

ADDITIONS, CORRECTIONS AND COMMENTS TO THE CARABIDAE PART OF: I. LÖBL & A. SMETANA 2003. CATALOGUE OF PALAEARCTIC COLEOPTERA. VOL. 1, ARCHOSTEMATA – MYXOPHAGA – ADEPHAGA FOR BELARUS, UKRAINE AND POLAND

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ABSTRACT

Additions and corrections are given to the Carabidae part of the Catalogue of Löbl & Smetana (2003) regarding the east and south-east part of Central Europe. Many species were erroneously quoted from Belarus (26 species), Poland (15 species) and Ukraine (10 species) and them should be deleted from the Catalogue. Other species actually occurring in these countries were missing. The list of missed species includes 89 certainly old members of the Polish fauna, 84 – of Ukraine's, and 71 – of the Belarus'. Absence in the Catalogue of 25% of species of well studied fauna of Belarus, 18% of fauna of Poland, and 11% of fauna of Ukraine reduces information value of this work. Some taxonomical comments are also given.

Key words: Catalogue of Palaearctic Coleoptera, Carabidae, additions and corrections, Poland, Belarus, Ukraine

INTRODUCTION

This publication seems overdue, after all the Catalogue has been published for a long time already – since 2003. However, the text of the Catalogue became more accessible to experts from the Eastern Europe only now. It has appeared, that distri-

bution of many carabid's species in Eastern Europe countries is represented with errors. Unfortunately, it has resulted in appearance of new faunal publications with the erroneous information. Recently there was Sienkiewicz's article (2010) with quoted of *Polistichus connexus* as new species for a fauna of Ukraine. However, this species has been quoted for Ukraine still by Jakobson (1905-1914)! The Catalogue is widely used as a basis for Wikipedia articles that creates problems for the new generation of explorers receiving the information from the Internet. The fine site www.eurocarabidae.de is using data from the Catalogue to create regional faunal lists too. Similar problems exist with the site www.faunaeuropea.org.

In the work of Löbl & Smetana (2003) several carabid beetle species that actually occur in Poland, Belarus and Ukraine (PL, BY, UK in the Catalogue) are not reported from those countries in the Catalogue. However, it is more serious, that many species are quoted incorrectly from countries in East and eastern part of Middle Europe in the Catalogue. This especially applies to Poland (PL), Belarus (BY), and Ukraine (UK).

In a work that treats such a tremendous number of species as this one, it may seem pedantic to focus on erroneous records of a minute number of species. But absence in the Catalogue of 25% of species of well studied fauna of Belarus, 18% of fauna of Poland, and 11% of fauna of Ukraine reduces information value of this treatise.

A considerable number of common species is not quoted from Poland, Belarus and Ukraine in Löbl & Smetana (2003). From the list of missed species 89 are certainly old members of the Polish fauna, 84 – of Ukraine's, and 71 – of the Belarus'. A majority of these records are of a more or less recent origin which reasonably explains why they are missing.

A lot of such errors are unfortunately from a zoogeographical point of view. Thus, they give the impression that the several southern species (*Gynandromorphus etruscus*, *Drypta dentata*, *Brachinus crepitans* and *B. explorens*, *Bembidion quadripustulatum*, *Chlaenius festivus* and *Ch. spoliatus*) are erroneously reported from Belarus, have a greater element of such species than actually is the case.

There are no mountains in Belarus, but erroneously typical mountain *Bembidion* species: *decorum*, *milleri kultii*, *modestum*, *tibiale* are reported. There are no seas, salt marshes and salt-lands, but erroneously halophilous *Bembidion*: *minimum* and *pallidipenne* are quoted.

A considerable number of erroneous quoted species: 15 for Poland, 26 for Belarus and 10 for Ukraine should be deleted from the Catalogue.

The distribution's information for these species is accessible in the very old (Jakobson 1905-1914) and old (Burakowski et al. 1973, 1974, 2000, Kryzhanovskij et al. 1995, Alexandrovitch et al. 1996) regional catalogue and check-lists.

In the following we give corrections, additions and comments to species concerning Belarus, Poland, and Ukraine. We also treat some taxonomical questions.

For the common species which are certainly an old member of the Polish, Ukraine and Belarus' fauna added information from above-mentioned regional checklists only. In cases of other species a necessary comments and references are added.

The page numbers refer to those given in the Catalogue. The abbreviations of the countries are the same as used in the Catalogue.

LIST OF ADDITIONS AND CORRECTIONS

- Page 84. *Leistus spinibarbis ponticus* Kryzhanovskij & Shilenkov, 1999. Delete UK. According Shilenkov (1999) old dates to Crimea may be doubtful. No actual findings in mountain forests of Crimea (Putchkov 2013c).
- Page 84. *Leistus spinibarbis spinibarbis* Fabricius, 1775. Add PL. Was known 4 specimens from Vistula coast in Kraków in the beginning of XX century (M. Rybiński coll.). From this time was unknown.
- Page 96. *Notiophilus aestuans* Dejean, 1826. Delete BY. Even new record of Solodovnikov (2008) is based on misidentification.
- Page 97. *Notiophilus germinyi* Fauvel, 1863. Add UK (Putchkov 2012a).
- Page 98. *Pelophila borealis* Paykull, 1790. Delete BY. Old record of Radkevich (1970) is based on misidentification. This circumpolar species has mainly a northern distribution in Europe although its area extends south to about 60° N in Finland (Lindroth 1945) and NW Russia (Kryzhanovskij et al. 1995).
- Page 100. *Calomera littoralis conjunctaepustulata* Dokhtoureff, 1887. Delete UK. The west border of species area is Ural river. The hybridization zone is situated with subspecies *C. littoralis nemoralis* Olivier, 1790 between Ural and Don rivers.
- Page 103. *Cicindela campestris campestris* Linné, 1758. Add UK (north regions of forest zone) (Putchkov 2012a).
- Page 109. *Cylindera gracilis* Pallas, 1773. Delete UK. It seems to be that dates to Khar'kov province (Petrusenko & Petrusenko 1970) apparently concern to a morph *obscura* of *Cylindera* (s. str.) *germanica* Linnaeus, 1758 (Putchkov 2012a).
- Page 119. *Calosoma inquisitor inquisitor* Linné, 1758. Add BY.
- Page 120. *Calosoma auropunctatum auropunctatum* Herbst, 1784. Add BY.
- Page 120. *Calosoma denticolle* Gebler, 1833. Add BY.
- Page 120. *Calosoma sycophanta* Linné, 1758. Add BY. Old record only (Radkevich 1936).
- Page 121. *Calosoma investigator investigator* Illiger, 1798. Add BY. The species has quite recently immigrated to SE Belarus, but it is now well established (Aleksandrowicz 1991, 2011). SE Belarus and N Ukraine are known as the north-west border of areal.
- Page 136. *Carabus granulatus crimeensis* Breuning, 1933. Add UK (Crimean Mountains) (Putchkov 2012a).
- Page 167. *Carabus violaceus wolffii* Dejean, 1826. Add UK (south part of Carpathians – Chernogora, Marmarosh Mountains) (Putchkov 2012a).
- Page 170. *Carabus excellens* Fabricius, 1798. Add PL.
- Page 174. *Carabus scheidleri zawadzki* Kraatz, 1854. Add PL (Borowiec 1991). The species has recently been found in polish Bieszczady and Low Beskid Mountains.
- Page 196. *Carabus cancellatus excisus* Dejean, 1826. Delete PL.
- Page 198. *Carabus marginalis* Fabricius, 1794. Add BY.

Page 206. *Elaphrus angusticollis longicollis* J.R. Sahlberg, 1880. The species is distributed in NE and E Belarus (Aleksandrowicz 1991).

Page 206. *Elaphrus aureus aureus* P.W.J. Müller, 1821. The species has recently been found in W and NW Belarus (Solodovnikov 2008).

Page 207. *Elaphrus cupreus* Duftschmid, 1812. Add BY.

Page 207. *Elaphrus riparius* Linné, 1758. Add BY and UK.

Page 207. *Elaphrus uliginosus* Fabricius, 1792. Add BY and UK (except Carpathians).

Page 213. *Brachinus crepitans* Linné, 1758. Delete BY.

Page 213. *Brachinus plagiatus* Reiche, 1868. Add UK (S steppe and Crimea) (Putchkov 2011).

Page 214. *Brachinus explodens* Duftschmid, 1812. Delete BY.

Page 214. *Brachinus sclopeta* Fabricius, 1792. Add UK (Crimea) (Putchkov 2011).

Page 215. *Brachinus cruciatus* Quensel, 1806. Add UK (E Crimea) (Putchkov 2011).

Page 215. *Brachinus exhalans* P. Rossi, 1792 Add UK (S steppe and Crimea) (Putchkov 2011).

Page 216. *Brachinus costatulus* Quensel, 1806. Add UK (S steppe and Crimea) (Putchkov 2011).

Page 216. *Brachinus hamatus* Fischer von Waldheim, 1828. Add UK (S steppe and Crimea) (Putchkov 2011).

Page 217. *Mastax thermarum thermarum* Steven, 1806. Add UK (Steppe) (Putchkov 2011).

Page 219. *Clivina collaris* Herbst, 1784. Add BY.

Page 219. *Clivina fossor fossor* Linné, 1758. Add BY and UK (Putchkov 2012a).

Page 220. *Clivina ypsilon* Dejean, 1830. Add UK (S steppe).

Page 224. *Dyschirius aeneus aeneus* Dejean, 1825. Add BY and PL.

Page 225. *Dyschirius impunctipennis* Dawson, 1854. Add BY (Tsinkevich & Aleksandrowicz 2002).

Page 225. *Dyschirius intermedius* Putzeys, 1846. Add BY.

Page 226. *Dyschirius neresheimeri* Wagner, 1915. Add BY.

Page 226. *Dyschirius nitidus nitidus* Dejean, 1825. Add BY.

Page 226. *Dyschirius politus politus* Dejean, 1825. Add BY.

Page 227. *Dyschirius angustatus* Ahrens, 1830. Add BY.

Page 227. *Dyschirius arenosus* Stephens, 1827. Add BY.

Page 227. *Dyschirius salinus salinus* Schaum, 1843. Add PL.

Page 227. *Dyschirius salinus striatopunctatus* Putzeys, 1846. Add PL (Kraków).

Page 227. *Dyschirius tristis* Stephens, 1827. Add BY.

Page 228. *Dyschirius bonellii* Putzeys, 1846. Add PL.

Page 228. *Dyschirius digitatus* Dejean, 1825. Add BY.

Page 228. *Dyschirius obscurus* Gyllenhal, 1827. Add BY.

Page 229. *Dyschirius globosus* Herbst, 1784. Add BY.

Page 229. *Dyschirius gracilis gracilis* Heer, 1837. Add UK (except forest zone, Transcarpathia and Crimean Mountains).

Page 232. *Scarites terricola terricola* Bonelli, 1813. Add UK (all steppe zone) (Putchkov 2012a).

Page 236. *Brosicus cephalotes* Linné, 1758. Add BY.

- Page 236. *Miscodera arctica* Paykull, 1798. Add UK (W of forest zone) (Putchkov 2012a).
- Page 242. *Asaphidion austriacum* Schweiger, 1975. Add UK (Podolia). Hartmann (2004) quoted this species to Poland. Authors have not any polish materials.
- Page 242. *Asaphidion flavipes* Linné, 1761. Add PL.
- Page 242. *Asaphidion pallipes* Duftschmid, 1812. Add PL.
- Page 243. *Bembidion pallidipenne* Illiger, 1802. Delete BY, add PL.
- Page 244. *Bembidion humerale* Sturm, 1825. Add PL.
- Page 244. *Bembidion quadripustulatum quadripustulatum* Audinet-Serville, 1821. Delete BY.
- Page 245. *Bembidion atrocaeruleum* Stephens, 1828. Add PL.
- Page 245. *Bembidion conforme* Dejean, 1831. Add PL.
- Page 245. *Bembidion fasciolatum* Duftschmid, 1812. Add PL.
- Page 246. *Bembidion tibiale* Duftschmid, 1812. Delete BY.
- Page 246. *Bembidion varicolor varicolor* Fabricius, 1803. Add PL.
- Page 247. *Bembidion argenteolum* Ahrens, 1812. Add PL.
- Page 247. *Bembidion litorale* Olivier, 1790. Add PL.
- Page 247. *Bembidion pygmaeum* Fabricius, 1792. Add PL.
- Page 248. *Bembidion assimile* Gyllenhal, 1810. Add PL.
- Page 248. *Bembidion azurescens azurescens* Dalla Torre, 1877. Add PL.
- Page 248. *Bembidion fumigatum* Duftschmid, 1812. Add PL.
- Page 248. *Bembidion transparens transparens* Gebler, 1829. Add BY. The species has been found only once in SW Belarus, at a peat bog (Aleksandrowicz 1991).
- Page 249. *Bembidion fluviatile fluviatile* Dejean, 1831. Add PL.
- Page 249. *Bembidion fulvipes* Sturm, 1827. Add PL.
- Page 249. *Bembidion latiplaga latiplaga* Chaudoir, 1850. Add PL.
- Page 249. *Bembidion minimum* Fabricius, 1792. Add PL (Burakowski et al. 1973). This species is actually registered on saline lands inside country and west part of polish Baltic coast. Delete BY. Old records from Belarus (Chikilevskaya 1965, Meleshko, Solodovnikov 1989) are based on misidentification. It is a strictly halophilous species.
- Page 249. *Bembidion tenellum tenellum* Erichson, 1837. Add PL.
- Page 250. *Bembidion dentellum* Thunberg, 1787. Add PL.
- Page 250. *Bembidion friebi* Netolitzky, 1914. Add PL.
- Page 250. *Bembidion laticolle* Duftschmid, 1812. Add PL.
- Page 250. *Bembidion ruthenum* Tschitschérine, 1895. Delete BY.
- Page 250. *Bembidion testaceum testaceum* Duftschmid, 1812. Add PL.
- Page 251. *Bembidion lampros* Herbst, 1784. Add PL.
- Page 252. *Bembidion nigricorne* Gyllenhal, 1827. Add PL.
- Page 253. *Bembidion ephippium* Marsham, 1802. Add PL (S Poland: Sońnica-Gliwice, Pawłowski 1995).
- Page 253. *Bembidion illigeri* Netolitzky, 1914. Add UK (except of Transcarpathians) (Rizun 2003, Putchkov 2012a).
- Page 253. *Bembidion menetriesii* Kolenati, 1845. Add UK (W of forest-steppe and steppe zones) (Putchkov 2012a).
- Page 254. *Bembidion obliquum* Sturm, 1825. Add UK.

Page 254. *Bembidion semipunctatum* Donovan, 1806. Add PL

Page 255. *Bembidion decorum decorum* Panzer, 1799. Delete BY.

Page 255. *Bembidion modestum* Fabricius, 1801. Add PL and delete BY.

Page 255. *Bembidion saxatile saxatile* Gyllenhal, 1827. Add PL.

Page 257. *Bembidion foraminosum* Sturm, 1825. Delete BY, add PL.

Page 257. *Bembidion striatum* Fabricius, 1792. Add PL.

Page 258. *Bembidion ruficolle* Panzer, 1796 Add PL.

Page 259. *Bembidion deletum deletum* Audinet-Serville, 1821. Add UK (NW and C) (Rizun 2003, Putschkov 2012a).

Page 259. *Bembidion milleri kulti* Fassati, 1942. Delete BY, add PL.

Page 259. *Bembidion stephensii stephensii* Crotch, 1866. Add PL.

Page 260. *Bembidion bruxellense* Wesmael, 1835. Add PL and UK (Carpathians) (Rizun 2003).

Page 260. *Bembidion cruciatum bualei* Jacquelin du Val, 1852. Add PL.

Page 260. *Bembidion cruciatum polonicum* J. Müller, 1930. Add PL and UK (NW of forest zone) (Rizun 2003).

Page 260. *Bembidion monticola monticola* Sturm, 1825. Add PL.

Page 261. *Bembidion femoratum femoratum* Sturm, 1825. Add PL.

Page 261. *Bembidion incognitum* J. Müller, 1931. Add PL.

Page 263. *Bembidion aeneum aeneum* Germar, 1824. Add PL.

Page 263. *Bembidion subcostatum javurkovae* Fassati, 1944. Add PL.

Page 263. *Bembidion tetracolum tetracolum* Say, 1823. Add PL.

Page 264. *Bembidion guttula guttula* Fabricius, 1792. Add PL.

Page 264. *Bembidion lunulatum* Geoffroy, 1785. Delete BY.

Page 264. *Bembidion mannerheimii* C.R. Sahlberg, 1827. Add PL.

Page 264. *Bembidion neresheimeri neresheimeri* J. Müller, 1929. Add PL.

Page 265. *Bembidion obtusum* Audinet-Serville, 1821. Add PL and UK (Carpathians) (Rizun 2003), delete BY.

Page 266. *Bembidion gilvipes* Sturm, 1825. Add PL and UK (W) (Rizun 2003).

Page 266. *Bembidion prasinum* Duftschmid, 1812. Add PL.

Page 267. *Bembidion decoratum decoratum* Duftschmid, 1812. Add PL.

Page 267. *Bembidion doderoi* Ganglbauer, 1891. Add PL.

Page 267. *Bembidion schueppelii* Dejean, 1831. Add PL.

Page 268. *Bembidion ruficorne ruficorne* Sturm, 1825. Add PL and UK (Carpathians) (Rizun 2003).

Page 268. *Bembidion stomoides stomoides* Dejean, 1831. Add PL.

Page 269. *Bembidion bipunctatum bipunctatum* Linné, 1761. Add PL and UK (Carpathians, W and N regions) (Rizun 2003).

Page 269. *Bembidion bipunctatum nivale* Heer, 1837. Add PL.

Page 269. *Bembidion glaciale* Heer, 1837. Add PL.

Page 270. *Bembidion articulatum* Panzer, 1796. Add PL.

Page 270. *Bembidion doris* Panzer, 1796. Add PL.

Page 270. *Bembidion octomaculatum* Goeze, 1777. Add PL.

Page 272. *Ocys harpaloides* Audinet-Serville, 1821. Add PL (Pawłowski 1974, Burakowski et al. 2000).

Page 273. *Ocys quinquestriatus quinquestriatus* Gyllenhal, 1810. Add PL.

- Page 274. *Lymnastis novikovi* Michailov, 1998. Add UK. Described from East Ukraine (south of Kharkov region, Krasnogradskij district) (Mikhailov 1998).
- Page 274. *Lymnastis galilaeus* Piochard de la Brûlerie, 1876. Add UK (Odessa region) (Putchkov 2012a).
- Page 275. *Paratachys pliginskii* (Solodovnikov 2001). Add UK. Described from Crimea (Solodovnikov 2001).
- Page 285. *Patrobus septentrionis australis* J.R. Sahlberg, 1873. (subsp. resurr. Zamotajlov, Isaev 2006). Add BY (Solodovnikov 2015).
- Page 287. *Pogonus chalceus chalceus* Marsham, 1802. Delete PL.
- Page 287. *Pogonus iridipennis* Nicolai, 1822. Delete PL.
- Page 287. *Pogonus peisonis* Ganglbauer, 1891. Delete PL. It is synonym of *Pogonus transfuga* Chaudoir, 1871, not its ssp. or separate species.
- Page 287. *Pogonus orientalis* Dejean, 1828. Add UK (S steppe) (Putchkov 2012a).
- Page 288. *Pogonus transfuga* Chaudoir, 1871. Add PL.
- Page 299. *Duvaliopsis rybinskii* Knirsch, 1924. According by V. Rizun (2003) it is synonym of *Duvaliopsis pilosella* Illiger, 1863.
- Page 307. *Duvalius microphthalmus microphthalmus* L. Miller, 1859. Add PL.
- Page 307. *Duvalius microphthalmus tatricus* Jeannel, 1928. Add PL.
- Page 324. *Trechus (Epaphius) rivularis* Gyllenhal, 1810. Add UK (N).
- Page 348. *Chlaenius costulatus* Motschulsky, 1859. Add UK (W) (Putchkov 2012a).
- Page 348. *Chlaenius quadrisulcatus* Paykull, 1790. Add BY (Minets, Grichik 2000).
- Page 348. *Chlaenius sulcicollis* Paykull, 1798. Add UK (S of forest-steppe and all steppe zones) (Putchkov 2012a).
- Page 350. *Chlaenius tibialis* Dejean, 1826. Add UK (Carpathians and Transcarpathians) (Rizun 2003).
- Page 350. *Chlaenius kindermanni kindermanni* Chaudoir, 1856. Add PL.
- Page 351. *Chlaenius festivus festivus* Panzer, 1796. Add PL, delete BY.
- Page 351. *Chlaenius inderiensis* Motschulsky, 1850. Delete UK (west border of species area is Volga river) (Putchkov 2013e).
- Page 351. *Chlaenius spoliatus spoliatus* P. Rossi, 1792. Add PL, delete BY.
- Page 355. *Chlaenius steveni* Quensel, 1806. Add UK (extreme SE steppe) (Putchkov 2013e).
- Page 356. *Corsyra fusula* Fischer von Waldheim, 1820. Add UK (extreme S steppe) (Putchkov 2012a).
- Page 357. *Masoreus wetterhallii wetterhallii* Gyllenhal, 1813. Add BY and UK (forest and forest-steppe zones, Crimean Mountains and Donetzk region) (Putchkov 2012a).
- Page 358. *Drypta dentata* P. Rossi, 1790. Delete BY.
- Page 361. *Anisodactylus nemorivagus* Duftschmid, 1812. Add PL and UK (except steppe) (Putchkov 2012a).
- Page 361. *Anisodactylus signatus* Panzer, 1796. Add PL and UK (Putchkov 2012a).
- Page 362. *Diachromus germanus* Linné, 1758. Add UK (SE steppe and Crimea) (Putchkov 2012a).
- Page 362. *Gynandromorphus etruscus etruscus* Quensel, 1806. Delete BY and PL.
- Page 368. *Acinopus laevigatus laevigatus* Ménériés, 1832. Add UK (S steppe and Crimea) (Putchkov 2012a).

- Page 370. *Harpalus cephalotes* Fairmaire & Laboulbène, 1854. Delete PL.
- Page 377. *Harpalus honestus honestus* Duftschmid, 1812. Add BY (Tsinkevich, Aleksandrowicz 2002).
- Page 379. *Harpalus marginellus* Gyllenhal, 1827. Delete PL.
- Page 379. *Harpalus modestus* Dejean, 1829. Add BY.
- Page 379. *Harpalus neglectus neglectus* Audinet-Serville, 1821. Add BY.
- Page 380. *Harpalus politus politus* Dejean, 1829. Delete PL.
- Page 382. *Harpalus subcylindricus* Dejean, 1829. Add PL (Stachowiak, Przewoźny 2007).
- Page 384. *Harpalus zabroides* Dejean, 1829. Delete BY.
- Page 388. *Ophonus azureus* Fabricius, 1775. Delete BY. Old record of Radkevich (1936) is based on misidentification.
- Page 389. *Ophonus minimus* Motschulsky, 1845. Delete UK (western border of species area is southeast regions of Russian Plain).
- Page 391. *Ophonus diffinis* Dejean, 1829. Add PL (Sienkiewicz 2002).
- Page 391. *Ophonus schaubergerianus* Puel, 1937. Add PL.
- Page 393. *Parophonus laeviceps* Ménétrés, 1832. Add UK (Crimea) (Putchkov 2012a).
- Page 393. *Parophonus maculicornis* Duftschmid, 1812. Add PL and UK (Ciscarpathians, Transcarpathians and Crimea) (Rizun 2003, Putchkov 2012a).
- Page 393. *Parophonus mendax* P. Rossi, 1790. Add UK (Ciscarpathians) (Rizun 2003, Putchkov 2012a).
- Page 393. *Parophonus planicollis* Dejean, 1829. Add UK (Crimean steppe) (Putchkov 2012a).
- Page 397. *Acupalpus dubius* Schilsky, 1888. Add PL and UK (N).
- Page 398. *Acupalpus exiguus* Dejean, 1829. Add UK (Carpathians, forest zone and Crimean Mountains) (Rizun 2003, Putchkov 2012a).
- Page 400. *Anthracus transversalis* Schaum, 1862. Add UK (SW steppe) (Putchkov 2012a, Putchkov and Nitochko 2015).
- Page 401. *Bradycellus harpalinus* Audinet-Serville, 1821. Add BY and UK (Carpathians and north regions) (Rizun 2003, Putchkov 2012a).
- Page 401. *Bradycellus ruficollis* (Stephens, 1828). Add UK (Putchkov 2012a).
- Page 402. *Dicheirotichus obsoletus* Dejean, 1829. Delete PL.
- Page 416. *Cymindis violacea* Chaudoir, 1873. Add UK (SE steppe) (Putchkov 2013d).
- Page 412. *Cymindis lineata* Quensel, 1806. Add UK (C and S).
- Page 418. *Cymindis vaporariorum* Linné, 1758. Add UK (Ciscarpathians, Carpathians) (Rizun 2003, Putchkov 2013d).
- Page 419. *Demetrias atricapillus* Linné, 1758. Add UK (NW) (Rizun, 2003, Putchkov 2012a).
- Page 419. *Demetrias monostigma* Samouelle, 1819. Add UK (Rizun, 2003, Putchkov 2012a).
- Page 420. *Dromius angustus angustus* Brullé, 1834. Add UK (Carpathians) (Rizun 2003).
- Page 420. *Dromius fenestratus* Fabricius, 1794. Add UK (Ciscarpathians, Carpathians, NW) (Rizun 2003).
- Page 420. *Dromius laeviceps* Motschulsky, 1850. Add UK (NW) (Rizun 2003, Putchkov 2012a).

Page 422. *Microlestes fissuralis* Reitter, 1901. Add UK (S steppe and Crimean Mountains) (Putchkov 2012).

Page 422. *Microlestes fulvibasis* Reitter, 1901. Add UK (S steppe) (Putchkov 2012a).

Page 423. *Microlestes plagiatus* Duftschmid, 1812. Add UK (S of forest-steppe and all steppe zones, Crimea) (Putchkov 2012a).

Page 425. *Paradromius longiceps* Dejean, 1826. Add UK (Cis Carpathians, NW) (Rizun 2003).

Page 432. *Lionychus quadrillum* Duftschmid, 1812. Add BY (Tsinkevich & Aleksandrowicz 2002) and UK (Carpathians, NW and Crimean Mountains) (Putchkov 2012a). This is an expanding species in N Poland and W Belarus.

Page 440. *Badister collaris* Motschulsky, 1844. Add PL: N and NE Poland (Aleksandrowicz 2003).

Page 440. *Badister lacertosus* Sturm, 1815. Add PL and UK (forest and forest-steppe zones) (Putchkov 2013b).

Page 441. *Badister dorsiger* Duftschmid, 1812. Add UK (forest and forest-steppe zones) (Putchkov 2013b).

Page 442. *Licinus cassideus cassideus* Fabricius, 1792. Delete BY.

Page 442. *Licinus depressus* Paykull, 1790. Add PL.

Page 442. *Licinus hoffmannseggii* Panzer, 1803. Add UK (Transcarpathians and W Carpathians macroslope) (Rizun 2003, Putchkov 2013b).

Page 442. *Licinus silphoides* P. Rossi, 1790. Add UK (Steppe and Crimean Mountains) (Putchkov 2013b).

Page 444. *Odacantha melanura* Linné, 1767. Add BY.

Page 445. *Oodes gracilis* A. Villa & G.B. Villa, 1833. Add BY.

Page 445. *Oodes helopioides helopioides* Fabricius, 1792. Add BY.

Page 449. *Perigona nigriceps* Dejean, 1831. Add UK (steppe of Crimea) (Putchkov 2012a).

Page 449. *Agonum emarginatum* (Gyllenhal, 1827) = *afrum* (Duftschmid, 1812) (syn. after Schmidt, Lieberr, 2009). Add BY. (Tsinkevich, Aleksandrowicz, 2002).

Page 450. *Agonum dolens* C.R. Sahlberg, 1827. Add BY and UK (W forest zone and all forest-steppe zone) (Putchkov 2013).

Page 450. *Agonum ericeti* Panzer, 1809b. Add BY and UK (Carpathians and forest zone) (Putchkov 2013).

Page 450. *Agonum hypocrita* Apfelbeck, 1904. Add BY.

Page 450. *Agonum impressum* Panzer, 1796. Add BY.

Page 450. *Agonum lugens* Duftschmid, 1812. Add BY.

Page 450. *Agonum marginatum* Linné, 1758. Add BY.

Page 451. *Agonum muelleri* Herbst, 1784. Add BY.

Page 451. *Agonum permoestum* Puel, 1938. Add UK (S Odessa reg.) (Putchkov 2013a).

Page 451. *Agonum sexpunctatum* Linné, 1758. Add BY.

Page 451. *Agonum versutum* Sturm, 1824. Add BY.

Page 451. *Agonum viduum* Panzer, 1796. Add BY.

Page 453. *Agonum fuliginosum* Panzer, 1809. Add BY and UK (Carpathians and forest zone) (Rizun 2003, Putchkov 2013a).

Page 453. *Agonum gracile* Sturm, 1824. Add BY.

Page 453. *Agonum micans* Nicolai, 1822. Add BY.

Page 453. *Agonum piceum* Linné, 1758. Add BY.

Page 453. *Agonum scitulum* Dejean, 1828. Add BY and PL.

Page 453. *Agonum thoreyi thoreyi* Dejean, 1828. Add BY.

Page 454. *Agonum gracilipes* Duftschmid, 1812. Add BY.

Page 455. *Anchomenus dorsalis* Pontoppidan, 1763. Add BY.

Page 461. *Olisthopus rotundatus rotundatus* Paykull, 1790. Add BY.

Page 461. *Olisthopus sturmii* Duftschmid, 1812. Add UK (Putchkov 2013a).

Page 462. *Oxypselaphus obscurus* Herbst, 1784. Add BY.

Page 462. *Paranchus albipes* Fabricius, 1796. Add BY.

Page 463. *Platynus livens* Gyllenhal, 1810. Add BY.

Page 463. *Platynus mannerheimii* Dejean, 1828. Add BY.

Page 464. *Platynus assimilis* Paykull, 1790. Add BY.

Page 464. *Platynus krynickii* Sperk, 1835. Add BY.

Page 464. *Platynus longiventris* Mannerheim, 1825. Add BY and PL.

Page 466. *Sericoda quadripunctata* DeGeer, 1774. Add BY.

Page 470. *Abax ovalis* Duftschmid, 1812. Add PL.

Page 479. *Poecilus nitens nitens* Chaudoir, 1850. Add UK (E Crimea) (Putchkov 2007)

Page 480. *Poecilus advena* Quensel, 1806. Add UK (E Crimea) (Putchkov 2007)

Page 481. *Poecilus crimeanus* Straneo, 1960. Delete UK (Putchkov 2007). According to earlier oral communication of O.L. Kryzhanovsky, this specimen described by Straneo as *Poecilus crimeanus* actually is well known Kazakhstan species *P. akinini* Tschitscherine, 1887. The geographic date of this specimen (*P. crimeanus* Straneo, 1960) was mistake.

Page 482. *Poecilus koyi koyi* Germar, 1824. Delete PL.

Page 483. *Poecilus kugelanni* Panzer, 1797. Delete UK (Putchkov 2007).

Page 484. *Poecilus striatopunctatus* Duftschmid, 1812. Delete PL. Old records from Poland (Burakowski et al. 1974) are based on misidentification.

Page 484. *Poecilus subcoeruleus* Quensel, 1806. Delete BY.

Page 485. *Pterostichus macer macer* Marsham, 1802. Add BY.

Page 486. *Pterostichus chameleon* Motschulsky, 1866. Add UK (Transcarpathians and S steppe) (Putchkov 2007).

Page 486. *Pterostichus cursor* Dejean, 1828. Add UK (Crimean steppe) (Putchkov 2007).

Page 491. *Pterostichus negligens patris* Smetana, 1950. Add PL (Burakowski et al. 1974).

Page 492. *Pterostichus pumilio pumilio* Dejean, 1828. Delete UK. Information to Ukrainian Carpathians is mistaken (Rizun 2003, Putchkov 2007).

Page 492. *Pterostichus subsinuatus* Dejean, 1828. Delete PL.

Page 499. *Pterostichus aterrimus aterrimus* Herbst, 1784. Add BY and UK (forest zone and Carpathians) (Putchkov 2007).

Page 508. *Pterostichus ovoideus ovoideus* Sturm, 1824. Delete BY.

Page 511. *Pterostichus illigeri illigeri* Panzer, 1803. Delete PL.

Page 511. *Pterostichus latoricaensis* Pulpån, 1965. Delete UK (Putchkov 2007).

Page 511. *Pterostichus rhaeticus* Heer, 1837. Add BY and PL (Burakowski et al. 2000).

Page 514. *Pterostichus madidus* Fabricius, 1775. Delete PL.

Page 527. *Calathus cinctus* Motschulsky, 1850a. Add PL (Stachowiak & Wilcz 2001). The species has spread rapidly to the east. Now it is common in dry sandy fields and meadows in Northern Poland.

- Page 536. *Laemostenus janthinus coeruleus* Dejean, 1828. Delete PL. According Burakowski et al. (1974) old records from Poland by Letzner (1851) are based on misidentification.
- Page 538. *Laemostenus cimmerius cimmerius* Fischer von Waldheim, 1823. Add UK (Crimean Mountains) (Putchkov 2012a).
- Page 538. *Laemostenus venustus* Dejean, 1828. Add UK (Crimean Mountains) (Putchkov 2012a).
- Page 539. *Laemostenus terricola terricola* Herbst, 1784. Add BY and UK (Putchkov 2012a).
- Page 543. *Sphodrus leucophthalmus* Linné, 1758. Add BY. Old records only from Mogilev (Arnold 1902) and Vitebsk (Radkevich 1936) vicinities.
- Page 547. *Amara anthobia* A. Villa & G.B. Villa, 1833. Delete PL. All collected Polish specimens with label „*Amara anthobia*” from museum of Kraków, Warszawa, Wrocław and private persons were erroneously identified.
- Page 549. *Amara lucida* Duftschmid, 1812. Delete BY. The records by Meleshko (1976) and Solodovnikov (2008) are based on misidentification.
- Page 556. *Amara cursitans* C. Zimmermann, 1832. Add UK (Crimean Mountains) (Putchkov 2012b).
- Page 556. *Amara erratica* Duftschmid, 1812. Add BY. This circumpolar boreomontane species has an isolated occurrence on a dry meadows in the Central Belarus (Aleksandrowicz 1991).
- Page 556. *Amara fusca* Dejean, 1828. Delete BY. A record by Dubrovskaya (1970) is based on misidentification.
- Page 559. *Amara convexiuscula* Marsham, 1802. Add BY.
- Page 573. *Parazuphium chevrolatii chevrolatii* Laporte, 1833. Add UK (S steppe) (Putchkov 2012a).
- Page 574. *Polistichus connexus* Geoffroy, 1785. Add UK (except Carpathians and forest zone) (Putchkov 2012a).
- Page 574. *Zuphium olens olens* P. Rossi, 1790. Add UK (SE steppe and Crimea) (Putchkov 2012a).

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SUMMARY

Additions and corrections are given to the Carabidae part of the Catalogue of Löbl & Smetana (2003). This 51 erroneous quoted species: 15 for Poland, 26 for Belarus and 10 for Ukraine should be deleted from the Catalogue. All missing well know species were added: 89 certainly old members of the Polish fauna, 84 – of Ukraine's, and 71 – of the Belarus'. Some taxonomical comments are also given.