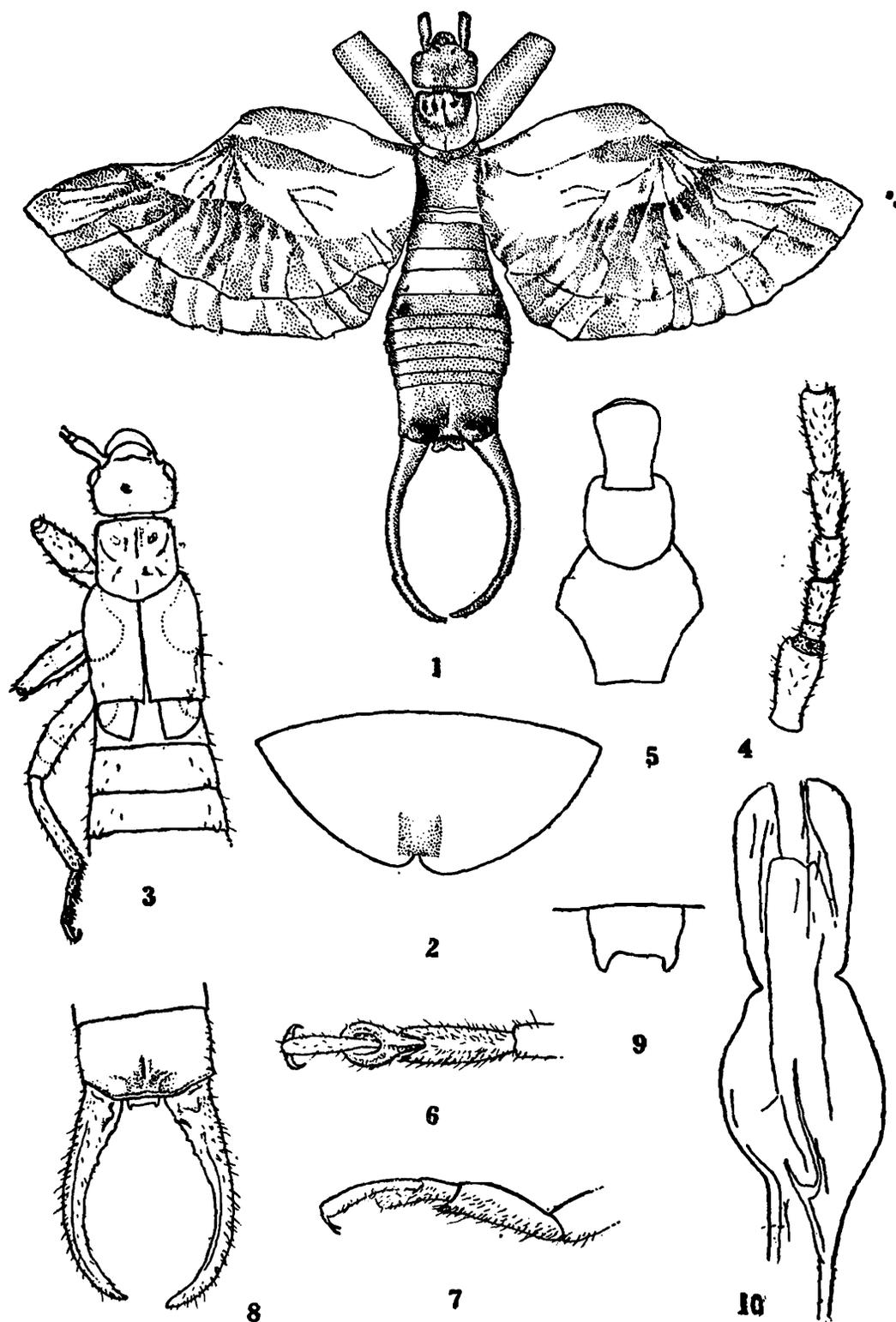
*Pterygida circulata* : Verhoeff, 1902, *Zool. Anz.*, 25 (665) : 197; Kirby, 1904, *Syn. cat. Orth.*, 1 : 44; Burr, 1910, *Fauna Brit. India. Dermoptera* : 158, pl. 10, fig. 96; Burr, 1911, *Genera Insect.*, 122 : 72; pl. 6, figs. 16a, b; Burr, 1912, *Annln naturh. Mus. Wien*, 26 : 97.

*Material examined* : 1 ♂ (Type), Coll. nat. Mus. Wien; Derm. Inv. Nr. 216, Mus. Caes Vind., Ind. Orient; *A. circulata* Det. Dohrn; Det. Burr *Pterygida circulata*, ♂ (Naturhistorisches Museum, Wien).

♂ : Head, pronotum and abdomen up to middle black; basal antennal segment, posterior half of abdomen and forceps reddish brown (or brick red); legs with femora black; tibiae and tarsi somewhat reddish; ultimate tergite with four, faint blackish longitudinal stripes. Elytra yellowish brown, wings yellow in apical half and black in remaining half.

Head smooth, triangular, slightly longer than broad, moderately depressed, sutures marked by faint depression. Antennae broken; only basal segments remaining, about as long as the distance between antennal bases.

Eyes shorter than the post-ocular length of head. Pronotum about as long as broad, anteriorly straight, sides gently convex, hind angles and margin broadly rounded; prozona weakly raised and metazona flat, median sulcus distinct. Elytra ample, impunctate, shoulder somewhat prominent, hind margin truncate; wings projecting well beyond the elytra. Legs long and slender, hind 1st tarsal segment slightly longer than 3rd; 2nd lobed with hind margin deeply emarginate. Abdomen strongly depressed, enlarged in middle, contracted anteriorly as well as posteriorly, punctation rather obscure, giving an impression of microreticulations, sides of segments convex, lateral tubercles on 3rd tergite poorly and on 4th somewhat distinctly marked. Penultimate sternite broadly rounded posteriorly with a deep emargination in middle, a faint small



Figs. 1-10 : *Neopterygida circulata* (Dohrn) comb. nov., Holotype ♂ 1. Dorsal view, 2. Penultimate sternite ; *Pterygida jagori* (Dohrn), Lectotype ♂, 3. Anterior portion of body, 4. A few basal antennal segments, 5. Thoracic sternal plates, 6. Hind tarsi in dorsal view, 7. Hind tarsi in profile, 8. Ultimate tergite and forceps, 9. Pygidium enlarged and 10. Genitalia.

median ridge present posteriorly. Ultimate tergite transverse, smooth, depressed, above the roots of forceps with a lobular fold and the area in the middle with a slight depression, hind margin in middle straight, laterally oblique and concave. Pygidium subvertical, transverse, divisible into two triangular lobes. Forceps remote at base, regularly curved, tapering apically, branches compressed. Genitalia not examined.

♀ : Unknown.

<i>Measurements</i> : (in mm)	<i>Type</i>
	♂
Length of head	2.3
Width of head	2.2
Length of pronotum	2.1
Width of pronotum	2.3
Length of elytra	3.7
Length of ultimate tergite	1.8
Width of ultimate tergite	3.5
Length of body	14.0
Length of forceps	6.2

*Distribution* : India (Madras and North India).

*Remarks* : This species, besides type, is known from a single ♂ from North India which is deposited in the Hope Entomological Collections, University Museum, Oxford (U.K.). Due to strongly depressed body and posteriorly emarginate penultimate sternite which is provided with a short median ridge in apical third, this species appears to be quite distinctive.

Subfamily : EUDOHRNIINAE

Genus *Pterygida* Verhoeff

*Pterygida* Verhoeff, 1902, *Zool. Anz.*, 25 (665) : 197 (Partim);—Kirby, 1904, *Syn. cat. Orth.*, 1 : 44 (*Forficula jagori* Dohrn—designated as the type),

*Kosmetor* Burr, 1907, *Trans. R. ent. Soc. Lond.*, 1907 : 123 (Type-*Opisthocosmia annandalei* Burr, 1904—Paris Museum) SYN. NOV.

Size medium ; body moderately convex. Build slender, pubescent.

Head smooth, convex or moderately depressed, sutures distinct or obsolete. Eyes shorter than post-ocular length. Antennae stout, generally 12-segmented or more, 1st about as long as the distance between scapi, narrowed basally ; 2nd short about as long as broad ; 3rd long and slender ; 4th almost equal to preceding but stouter in being gently expanded apically, remaining gradually increasing in length and each gently narrowed at base. Pronotum anteriorly equal to head in width, almost as long as broad or longer. Elytra and wings well developed and smooth. Legs with forefemora usually swollen, femora smooth above ; tarsi short, hind 1st tarsal segment compressed, stout ; 2nd lobed with posterior margin entire ; 3rd slender, narrowed basally, almost equal to 1st. Prosternum longer than broad, posteriorly truncate ; mesosternum quadrate, about as long as broad with hind margin rounded ; metasternum projecting as narrowed lobe beyond hind coxae with hind margin truncate. Abdomen convex ; ♂ ultimate tergite transverse or subquadrate. Pygidium short, obtuse or prominent, transverse. Forceps generally remote at base, long and slender, sometimes gently curved, internally variously armed. In ♀ pygidium short, obtuse ; ultimate tergite gently narrowed posteriorly and forceps simple and straight.

*Type species* : *Forficula jagori* Dohrn, 1865,

***Pterygida jagori* (Dohrn)**

(Figs. 3-10)

*Forficula jagori* Dohrn, 1865, *Stettin. ent. Ztg.*, 26 : 94 (♂, ♀ ; Luzon).*Apterygida jagori* : Bormans, 1900, *Das Tierreich*, 11 Forficulidae : 116.*Pterygida jagori* : Verhoeff, 1902, *Zool. Anz.*, 25 (665) : 197 ; Kirby, 1904, *Syn. cat. Orth.*, 1 : 44 ; Burr, 1911, *Genera Insect.*, 122 : 72 ; Borelli, 1916, *Boll. Musei Zool. Anat. comp. R. Univ. Torino*, 31 (715) : 6 ; Borelli, 1918, *Boll. Musei Zool. Anat. comp. R. Univ. Torino*, 33 (726) : 2 (redescription).*Kosmetor punctata* Srivastava, 1976, *Pacif. Insects*, 17 (1) : 129, figs. 69-71 (♂, ♀, Philippine Is. : Luzon—Holotype ♂ and Paratypes ♂, ♀, at B. P. Museum, Hawaii, U. S. A. and paratypes 1♂, 1♀ at Zoological Survey of India, Calcutta) SYN. NOV.**Material examined :**

1. Syntype ♂ labelled as : (i) *Jagori Dohrn Luzon Jagor*—A yellow label, handwritten by Dohrn ; (ii) 3242 ; (iii) *Pterygida jagori* ♂ (Dohrn, 1865) des. K. K. Günther, 1980—handwritten label and (iv) Syntypus—Pink label, printed ; genitalia mounted between two coverslips and pinned with the specimen (designated as *Lactotype*) (Museum für Naturkunde der Humboldt Univ., DDR—Berlin).

2. Syntype ♀ labelled as : (i) Katnt. 3242—handwritten ; (ii) *Pterygida jagori* ♀ (Dohrn), des. K. K. Günther, 1980 handwritten ; and (iii) Syntypus—Pink label, printed (designated as *Paralectotype*) (Museum für Naturkunde der Humboldt Univ., DDR—Berlin).

Dohrn (1865) refers to ♂, ♀ in the original description giving locality records. Number of specimen is not mentioned.

3. 1 ♂ da Imugin N. Viscaya ; 1 ♀ da

Baguio Benguit Det. By Borelli as *Pterygida jagori* (Dohrn) (Museo ed Istituto di Zoologia Sistemica della Universita di Torino).

Though Borelli's (1918) redescription of the species and the detailed description of *Kosmetor punctata* Srivastava, a synonym of this species, are adequate, type does not seem to have been figured earlier. A brief diagnosis together with the figures from the type are provided.

Head and pronotum black. Antennae with a few basal segments yellowish and remaining brownish black, legs with fore-femora black but yellow near base only, middle femora yellow, black in apical half ; hind femora yellow with a broad black band extending from middle to a little before knee joint ; tibia yellow but lightly shaded with black and tarsi complete black. Elytra and wings black, former with a broad yellow humeral spot and latter with a yellow spot basally. Head moderately depressed, smooth, sutures obsolete. Eyes shorter than the post-ocular length. Abdomen, pygidium and forceps light blackish brown. Body sparsely pubescent, more pronounced on sides of abdomen, forceps and underside of tarsi. Abdomen shallowly and sparsely punctulate, gradually enlarging posteriorly, lateral folds on 3rd tergite weakly and on 4th strongly developed. Penultimate sternite broadly rounded posteriorly. Pygidium transverse, subvertical, postero-lateral angle produced into triangular point. Forceps remote at base, long, tapering and gradually curving apically, internally with numerous teeth and near base above with a large triangular tooth. Genitalia as in fig. 10.

♀ : Agrees with male in most characters except secondary sexual characters.

*Remarks*: The above brief description is based on the lectotype ♂ which possesses 11 antennal segments on the left and 8 on the right but altogether 13 segments were recorded by Borelli (1. c.) and Srivastava (1. c.) for *K. punctata*. Pubescence appears to have been brushed off. Some variations in colour, especially black band on femora which may be often reduced, are noted. Wings in some specimens are complete yellow with a small black spot apically.

#### ACKNOWLEDGEMENTS

I am thankful to Dr. B. K. Tikader, Director, Zoological Survey of India, Calcutta for providing necessary facilities and to Dr. Kurt K. Günther, Museum für Naturkunde der Humboldt-Univ., DDR Berlin and Dr. A. Kaltenbach, Naturhistorisches Museum, Vienna for the loan of type of *Forficula jagori* Dohrn and *Forficula circulata* Dohrn, respectively. I am also indebted to Dr. P. Passerin d' Entreves, Curator, Museo ed Istituto di Zoologia Sistemica della Università di Torino, Torino for the loan of 1 ♂, 1 ♀ of *P. jagori* and to Dr. M. W. R. de V. Graham, Curator, Hope Entomological Collections, University Museum, Oxford (U. K.) for supplying the photographs of *Pterygida circulata* Dohrn, ♂.

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