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REVIEW OF THE *GORYTES KOHLII* SPECIES GROUP (HYMENOPTERA: SPHECIDAE, BEMBICINAE)

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Gorytes kohlii removed from the genus *Pseudoplisus* to *Gorytes*. The review of the *G. kohlii* species group with two species (*G. kohlii* and *G. ishigakiensis*) is given. Hitherto unknown female of *G. ishigakiensis* is described.

KEY WORDS: Digger wasps, Sphecidae, taxonomy.

П. Г. Немков. Обзор группы видов *Gorytes kohlii* (Hymenoptera: Sphecidae, Bembicinae) // Дальневосточный энтомолог. 1999. N 81. С. 1-5.

Gorytes kohlii перенесен из рода *Pseudoplisus* в *Gorytes*. Дается обзор группы видов *G. kohlii* с двумя видами (*G. kohlii* и *G. ishigakiensis*) Описана ранее неизвестная самка *G. ishigakiensis*.

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INTRODUCTION

Gorytes kohlii was described in genus *Gorytes* Latreille (Handlirsch, 1888). Later the monotypic subgenus *Laevigorytes* was established for this species (Zavadil & Snoflak, 1948) but Beaumont (1953) considered *Laevigorytes* as synonym of *Gorytes*. In generic revision of sphecid wasps (Bohart & Menke, 1976) *G. kohlii*

was removed to the genus *Pseudoplisus*. Present paper deals with the unification of *P. kohlii* and *G. ishigakiensis* in the separate species group in the genus *Gorytes*.

The collections of digger wasps of Zoological Institute, Russian Academy of Sciences (St-Petersburg), Institute of Biology and Pedology, Russian Academy of Sciences (Vladivostok), Zoological Museum, Moscow State University (Moscow), Institute of Zoology, Kazakhstan (Alma-Ata), Museum of Nature and Human Activities, Japan (Hyogo) and National Institute of Agro-Environmental Sciences, Japan (Tsukuba) were studied.

Abbreviations used throughout the text are as follows: IODo – distance between eyes on level of midocellus; IODa – distance between eyes on level of antennal socket; OAD – distance between eye and antennal socket; WAS – width of antennal socket; IAD – distance between antennal sockets; OOD – distance between inner margin of eye and outer margin of hind ocellus; POD – distance between inner margins of hind ocelli; Od – fore ocellar diameter; A3(13)L:W – ratio of length to width of antennal joint 3(13).

***Gorytes* Latreille, 1804**

Gorytes Latreille, 1804: 180. Type species: *Mellinus quinquecinctus* Fabricius, 1793, by monotypy.

Laevigorytes Zavdil in Zavdil & Jbnoflak, 1948: 66 [Type species: *Gorytes kohlii* Handlirsch, 1888, by monotypy]. (Synonymized with *Gorytes* by Beaumont, 1953: 197; synonymized with *Pseudoplisus* by Bohart & Menke, 1976: 52).

REMARKS. A key to the seven before known species groups of *Gorytes* are given in my paper (Nemkov, 1990). *G. kohlii* is undoubtedly closely related to *G. ishigakiensis* and similar with it by shape, sculpture and coloration of body and appendages. These two species belongs to the species group *G. kohlii*. The differences between it and other *Gorytes* species groups are given in following key:

1. Gaster subpetiolate. – Frons narrow. Inner orbits strongly convergent towards clypeus. Flagellum long and slender. Fore femur not widened basally. Lateral sides of female pygidial plate not concave. Body with rich light coloration. (*G. kohlii* species group) 2
- Gaster sessile. other species groups of *Gorytes*
2. Mesopleuron with small and sparse, but distinct punctures. Metapostnotum mostly smooth. Female pygidial plate smooth, with fine and sparse punctures. ♀ ♂ 10.0–13.0. *G. kohlii*
- Mesopleuron without distinct punctures. Metapostnotum completely covered by dense and distinct longitudinal striae. Female pygidial plate with longitudinally stretched punctures and indistinct longitudinal striae between them. ♀ 11.0, ♂ 8.5 *G. ishigakiensis*

***Gorytes kohlii* species group**

Gorytes kohlii Handlirsch, 1888

Gorytes kohlii Handlirsch, 1888: 511, ♂ ♀ [syntypes - 1♂, 1♀, "Dalmatia", Croatia; in Hofmuseum, Wien].

Gorytes (Laevigorytes) kohlii: Zavadil & Snoflak, 1948: 66.

Gorytes kohlii: Beaumont, 1953: 197.

Pseudoplisus kohlii: Bohart & Menke, 1976: 503.

MATERIAL. 1♂, Croatia, «Dalmatia», «coll. F. Morawitz»; 3♀, 2♂, Ukraine, Crimea, Karadag, 12.VII 1902 (Matveev); 1♀, 2♂, Ukraine, Crimea, Otuzi, 8.VII 1902 (Lesser); 1♀, Ukraine, Ismail, 21.VI 1896 (Vlasov); 1♀, Kazakhstan, 17 km NW Bakanas, Ili river, 27.VI 1970 (Kazenas); 2♀, 3♂, Turkmenistan, Tashauz, 3.VIII 1934 (Gussakovskii); 1♀, 1♂, Turkmenistan, Kerki, 2.VI 1922 (Andreev).

NOTES. One male from Croatia («Dalmatia», «coll. F. Morawitz») probably belongs to the type series.

DISTRIBUTION. Croatia, Ukraine (Crimea), Kazakhstan (West, Southeast), Turkmenistan, Syria.

DISCUSSION. *G. kohlii* was removed to the genus *Pseudoplisus* by the reason of two features: smooth metapostnotum (main difference *Pseudoplisus* from *Gorytes*) and subpetiolate gaster (unusual for *Gorytes*, but occur in some *Pseudoplisus*) (Bohart & Menke, 1976). I found that metapostnotum of *G. kohlii* is never wholly smooth, the basal 1/6-1/5 (rarely 1/4-1/3) part is longitudinally striate. Some others *Gorytes* have partly or almost wholly smooth metapostnotum also (*G. africanus*, *G. harbinensis*, *G. maculicornis*, *G. quinquefasciatus intercedens*, *G. sulcifrons mongolicus*). *G. ishigakiensis* with wholly striate metapostnotum is obviously related and similar with *G. kohlii*. Based on these reasons I remove *G. kohlii* to the genus *Gorytes*.

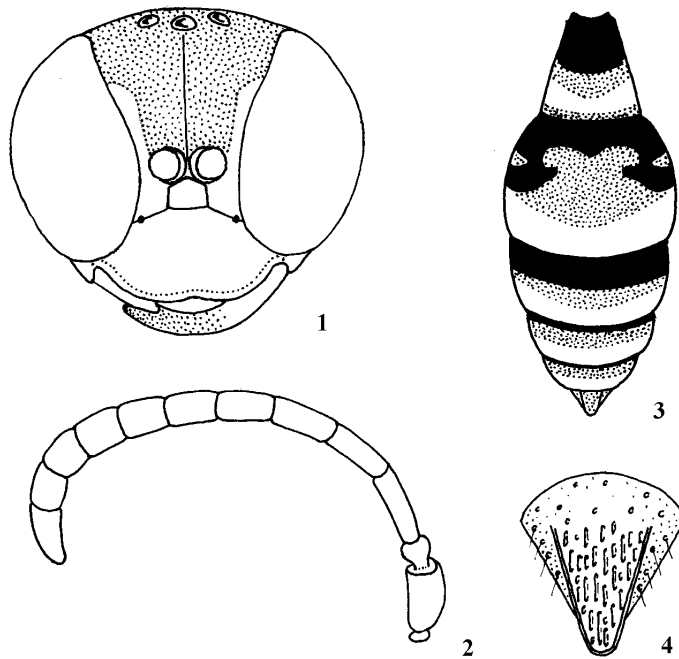
***Gorytes ishigakiensis* Tsuneki, 1982**

Figs 1-4

Gorytes ishigakiensis Tsuneki, 1982: 48, ♂ [holotype - ♂, Japan, Okinawa Pref., Ishigaki Island, Takada, 20.IV 1982 (K. Baba); Museum of Nature and Human Activities in Hyogo, Japan, examined].

MATERIAL. 1♂ (holotype); 1♀, Taiwan, Nantou Pref., Kwantau-shih, 30.V 1973 (S. Yamane); in National Institute of Agro-Environmental Sciences (Tsukuba).

DESCRIPTION. FEMALE (hitherto unknown). Body length 11.2 mm. Clypeus slightly emarginated apically (Fig. 1). Frons narrow, with deep and distinct impressed line from midocellus to antennal socket area. Inner orbits strongly convergent toward clypeus. IODo:IODa=2. OAS:WAS:IAD=3:12:5. OOD:Od:POD=15:8:13. Flagellum long and slender, gently enlarged toward apex



Figs 1-4. *Gorytes ishigakiensis*, ♀: 1) head, frontal view (light – yellow color, punctured – black); 2) antenna, frontal view; 3) gaster, dorsal view (light – yellow color, punctured – light red, black – black); 4) pygidial plate, dorsal view.

(Fig. 2). A3L:W=3; A11L:W=1,3; A12L:W=1,5. Acetabular carina well developed, about twice as long as Od. Lateral side of propodeum with deep and distinct spiracular groove. Fore femur ordinary, not widened basally. Gaster subpedunculate (Fig. 3). First gastral segment 1,2 times as long as wide apically. Pygidial plate triangular, with straight lateral sides (Fig. 4).

Frons and scutum almost dull, rather closely covered with scattered deep well-outlined medium-sized punctures against a background of very dense fine micropunctures. Scutellum and postscutellum smaller and sparser punctured. Mesopleuron shine, almost without punctures. Metapleuron and anterolateral part of propodeum before spiracular groove smooth and shine. Metapostnotum completely covered by dense and distinct longitudinal (somewhat diverging backward) striae, enclosed with frequently ribbed furrow. Posterolateral and posterior parts of propodeum slightly shine, with scattered shallow bad-outlined large punctures and indistinct sparse striae between them. Punctures on gaster rather dense scattered fine, but distinct. Pygidial plate with longitudinally stretched punctures and indistinct longitudinal striae between them (Fig. 4). Pubescence from short whitish hairs, sparse and inconspicuous, only on clypeus and propodeum somewhat longer.

Body black with rich light maculation. Basal half of mandibles, small spot on malar space, labrum, clypeus, subantennal sclerite, narrow stripe along inner orbit (Fig. 1), scape and pedicel, collar, pronotal lobe, two big spots on anterior half of mesopleuron (above and below of scrobal sulcus), posterior half of scutellum and gross spot on posterolateral part of propodeum yellow. Gastral terga with rich yellow and light red coloration (Fig. 3), sterna II-IV with broad apical brownish yellow band. Flagellum yellowish red, three apical flagellomeres above dark brown. All coxae and trochanters black with large yellow spot. Femora above light red (middle and hind with big dark brown spot), beneath yellow. Tibiae light red (middle and hind beneath partly yellow). Tarsi light red. Arolia dark brown. Wings hyaline, slightly brownish clouded. Veins brown. Stigma yellowish brown, translucent.

MALE. Carefully described and illustrated by K. Tsuneki (1982).

DISTRIBUTION. Japan, Taiwan (new record).

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REFERENCES

- Beaumont, J. de. 1953. Les Gorytes s.s. (= Hoplisus) de la région paléarctique (Hym. Sphecidae). - Mitt. Schweiz. Entomol. Ges. 26: 161-200.
- Bohart, R. M. & Menke, A. S. 1976. Sphecid wasps of the world: a generic revision. Berkeley, Los Angeles, London: IX+695 pp.
- Handlirsch, A. 1888. Monographie der mit Nysson und Bembex verwandten Grabwespen. III. Gorytes. - Sitzber. Akad. Wiss. Wien, Math.-Naturwiss. Classe 97(1): 316-565, I-III.
- Handlirsch, A. 1895. Nachtrage und Schlusswort zur Monographie der mit Nysson und Bembex verwandten Grabwespen. - Sitzber. Akad. Wiss. Wien, Math.- Naturwiss. Classe 104(1): 801-1079, I-II.
- Latreille, P. A. 1804. Tableau methodique des insectes. - In: Nouveau dictionnaire d'histoire naturelle, etc. Paris Vol. 24: 129-200.
- Nemkov, P. G. 1990. [Digger wasps of the tribe Gorytini (Hymenoptera, Sphecidae) of the USSR. Genera Gorytes Latreille, Pseudoplisus Ashmead, Kohlia Handlirsch]. - Entomologicheskoe obozreniye 69(3): 675-691. (In Russian).
- Tsuneki, K. 1982. Sphecidae and Scoliidae collected by Dr. K. Baba in the Southern Ryukyus (Hymenoptera). - Special Publications of the Japan Hymenopterists Association 23:46-52.
- Zavadil, V. & Jbnoflak, J. 1948. Kutilky (Sphecidae) Československé Republiky. - Entomologické Příručky Entomologických Listů 13: 1-179.

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Г - g	И - i	Н - n	Т - t	Ч - ch	Ю - yu
Д - d	Й - i	О - o	У - u	Ш - sh	Я - ya

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