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NEW GENERA AND SPECIES OF THE TRIBE PARAHIRACIINI (HEMIPTERA: FULGOROIDEA: ISSIDAE)

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Abstract - *Pinocchias natus* and *Narinosus nativus* – two new genera and two new species of the tribe Parahiraciini Cheng & Yang are described from India and China. *Clipeopsilus* Jacobi, 1944 is placed in synonymy under *Fortunia* Distant, 1909.

KEY WORDS: Hemiptera, Issidae, Parahiraciini, new genera, new species.

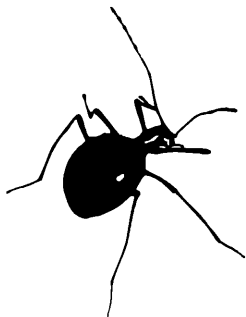
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KLJUČNE BESEDE: Hemiptera, Issidae, Parahiraciini, novi rodovi, nove vrste

Introduction

The issid tribe Parahiraciini Cheng & Yang (Cheng & Yang, 1991) is distinguished by beetle-like convex, elongate, and apically narrowing fore wings, long fore and middle legs in comparison with hind legs, and well-developed 3-lobed (anal lobe more or less reduced) hind wings with deep incision between remigium and vannus and net of transversal veins in distal part. The tribe comprises 6 genera including 2 genera described below and distributed in East and Southeastern Asia (Gnezdilov & Wilson, in press). The genus *Clipeopsilus* Jacobi, 1944 erected for *Clipeopsilus belostoma* Jacobi, 1944 described from southern China (Fujian Province) (Jacobi, 1944) is a junior synonym of the genus *Fortunia* Distant, 1909.



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Pinocchias gen. n. clearly differs from all other genera in possessing a long cylindrical metopial proboscis and an aedeagus without ventral hooks. *Narinosus* gen. n. is close to the genus *Fortunia* Distant (Distant, 1909) in external morphology and structure of male genitalia, but differs in the absence of median and sublateral keels of metope, and lateral keels of metope reach the apex of metopial proboscis, but not postclypeus. Because of the latter feature *Narinosus* gen. n. is probably closely related to the genus *Bardunia* Stål (Stål, 1863).

Material and methods

The terminology of the head follows Anufriev & Emeljanov (1988) and Emeljanov (1995), the terminology of the male genitalia Gnezdilov (2003), and the female genitalia Bourgoin (1993) and Gnezdilov (2002).

The material examined is deposited in the following collections: BMNH – the Natural History Museum (London, UK), MNHN –Museum National d'Histoire Naturelle (Paris, France), CAU – Agricultural University (Beijing, China), ZIN – Zoological Institute, Russian Academy of Sciences (St. Petersburg, Russia).

Taxonomy

Pinocchias gen. n.

Type species: *Pinocchias natus* sp. n.

Description: Metope strongly extended to form a cylindrical proboscis, without median and sublateral keels (Figs 2, 3). Lateral keels of metope surround proboscis and reach postclypeus. Coryphe elongate. The eyes are very large. Lateral parts of pronotum behind eyes are very narrow. Fore wing long and narrow (3 times as long as wide), weakly narrows to rounded apex, without hypocostal plate (Fig. 1). Radius and Mediana bifurcate, Cubitus Anterior trifurcate. Hind wing well-developed. Fore femora flattened laterally, broadened subapically. Hind tibia with 2 large lateral teeth in distal part.

Etymology: The generic name is derived from the name of Italian fairytale character – Pinocchio; the grammatical gender is masculine.

Pinocchias natus sp. n.

Holotype: ♂, Rangamati, Chittagong Hill Tracts, Bengal., 11-16.VII.[19]15, R. Hodgart., Ind. Mus. (BMNH).

Description: The length of coryphe is 1.2 times its width (measured laterally), anterior margin weakly convex, posterior margin acutely angulate. Plate of coryphe is concave. Pronotum and scutellum without keels. Scutellum 1.3 times as long as

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pronotum. Metatarsomere I with 6 intermediate socle setae (2 large setae and 4 small setae).

Coloration: Upper side of the body brown. Metopial proboscis laterally with a pair of broad brownish-red stripes. Apex of proboscis with large, round, and shining dark brown spot bordered by narrow brownish-red stripe. Preocular fields with broad brownish-red stripes near the postclypeus. Fore wing transparent in costal area from its base to middle part of wing, between first and second branches of Radius from its bifurcation to apical third of the wing, and semicircularly between second branch of Radius and Media basally of its bifurcation. Fore tibia dorsally with longitudinal dark brown stripe and laterally with a pair of subapical dark brown rectangular spots. Body and legs ventrally yellowish light-brown. Apices of teeth and socle setae of legs black.

Male genitalia (Figs 7-12): Pygofer with convex hind margin. Anal tube elongate, approximately oval, weakly broadened apically, lateral margins turned down. Anal column narrow and short (anal tube 4.5 times as long as anal column). Phallobase basally with a pair of short semicircular lateral lobes. Dorso-lateral phallobase lobes fused apically, each lobe with a large hook-like subapical process directed basally. Ventral phallobase lobe long and broad, weakly narrowing apically, apex truncate with weak notch. Apical aedeagal processes long and broad, project above apical margins of dorso-lateral lobes, scarcely enlarged apically (in lateral view), apices rounded, each with triangular subapical lateral projection. Stylus with concave hind margin, caudo-dorsal angle widely rounded. Capitulum spear-shaped (in dorsal view), on short neck, with 2 lateral teeth (external tooth wider than internal tooth), apical tooth weak.

Body length: 7.4 mm.

Etymology: The species name is derived from the Latin “nātus” – son.

***Narinosus* gen. n.**

Type species: *Narinosus nativus* sp. n.

Description: Metope extended to form a short proboscis, with only lateral keels reaching apex of proboscis, but not postclypeus (Figs 5, 6). Coryphe transversal. Pronotum with broad lateral parts behind eyes. Fore wing long and narrow, narrows to rounded apex, without hypocostal plate (Fig. 4). Radius and Media bifurcate, Cubitus Anterior bi- or trifurcate. Hind wing with deep incision between remigium and vannus, apical lobe very narrow. Radius and Media simple, Cubitus Anterior bifurcate, Cubitus Posterior, Postcubitus, and First Anal vein simple. Fore femura laterally strongly flattened. Hind tibia with 2 large lateral teeth in distal part and sometimes with 1 small lateral tooth in proximal part.

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Etymology: The generic name is derived from the Latin “nârinôsus” – broad-nosed; the grammatical gender is masculine.

***Narinosus nativus* sp. n.**

Holotype: ♂, [China], Wei tze ping, 14.VIII.[19]16, Licent (MNHN).

Paratypes: [China]: 1♂, Wei tze ping, 20.VIII.[19]16, Licent (ZIN); 1♀, same locality, 18.VIII.[19]18, “Chensicent.”, Licent (MNHN); 1♀, [Shandong Prov.], K’iaocheu [at present Qingdao], 27.VII.[19]16, “Chansis.”, Licent (MNHN); 1♀, Hubei Prov., Xingshan, Longmen River, 1300 m, 13.IX.1994, F.-S. Li leg. [original label in Chinese] (CAU).

Description: Metope and pronotum bearing small tubercles. Width of coryphe is 2 times of its length, anterior margin scarcely convex, posterior margin obtusely angulate. Pronotum and scutellum without keels. Scutellum 1.3 times as long as pronotum. Fore wing with almost invisible transversal veins. Hind wing with many transversal veins in apical part. Metatarsomere I with 9 intermediate sole setae.

Coloration: Upper side of the body, abdomen, fore and middle tarsomeres, and metatarsomere III dark brown. Anteclypeus, rostrum, and middle parts of abdominal sternites light yellow. Fore wing with light brown or yellowish longitudinal veins. Hind wing brown. Pleurites and legs light brown. Fore and middle trochanters light yellow. Fore femorae with black spots. Fore and middle tibiae ventrally with dark brown longitudinal stripe on its margin.

Male genitalia (Figs 13-20): Pygofer with straight hind margin. Anal tube strongly enlarged apically (in dorsal view), apex truncate and turned down, apical angles lobe-shaped and turned down (in lateral view). Anal column short and broad. Ventral margins of dorso-lateral phallobase lobes extended to form a collar, each lobe with a short subapical horn-shaped protrusion. Ventral phallobase lobe long and wide, narrows apically. Apical aedeagal processes long, enlarged apically. Aedeagus with a pair of ventral hooks (0.3 times as long as phallobase). Stylus with strongly convex hind margin, caudo-dorsal angle widely rounded. Capitulum long and narrow, narrows apically (in dorsal view), lateral tooth long, finger-shaped, apical tooth weak.

Female genitalia (Figs 21, 22): Hind margin of sternum VII with deep and wide median concavity. Anal tube (in dorsal view) approximately oval, flat, with apical notch. Anal column short and broad. Gonoplares without keels, with deep incision between first and second lobes. Furca well sclerotised, with short basal part. Posterior connective lamina of gonapophyses IX with convex proximal part. Distal parts of lamina bent at obtuse angle. Median field convex, with a pair of short apical lobes. Lateral fields weakly convex. Hind margin of gonocoxa VIII lobe-shaped (mostly in proximal part). Endogonocoxal process apically strongly narrowing.

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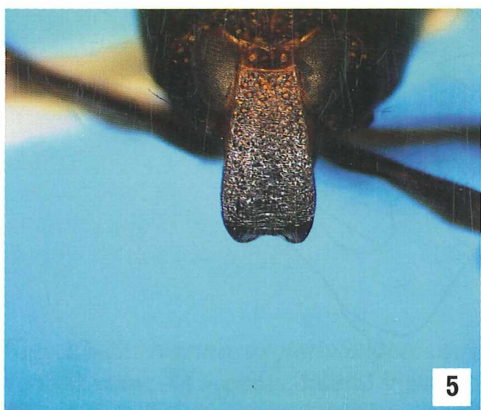
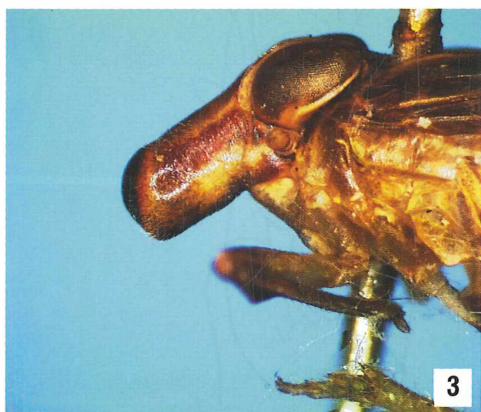
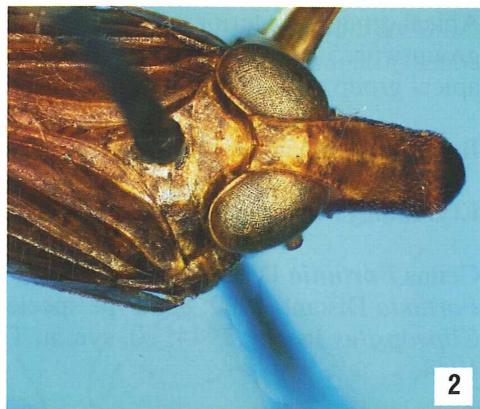
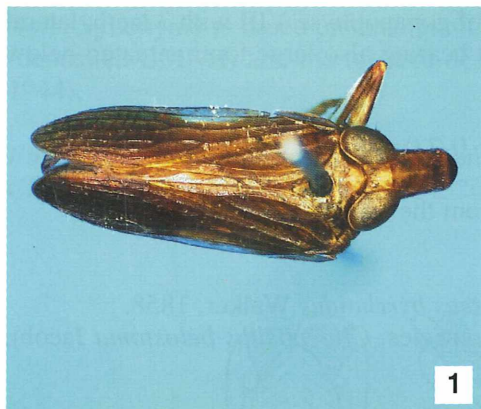
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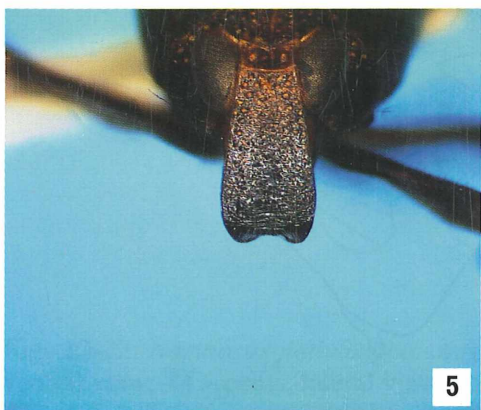
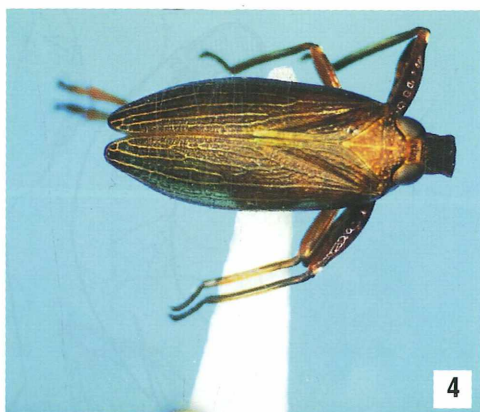
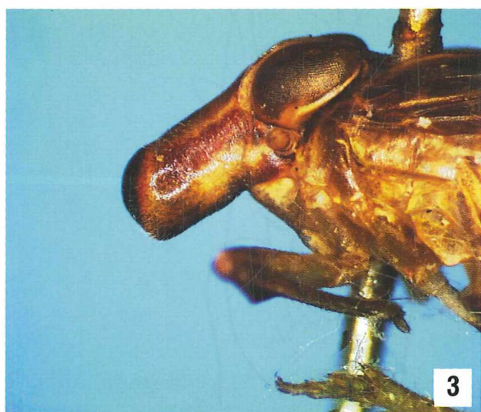
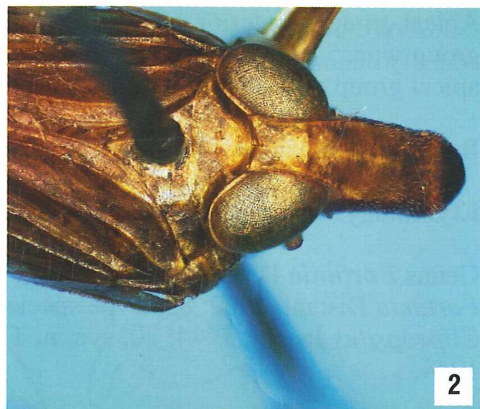
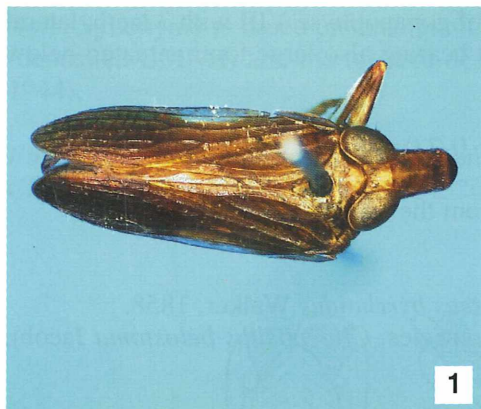
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Figs 1-6: Total view. 1-3 – *Pinocchias natus* gen. et sp. n., 4-6 – *Narinosus nativus* gen. et sp. n. 1, 4 – body, dorsal view; 2, 5 – head, dorsal view; 3, 6 – head, lateral view.



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Apical group of anterior connective lamina of gonapophyse VIII with 3 teeth, lateral group with 5 teeth and 6 keels. The lamina bearing also large tooth situated below apical group on external margin.

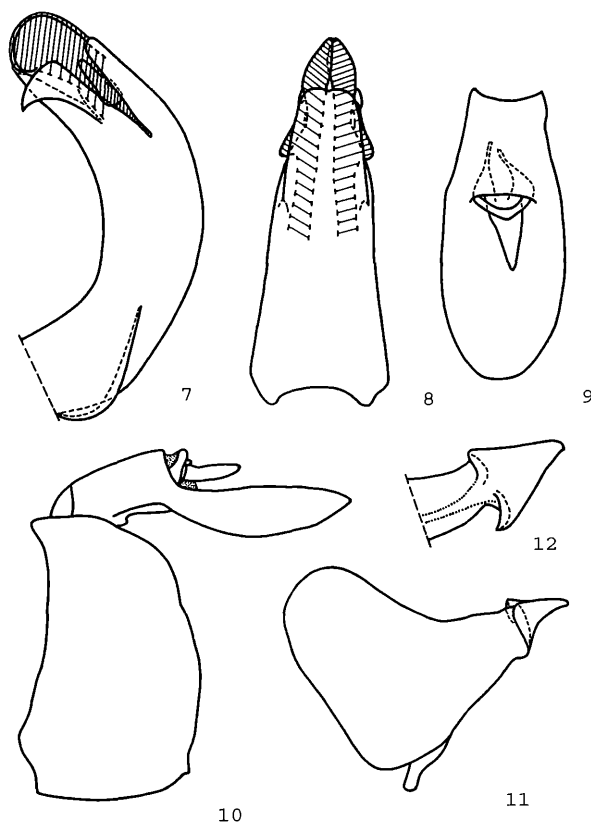
Body length: Males – 5.5 mm. Females – 6.0-7.0 mm.

Etymology: The species name is derived from the Latin “nātīvus” – born.

Genus *Fortunia* Distant

Fortunia Distant, 1909: 83. Type species: *Issus byrrhoides* Walker, 1858.

Clipeopsilus Jacobi, 1944: 20, syn. n. Type species: *Clipeopsilus belostoma* Jacobi, 1944.



Figs 7-12: *Pinocchias natus* gen. et sp. n., male genitalia. 7 – penis, lateral view; 8 – penis, ventral view; 9 – anal tube, dorsal view; 10 – pygofer and anal tube, lateral view; 11 – stylus, lateral view; 12 – capitulum of stylus, dorsal view.

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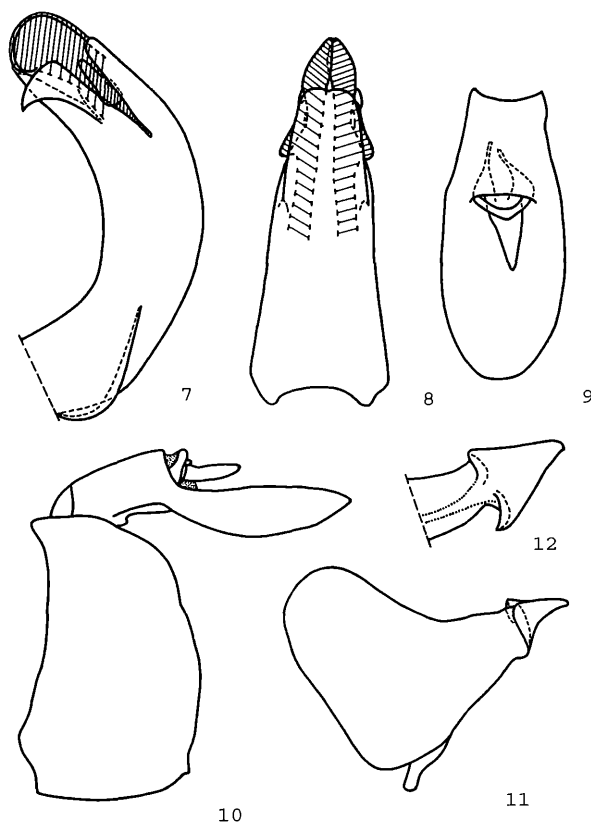
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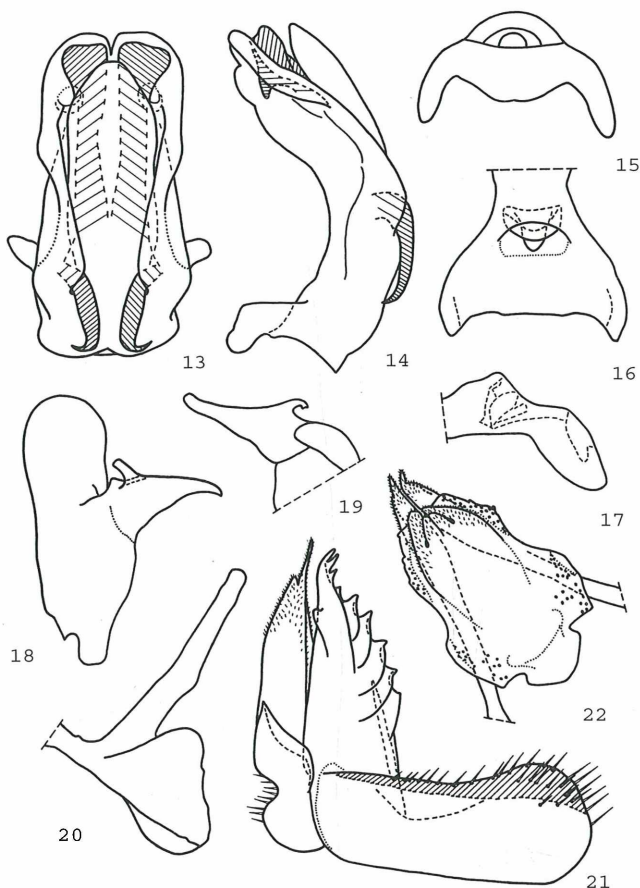


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Note. Synonymy is based on examination of the type female of *Fortunia byrrhoides* (deposited BMNH) and the original description of *Clipeopsilus belostoma* (Jacobi, 1944).

Fortunia belostoma (Jacobi, 1944), comb. n.

Clipeopsilus belostoma Jacobi, 1944: 20, figs 7a-d.

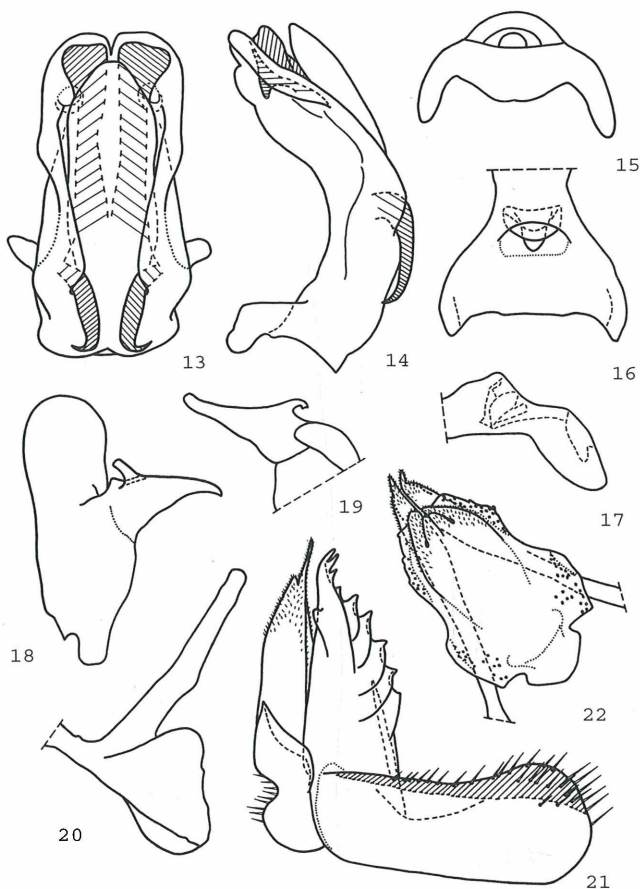


Figs 13-22: *Narinosus nativus* gen. et sp. n., male and female genitalia. 13 – penis, ventral view; 14 – penis, lateral view; 15 – male anal tube, caudal view; 16 – same, dorsal view; 17 – same, lateral view; 18 – stylus, lateral view; 19 – capitulum of stylus, dorsal view; 20 – connective, lateral view; 21 – anterior connective lamina of gonapophyse VIII, lateral view; 22 – posterior connective lamina of gonapophyse IX, dorsal view.

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Acknowledgements

We are pleased to thank The Royal Society (London) for financial support of visit of V.M. Gnezdilov to the United Kingdom for collaborative study. We are sincerely grateful to Mr. M. Webb (London, UK) and Dr. T. Bourgoin (Paris, France) for the opportunity to study the material, and to Dr. V. Mazzoni (Pisa, Italy) for consultation on Italian and help with literature.

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