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**Geographic and taxonomic notes, addenda and corrigenda on  
the subtribe Bembidiina Stephens, 1827 of the 2017 ‘Catalogue of  
Palaearctic Coleoptera’ (third contribution)**

(Insecta: Coleoptera: Carabidae: Bembidiina)

**Abstract**

We report and discuss here some corrections to the section Bembidiina of Catalogue of Palearctic Carabidae (Marggi *et al.*, 2017), together with geographical, systematic and synonymous updates regarding the subtribe.

The following nomenclatorial acts are proposed in this paper: *Bembidion gebleri nakanei* Jedlička, 1965 syn. n. of *Bembidion (Plataphus) gebleri edai* Nakane, 1963; *Bembidion (Melomalus) altaicum habui* (Jedlička, 1965) n. comb.; *Bembidion (Peryphus) bajani* Jedlička, 1966 bona sp., removed from synonymy with *Bembidion (Asioperyphus) altestriatum* Netolitzky, 1934 and transferred to subg. *Peryphus* Dejean, 1821; *Bembidion boldi* Jedlička, 1966, removed from synonymy with *Bembidion (Terminophanes) consummatum* Bates, 1873 and transferred to *Bembidion* incertae sedis.

Key words: *Bembidion*, *Melomalus*, *Plataphus*, *Peryphus*, *Asioperyphus*, *Terminophanes*, Italy, 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 (3° 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.

Sono proposti in questo articolo i seguenti atti nomenclatoriali: *Bembidion (Plataphus) gebleri nakanei* Jedlička, 1965 sin. n. di *Bembidion (Plataphus) gebleri edai* Nakane, 1963; *Bembidion (Melomalus) altaicum habui* (Jedlička, 1965) comb. n.; *Bembidion bajani* Jedlička, 1966 bona sp., rimosso dalla sinonimia con *Bembidion (Asioperyphus) altestriatum* Netolitzky, 1934 e trasferito al sottogenere *Peryphus* Dejean, 1821; *Bembidion boldi* Jedlička, 1966, rimosso dalla sinonimia con *Bembidion (Terminophanes) consummatum* Bates, 1873 e trasferito a *Bembidion* incertae sedis.

## **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 of habitus and genitalia were made by Luca Toledano with Nikon DSFi1 and Nikon DS-L2 on Leica Z6; the photo of the microsculpture of *B. bajani* Jedlička, 1966 (fig. 5) was made by LT with Nikon Z6 on a microscope Leica M205C; the drawings of spermathecae are by Ivo Gudenzi.

The examined material is preserved in the following collections:

CTVR	coll. Luca Toledano, Verona, Italy
DE	coll. Dominique Echaroux, Etréchy, France
KR	coll. Karel Rébl, Nové Strašecí, Czech Republic
MNHN	Muséum National d'Histoire Naturelle, Paris, France
MSNV	Museo Civico di Storia Naturale, Verona, Italy
NHMW	Naturhistorisches Museum, Wien, Austria
NMNH	National Museum of Natural History, Smithsonian Institution, Washington, USA
NMPC	National Museum (Natural History), Prague, Czech Republic
PN	coll. Paolo Neri, Forlì, Italy
SMTD	Senckenberg Museum für Tierkunde, Dresden, Germany
ZIMG	Zoologische Institut und Museum, Greifswald, Germany

## **Introduction**

After the publication of the Catalogue of Palaearctic Coleoptera (MARGGI *et al.*, pp. 294-342 in Löbl I. & Löbl D., 2017) we published two contributions (2021, 2022) in order to correct some mistakes found in the section of the Catalogue regarding the Carabidae, Bembidiina (MARGGI *et al.*, 2017) as identified during our studies or following the suggestions of colleagues. In this third contribution we provide and discuss further corrections and add some systematic and geographic updates.

### ***Asaphidion semilucidum* (Motschulsky, 1862)**

We report the first records of the species from the following Chinese Provinces: Beijing (China, Beijing, Dongling Mountains, Xiaolongmen, 1400m, N39°97' E115°43'Dan Nan Gou (CTVR); China, Beijing Shi, Beijing W env. (CTVR); Shanxi (China, S. Shanxi, Li Shan, 35°24'N, 111°58'E, 2040-2200m, SE slopes of Shun Wang Ping (CTVR); Shaanxi (China, S. Shaanxi, 15 km S Dongjiankou, 1700m (CTVR); China, SW Shaanxi, 33°16'N, 107°05'E, 1950m, Tiantaishan forest park (CTVR)).

To be added to the distribution: A: BEI, SHX, SHA.

***Bembidion (Asioperyphus) obenbergeri* Lutshnik, 1928**

The MO acronym should be replaced by MG (Mongolia).

***Bembidion (Diplocampa) assimile* Gyllenhal, 1810**

We report the species from the following locality: Poland, Bialowieza, bank of Narewka river (NMNH, CTVR).

To be added to the distribution: E: PL.

***Bembidion (Diplocampa) clarkii aquitanum* Aubry, 1970**

The name *clarkii* Dawson, 1849 should be changed in *clarkii* (from MÜLLER-MOTZFELD, 1998).

***Bembidion (Melomalus) altaicum altaicum* (Gebler, 1833)** (figs 1, 6, 7)

*Bembidion latum* (Motschulsky, 1844)

*Bembidion planum* Sahlberg, 1844

*Bembidion sutschanense* Jedlička, 1936

and

***Bembidion (Melomalus) altaicum habui* (Jedlička, 1965) nov. comb.** (figs 2, 8, 9)

*Bembidion (Plataphus) habui* Jedlička, 1965

**Historical notes.** GEBLER (1833) describes *Anchomenus altaicus* from Altai Mountains: Riddersk [Kazakhstan, Valley of Ulba river]. MOTSCHULSKY (1844) describes *Peryphus latus* from Nichnaja-Ouda river, Irkutsk [Russia, S-C Siberia]. SAHLBERG (1844) describes *Bembidium planum* from Morikan Mt. [Russia, Okhotsk, Khabarovsk Kray, E Siberia] and Onon river, Mongolia [currently Russia, C-S Siberia]. Later these species are assigned to genus *Bembidion*, subgenus *Plataphus* Motschulsky, 1864, and *B. latum* and *B. planum* are considered synonyms of *B. altaicum* (Netolitzky, 1921; Csiki, 1928). JEDLIČKA (1936) describes *Bembidion (Daniela) sutschanense* from Sutschan, Ussuri [Partisanzsk, Primorskij Krai]; the species later is synonymized with *B. altaicum* by JEDLIČKA (1965) himself.

NETOLITZKY (1943), in his monography on the genus *Bembidion*, mentions *B. altaicum* for the whole Siberia (with *latum* as synonym) and restores *B. planum* as a valid species.

UÉNO (1954) as first mentions *B. altaicum* for Japan, followed later by NAKANE (1963)

JEDLIČKA (1965), in his monography of the *Bembidion* of eastern Asia, mentions

*B. altaicum* for Siberia and Mongolia, and *B. planum* for the localities mentioned above; no mentions of the presence of *B. altaicum* in Japan; in the same paper, Jedlička describes *B. (Plataphus) habui* from Kamikochi [central Japan] adding “in meiner Sammlung” (JEDLIČKA 1965: 110); as for the other descriptions in the same paper he does not mention directly the holotype, therefore we presume that the single female specimen found in the Coll. Jedlička (NMPC), labelled as “Type”, is the only available type specimen; in the description of *B. habui* and in the redescription of *B. altaicum* the following discriminating characters are mentioned: JEDLIČKA (1965) writes that *altaicum* is distinguishable from *habui* by the colour, by the pronotum more weakly sinuate and by the microsculpture. Another character used in the description is the pronotal base as wide as the anterior margin in *B. habui*, while in *B. altaicum* the pronotal base is slightly wider than the anterior margin. JEDLIČKA (1965) does not mention *B. altaicum* for Japan.

NAKANE (1978) mentions for the fauna of Japan both *B. altaicum* and *B. habui*.

KIRSCHENHOFER (1984) collects several specimens of *B. habui* at Kamikochi (locus classicus) and in a short note reports that the species shows variable characters and the laterobasal carina of the pronotum is more or less reduced.

MORITA (1985), in “The Coleoptera of Japan in Color”, mentions *B. altaicum*, not *B. habui*.

KWON & LEE (1986) mention *altaicum* for Central and South Korea. MORITA (1991) mentions *altaicum* for Sakhalin Island.

KRYZHANOVSKIY *et al.* (1995) mention *B. altaicum* for Siberia and *B. planum* (with *latum* as synonym) for Siberia; the latter synonymy, given without explanations, is reported for the first time. AVERENSKY (1999) mentions *B. planum* for Yakutia. HUA (2002) mentions *B. altaicum* for Siberia, Japan and China.

TOLEDANO (2008) restores the validity of the subgenus *Melomalus* Casey, 1918, formerly listed as synonym of *Plataphus* Motschulsky, 1864 and assigns to that subgenus *B. altaicum*, together with the N American species *B. planatum* (Le Conte, 1848), statements confirmed shortly later by the molecular studies of MADDISON (2012); TOLEDANO (2008) mentions that *B. altaicum* is not present in China, but it could be present there. SCHNITTER (2016) mentions *B. altaicum* for Mongolia. MARGGI *et al.* (2017) mention, sub *Melomalus*, *B. altaicum* (with *latum*, *planum*, *sutschanense* as synonyms) for Kazakhstan, Russia E Siberia, Far East Russia, Mongolia, Korea, Japan and, sub *Plataphus*, *B. habui* for Japan.

**Material examined.** 1 ♀, Holotype of *B. habui*, “Kamikochi / Japan-Alps [printed] // TYPUS [red, printed] // Mus. Nat. Pragae / Inv. [pink, printed] 23952 [handwritten] // *habui* / sp.n. [pink, handwritten] / det. Ing. Jedlička [printed]” (NMPC); the specimen, lacks seven left antennomeres and three right antennomeres, the hind left leg is detached, but glued on the card.

Additional material identified as *B. habui*: 3 ♂♂, 7 ♀♀, “Japan, Kamikochi, 36°18'N 137°40'E, 19.VI.1939, Eigin Suenson leg. // *Bembidion habui* Jedl, det. Kirschenhofer” (NHMW).

1 ♀, “Sutschian / Ussuri [printed] // TYPE [red, printed] // *B. altaicum* n (?) / *sutschianense* Jedl, [handwritten] det. M. Fassati 1963 // Mus. Nat. Pragae / Inv. [pink, printed] 23953 [handwritten] // *sutschianen* / se sp.n. [handwritten] / det. Ing. Jedlička [pink, printed]” (NMPC); the spermatheca, in Euparal, is preserved on the same pin as the specimen.

Additional material identified as *B. altaicum*: 1 ♂, Riv. Azusa-gawa, Kamikochi, Nagano Pref., 3.VII.1976, S. Morita leg. // *Bembidion altaicum* Det. S. Morita 1985 (NHMW); 2 ♂♂, 2 ♀♀, URSS Is. Sakhalin, distr. Tymovskiy, vill. Zonalnoye, 10 km sud Palevo // 15-19VII-1993, Leg. Putz and Wrase (PN); 1 ♂, S-O Kasachstan, Dzhungar. Geb. Kette, Umg. Lepsinask 1700 m, 1-5.06.1991. W. Dolin (CTVR); 2 ♂♂, Dzhungharia, Kora riv., 20 km SE Kapal, 2.8.93 (CTVR); 1 ♂, Siberia, Krasnojarsk. 1974.05.20 // *Bembidion altaicum* Gebl., Shilenkov det. 1978 (CTVR); 1 ♂, 1 ♀, Sibiria, Irkutsk Ris // [incomprehensible] 1984 // *Bembidion (Plataphus) altaicum* / Gebl. (CTVR); 1 ♂ missing aedeagus, Siberia Angara, B. Murozhnaja riv. val., 1975.07.25 // *Bembidion altaicum* (CTVR); 1 ♂, Russia, Chita reg., Malye-Kovali vill. Chichtka riv., 22-29.7.99, Anichtchenko leg. // *Bembidion altaicum* det. L. Toledano (CTVR); 1 ♀, Russia, Far East, Ussuri reg., Tigrovyy, 25-27.7.1990, lgt. S. Beevar (CTVR); 2 ♂♂, 4 ♀♀, Russland, Ussuri-Gebiet, Rajon Lazo, 30.VII.1992, leg. Sundukov // Oberlauf fl. Perekatnaja am 3. Kljutsch Kiesufer, ca 50 km S von Lazo (CTVR); 1 ♂ 2 ♀♀, *B. altaicum*, Russia. Primorye, Lazovsky Reserve, kordon Amerika, 134°03'01" 43°16'16", 24-29.04.1997, Ju. Sundukov leg. (CTVR); 4 ♂♂, 3 ♀♀, Russia, Primorye, Lazovsky Reserve, 134°03'01" 43°16'16", 27-29.09.2000, Ju. Sundukov leg., *B. altaicum* (CTVR); 2 ♂♂, 1 ♀, Russia, Primorye, Lazovsky Reserve, mouth Nogeevskaja river, 134°02'09"E 43°07'55"N, 20-21.05.2000, Ju. Sundukov leg., *B. altaicum* (CTVR); 1 ♂, 1 ♀, 02.08.1991, Sevo See (Mllkovo), Kamtschatka, leg. L. Predel (CTVR); 1 ♀, Rossia, rep. Altai, Gorno-Altaisk env., Madzerok r. Katun, lgt. Orszulik, 11.7.2002; 2 ♀♀ Rossia, rep. Altai, Altai Katun env. Tjungur, lgt. Orszulik, 24.7.2002 (KR).

**Discussion and conclusions.** The opportunity of studying the type of *B. habui* together with several topotypical specimens and compare them with several specimens of *B. altaicum* from the whole continental distribution range allowed us to make clear the doubts regarding the presence of both species in Japan, doubts raised from the study of the bibliography.

As first it was clear that *B. habui* belongs to the subgenus *Melomalus* and not to *Plataphus* as mentioned in MARGGI et al (2017), because it shows all the characters present in *B. altaicum* and mentioned in the revaluation of the subgenus by TOLEDANO (2008).

We compared the diagnostic characters mentioned by JEDLIČKA (1965) and we noticed that in both species: 1. the colouration has an high degree of variability (from metallic green to brown); 2. the pronotal base, including in the holotype of *B. habui*, is always slightly wider than the anterior margin (otherwise than reported in the description); 3. the pronotum always has a laterobasal carina, more or less evident; 4. also the elytral apex may change from slightly rounded to barely blunt; 5. the elytral microsculptures and the aedeagi (figs 1, 2) are similar.

Instead, we noticed a difference in the reservoir of the spermatheca (figs 7, 9): in *Bembidion habui* the distal cavity is slightly longer than the proximal one, while in *Bembidion altaicum* the distal cavity is more or less twice as long as the proximal one.

For the forementioned reason we rank here the taxon *habui* as subspecies of *B. altaicum*: ***Bembidion (Melomalus) altaicum habui* (Jedlička, 1965) new combination.**

The nominotypical form is not present in Japan, while *B. altaicum habui* is present in Japan and in Sakhalin Island.

To all the specimens from Japan and Sakhalin Island we examined, including the type of *B. habui*, we added the following label: *Bembidion (Melomalus) altaicum habui* Jedlička, 1965 – det. Neri & Toledano, 2022.

The current distribution of *B. altaicum altaicum* is the following: ES, FE, KZ, MG, “Korea”. That of *B. altaicum habui* is the following: FE (Sakhalin Island), JA.

#### ***Bembidion (Peryphanes) stephensi Crotch, 1866***

We received in study from MNHN (coll. Coiffait) both specimens of *B. stephensi* mentioned by SCHULER (1957) from Salur (Isparta, Turkey) and reported as *B. stephensi* ab. *angustum*. This is the only mention for Turkey for this species, later reported by MARGGI, TOLEDANO & NERI (2017) and by NERI & TOLEDANO (2021). After a careful check we ascertained that the specimens belong to *Bembidion (Peryphanes) grandipenne* grandipenne Schaum, 1862. The Asian Turkey (A: TR) must therefore be removed from the distribution of the species.

#### ***Bembidion (Peryphus) bajani* Jedlička, 1966 bona species et nov. comb. (figs 3, 4, 5, 10)**

KRYZHANOVSKIJ *et al.* (1995) synonymize *Bembidion bajani* Jedlička, 1966 and *Bembidion (Asioperyphus) altestriatum* Netolitzky, 1934. The synonymy is accepted also by MARGGI *et al.* (2017). We decided to deepen the study of this species.

**Historical notes.** NETOLITZKY (1934) describes *Bembidion altestriatum* from Wladivostok, species near *infuscatum* Dejean, 1831. NETOLITZKY (1943), includes *Bembidion (Peryphus) altestriatum* in the “Gruppe des *B. lunatum – infuscatum*”, pointing out, in the “keys”, the diagnostic characters that distinguish the group from the other species group belonging to the subg. *Peryphus* Dejean, 1821. JEDLIČKA (1965) in the keys and in the redescription provides further detail of the characters of *altestriatum*, including bluish-piceous-brown elytral colour with apical spot oval or lunula extended to the whole apex, head smooth.

JEDLIČKA (1966) describes *Bembidion (Peryphus) bajani* from Mongolia (Holotypus ♂: Bajanchogor aimak, Changaj Gebirge, Tujn gol) upon 23 exx collected in four localities, 14 from the “locus typicus”; the brief description emphasizes the elytral colour (2 humeral and 2 apical spots) and of the appendages (legs yellow-red, penultimate article of the palps and rest of the antennae darkened), the microsculpture of head and pronotum (smooth, lacking microsculpture) and of the elytra (long and transverse sculpticells), supposes the close relationships with *B. fuscicrum turanicum* (Csiki, 1928), currently ranked as synonym of *B. obscurellum* (Motschulsky, 1845); the description includes a schematic drawing of the habitus that emphasizes the four elytral spots and the head lacking punctures near the frontal furrows.

MÜLLER-MOTZFELD (1984), in a short note, reports that *B. bajani* belongs to subgenus *Peryphus, femoratum* species group, due to the structure of the aedeagus; moreover he reports that, among the paratypes of *B. bajani* he examined in the Museum of Dresden, he also found a paratype that belongs to *B. saxatile fuscomaculatum* (Motschulsky, 1844); he reports the drawing of the aedeagus of both paratypes.

VYSOKÝ (1986) describes the subgenus *Asioperyphus* that includes *B. altestriatum* together with other species that before were ranked in the “Gruppe des *B. lunatum – infuscatum*” (NETOLITZKY, 1943). MÜLLER-MOTZFELD (1989, 1998), points out the aedeagal characters of the subgenus: whip-shaped sclerite S-shaped or with a loop in the middle.

KRYZHANOVSKIJ *et al.* (1995) synonymize *Bembidion bajani* Jedlička, 1966 with *Bembidion (Asioperyphus) altestriatum* Netolitzky, 1934, without any explanation. The synonymy is accepted by all the following authors, including MARGGI *et al.* (2017).

**Material examined.** 2 ♀♀, paratypes of *B. bajani* Jedlička, 1966 “Mongolia, Bajanchongor / Eimak, Changaj Gebirge / Tujn gol, 2 km O v.Bajan / Chongor - Zentrum – 1930 m / Exp. Dr. Z.Kaszab, 1964 [printed] // Nr. 207 / 27.VI.1964 [printed] // PARATYPUS [pink, printed] // *bajani* sp.n. [pink, handwritten] / det. Ing. Jedlička [printed]” (NMPC); the specimens bear also a label of the Museum with a number, respectively 20545 and 20542; the specimens are in good conditions, one (20542) lacks the hind right leg; its spermatheca with

annulus receptaculi is prepared in Euparal on the same pin as the specimen; 1 ♂, paratype (n. 20541), with the same labels as the two ♀♀ paratypes and another label, handwritten, “punktgruppe” which certainly means the presence, ascertained by ourselves, of puncturation near the frontal furrows; the specimen is in good conditions, lacks 7 left antennomeres; the aedeagus, prepared in Euparal, is on the same pin as the specimen; we identified and labelled the specimen as follows: *Bembidion (Ocydromus) saxatile fuscomaculatum* Mtsch. - det. Toledano, 2022.

1 ♂, paratype of *B. bajani*, “Mongolia, Bajanchongor / Eimak, Changaj Gebirge / Tujn gol, 2 km O v.Bajan / Chongor - Zentrum – 1930m / Exp. Dr. Z.Kaszab, 1964 [printed] // Nr. 195 / 27.VI.1964 [printed] // *Bembidion / bajani* sp.n. [handwritten] / det. Ing. Jedlička [printed] // Geschenk Dr. Kaszab / 1966 [printed] // Paratypus [red] 1966 / *Bembidion / bajani* / Jedlička [handwritten, bordered in red] // penis präparat n.1190” (SMTD) (body 4.50 mm long; aedeagus 0.92 mm long; figs 3, 10); 1 ♂, paratype of *B. bajani* (SMTD), with the same labels as the preceding, which actually is a *Bembidion (Ocydromus) saxatile fuscomaculatum*; its aedeagus (n.1191) was dissected by Müller-Motzfeld and mentioned in MÜLLER-MOTZFELD (1984).

**Discussion and conclusions.** We wish to emphasize that the literature regarding *B. bajani* and its synonymy with *B. altestriatum* was surprising to us; it's difficult to believe that the holotype of a species described with two apical and two humeral spots, two basal antennomeres and legs yellowish and retained near *B. (Peyphus) fuscicrum turanicum* Csiki, 1928 (all of this confirmed by a schematic but clear drawing which clearly shows that the specimen is a male, with humeral and apical spots) may be synonym of *Bembidion (Asioperyphus) altestriatum*, species with only apical spots, femora darkened almost to the apex and antennae with three basal antennomeres yellowish. We suggest that the synonymy shown by KRYZHANOVSKIY *et al.* (1995) could be due to a paratype erroneously identified by the describer as *B. bajani* and correctly identified by Belousov (author in KRYZHANOVSKIY *et al.*, 1995 of the treatment of the Bembidiina) as *B. altestriatum*, or due to a printing error; in the first case anyway we cannot regard it a true synonymy, but only the finding of a misidentified paratype, as for the paratypes of *B. bajani* actually belonging to *B. saxatile fuscomaculatum*. We are of the opinion that the holotype, on which the original description is based, has not been examined.

Before closing the study, we unsuccessfully tried to find in many Museums the holotype of *B. bajani*. Since according to the description we can easily understand that *B. bajani* belongs to the subgenus *Peryphus*, group of four-spotted species, we cancel the synonymy mentioned in KRYZHANOVSKIY *et al.* (1995) and establish that *B. bajani* belongs to the subgenus *Peryphus*.

We therefore examined the three paratypes, one ♂ (SMTD) and two ♀♀ (NMPC),

available to us and matching with the original description of *B. bajani* and we observed in both sexes an elytral peculiar character: the microsculpture is made by sculpticells of different shape, some almost isodiametric, all the remaining subquadrate, subrectangular or rhomboidal, transverse (fig. 5); this character suggests relationships with the *obscurellum* Motschulsky, 1845 (=*turanicum* Csiki, 1928) species group, as already stated in the original description. In our opinion, also the aedeagus (0.92 mm long), reported with a drawing by MÜLLER-MOTZFELD (1984) (fig. 4), has peculiar characters: sclerites in the middle of the aedeagus, small central brush, median third of the ventral margin rectilinear, apical third evidently bent ventrally. The characters mentioned above lead us to retain *B. bajani* as a good species, therefore we state: ***Bembidion bajani* Jedlička, 1966 bona species and *Bembidion (Peryphus) bajani* Jedlička, 1966 n. comb.**

Among the four-spotted *Peryphus*, *B. bajani* differs from *B. obscurellum* Motschulsky, 1845 and *B. kuhitangi* Michailov & Belousov, 1991 (species with isodiametric or almost isodiametric elytral sculpticells), by the mixed shape of the sculpticells (a few almost isodiametric, most subquadrate, subrectangular or rhomboidal), by the larger size of body and aedeagus; from *B. petrosum* Gebler, 1833 (♀♀) by the smaller size (*B. bajani* from 4.00 to 5.20 mm long, *B. petrosum* from 5.70 to 6.30 mm); from all the remaining for the mixed microsculpture (in the other species, always more or less transverse).

### ***Bembidion (Peryphus) bracculatum* Bates, 1889**

We report for the first time the species from Afghanistan, more precisely from the following localities: Afghanistan, Massif du Nuristan, entre Camdech et Koutchous, 1400-2000m (DE, CTVR); Afghanistan, Route entre Camdech et Bargui Mabal (DE, CTVR); Afghanistan, Vallée du Pech, 2000m (DE, CTVR); Afghanistan, Vallée Paroum, entre Paroum et Astiway, 2700-2800m (DE, CTVR); Afghanistan, Darah – e- Chekari, route de Bamyan (DE, CTVR); Afghanistan, Konar, Koutchous, 1900-2100m (DE, CTVR); Afghanistan, Bamyan (DE, CTVR); Afghanistan, Alykhel – Paktia, 2100m (DE, CTVR); Bhutan, Thimpu, Thimpu-Chhu, left bank, 2400m (CTVR):

Current distribution: A: AF, BT, KA, NP, PA, UP.

### ***Bembidion (Peryphus) femoratum* Sturm, 1845**

We report for the first time the species from Poland: Poland, Surów (?), sandy shore of stream (NMNH, CTVR).

To be added to the known distribution: E: PL.

***Bembidion (Peryphus) obscurellum obscurellum* (Motschulsky, 1845)**

We report for the first time the species from Tadzhikistan: Tadzhikistan, Pamir, Rang-Kul, 3800m (CTVR); Tadzhikistan, Pendzhakent reg. (CTVR).

To be added to the known distribution: **A: TD.**

***Bembidion (Philochthus) mannerheimii* C.R. Sahlberg, 1827**

We report for the first time the species from Poland: Poland, Bialowieza Nat'l. Pk., Sect. 369, *Tillia/Abies/Corylus*, under twigs/branches (NMNH, CTVR); Poland, Bialowieza Nat'l. Pk., Sect. 399, *Fraxinus/Abies* swamp, treading (NMNH, CTVR); Poland, Pojezierze Mazurskie, 12 km SW Mikolajki, ca. 150m, 53°49'N, 021°36'E (NMNH, CTVR).

To be added to the known distribution: **E: PL.**

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**Figs 1-4:** Median lobe of aedeagus of: **1.** *Bembidion (Melomalus) altaicum altaicum* (Gebler, 1833), Dzhungharia, Kota riv., 20 km SE Kapal (PN) 1.31 mm; **2.** *B. (M.) altaicum habui* (Jedlička, 1965), Japan, Kamikochi (NHMW) 1.14 mm; **3.** *Bembidion (Peryphus) bajani* Jedlička, 1966, paratype, Mongolia, Bajanchongor, aimak, Tujn gol, 1250 m, bei somon Bogd (SMTD) 0.92 mm; **4.** *B. (P.) bajani*, (drawing from Müller-Motzfeld, 1985).

**Fig. 5:** elytral microsculpture of *B. (P.) bajani*. paratype (SMTD).

**Figs 6-9:** spermathecae of: **6.** *B. (M.) altaicum altaicum*, (type of *sutschanense* Jedlička, 1936), Sutsch'an, Ussuri (NMPC) 0.30 mm; **7.** *B. (M.) altaicum altaicum*, Russland, Ussuri, Gebiet, Rajon Lazo (NMPC) 0.28 mm; **8.** *B. (M.) altaicum habui*, holotype, Kamikochi Japan Alps (NMPC) 0.25 mm; **9.** *B. (M.) altaicum habui*, URSS, Sakhalin Is., distr. Tymovskiy, vill. Zonalnoye, 10 km S Palevo (PN) 0.23 mm.

**Fig. 10:** Habitus of *B. (P.) bajani*, paratype (SMTD) 4.50 mm.



1



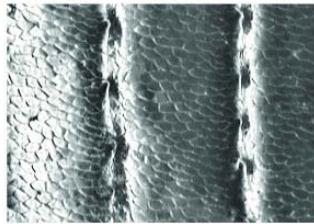
2



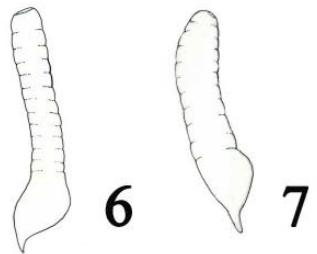
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4



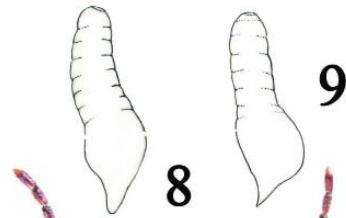
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10

### ***Bembidion (Plataphus) gebleri edai* Nakane, 1963**

*Bembidion (Plataphus) gebleri edai* Fassati auctt. (unavailable)

*Bembidion (Plataphus) gebleri nakanei* Jedlička, 1965 **n. syn.**

Mr. Seiji Morita (Tokyo) kindly informed us that in the list of the subspecies of *Bembidion (Plataphus) gebleri* Gebler, 1833 (MARGGI *et al.*, 2017: 333) *B. gebleri edai* Fassati, 1953 is missing. After a detailed bibliographic research we provide here a correction of the mistake.

**Historical notes.** FASSATI (1953), in the study on *Bembidion (Plataphus) persuasum* Netolitzky, 1938, states that the latter is a subspecies of *B. gebleri* Gebler, 1833; in the same paper, for the Japanese specimens (Kamikochi, 1500 m, Japon-Alps) describes *Bembidion (Plataphus) gebleri persuasum natio edai* as an infrasubspecific name, being described in addition to a trinomial, and therefore unavailable (ICZN 45.5.1).

NAKANE (1963) in the “Iconographia Insectorum Japonicorum” raises the subspecies *persuasum* to species, mentions the (unavailable) name *edai* Fassati as its Japanese subspecies with a short redescription, which makes the name available, but as *edai* Nakane, 1963, not as *edai* Fassati, 1953.

MORITA (1989) in his revision of the “*gebleri* group”, states that *Bembidion (Plataphus) nakanei* Jedlička, 1965 is synonym of *Bembidion (Plataphus) gebleri edai* Fassati, 1953. The synonymy is certainly correct from a conceptual point of view, because both names refer to the same Japanese taxon, but formally incorrect, because the oldest valid name for the taxon is *edai* Nakane, 1963, not *edai* Fassati, 1953.

LORENZ (1998, 2005), followed later by MARGGI *et al.* (2017), lists *nakanei* as a subspecies of *Bembidion (Plataphus) gebleri* and retains *edai* an unavailable name; he does not take into consideration Nakane’s (1963) redescription, that made the name *edai* available (ICZN 45.5.1), even though with different author, as mentioned above.

SUNDUKOV & MAKAROV (2019) report that for *gebleri nakanei* the distribution FE must be removed from the catalogue MARGGI *et al.* (2017) due to a wrong identification of specimens from Kuriles islands in KRYZHANOVSKIJ (1975).

**Conclusions.** The name *edai*, after the redescription by NAKANE (1963) is available as *edai* Nakane, 1963, not as *edai* Fassati, 1953. We confirm here the synonymy discovered as first by MORITA (1989) and then followed by LORENZ (1998, 2005), a synonymy formally not valid because referred to *edai* Fassati, 1953, correcting it from the formal perspective.

Therefore we propose here the following synonymy: *Bembidion (Plataphus) gebleri nakanei* Jedlička, 1965 **nov. syn.** of *Bembidion (Plataphus) gebleri edai* Nakane, 1963

This is the current nomenclatorial and distributional situation of the palearctic species of the *gebleri* group:

- *Bembidion (Plataphus) gebleri gebleri* (Gebler, 1833) (ES, KZ, NC, WS).  
*Bembidion frigidum* Sahlberg, 1880  
*Bembidion jensei* Netolitzky, 1942
- *Bembidion (Plataphus) gebleri edai* Nakane, 1963 (JP)  
*Bembidion (Plataphus) gebleri nakanei* Jedlička, 1965
- *Bembidion (Plataphus) gebleri persuasum* Netolitzky, 1938 (FE, HEI, JIL, MG).

### *Ocys tachysoides* (Antoine, 1933)

We report for the first time the presence of *Ocys tachysoides* (Antoine, 1933) in Italy, Monte Baldo (VR) Riserva Naturale Integrale “Lastoni-Selva Pezzi”, La Fontana, mt. 1310, cascata, Pitfall fra sassi, 20-04.05.2016, 45°44'29.19"N 10°50'01.08"E, leg. Sette (MSNV).

Current distribution: E: BE, FR, GB, GE, IT, NL, PT, SK, SP, SZ; N: MO.

### *Bembidion*, species incertae sedis

KRYZHANOVSKIJ *et al.* (1995 pag. 87) synonymize *Bembidion boldi* Jedlička, 1966 with *Bembidion consummatum* Bates, 1873. The synonymy is followed also by MARGGI *et al.* (2017). A particular of the synonymy excited our curiosity: what does it mean the word “part.” reported after the following mention “*boldi* Jedlička, 1966 [part.]” (KRYZHANOVSKIJ *et al.*, 1995). We therefore decided to investigate.

**Historical notes.** BATES (1873) describes *Bembidium (Peryphus) consummatum* from the beach of Kobè (Japan), emphasizing the shape of the pronotum, strongly convex, the anterior angle evidently bent ventrally, the elytral striae evident, except the 7<sup>th</sup> one and a semilunar yellow subapical spot. NETOLITZKY (1943) includes *Bembidion (Peryphus) consummatum* into the “Gruppe des *B. lunatum – infuscatum*”, emphasizing, in the keys, the diagnostic characters that distinguish it from the other species groups belonging to the subgenus *Peryphus* Dejean, 1821 sensu NETOLITZKY (1943).

JEDLIČKA (1966) describes *Bembidion (Peryphus) boldi* from Mongolia (Holotypus ♂: Changaj Gebirge, Tujjn gol, 2 Km O Najanchongor, 1930 m) on 9 exx collected in four different localities, only two from the “locus typicus”; the description emphasizes the colour of elytra (lunula-shaped spot before apex) and appendages (femora darkened, first three antennomeres yellowish-red), the microsculpture of head and pronotum (smooth, lacking microsculpture) and elytra (in transverse sculpticells), pronotum with anterior angles strongly bent ventrally, so that it becomes impossible to see their margin in dorsal view; he presumes relationships with the group that in NETOLITZKY (1943) is called “Gruppe des *B. testaceum – fluviatile*”.

VYSOKÝ (1986) includes *B. consummatum* in his newly described subgenus *Asioperyphus*, together with other species that formerly were ranked into the “Gruppe des *B. lunatum–infuscatum*” by NETOLITZKY (1943). MÜLLER-MOTZFELD (1989, 1998), as mentioned above, describes the peculiar aedeagal characters of subg. *Asioperyphus*. SHILENKOV (1990) mentions *B. boldi* for Eastern Siberia (URSS), and provides drawing of aedeagus and spermatheca of the species; in the endophallus is visible a sclerite named “tricorned body” (LINDROTH, 1963). As mentioned above, KRYZHANOVSKIJ *et al.* (1995) synonymize *Bembidion boldi* Jedlička, 1966 with *Bembidion consummatum* Bates, 1873, without explanations and adding the word “part.”, possibly meaning that the synonymy refers only to a part of the type series of *B. boldi*.

MÜLLER-MOTZFELD (1998) describes the subgenus *Terminophanes* to include all the species sharing the particular aedeagal sclerite mentioned above, named “tricorned body” by LINDROTH (1963); from the list, both *consummatum* and *boldi* are absent.

MARGGI *et al.* (2003) list in the subgenus *Terminophanes*, *B. consummatum* and *B. boldi* as its synonym, later followed by LORENZ (2005) and MARGGI *et al.* (2017) where the following distribution is reported: A: BEI, ES, JA, KZ, MG, WS.

As additional datum, we wish to mention a drawing of the aedeagus of the holotype of *B. boldi* made by Müller-Motzfeld without date and never published, found in the material of the Professor by Peter Michalik: the drawing clearly shows that the aedeagus belongs to a species of subgenus *Asioperyphus*, and more precisely to *B. altestriatum* Net., as stated by Müller-Motzfeld himself in a handwritten note (fig. 14).

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**Figs 11-12:** habitus of: **11.** *Bembidion boldi* Jedlička, 1966, paratype, Mongolia, Bajanchongor aimak, Tujn gol, 1250 m, bei somon Bogd (NMPC) 5.15 mm; **12.** *Bembidion (Terminophanes) consummatum* Bates, 1873, Ichinomiya, Riv. Akuigawa, Tokushima Pref., leg. Morita (CTVR) 4.70 mm.

**Figs 13-15:** median lobe of aedeagus of: **13.** *B. boldi*, paratype, (NMPC) 0.97 mm; **14.** drawing of Müller-Motzfeld of *B. boldi*, holotype (unpublished); **15.** *B. (T.) consummatum*, Ichinomiya, Riv. Akuigawa, Tokushima Pref., leg. Morita (CTVR) 1.02 mm.



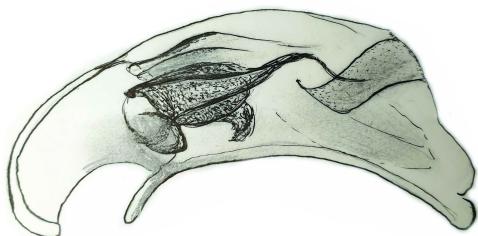
11



12



13



14



15

B. boldi JEDL.  
Holotype  
Penis-Prdp. 2537  
= *Eleale boldi* NE T.

**Material examined.** 1 ♂, paratype of *B. boldi* Jedlička, 1966, “Mongolia, Bajanchongor / eimak, Tujn gol, 1250 m / bei somon Bogd / Exp. Dr. Z. Kaszab, 1964 [printed] // Nr. 195 / 25.VI.1964 [printed] // PARATYPUS [pink, printed] // Mus. Nat. Pragae / inv. [printed] 20546 [handwritten] // *Bembidion boldi* sp.n. [pink, handwritten] / det. Ing. Jedlička [printed]” (NMPC); the specimen is in good conditions, missing only the tarsi of the hind right leg (body 5.15 mm long, aedeagus 0.97 mm long, fig. 11, 13); 1 ♀, paratype of *B. bajani* Jedlička, 1966, with the same labels as the preceding, but with number 20537; the specimen is in bad conditions, lacking almost completely the right legs.

3 ♂♂ 1 ♀, of *B. consummatum* Bates, 1873, “Ichinomiya, Riv. / Akuigawa, Tukushima / Pref. 21-IV-1990 / S. Morita leg. [printed] // *B. (Peryphus) / consummatum* Bates [handwritten] / Det. S. Morita, 1993 [printed]” (CTVR); the aedeagus of two of the ♂♂ specimens, due to the immaturity of the specimen, is unreadable, only one dissection is usable (body 4.70 mm long, aedeagus 1.02 mm long, figs 12, 15).

**Discussion and conclusions.** After examining the relevant literature, including the unpublished iconographic material of Müller-Motzfeld, we believe that the expression “*boldi* Jedlička, 1966 [part]” (KRYZHANOVSKIY *et al.*, 1995) was misinterpreted by the following authors; retained as a true synonymy was more probably a suggestion that one or more specimens of the type series of *B. boldi* actually belong to *consummatum*, and therefore belong to subg. *Terminophanes*. From the drawing of the “holotype of *boldi*” (Müller-Motzfeld, unpublished, fig. 14) the species evidently belongs to the subgenus *Asioperyphus*, and precisely to *B. altestriatum*, as informally stated by Müller-Motzfeld, see above.

Being both subgenera externally extremely similar to one another, maybe the type series could include both of them, in fact the subgeneric difference is mainly aedeagal.

At least for now, since the Müller-Motzfeld’s drawing found at ZIMG is unpublished, we are of the opinion that this evidence is not sufficient in order to establish it officially as the drawing of the aedeagus of the holotype of *B. boldi*, therefore at present we are unable to state with certainty its attribution to a given subgenus. The examination of the holotype would be needed. Obviously we tried to find it in several Museums, including ZIMG, but without success.

In the meantime, due to the lack of evidences confirming this statement, we retain that *Bembidion boldi* Jedlička, 1966, currently listed as synonym of *consummatum* Bates, 1873, must be removed from synonymy and provisionally ranked with the species “**incertae sedis**”, waiting for better evidences.

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