#### Quaderno di Studi e Notizie di Storia Naturale della Romagna

Quad. Studi Nat. Romagna, 55: 137-150 (giugno 2022) ISSN 1123-6787

#### Paolo Neri & Luca Toledano

# Geographic and taxonomic notes, addenda and corrigenda on the subtribe Bembidiina Stephens, 1827 of the 2017 'Catalogue of Palaearctic Coleoptera' (2<sup>nd</sup> contribution)

(Insecta: Coleoptera: Carabidae: Bembidiina)

#### **Abstract**

The authors report and discuss some corrections to the section Bembidiina of the Catalogue of Palaearctic Carabidae (Marggi et al., 2017), together with geographical, systematic and synonymical updates regarding the subtribe. The following synonymies are herewith stated (with junior synonym listed first): Bembidion (Ocyturanes) baghlanicum Kirschenhofer, 1989 n. syn. of Bembidion (Ocyturanes) kabakovi Mikhailov, 1984; Bembidion (Politophanes) amurense trajectum Netolitzky, 1939 n. syn. of Bembidion (Politophanes) amurense Motschulsky, 1859; Bembidion (Peryphus) hoberlandti Jedlička, 1951 n. syn. of Bembidion (Politophanes) amurense Motschulsky, 1859; Bembidion (Peryphus) fassatii Jedlička, 1951 n. syn. of Bembidion (Peryphus) cnemidotum Bates, 1883.

Key words: Bembidion, Asaphidion, Sinechostictus, synonymy

#### Riassunto

[Note geografiche, tassonomiche, sinonimiche, addenda e corrigenda relative alla sottotribù Bembidiina Stephens, 1827 del Catalogo dei Coleotteri Paleartici, Vol. 1, Edited by I. Löbl & D. Löbl, 2017 (2° Contributo) (Insecta: Coleoptera: Carabidae: Bembidiina)]

Vengono qui riportate e commentate delle correzioni alla sezione Bembidiina del Catalogo dei Carabidi Paleartici (Marggi et al., 2017), oltre ad aggiornamenti geografici, sistematici o sinonimici sulla sottotribù. Vengono stabilite le seguenti sinonimie: Bembidion (Ocyturanes) baghlanicum Kirschenhofer, 1989 syn. nov. di Bembidion (Ocyturanes) kabakovi Mikhailov, 1984; Bembidion (Politophanes) amurense trajectum Netolitzky, 1939 syn. nov. di Bembidion (Politophanes) amurense Motschulsky, 1859; Bembidion (Peryphus) hoberlandti Jedlička, 1951 syn. nov. di Bembidion (Politophanes) amurense Motschulsky, 1859; Bembidion (Peryphus) fassatii Jedlička, 1951 syn. nov. di Bembidion (Peryphus) cnemidotum Bates, 1883

#### Introduction

After the publication of the Catalogue of Palaearctic Coleoptera (LÖBL & LÖBL, 2017) we (2021) published our first contribution in order to correct some mistakes

found in the section of the Catalogue regarding the Carabidae of the subtribe Bembidiina (MARGGI *et al.*, 2017) as identified during our studies or following the suggestions of colleagues. In this new contribution we provide and discuss further corrections and add some systematic and geographical updates.

#### Materials and methods

The systematic treatment of the Bembidiina and the geographical acronyms follow Löbl & Löbl (2017). The body length was measured for card-mounted specimens from the front margin of the labrum to the apex of the elytra. Dissections were made using standard techniques. Genitalia and small parts were preserved in Euparal on acetate mounts fixed on the same pins as the specimens. The photographs are composite images with progressive focusing obtained with a Nikon DSFi1 digital camera controlled by Nikon DS-L2 stand-alone remote controller mounted on a Leica Z6 microscope equipped with a 1.0x Leica lens and a customised motorised stand made by LT, then processed on a Macintosh Mac Book Pro computer with Helicon Focus 6.7.1 program and then optimised with Photoshop® Elements 14 on the same computer. Photographs of the aedeagi are made with the same setup and processing method described above, while using a 5x Infinity Corrected Nikon Fluor lens on the Z6 microscope. The drawing of the spermatheca was made by Ivo Gudenzi.

The examined material is preserved in the following collections:

CTVR coll. Luca Toledano, Verona, Italy

DE coll. Dominique Echaroux, Etréchy, France

JG coll. Jörg Gebert, Dresda, Germany JH coll. Josef Holis, Czech Republic

KR coll. Karel Rébl, Novè Strašecì, Czech Republic MNHN Muséum National d'Histoire Naturelle, Paris, France

NHMUK Natural History Museum, London, England

NMPC National Museum (Natural History), Prague, Czech Republic

PN coll. Paolo Neri, Forlì, Italy

PS coll. Peer Schnitter, Halle, Germany

TA coll. Thorsten Assmann, Lüneburg, Germany

## Asaphidion flavipes Linnaeus, 1760

We mention the species for Georgia, coll. KR and CTVR (Tbilisi reg., 15 Km NNE of Duseti at Aragvi/Sarachevi riv.). Current distribution in Caucasus: AB, AR, GG, ST.

### Bembidion (Bembidion) quadripustulatum Audinet-Serville, 1821

We mention the species for Mongolia, coll. PS and CTVR (Chowd Aimak, Uenc gol, 10 Km S of Somon Uenc). Current distribution in Asia: A: CY, ES, FE. IN, IQ, IS, KI, KZ, LE, MG, NMO, SY, TD, TM, TR, UZ, WS.

## Bembidion (Euperyphus) morawitzi Csiki, 1928 nov. comb.

Bembidion cognatum Morawitz, 1862
Bembidion consentaneum Gemminger & Harold, 1868
Bembidion (Peryphus) morawitzi Csiki, 1928

MORAWITZ (1862) describes *Bembidion (Peryphus) cognatum* from Hokkaido (Japan) and the description, reported with further details in MORAWITZ (1863) emphasizes the following pronotal character: anterior angles markedly convex, so that it's difficult to see them from top view. GEMMINGER & HAROLD (1868) change the name of the species to *consentaneum* because the name was preoccupied by *cognatum* Dejean, 1831. The same occurs later because the substitute name was preoccupied by *consentaneum* Le Conte, 1852, thus the name was replaced again by *morawitzi* (CSIKI, 1928).

All authors, including Netolitzky (1921), that in the past dealt with the species, considered it similar to *B. oblongum* Dejean, 1831 or *B. fluviatile* Dejan, 1831, or included it in the "Gruppe des *B. testaceum-fluviatile*" (Netolitzky, 1943).

JEANNEL (1941) describes the subgenus *Euperyphus* that includes *B. eques* Sturm, 1825 and *B. fulvipes* Sturm, 1827; the species of "Gruppe des *testaceum-fluviatile*" remain within *Peryphus* Dejean, 1821 until Lorenz (1998) who attributes to *Euperyphus* all the species of *testaceum-fluviatile* group, without explaining the reasons, but he does not include *B. morawitzi*; ORTUÑO & TORIBIO (2005) redescribe the characters of the subgenus in order to include all the species mentioned above formerly assigned to *Peryphus*, including pronotum with anterior angles markedly convex, so that it's difficult to see them from above, a character that we already found in the description of *B. cognatum*. But also in the last catalogues, LORENZ (2005) and MARGGI *et al.* (2017), *morawitzi* is still assigned to the subgenus *Peryphus*.

After studying some specimens received from our friend Seiji Morita (Tokyo) and currently preserved in our collections, we believe that *morawitzi* shows all the characters, both exoskeletal and aedeagal, to be considered as a member of the "Gruppe des *testaceum-fluviatile*" sensu Netolitzky (1943) and therefore of the subgenus *Euperyphus* Jeannel, 1941, sensu Ortuño & Toribio (2005).

# Bembidion subgenus Hirmoplataphus Lindroth, 1963

The subgenus Hirmoplataphus was described by Netolitzky (1942). Bousquet

(2012) points out that at the time of the description a type species was not designated, as requested by ICZN, art. 13.3. LINDROTH (1963) first mentions *B. hirmocaelum* Chaudoir, 1850 as the type species. Consequently the subgenus must be automatically attributed to Lindroth. This change was reported for the first time by LORENZ (1998) but without explanations.

#### Bembidion (Metallina) lampros Herbst, 1784

We report for the first time the species for China, Sichuan province, coll. JH (Sichuan, Maoxian, 3390-3340 m, N31°39'396" E103°54'123"). China: **SCH**.

### Bembidion (Ocydromus) siculum winkleri Netolitzky, 1943

We report that the subspecies is not present in Italy, as mistakenly written in MARGGI *et al.* (2017), therefore IT must be removed from its distribution.

#### Bembidion (Ocyturanes) kabakovi Mikhailov, 1984

Bembidion (Ocyturanes) baghlanicum Kirschenhofer, 1989 nov. syn. (figs 1, 4)

Historical notes. *Bembidion (Peryphus) kabakovi* Mikhailov, 1984, was described from Afghanistan (Baghlan, O. Khejan, 2500 m) on two 33, and assigned to the *marginipenne* Solsky, 1874 species group; the description is quite detailed and includes the mention of the presence of a central brush sclerite typical for the endophallus of the species of *marginipenne* group.

Bembidion (Ocydromus) baghlanicum Kirschenhofer, 1989, was described from Afghanistan (Baghlan, Khenjan, 1450 m) and included within Ocyturanes Müller-Motzfeld. 1986 (at first defined as "infrasubgenus" of Ocydromus Clairville, 1806, but later considered as subgenus of Bembidion); the very detailed description includes also a schematic drawing of the aedeagus.

Later both species have always been considered as members of subgenus *Ocyturanes* (e.g. LORENZ, 2005; MARGGI *et al.*, 2017). NERI & TOLEDANO (2017) assigned both species to the *praeustum* Dejean, 1831 group for the colouration and the large size (7 mm).

Material examined. 1 ♂, Holotype of *B baghlanicus*, "Afghan. / Prov. Baghlan / Khenjan // 1450 m. / 11.VIII.75 / G. Ledoux [handwritten] // *Bembidion* [printed] (*Ocydromus*) [handwritten] / *baghlanicus* n. sp. [handwritten] / det. E. Kirschenhofer [printed] // Holo [handwritten] / TYPUS [red, printed]" (MNHN); the specimen was dissected and the aedeagus is preserved in Euparal on the same pin as the specimen. 2 ♂♂, 1♀, paratypes of *B. baghlanicus*, "Afghan. / Prov. Baghlan / Khenjan // 1450 m. / 11.VIII.75 / G. Ledoux [handwritten] // *Bembidion* [printed] (*Ocydromus*) [handwritten] / *baghlanicus* n. sp. [handwritten] / det. E. Kirschenhofer [printed] // Para [handwritten] / TYPUS [red, printed]" (CTVR, PN).

**Conclusions.** The examination of the descriptions of both species and the comparison of the type of *B. baghlanicum* with the characters described by Mikhailov for *kabakovi* convinced us of the synonymy of both species.

The elytral colour, reddish brown in *B. kabakovi* and reddish brown with an indistinct preapical lunula in *B. baghlanicum* is the unique difference found. But the study of the paratypes in our availability and the help of our friend Dominique Echaroux (Paris) who kindly checked for us some more paratypes preserved in his collection, has shown that the preapical lunula slightly lightened (as described by Kirschenhofer, 1989) is only an apical lightening present in a few specimens. Finally also the almost identical collecting locality of both type series contributes to confirm our following statement: *Bembidion (Ocyturanes) baghlanicum* **Kirschenhofer, 1989** = *Bembidion (Ocyturanes) kabakovi* Mikhailov, 1984 nov. syn.

We added to the specimens examined the following label: *Bembidion (Ocyturanes) kabakovi* Mikhailov – det. Neri & Toledano 2021.

## Bembidion (Peryphus) cnemidotum Bates, 1883

Bembidion (Peryphus) fassatii Jedlička, 1951 **nov. syn.** (fig. 5) Bembidion (Peryphus) chujoianum Jedlička, 1962

Material examined. 1 ♀, Holotype of *B. fassatii* Jedlička, 1951, "Near Osaka [printed] / 1949 [handwritten] / coll. Yoshio Yano // TYPUS [red, printed] // Mus. Nat. Pragae / Inv. [pink, printed] 23983 [handwritten] // *fassatii* / sp.n. [pink, handwritten] / det. Ing. Jedlička [printed] // *Bembidion / cnemidotum* Bates / det. S. Morita 1991" (NMPC); the specimen is in very bad conditions, it lacks the left median leg, fore tibiae and tarsi, right hind tarsi, seven left antennomeres and three right antennomeres.

14 exx of *B. cnemidotum* Bates, 1883 from Japan (Oigawa river; Towada, Aomori pref.; Oirase-Tal, Aomori pref.; Hokkaido; Yanase, Hiroshima City) (CTVR); 19 exx. from Sakhalin Island (Kalinino; Novolaeckseevka; Susia riv.; Chekhora Mts.) (CTVR).

6 exx of *B. cnemidotum* from Sakhalin Island (Novolaeckseevka; Anivskyi distr., Partizanka riv.) (PN).

Historical notes. Jedlička (1951) describes *B.* (*Peryphus*) fassatii upon a single ♀ from neighbouring of Osaka. The description, very careful, mentions also the closeness of the species to *B. cnemidotum*: "avec lequel il a la plupart des caractères communs, mais il est plus grand, autrement coloré, le pronotum est plus large, les angles postérieurs plus aigus" (Jedlička, 1951); further character mentioned is the upper side lacking microsculpture. Uéno (1954) supposes that *B. fassatii* could be a synonym of *B. cnemidotum*, but later his opinion was not taken into consideration. Marggi *et al.* (2003) and following catalogues (e.g. Lorenz,

2005, MARGGI et al., 2017) list B. fassatii in the Bembidion "incertae sedis".

**Discussion and conclusion.** The examination of the literature regarding *B. fassatii* Jedlička, 1951 and the labels on its holotype suggested to us the need to further investigate its status. The study of the type of *B. fassatii*, allowed us to verify and confirm what already supposed by Uéno (1954) and later stated by Morita (fig. 5) with the label of identification of *Bembidion cnemidotum* he pinned in 1991 to the type specimen of *B. fassatii*. After the study of several specimens of *B. cnemidotum* we ascertained that the diagnostic characters mentioned in the description of *B. fassatii* are variable in *B. cnemidotum*, therefore they are useless for a distinction between two taxa. We observed that the  $\mathbb{Q} \mathbb{Q}$  of *B. cnemidotum* can show elytra with or without microsculpture, contrary to that stated by NETOLITZKY (1943) who reports that the  $\mathbb{Q} \mathbb{Q}$  lack microsculpture while the  $\mathbb{Q} \mathbb{Q}$  show microsculpture.

Our friend Katsuyuki Terada (Tokyo) checking the specimens in his collection confirmed that in the \$\bigcap\$ the elytra can be microsculptured or not (Terada, personal communication). Also the spermatheca (with "annulus receptaculi") of both taxa are similar.

Recently contacted by us, our friend Seiji Morita (Tokyo) confirmed his identification made in 1991 (fig. 5) and the fact that the synonymy has never been officially published: he kindly allowed us to do it here (Morita, personal communication); for this we wish to thank him very much, recognizing that the credit of the synonymy goes to him. Therefore we state as follows: *Bembidion (Peryphus) fassatii* Jedlička, 1951 = *Bembidion (Peryphus) cnemidotum* Bates, 1883 nov. syn. We added to all the specimens examined, including the type of *B. fassatii*, the following label: *Bembidion (Peryphus) cnemidotum* Bates – det. Neri & Toledano, 2022.

The current distribution of *B. cnemidotum* is the following: **A**: FE (Sakalin Island; Kurili Islands), JA.

### Bembidion (Peryphus) eutherum Andrewes, 1923

The localities mentioned in the description (Andrewes, 1923) have not been reported in the Catalogue. We wish to correct this mistake here and report also the following new localities: Ghal (Bhutan) (CTVR); West Pakistan, Rawalpindi (Pakistan) (CTVR); Nangarhar, Darab-i-Nur, Dorf Sutan, 1500 m (Afghanistan) (CTVR).

Current distribution: A: AP, AF, BT, HP, NP, PA, SD, UP.

**Bembidion (Peryphus) holconotum Andrewes, 1935 nov. comb.** (fig. 3, 7) *Bembidion* (incertae sedis) *holconotum* Andrewes, 1935

Historical notes. Andrewes (1935) describes Bembidion holconotum upon two

specimens collected in Kashmir (Batote) and in Uttarakand (Mussooree); he includes the species within the *eutherum* group; he also mentions that the type is in his collection while the cotype is at the Forest Research Institute of Dehra Dun. Netolitzky (1942) reports the species by translating Andrewes' (1935) keys for the *eutherum* Andr. group (Netolitzky, 1942: 119/91), and sets this group just after the *kaschmirense* Net. group (Netolitzky, 1942: 117/89) which includes many species actually belonging to the subgenus *Bembidionetolitzkya* Strand, 1929. Lorenz (1998) lists the species within the subgenus *Bembidionetolitzkya*, probably influenced by that statement. Marggi *et al.* (2003), not convinced by the correctness of this statement, after studying type material (Marggi *et al.*, 2003: 20) move the species to "incertae sedis" (Marggi *et al.*, 2003: 271), followed also by Marggi *et al.* (2017).

Material examined. 1 ♀, "type [round, printed, red bordered] // Mussoorie / Childers / Lodge 7,534 ft. [printed] // Bought from / Staudinger & / Bang-Haas, 1930 [printed] // H.E.Andrewes coll. / B.M. 1945-97. [printed] // Bembidion / holconotum Andr. / Type [handwritten] / H.E.Andrewes det. [printed] // Type [red, printed]" (NHMUK); the specimens has the elytra slightly apart, missing three right fore tarsomeres, three right antennomeres and one left antennomere; the spermatheca, prepared in Euparal, is preserved on the same pin as the specimen (fig. 7).

 $2 \circlearrowleft \circlearrowleft$ , Pakistan (Swat, s/Miandam, 2300-2500 m), *Bembidion holconotum* Andr., det. Luca Toledano (CTVR).

Furthermore we examined all the species that for exoskeletal characters (oval elytra, very rounded shoulders, elytral striae deeply sulcate and punctate, convex intervals) and characters of the spermatheca (showing "annulus receptaculi") seem closely related to *holconotum*, They are: *Bembidion (Peryphus) franzi* Fassati, 1957 and its aberrations (13  $\lozenge\lozenge\lozenge$ , 5  $\lozenge\lozenge$ , from Afghanistan in coll. CTVR and PN, including ab. *unicoloratum* Fassati, 1957), *B. (Peryphus) subcostatum* Motschulsky, 1850 (80 exx from Caucasian Russia, Georgia, Turkey, Iran, Iraq, in coll. CTVR and PN).

**Conclusions.** The chance to study the spermatheca of the type of *B. holconotum* and the evidence of its total correspondence with the species exoskeletally more closely related (figs 2, 3), require us to move the species from "incertae sedis" to the subgenus *Peryphus* Dejean, 1821.

The description of the species, careful and very detailed, reports the black elytral colour; the type shows this colouration with a faint, humeral reddish reflection. The species more different regarding the elytral colour is *B. subcostatum*, usually four spotted or at least with only two humeral spots (ab. *omostigma*); on the contrary, *B. franzi*, with its ab. *unicoloratum*, looks very similar to *B. holconotum*; but we notice that the hind pronotum angle is right in *B. holconotum* (the type and the

two specimens from Pakistan), while it is acute, due to a marked sinuosity of the pronotal side, and rarely right (figs 2, 3) in *B. franzi*. Finally we notice a stronger impression and a deeper puncturation of the elytral striae and a stronger convexity of the elytral intervals of *B. holconotum*, though, due to the paucity of material available, we could not evaluate the specific variability.

Current distribution: KA, PA, UP.

### Bembidion (Peryphus) taiyuanense Kirschenhofer, 1984

The catalogue reports the localities CH, TAI. The mention for China is correct because the species is described from Shanxi Province (Taiyuan); we retain that the mention for Taiwan (TAI) should be due to a mistake because we have no evidence of any mention in the literature except for that in the catalogue MARGGI et al. (2003), where the information is not discussed or explained. Also Terada et al. (2006) report that this mention could be wrong.

Current distribution: A: SHX.

### Bembidion (Politophanes) amurense Motschulsky, 1859

Bembidion (Peryphus) amurense trajectum Netolitzky, 1939 Bembidion (Peryphus) sigma Lindroth, 1940 Bembidion (Peryphus) hoberlandti Jedlička, 1951 **nov. syn.** (fig. 6)

Material examined. 1 ♀, holotype of *B. hoberlandti* Jedlička, 1951, "Japan / Osaka [yellow, handwritten] / coll. K. Kult [printed] // Metast. / gerandet // TYPUS [red, printed] // Mus. Nat. Pragae / Inv. [pink, printed] 23987 [handwritten] // hoberlandti / sp.n. [pink, handwritten] / det. Ing. Jedlička [printed] // *B. trajectum* Net. [handwritten] / det. M. Fassati 1952 [printed] // Bembidion / trajectum Net. / det. S. Morita 1991 [handewritten]" (NMPC); the specimen lacks right median leg, the tarsi of the left legs and of the right hind leg.; 104 exx. of *B. amurense* Motschulsky, 1859 from Far East Russia (Ussuri; Primorje; Irkutsk; Sakhalin); North Korea (Hamgyong province); China (Liaoning province; Jilin province) (CTVR); 26 exx. of *B. amurense trajectum* Netolitzky, 1939 from Japan (Tochigi Prefecture; Kanagawa Prefecture; Yamamashi Prefecture; Hiroshima Prefecture; Honshu Prefecture; Aomori Prefecture) (CTVR); 20 exx. of *B. amurense* from Far East Russia (Primorje; Ussuri) (PN).

**Discussion and conclusions.** *B.* (*Peryphus*) *amurense trajectum* Netolitzky, 1939, has been considered subspecies or synonym of *B. amurense* Motschulsky, 1859 (LINDROTH, 1963, KRYZHANOVSKIJ *et al.*, 1995) but without any explanation. In MARGGI *et al.* (2017) the synonymy was not considered. After the examination of abundant material from eastern Siberia (nominotypical form) and from Japan (subspecies *trajectum*) we retain *B. amurense trajectum* as synonym of the nominotypical form; also the discriminating character mentioned by NETOLITZKY,

1943 (width of the pronotal base similar to the width of anterior margin in the nominotypical form vs. pronotal base evidently wider than the anterior margin in the subspecies) seems not to be consistent; in the whole examined material the base is wider than the anterior margin. We therefore confirm the synonymy reported by KRYZHANOVSKIJ *et al.* (1995).

The study of the type of B. hoberlandti Jedlička, 1951, listed in the Catalogue within the species "incertae sedis", allowed us to verify data already stated in the labels of the specimens (fig. 6); in fact, already FASSATI in 1952 and MORITA in 1991 determined the specimen as B. trajectum (now synonym of B. amurense). Recently contacted by us, our friend Seiji Morita (Tokyo) confirmed that determination and the fact that the synonymy has never been officially published: he kindly allowed us to do it here (Seiji Morita, personal communication); for this we wish to thank him very much, recognizing that the credit of the synonymy goes to him. Therefore we state as follows: Bembidion (Peryphus) hoberlandti Jedlička, 1951 = Bembidion (Politophanes) amurense Motschulsky, 1859 nov. syn. We added to all the specimens examined, including the type of B. hoberlandti, the following label: Bembidion (Politophanes) amurense Mtsch. – det. Neri & Toledano, 2022. The Chinese localities of Liaoning province (Dachangshandao Islands, Changhai country [CTVR]) and Jilin province (Bai He. 750-800 m, N42°24.092' E128°06.431' [CTVR]) are reported here as new, therefore the current distribution of B. amurense is: A: ES, FE, JA, JIL, LIA, MG, NC, Korea.

## Bembidion (Testedium) bipunctatum bipunctatum Linnaeus, 1760

We report the species for Poland, (Paraanggebirge [TA, CTVR]). Current distribution in Northeastern Europe: BY, CT, CZ, EN, HU, LA, MD, PL, RO, SK, UK.

### Bembidion (Trepanes) articulatum Panzer, 1796

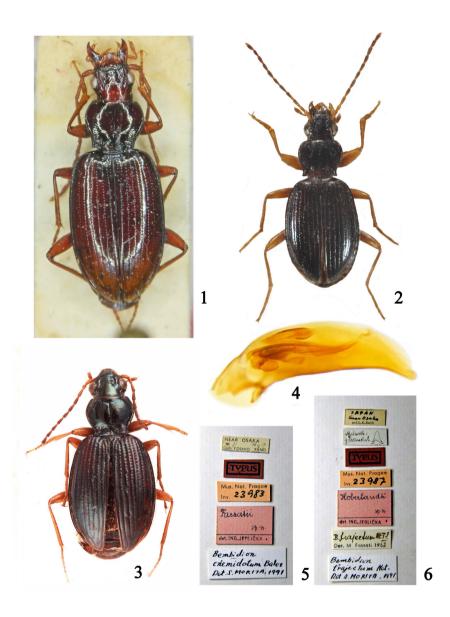
We mention the species for China, Beijing Province, (Peking, N suburbs. (NHMUK; CTVR). Current distribution in China: **BEI**, CH.

## Bembidion (Trepanes) octomaculatum Goeze, 1777

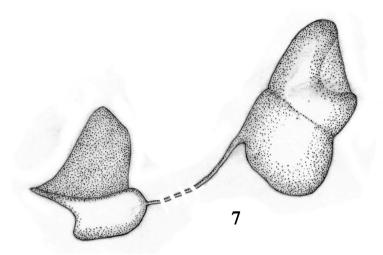
We report the species for Cyprus (Paphos, Garden, 34.791445 N, 32.485944 E, (JG)). Current distribution for Asia: A: CY, FE, IS, JA, KI, KZ, TD, TM, TR, UZ, WS.

#### Sinechosticthus tarsicus Peyron, 1858

Our friend Paolo Bonavita tells us that the species is reported from "The Caucasus Major" (sub *elongatum* Dej.) by KRYZHANOVSKIJ *et al.* (1995), mention partially



**Figures 1-6.** Habitus: 1. *Bembidion (Ocyturanes) baghlanicum* Kirschenhofer, 1989, TYPUS (MNHN), 7.10 mm; 2. *B. (Peryphus) franzi* Fassati, 1957, "Afghan. Kunar / entre Kamdeck et Barguè Matal // 1800 à 2000 m / cum TYPO comparatum / M. Fassati 1994", (CTVR), 4.90 mm; 3. *B. (Peryphus) holconotum* Andrewes, 1935, TYPE (NHMUK), 5.10 mm. 4. Median lobe of aedeagus of *B. (Ocyturanes) baghlanicum* Kirschenhofer, 1989, PARATYPUS (MNHN), 1.30 mm (basal portion lacking a small part). Labels of 5. *B. (Peryphus) fassatii* Jedlička, 1951, TYPUS (NMPC); 6. *B. (P.) hoberlandti* Jedlička, 1951, TYPUS (NMPC).



**Figure 7.** Spermatheca of *Bembidion (Peryphus) holconotum* Andrewes, 1935, TYPE (NHMUK), 0.12 mm.

missing from the catalogue. We ascertained that already IABLOKOV-KHNZORIAN (1976) reports it from Armenia sub *B. elongatum* Dej. as not rare in sites along rivers with dense vegetation, on muddy banks of rivers Azat, Arla, Tsav, etc. We also contacted our friend Igor Belousov who, about *S. tarsicus*, tells that "this species is present in the Caucasus, being more common in the West Caucasus as well as in the whole Transcaucasia from Adjaria up to Talysh Mts through Armenia" (Belousov, personal communication). Therefore we report the presence of the species for Georgia, Armenia and Azerbaijan.

We also report the species from Lebanon (Chatine ca. 34°11N, 35°53 E, stream bank n. Arz Tannourine, 1500 m; Lebanon, ca. 40 KM NE Beirut, Chatine river n. Arz Tannourine, river bank ca. 1500 m; Liban, Ain Dara nahr Jezayer, 1000 m. [CTVR]).

Current distribution: **E: AB,** AL, **AR**, AU, BH, BU, CR, **GG,** GR, HU, IT, MC, SB, SL, ST, SZ, TR, YU; **A:** CY, IN, IQ, IS, **LB**, SY, TR.

## Bembidion, species incertae sedis

Bembidion reichardti Lutsnik, 1930: 36. A: KY must be moved from subgenus Peryphus Dejean, 1821 to "incertae sedis", waiting for a check.

## Acknowledgements

We wish to thank Max Barclay and Beulah Garner (NHMUK), Jiří Hájek, (NMPC), Seiji Morita (Tokyo, Japan), Jörg Gebert (Dresden, Germany), Karel Rébl (Novè Strašecì, Czech Republic), Peer Schnitter (Halle, Germany), Thorsten Assmann

(Lüneburg, Germany), Dominique Echaroux (Etréchy, France) for kindly providing for study the material in their availability, Maurizio Pavesi (Milano) for the useful contributions; Gabriele Fiumi (Forlì) for some photos, the computerized editing (Adobe Photoshop CS3) and the layout of the images; Paolo Bonavita (Roma) for the critital review of the text; Jon Cooter (Oxford) for the linguistic revision; Fernando Pederzani (Ravenna) for some final corrections.

### Literature

- Andrewes H.E., 1923 Notes on Oriental Carabidae. V. Some new species of *Bembidium* from the Himalayas (cont.). *Entomologist's Monthly Magazine*, 50: 95-102.
- Andrewes H.E., 1935 The Fauna of British India, including Ceylon and Burma. Coleoptera. Carabidae. Vol. II. Harpalinae I. *Taylor and Francis*, London, 1-323.
- Bousquet Y., 2012 Catalogue of the Geadephaga (Coleoptera, Adephaga) of America, north of Mexico. *Zookeys*, 245: 1-1722.
- CSIKI E., 1928 Carabidae 2: Mormolycinae et Harpalinae I (Pars 97). pp. 1-226. In: Junck W. & Schenkling S. (eds.), Coleopterorum Catalogus. Volumen II. *W. Junk*, Berlin, 1022 pp.
- GEMMINGER M. & HAROLD E., 1868 Catalogus Coleopterorum hucusque descriptorum synonymicus et systematicus. Tom. I. Cicindelidae Carabidae. *E.H.Gummy*, Monachii, XXXVI + 424 pp.
- IABLOKOFF-KHNZORIAN S.M., 1976 (Fauna of the Armenian SSR. Insects, beetles Carabidae. Part 1). *Akademiya Nauk armyanskoi SSR*, Erevan, 297 pp.
- JEANNEL R., 1941 Faune de France 39: Coléoptères Carabiques, première partie. *Lechevalier*, Paris, 571 pp.
- JEDLIČKA A., 1951 Les Carabides nouveaux de l'Asie Orientale (Col.). *Časopis Česckoslovenské Společnosti Entomologické*, 48: 108-116.
- Jedlicka A., 1965 Monographie des Tribus Bembidiini aus Ostasien (Coleoptera, Carabidae). *Entomologische Abhandlungen*, 32: 79-198.
- Kirschenhofer E., 1984 Neue paläarktische Bembidiinae unter besonderer Berücksichtigung der vin Eigin Suenson in Ostasien Durchgeführien auf Sammlungen (Col. Carabidae) 1. Teil, *Bembidion* Latreille. *Koleopterologische Rundschau*, 57: 57-92.
- KIRSCHENHOFER E., 1989 Neue *Bembidion*-Arten aus Asien, vorwiegend aus dem Himalaya (Coleoptera, Carabidae). *Entomofauna. Munchen*, 10: 397-424.
- KRYZHANOVSKIJ O.L., BELOUSOV I.A., KABAK I.I., KATAEV B.M., MAKAROV K.V. & SHILENKOV V.G., 1995 Pensoft Series Faunistica n° 3. A Checklist of the Ground-Beetles of Russia and Adjacent Lands (Insecta, Coleoptera, Carabidae). *Pensoft Publishers*, Sofia-Mosca, 271 pp.
- LINDROTH C.H., 1963 The ground-beetles (Carabidae, excl. Cicindelinae) of Canada and Alaska. Part 3. *Opuscula Entomologica, Supplementum*, 24: 201-408.

- LÖBL I. & LÖBL D. (eds), 2017 Catalogue of Palaearctic Coleoptera. Volume 1. Revised and Updated Edition. Archostemata-Myxophaga-Adephaga. *Brill*, Leiden-Boston, 1443 pp.
- LORENZ W., 1998 Systematic list of extant ground beetles of the world. Tutzing, 503 pp.
- LORENZ W., 2005 Systematic list of extant ground beetles of the world. Second edition. Tutzing, 530 pp.
- Maddison D. R., 2012 Phylogeny of *Bembidion* and related ground beetles (Coleoptera: Carabidae: Trechinae: Bembidiini: Bembidiina). *Molecular Phylogenetics and Evolution*, 63: 533-576.
- MARGGI W., HUBER C., MÜLLER-MOTZFELD G. & HARTMANN M., 2003 Carabidae: Bembidiini: Bembidiina: 242-273. In: LÖBL I. & SMETANA A. (eds) Catalogue of Palaearctic Coleoptera. Volume 1. Archostemata Myxophaga Adephaga. *Apollo Books*, Stenstrup, 819 pp.
- MARGGI W., TOLEDANO L. & NERI P., 2017 Carabidae: Bembidiini: Bembidiina: 294–342. In: Löbl I. & Löbl D. (eds.) Catalogue of Palaearctic Coleoptera. Volume I. Archostemata Myxophaga Adephaga. *Brill*, Leiden. 1446 pp.
- MIKHAILOV V.A, 1984 A new species of genus *Bembidion* (Coleoptera, Carabidae) from Afghanistan. *Doklady Akademii Nauk Tadzhikskoy* SSR, 27 (4): 234-236.
- MORAWITZ C.A., 1862 Vorlaüfige Diagnosen neuer Carabiciden aus Hokadade. *Mèlanges biologiques du Bulletin de l'Académie Impériale de Sciences de St. Petersbourg, 4*: 237-247.
- MORAWITZ C.A., 1863 Vorlaüfige Diagnosen neuer Carabiciden aus Hokadade. *Bulletin de l'Académie Impériale de Sciences de St. Petersbourg*, 5: 321-328.
- MORITA S., 1985 Bembidiinae, 92-101. In: Uéno S.I., Kurosawa Y. & Satô M. The Coleoptera of Japan in Color. Vol. II. *Hoikusha Publishing Co.*, Higashi-ku, Osaka, 479 pp.
- NERI P. & TOLEDANO L., 2017 Notes on genus *Bembidion* Latreille, 1802, subgenus (*Ocyturanes*) Müller-Motzfeld, 1986, with particular reference to the *marginipenne* group and description of seven new species (Insecta: Coleoptera: Carabidae: Bembidiina). *Quaderno di Studi e Notizie di Storia Naturale della Romagna*, 46: 59-120.
- NERI P. & TOLEDANO L., 2021 Geographic and taxonomic notes, addenda and corrigenda on the subtribe Bembidiina Stephens, 1827 of the 2017 "Catalogue of Palaearctic Coleoptera" (Coleoptera, Carabidae, Bembidiina). *ZooKeys*, 1044: 563-587.
- NETOLITZKY F., 1921 Catalogus systematicus specierum palaearcticarum generis Bembidion Latr. (Carabidae) – Archiv für Naturgeschichte, 87A, 7H: 183-229.
- NETOLITZKY F., 1942-1943 Bestimmungstabellen europäischer Käfer (9. Stück). II. Fam. Carabidae, Subfam. Bembidiinae. 66. Gattung: *Bembidion* Latr. Bestimmungstabelle der *Bembidion*-Arten des paläarktischen Gebietes. *Koleopterologische Rundschau*, 29: 1/97-70/166.

ORTUÑO V.M. & TORIBIO M., 2005 – Carabidae de la Península Ibérica y Baleares. Vol. I. Trechinae, Bembidiini. *Argania editio*, Barcelona, 455 pp.

TERADA K., HSU M.H. & WU W.J., 2006 – Corrections to "A checklist oft he Carabidae (Coleoptera) of Taiwan" published by Terada, Hsu and Wu in 2005. *Miscellaneous Reports of the Hiwa Museum for Natural History*, 46: 73-75.

UÉNO S.I., 1954 – The Coleoptera of Japan. Shin-Konchu, 7: 44-50, 54-59.

Indirizzo degli autori:

Paolo Neri via Alfredo Nobel, 11 scala A I – 47121 Forlì *e-mail*: nerolit.paolo.neri@gmail.com

Luca Toledano Museo Civico di Storia Naturale Lungadige Porta Vittoria, 9 I – 37129 Verona *e-mail*: lucatole2@libero.it