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REVIEW OF THE DIGGER WASPS OF THE GENUS *BRACHYSTEGUS* A. COSTA (HYMENOPTERA, CRABRONIDAE, BEMBICINAE) OF RUSSIA AND NEIGHBOURING COUNTRIES

P. G. Nemkov

Institute of Biology and Soil Science, Vladivostok-22, 690022, Russia

The original key to four Palaearctic *Brachystegus* species and the review of two species of Russia and neighbouring countries are given. *B. scalaris* Illiger is newly recorded for Georgia, Kyrgyzstan, Uzbekistan, Tajikistan and Iran and *B. incertus* Radoszkowski – for Azerbaijan and Uzbekistan.

KEY WORDS. Hymenoptera, Crabronidae.

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Даются оригинальная определительная таблица для 4 палеарктических видов рода *Brachystegus* и обзор 2 видов из России и сопредельных стран. *B. scalaris* Illiger впервые указан для Грузии, Киргизии, Узбекистана, Таджикистана и Ирана, а *B. incertus* Radoszkowski – для Азербайджана и Узбекистана.

Биолого-почвенный институт, Дальневосточное отделение Российской Академии Наук, Владивосток-22, 690022, Россия.

INTRODUCTION

This paper is treated of *Brachystegus* of the fauna of Russia and neighbouring countries. Seventy eight specimens from the collections of Zoological Institute,

Russian Academy of Sciences (St. Petersburg) [ZIN]; Zoological Museum, Moscow State University [ZMMU]; Institute of Zoology, Ministry of Education and Science of Kazakhstan (Almaty) and Institute of Biology and Soil Science, Russian Academy of Sciences (Vladivostok) have been studied. Only synonymy which concerns fauna of Russia and neighboring countries is given for the reviewed species. New records are asterisked. Distribution of *B. scalaris* and *B. incertus* in Eastern Europe and Asia is drawn on the map (Fig. 1).

Genus *Brachystegus* A. Costa, 1859

Brachystegus A. Costa, 1859: 24 [type species – *Brachystegus dufourii* (Lepeletier, 1845) [= *Brachystegus scalaris* (Illiger, 1807)], by monotypy]; Handlirsch, 1895: 1011; Dalla Torre, 1897: 576; Pate, 1937: 14, 1938: 125, 158; Maidl & Klima, 1939: 139; Bohart & Menke, 1976: 51, 472.

DIAGNOSIS. Current generic diagnosis is given in Bohart & Menke (1976).

SPECIES INCLUDED. Eighteen species was included in the genus *Brachystegus* previously (Bohart & Menke, 1976). Later *B. basalis* (Smith, 1856) was removed from *Nysson* to *Brachystegus* by Krombein (1985); *B. dubitatus* (Turner, 1914) was resurrected from junior synonym of *B. decoratus* (Turner, 1914) to valid species by K. V. Krombein (1985); *N. fraterculus* Gussakovskij, 1933 was removed from *Brachystegus* to *Nysson* by S. F. Gayubo (Bitsch et al., 1997). Currently *Brachystegus* includes 19 species, four of them are distributed in Palaearctic: *B. braueri* (Handlirsch, 1887); *B. incertus* (Radoszkowski, 1877); *B. pieli* (Yasumatsu, 1943); *B. scalaris* (Illiger, 1807). The original key to the *Brachystegus* Palaearctic species is given below.

Key to the Palaearctic species

1. Anterior margin of the clypeus medio-apically with a pair of strong, projecting, acute teeth. Gaster red without light spots. Wings somewhat deeply clouded with violaceous-brown. Head, thorax except the dorsum, basal half of first gastral tergum and all gastral sterna with very dense dirty-yellowish pubescence. Larger size: ♀ 12.0 mm (♂ unknown). – China (Anhui) ***B. pieli***
 - Anterior margin of the clypeus medio-apically without a pair of strong teeth. Gaster black with light spots. Wings slightly clouded with brown. Body with dense silvery pubescence or nearly bare. Smaller size: 7.0-10.0 mm 2
2. Apical part of clypeus is separated from its basal part by sharp ridge and forms with it a right angle. Basal part of clypeus, frons, mesopleuron and second gastral sternum covered by very dense silver pubescence, which conceal body sculpture. ♀ ♂ 8.0-10.0 mm. – West and Central Asia ***B. incertus***
 - Apical part of clypeus is separated from its basal part by blunt and indistinct ridge and forms with it an obtuse angle. Body uniformly covered by not so long, sparse, dirty-gray hairs, which not conceal body sculpture 3

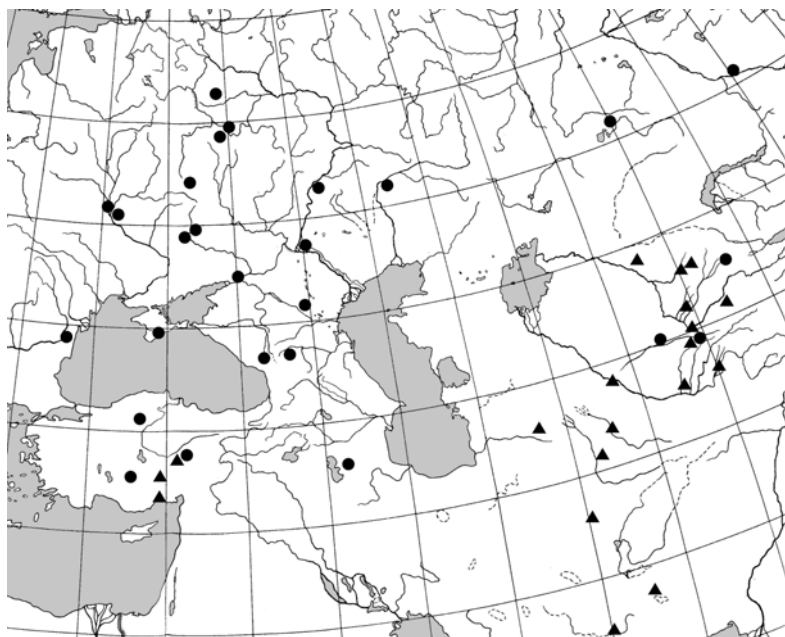


Fig. 1. Distribution of *Brachystegus scalaris* (dark circles) and *B. incertus* (dark triangles) in Eastern Europe and Asia.

3. Pronotal collar without transverse carina, rounded in lateral view. Flagellum black, apical flagellomeres sometimes brownish. Body with whitish coloration. ♀ ♂ 7.0-9.0 mm. – Europe (except North), West and Central Asia . . . *B. scalaris*
 – Pronotal collar with transverse carina anteriorly, angular in lateral view. Flagellum ferruginous. Body with yellow coloration. ♀ ♂ 8.0-10.0 mm. – Morocco, Algeria, Tunisia *B. braueri*

LIST OF THE SPECIES

Brachystegus scalaris (Illiger, 1807)

Nysson interruptus Latreille, 1803: 580, ♀ (nom. preocc., non Fabricius, 1798; holotype – ♀, France).

Nysson scalaris Illiger, 1807: 157, ♀, nom. nov. pro *N. interruptus* Latreille.

Nysson scalaris: Handlirsch, 1887: 319, ♀ ♂; 1895: 808.

Nysson (Brachystegus) scalaris: Maidl & Klima, 1939: 140.

Brachystegus scalaris: Bohart & Menke, 1976: 473.

MATERIAL. 30 ♀ and 23 ♂ from Russia (Ryazan, Vladimir, Saratov, Kursk, Volgograd, Rostov-na-Donu and Stavropol regions, Karachayevo-Cherkesiya), Ukraine (Kiev and Kharkov regions), Georgia [1 ♂, T'bilisi, 6.V 1901 (Satunin)],

Kazakhstan (Aksay, Semipalatinsk and Astana regions), Kyrgyzstan [1 ♀, south slope of Kyrgyz Range, Kenkol river, 28.V 1909 (Minkword and Knorring)], Uzbekistan [2 ♀, Kattakurgan region, Yargak, 19.VI 1929 (Zimin); 1 ♀, the same region, Kumak, 25.V 1929 (Zimin); 1 ♀, the same region, Changir, 25.V 1930 (Zimin)], Tajikistan [2 ♀, 1 ♂, Kondara canyon near Dushanbe, 30.V 1936, 13, 27.VI 1939 (Gussakovskij)], Iran [1 ♂, Tabrīz, 6.VI 1914 (Andrievskii)], Switzerland (Martigny), Spain (Fuentespina).

DISTRIBUTION. Portugal, Spain, France, Italy, Switzerland, Germany, Austria, Poland, Czechia, Slovakia, Hungary, Roumania, Ukraine, Russia (European part, except north), *Georgia, Kazakhstan, *Kyrgyzstan, *Uzbekistan, *Tajikistan, *Iran, Turkey, ? North Arabia (Handlirsch, 1887: 323).

***Brachystegus incertus* (Radoszkowski, 1877)**

Nysson incertus Radoszkowski, 1877: 45, ♀ [holotype – ♀, “Zaravsh. dol., 18”, Tajikistan, valley of Zeravshan river, 18.V 1869 (Fedchenko); deposited in ZMMU, examined]; synonymised with *scalaris* by Handlirsch, 1895.

Nysson incertus: Handlirsch, 1887: 400.

Nysson decemnotatus F. Morawitz, 1890: 609, ♂ [nom. preocc., non A. Costa, 1869; holotype – ♂, Turkmenistan, Tejen, 5.V 1888 (Semenov); deposited in ZIN, examined]; synonymised with *incertus* by Gussakovskij, 1933; synonymised with *scalaris* by Bohart & Menke, 1976.

Nysson scalaris: Handlirsch, 1895: 808 (part.).

Nysson decemnotatus: Handlirsch, 1895: 809.

Nysson incertus: Gussakovskij, 1933: 288, 1935: 438.

Nysson (Brachystegus) decemnotatus: Maidl & Klima, 1939: 140.

Nysson (Brachystegus) incertus: Maidl & Klima, 1939: 140.

Brachystegus incertus: Bohart & Menke, 1976: 473.

Brachystegus scalaris: Bohart & Menke, 1976: 473 (part.).

MATERIAL. 22 ♀ and 23 ♂ from Azerbaijan [1 ♀, 2 ♂, Naxçivan region, 10 NE Gulfa, 17.VI 1985 (Tobias); 1 ♂, 35 km N Naxçivan, 20.VI 1985 (Tobias)], South Kazakhstan (Qarataū Zhotasy mountains, Taraz and Shardara regions), Uzbekistan [1 ♀, 2 ♂, Farghona, 9, 25.VI 1927 (Sabbatovskii)], Turkmenistan (Firyuza canyon near Ashgabat, Chärjew region, Imam-Baba on Murgap Deryasy river, Badhyz reserve), Tajikistan (Dushanbe, Kabadian, Kūlob), Iran: (Āvāz, Bampūr, Tabrīz), Pakistan (40 km NW Kamarod).

DISTRIBUTION. *Azerbaijan, South Kazakhstan, *Uzbekistan, Turkmenistan, Tajikistan, Turkey, Iran, Pakistan.

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REFERENCES

- Bitsch, J. & Barbier, Y. & Gayubo, S.F. & Smith, K. & Ohl, M. 1997. Faune de France. France et régions limitrophes. 82. Hyménoptères Sphecidae d'Europe occidentale. Vol. 2. Paris: 429 p.
- Bohart, R.M. & Menke, A.S. 1976. Sphecoid wasps of the world: a generic revision. Berkeley, Los Angeles, London: IX+695 p.
- Costa, A. 1859. Immenotteri aculeati, famiglia degli Sfecidei. Nissonidea. – In: O. G. Costa & A. Costa, 1829-1886, Fauna del Regno di Napoli, 11 vols., Napoli: 1-56.
- Dalla Torre, C.G. 1897. Catalogus Hymenopterorum hucusque descriptorum systematicus et synonymicus. Vol. 8. Fossores. G. Engelmann, Lipsiae: VIII+749 p.
- Gussakovskij, V.V. 1933(1932). Sphecidae et Psammocharidae (Hymenoptera), a cl. N. Zarudnyi in Persia orientali collectae. – Travaux de l'Institut Zoologique de l'Académie des Sciences de l'URSS 1: 269-307.
- Gussakovskij, V.V. 1935. Sphecodea und Vespodea von Tadjikistan. – Travaux de la Filiale de l'Académie des Sciences de l'URSS au Tadjikistan) 5: 409-467.
- Handlirsch, A. 1887. Monographie der mit *Nysson* und *Bembex* verwandten Grabwespen. Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Classe. Abtheilung I 95: I-V + 246-421.
- Handlirsch, A. 1895. Nachträge und Schlusswort zur Monographie der mit *Nysson* und *Bembex* verwandten Grabwespen. – Sitzungberichten d. kais. Akademie d. Wissenschaften in Wien. Mathem.-naturw. Classe 104(1): I-II + 801-1079.
- Illiger, K. 1807. Fauna Etrusca sistens Insecta quae in provinciis Florentina et Pisana praesertim collegit Petrus Rossius, 2. Helmstadii: VI + 511 p., IX pl.
- Krombein, K.V. 1985. Biosystematic studies of Ceylonese wasps, XV: a monograph of the Alyssoninae, Nyssoninae, and Gorytinae (Hymenoptera: Sphecoidea: Nyssonidae). – Smithsonian Contributions to Zoology 414: 1-42.
- Latreille, P.A. 1803. Histoire naturelle générale et particulière des Crustacés et des Insectes. Vol. 5. Imprimerie F. Dufart, Paris. 612 p.
- Maidl, F. & Klima, A. 1939. Astatinae-Nyssoninae. In: Hedicke, H. (editor). Hymenopterorum Catalogus. Pars 8. Sphecidae 1. Verlag für Naturwiss. W. Junk's Gravenhage. 150 S.
- Morawitz, F. 1890. Hymenoptera Fossoria transcaspica nova. – Horae Societatis Entomologicae Rossicae 24: 570-645.
- Pate, V.S.L. 1937. The generic names of the sphecoid wasps and their type species. – Memoires of the American Entomological Society 9: 1-103.
- Pate, V.S.L. 1938. Studies in the Nyssonine wasps. IV. New of redefined genera of the tribe Nyssonini, with descriptions of new species (Hymenoptera: Sphecidae). – Transactions of the American Entomological Society 64: VII-VIII + 117-190.
- Radoszkowski, O. 1877. Sphegidae. – Voyage au Turkestan d'A.P. Fedtchenko, Fasc. 14, tome 2, partie 5. Izvestiya Imperatorskobo Obshchestva Lyubiteley Estestvoznaniya, Antropologii i Étnografii pri Imperatorskom Moskovskom Universitete 26: 1-87 + I-VIII.