

Two new subspecies of *Xylotrechus* (s. str.) *arvicola* (Olivier, 1795) (Coleoptera, Cerambycidae) from European Russia and Caucasus

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Abstract: *Xylotrechus arvicola arvicola* (Olivier, 1795) from different localities of West Europe (France, Italy, Germany, Czechia, Bulgaria) is illustrated. *X. a. iranicus* Rapuzzi & Sama, 2014, **stat. nov.** (originally described as a species) is recorded for Azerbaijan (Lenkoran distr.) and illustrated. *X. a. planarius* **ssp. n.** is described from Central and South of European Russia and from Ukraine. *X. a. lazarevi* **ssp. n.** is described from Russian Caucasus and Transcaucasia: Georgia, Armenia, Azerbaijan (without Talysh area).

Xylotrechus (s. str.) *arvicola* (Olivier, 1795) was described “du midi de la France”. The species has a very large area (from Iberian Peninsula to European Russia, Transcaucasia, Kazakhstan, Turkey, Syria and North Africa) and demonstrates considerable geographical variability.

The nominative subspecies is known to me on the base of several specimens from France (2 males, 2 females: Orange, Saorge, Fontenbleau - ZIN, MD: Figs 1-2), Italy (2 males, 2 females - MD - Figs 3-4), Czechia (1 female, Břeclav, VI.1981, J.Hala – ZIN: Fig. 6), Germany (1 male - ZIN - Fig. 5). It is characterized by wide elytral yellow lines and usually yellow elytral bases; curved elytral band is rounded posteriorly. Specimens from near Berlin (3 males, 7 females - ZIN) can not be attributed to *X. a. arvicola* because of narrow yellow elytral design and very narrow yellow stripe across elytral bases. Probably that population could be joined to Russian subspecies described bellow as new. Similar form are known from Austria (1 male, “Austria, Miller” - ZIN), but another available specimen (1 female, “Styria, Kor Alpe, R. Schreitter, Graz” - ZIN) represents the nominative subspecies. Populations in Bulgaria looks similar to the nominative subspecies (Fig. 7, male, “Lompalanka” -

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ZIN), as well as a female (ZMM) with a single label "Balkanen".

Xylotrechus arvicola iranicus Rapuzzi & Sama, 2014, **stat. nov.** was described as a species from North Iran (Mazandaran and Golestan) on the base of 2 males and 4 females. All characters listed by the authors in order to distinguish their new taxon from *X. arvicola* are about same as in the populations of *X. arvicola* from Central Russia (so its separate species status can not be accepted): thinner elytral bands (bands of specimens from Russia are often much thinner, than in specimens from Iran); curved elytral band is angulated instead of rounded (curved elytral band in Russian and Caucasian specimens are often much more angulated than in specimens from Iran); humeral spot is oblique instead of horizontal (humeral spots in Russian and Caucasian specimens are often as oblique as in specimens from Iran); shoulders are black, instead of being brown covered by yellow pubescence in *X. arvicola* (shoulders in *X. arvicola* from Russia and Transcaucasia are more often black than brown); the sculpture of the middle of pronotum is not so strong as in *X. arvicola* (the character is strongly variable and many forms of different pronotal sculpture are known); elytra are narrower towards the apex than in *X. arvicola* (this character is also rather variable).

Specimens of *Xylotrechus arvicola* from South East Azerbaijan (Figs 8-9) - 4 males, 8 females, Talysh area, Avrora environs, 38°39'18"N, 48°48'08"E, 15m, 1972, 1979, M. Danilevsky leg. [MD, ML]; 1 female from about same locality, 15.7.1930, T.Safarov leg. [ZMM]; 3 males (9-15 mm), 1 female (14 mm) from Lenkoran environs [ZIN] - are usually just same as specimens described from Iran and must be also attributed to *X. a. iranicus* Rapuzzi & Sama, 2014, **stat. nov.** It is separated from similar Russian populations by Caucasian subspecies with wide elytral bands. Both subspecies are described below as new.

Abbreviations of collections:

MD - collection of M.Danilevsky (Moscow)

ML - collection of M.Lazarev (Moscow)

ZIN - collection of Zoological Institute (Sankt-Petersburg)

ZMM - Zoological Museum of Moscow University

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Xylotrechus (s. str.) arvicola planarius ssp. n.

Figs. 10-20.

Type locality: Russia, Bashkiria, Ay river, Mesyagutovo (about 210m, 55°32'N, 58°15'E).

The subspecies is characterized by very thin yellow elytral lines, usually thinner than in specimens of *X. a. iranicus* Rapuzzi & Sama, 2014, **stat. nov.** and much thinner than in the nominative subspecies from Western Europe; prothorax usually strongly transverse in males and in females; pronotal sculpture consists of smaller or bigger transverse granules, which can be rounded; elytral bases usually totally black (pale in the nominative subspecies) or with small pale spots near scutellum (as in the holotype of *X. a. iranicus*); transverse short line behind humeri can be a little oblique, central elytral line usually rounded or from a little to strongly angulated; male elytra from 2.2 to 2.4 times longer than wide; female elytra from 2.2 to 2.6 times longer than wide; body length in available males: 9.3-14.0, body width: 2.8-3.9mm; body length in available females: 9.7-17.3mm, body width: 3.0-5.0mm.

Materials. Holotype, male, Russia, Bashkiria, Ay river, Mesyagutovo (about 210 m, 55°32'N, 58°15'E), 9.7.2001, A. & M. Menshchikov leg. - MD; 47 paratypes; 1 male, 1 female, Russia, Udmurtiya, Votkinsk distr., Siva, 15, 16.07.2005, I.V. Ermolaev leg. - MD; 1 male and 1 female, Udmurtia, Siva river near Perevoznoe (about 66m, 56°50'N, 53°54'E) - MD; 1 female, Bashkiria, Tuymazy Forest Farm (about 150m, 54°56'36"N, 53°46'38"E), 12.8.1947, from Polozhentsev - ZMM; 3 males and 3 females, Kuybyshev (Samara) env., 1.6.-15.7.1952, V.Grechkin leg. - ZMM; 1 male and 1 female, Gouv. Saratov, Nikolaevsk, 6.1928, A. Menstschikow leg. - ZMM; 1 male, Volgograd Region, Filonovskaya, 15.6.1912, P.Il'insky leg. - ZMM; 1 male, about same locality, 29.6.1907 - ZMM; 1 male, Volgograd Region, Alekseevskaya, 17.8.1929, A. Menstschikow leg. - ZMM; 1 female, Tsaritsyn (Volgograd), Sarepta, 20.5.1929, A. Menstschikow leg. - ZMM; 2 males, Sarepta, 6-7.7.1929 and 27.6.1932, B. Brandt leg. - ZMM; 1 male, Crimea, Simferopol, 27.5. - ZMM; 1 male, Madschalis, Dagestan Geb., Becker - ZIN; 3 females, Malmyzh [Viatka Region], 97 [1897], Krylikovsky - ZIN; 1 male, Urzhum [Viatka Region], 31.VII.900, L.

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Krulikovsky - ZIN; 1 male, Rosliakovo, Nikolaev. district, Samara Region, 20.VI.98 [1898], E.Klementz - ZIN; 1 male, N. Oskol. distr., Kursk Region, 12.VI.98 [1898], Lindgolm - ZIN; 1 female, Irgizla, Orenburg Region, 4.7.99 [1899], Yak. Shmidt - ZIN; 1 female, Saratov Region, Nizhnyaya Bannovka, 8.7.2005, A.V. Rohletsova - ZIN; 1 male, Kharkov Region, Kuryazh, 2.VII.92 [1892], coll. Yaroshevsky - ZIN; 1 male, 2 females, Sarepta, 1894, Christof - ZIN; 1 male, Linevo [Volgograd Region?], VI.12.07 [1907] - ZIN; 2 males, 6 females, Chesnokovsky cordon [Orenburg Region, Perevolotsk distr., Chesnokovka], 1978-1979, from A.I. Cherepanov - ZIN; 1 female, Orel Region, Elets Distr., 3.VI.-23.VII.909 [1909], Neklyudova - ZIN; 1 female, Astrakhan, 1909, Rybakov - ZIN; 1 male, 2 females, Stalingrad (Volgograd) environs, 1934-1935, B.Brandt - ZIN.

Distribution. Central and partly south of European Russia with Samara, Saratov, Voronezh, Volgograd and Astrakhan regions; the taxon is definitely known from Bashkiria and Udmurtia; I preliminary attribute to *X. a. planarius* **ssp. n.** a single male known from Crimea; the taxon was recorded from many localities of Orenburg Region (Shapovalov, 2012), penetrates to West Siberia (Dubrovnoe in Tyumen Region, about 55m, 57°11'N, 66°35'E) and to northern Kazakhstan; one specimen was collected in the south of Moscow Region (Egoryevsk Distr., Alferovo 24.8.2008, V.Vasilenko leg.); the records from Rostov Region (Arzanov et al., 1993) also could be connected with the new taxon as well as all records from eastern Ukraine from Chernigov to Kharkov, Lugansk and Donetsk (Martynov, Pisarenko, 2004; Bartenev, 2009). The taxonomy position of populations from western Ukraine, Moldavia and from the east of Western Europe is not identified because of no materials available.

The situation at the south of Volga River is not clear. Specimens [ZIN] from near Volgograd and Astrakhan have extremely thin elytral lines (Fig. 18) and so, belong to normal *X. a. planarius* **ssp. n.**, but a very old male from “Akhtuba” [ZMM: Fig. 33] must be attributed to the next subspecies.

Dagestan population is preliminary attributed here to *X. a. planarius* **ssp. n.** because a single available male (13 mm, “Madschalis, Dagestan Geb., Becker” - ZIN: Fig. 19) has very

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narrow elytral lines, and so rather similar to Astrakhan population.

***Xylotrechus* (s. str.) *arvicola lazarevi* ssp. n.**

Figs 21-33

Type locality: Russia, Krasnodar Region, Ubinskoe (about 150m, 44°44'N, 38°32'E).

The subspecies is characterized by usually very wide yellow elytral lines, sometimes wider than in the nominative subspecies from Western Europe; prothorax usually more or less transverse in males and in females; pronotal sculpture consists of smaller or bigger transverse granules, which can be rounded; elytral bases usually totally pale (as in the nominative subspecies) or with pale spots near scutellum; transverse short line behind humeri can be a little oblique, central elytral line usually rounded or from a little to strongly angulated; male elytra about 2.2 to 2.4 times longer than wide; female elytra about 2.1 to 2.4 times longer than wide; body length in available males: 9.5-14.2, body width: 2.9-4.0mm; body length in available females: 10.7-18.2mm, body width: 3.1-5.8mm.

Materials. Holotype, male, Krasnodar Region, Ubinskoe (about 150m, 44°44'N, 38°32'E), 6.7.1970, M.Danilevsky leg. - MD; 49 paratypes; 1 male and 3 females, same locality, 1-13.7.1970, M.Danilevsky & B.Mamaev leg. - MD and ML; 2 males and 2 females, Krasnodar, 14.7.1910 ("Ekaterinodar"), 24.6.1969, 15.6.1975, 2.7.1976 - ZMM; 1 female, Ekaterinodar (Krasnodar) Region, Khosta, 5-10.6.1902, A.Silantyev - ZMM; 1 male, Pyatigorsk, 17.7.1905 - ZMM; 1 male, "Cauc. occ., Gagry, 2.VI." - ZMM; 1 male, "Transcauc., prov. Cutais, 12.VII." - ZMM; 1 female, "Boržom, 18.VIII.27, A.Bogačev" - ZMM; 1 male, "Caucasus, Daralagez, Maljushenco" (eastern Armenia) - ZMM; 1 male and 1 female, "Elisabetpol" (Giandzha in Azerbaijan) - ZMM; 1 male, "Adzhikent (about 40°31'N, 46°19'22"E), 16.7.1933, F.Lukjanovitsh" - ZMM; 1 male, "Gouv. Saratov, Fl. Achtuba, 30.VI.929, A.Menstschikow" - ZMM; 4 females, Abkhazia, Sukhumi env., Novyi Afon, V.03 [1903], Kirichenko leg. - ZIN; 2 males, 1 female, Georgia, Manglisi, 1880-1881 - ZIN; 1 male, Madschalis, Dagestan Geb., Becker - ZIN; 1 female, Kuba Distr., Baku Region (Azerbaijan), VI.97 [1897], Satunin - ZIN; 1 female,

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“Caucasus, Ontschalý [Gah District of Azerbaijan], 21.V.1879” - ZIN; 1 male, 2 females, Borzhom - ZIN; 1 female, Gelendzhik, N.Vorobyev - ZIN; 1 male, Tiflis, Sivers - ZIN; 1 female, Stavropol, Becker - ZIN; 1 female, Fl. Kuma, 18.V.90 [1890] - ZIN; 1 male, 2 females, Georgia, Lagodechi, 1896, 17.VI.913, 1.VII.913, Mlokozevich - ZIN; 1 male, Tuapse, 1912, Sakhnovsky - ZIN; 1 male, 2 females, Caucasus, Gagry, 15.8.1925, 10.7.1933 - ZIN; 2 males, 1 female, Persia, Tabriz, 12.6.1914, Andrievsky - ZIN.

Distribution. Caucasian area in South Russia (without Dagestan); whole territories of Georgia and Armenia; Azerbaijan without Talysh area, but still known from North Iran (Tabriz).

Most probably new subspecies penetrates to northern Turkey; specimens from Syria (ZIN) are similar to *X. a. lazarevi* **ssp. n.**, but could represent another subspecies. Probably the most northern specimen with largely pale elytral bases and wide yellow elytral lines is labeled as “Gouv. Saratov, Fl. Akhtuba, 30.VI.929, A.Menstschikow” (Fig. 33).

Dedication. The new taxon is dedicated to my colleague Maxim Lazarev (Moscow), who took an active part in the study of available materials.

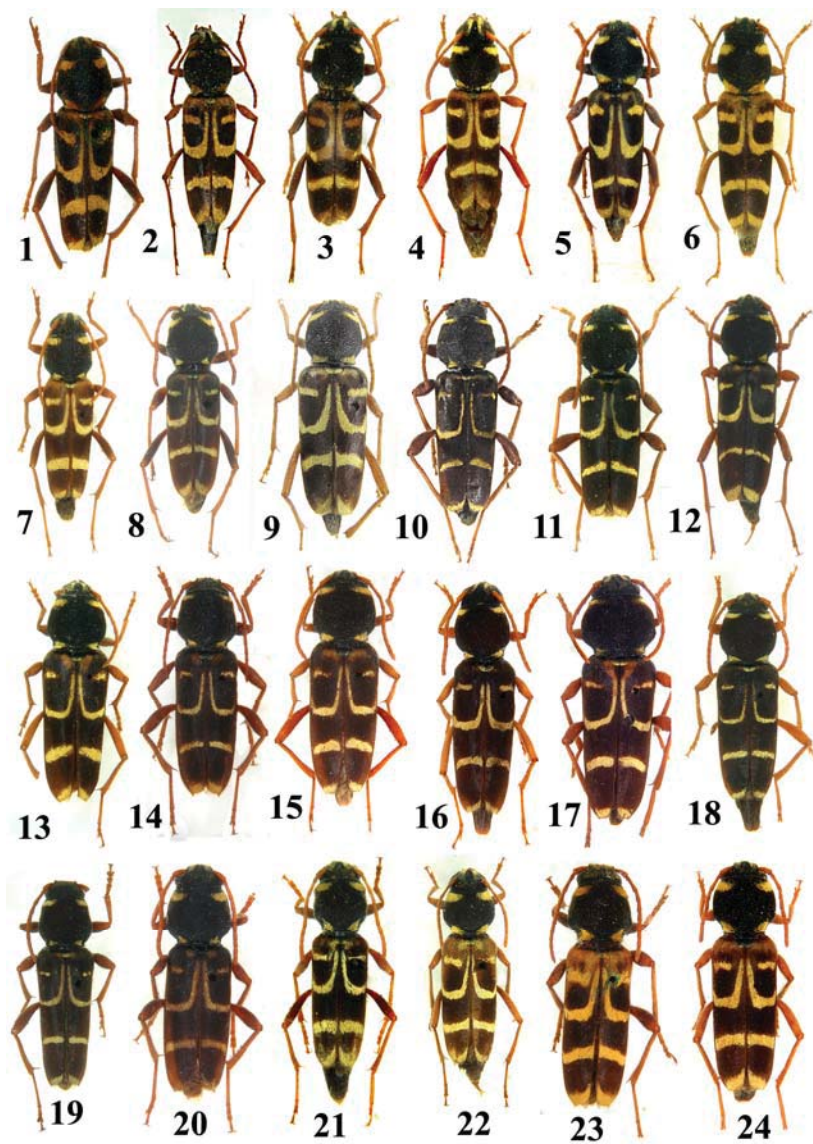
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Figs 1-10. *Xylotrechus arvicola arvicola*:

1 - male, France, "Orange, Guerin." - ZIN; 2 - female, France, Saorge, Foret de Cairros, 30.7.1981, P. Berger leg. - MD; 3 - Fig. 3 - male, Romagna, Sarsina, Monteriolo, 6.1977 G.Sama - MD, Fig. 4 - female with same label - MD; Fig. 5 - male - Germany, "Rotenfels, Pfalz, VI 1976, Schimmel" - MD; Fig. 6 - male Czechia, Breslav, 4.1981, J.Hala - ZIN; Fig. 7 - male, Bulgaria, "Lompalanka, Bulgarien, A.Gutbier" - ZIN.

Figs 8-9. *Xylotrechus arvicola iranicus*, stat. nov.:

8 - male, Azerbaijan, Talysh area, Avrora environs, 38°39'18"N, 48°48'08"E, 15m, 16.6.1979, M. Danilevsky leg. - MD; 9 - female, same locality, 20.07.1979, M. Danilevsky leg. - MD.

Figs 10-20. *Xylotrechus arvicola planarius* ssp. n. (10 - holotype, 11-20 - paratypes):

10 - male, holotype, Bashkiria, Ay river, Mesyagutovo (about 210m, 55°32'N, 58°15'E), 9.7.2001, A. & M. Menshchikov leg.; 11 - male, Udmurtiya, Votkinsk distr., Siva, 15.07.2005, I.V. Ermolaev leg.; 12 - female, same locality, 16.07.2005, I.V. Ermolaev leg.; 13 - female, Orenburg Region, Perevolotsk distr., Chesnokovka, 28.7.1978; 14 - male, Volgograd Region, Filonovskaya, 15.6.1912, P.II'insky leg.; 15 - female, about same locality, 11-13.7.1912, P.II'insky leg.; 16 - female, Kuybyshev (Samara) env., 1.6.-14.6.1952, V.Grechkin leg.; 17 - female, "Gouv. Saratov, Nikolaevsk, 6.1928, A. Menstschikow leg."; 18 - female, Astrakhan, 1909, Rybakov leg.; 19 - male, "Madschalis, Dagestan Geb., Becker"; 20 - female, Crimea, Simferopol, 27.5.

Figs 21-24. *Xylotrechus arvicola lazarevi* ssp. n. (21 - holotype, 22-24 - paratypes):

21 - male, holotype, Krasnodar Region, Ubinskoe (about 150m, 44°44'C, 38°32'B), 6.7.1970, M.Danilevsky leg.; 22 - female, same locality, 13.7.1970 B.Mamaev leg.; 23 - male, "Ekaterinodar [Krasnodar], 14.7.1910"; 24 - female, "Kaluzhskaja, prov. Kuban, 24.VI.69".



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Figs 25-33. *Xylotrechus arvicola lazarevi* **ssp. n.** (25-33 - paratypes): 25 - female, Abkhazia, Sukhumi env., Novyi Afon, V.03 [1903], Kirichenko leg.; 26 - male, Georgia, Manglisi, 4.8.1881; 27 - female, "Boržom, 18.VIII.[19]27, A.Bogačev"; 28 - female, Georgia, Lagodechi, 1896, Mlokosevich; 29 - male, "Caucasus, Daralagez, Maljushenco" (eastern Armenia); 30 - female, Azerbaijan, Kuba Distr., Baku Region, VI. [18]97, Satunin leg.; 31 - female, "Caucasus, Ontschaly [Gah District of Azerbaijan], 21.V.1879"; 32 - male, Iran, "Tabriz, 12.6.1914 Andrievsky"; 33 - male, "Gouv. Saratov, Fl. Akhtuba, 30.VI.929, A.Menstschikow".

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