

Review of species of genus *Cercyon* Leach, 1817 of Russia and adjacent regions. II. Subgenus *Cercyon* Leach, 1817. *Cercyon olibrus* and *C. rotundulus* groups (Coleoptera: Hydrophilidae)

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Morphological diagnoses and distribution of species of the groups *Cercyon olibrus* (*C. olibrus* Sharp, 1874) and *Cercyon rotundulus* (*C. rotundulus* Sharp, 1884; *C. saluki* Ryndevich, 1998) of Russia and adjacent regions are presented. Lectotypes of *C. olibrus* and *C. rotundulus* are designated.

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Introduction

The worldwide genus *Cercyon* Leach comprises 255 species in 11 subgenera. The subgenus *Cercyon* is the most speciose (188 species) with 40 species recorded from Russia (Hansen, 1999; Hebauer, 1995; Ryndevich, 2004a, 2004b).

This article is the third in the series of articles on the genus *Cercyon* of Russia and adjacent regions. The previous papers focused on the beetles of the *C. dux* group (Ryndevich, 2001) and *C. lateralis* group (Ryndevich, 2004a). The territory under study includes a significant part of the central and eastern Palaearctic within the former Soviet Union and the adjacent countries of Europe and Asia.

Sharp (1874, 1884) described *C. olibrus* and *C. rotundulus* from Japan. Further research revealed that they have a wider distribution including the Russian Far East (Shatrovskiy, 1989) and also allowed description of a new species, *C. saluki*, from the Kuril Islands (Ryndevich, 1998).

Species of the discussed groups are similar to each other and to the *C. lateralis* group. Their body is oval to broadly oval, with the dorsal side rather strongly convex, shiny and lacking microsculpture. Other characteristics are the pale maxillary palpi, flat elytral intervals, narrow preepisternal elevation and metasternum without femoral lines.

Material and methods

The article is based on the material from the Natural History Museum, London, U.K.

(NHML), Zoological Institute of the Russian Academy of Sciences, St.Petersburg, Russia (ZISP), Zoological Museum of Moscow State University, Russia (ZMUM), Zoological Museum of Belarus State University, Minsk, Belarus (ZMBU), as well as from Dr. habil. F. Hebauer's (CFH) and the author's (CSR) collections.

The possibility of identifying species of *Cercyon* according to the colour, habitus and the male genitalia, as well as the mesosternal and metasternal structures, was investigated. The criteria according to which species have been assigned to relevant groups were discussed and characteristics of the genus and subgenus were presented in a preceding article (Ryndevich, 2004a).

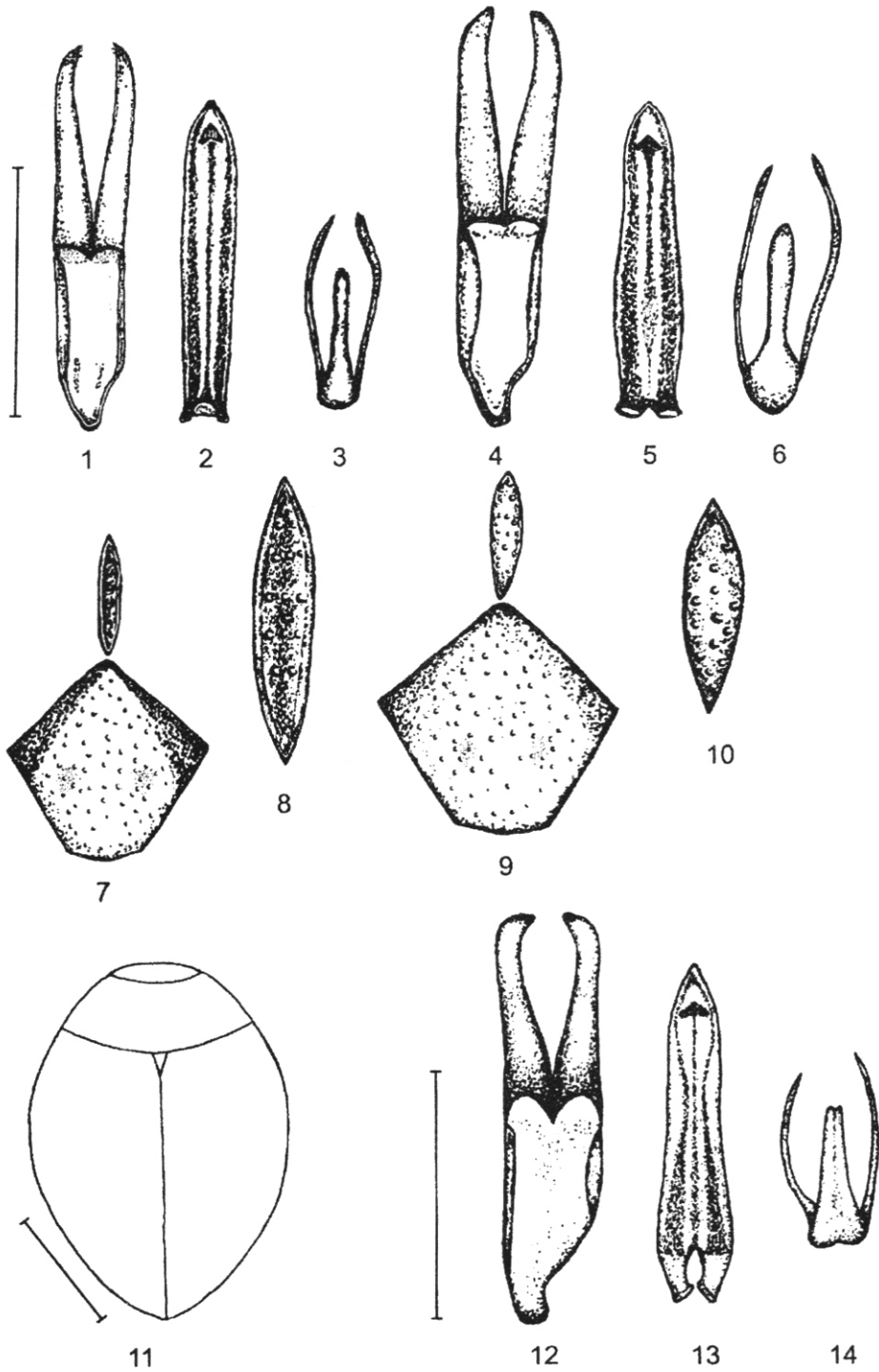
Some type specimens in NHML were provided with lectotype labels by A.G. Shatrovskiy, but as his lectotype designations have not been published, I have not cited these labels to avoid confusion.

Cercyon olibrus group

This group comprises one species with a broadly oval body, linear clypeus, yellowish brown body colour, dark head, brown pronotum, pale maxillary palpi. Elytra without microsculpture; elytral intervals flat; preepisternal elevation narrow; metasternum without femoral lines.

Cercyon (Cercyon) olibrus Sharp, 1874 (Figs 1-3)

Cercyon (Cercyon) olibrus: Zaitsev, 1908; Winkler, 1926; Shatrovskiy, 1989; Hebauer, 1995; Hansen, 1999.



Figs 1-14. *Cercyon*. 1-3, *C. olibrus*; 4-8, *C. rotundulus*; 9-14, *C. saluki*. 1, 4, 12, tegmen with parameres; 2, 5, 13, penis; 3, 6, 14, genital segment; 7, 9, preepisternal elevation with metasternal pentagon; 8, 10, preepisternal elevation; 11, habitus. Scales to figures 1-8, 10-14: 0.5 mm.

Lectotype (designated here): ♂ (topmost on the pin), "*Cercyon olibrus* D.S., Miynoshita, Lewis" (Sharp's writing), "Sharp Coll. 1905–313", "Lectotypus *Cercyon olibrus* Sharp, design. Ryndevich S.K., 2005" (NHML).

Paralectotypes (all in NHML and provided with my paralectotype labels): 1 ♂ and 1 ♀ on the pin with lectotype (NHML); 1 ♀, "Nagasaki, 13 February – 21 April 1881", "Japan, G. Lewis. 1910–320"; 1 ♀, "Japan" (Sharp's writing), "*Cercyon olibrus*, Type D.S." (Sharp's writing), "Sharp Coll. 1905–313", "Type", "Syntype".

Other material examined. Japan: 5 spcm, Kagoshima, Süd. Japan (ZISP). **Korea:** 1 spcm, Quelpart I., I. Ishikava, 29.VIII.1905, 1908–1997 (Jn. Kent) (NHML). **Russia, Primorsk Terr.:** 14 spcm, Sedanka, 4.VI.1915, leg. Rimskiy-Korsakov (ZISP); 4 spcm, Kamenushka nr. Ussuriysk, 5.VI and 29.VI-1.VII.1984, leg. Nikitskiy (ZMUM, CSR); 2 spcm, Ussuriysk, 15.VI.1994 (ZISP, CSR); 4 spcm, Ussuriyskiy Nature Reserve, 18.VI and 3.VIII.1990, leg. A. Putz (CFH); 2 spcm, Okeanskaya nr. Vladivostok, 22.VI.1912, leg. Berger, from Rimskiy-Korsakov (ZISP); 1 spcm, Vladivostok, 30.VI.1990, leg. A. Putz (CFH).

Description. Body broadly oval (index length/width 1.4–1.5; in some males 1.6). Dorsal side rather strongly convex, shiny, without microsculpture. Total body colour yellowish brown. Anterior and central parts of head darker, brown. Antennae, maxillary palpi and tarsi yellow. Club of antennae brownish. Pro-, meso- and metasternum yellowish brown to brown. Punctuation of head and pronotum dense and coarse. Clypeus linear. Pronotum widest at base, moderately narrowed anteriorly, without transverse series of punctures along posterior margin. Sides of pronotum weakly rounded. Lateral margins slightly continued round posterior angles. Elytra with nine shallow punctate striae and one rudimentary punctate row. Elytral intervals flat, with dense and regular punctuation slightly shallower than that on head and pronotum and in punctate striae. Elytral intervals in females slightly convex apically. Prosternum tectiform and finely carinate medially. Preepisternal elevation flat and narrow (index length/width 4.9–5.3), almost parallel-sided, narrowed posteriorly, contacting metasternum in a single point. Females with narrower preepisternal elevation. Metasternum without femoral lines. Metasternal pentagon shiny, with distinct and regular punctuation, and with two scarcely visible small deepenings posteriorly. First segment of abdomen with median carina, twice as long as second segment. Male genitalia as in Figs. 1–3. Length 1.9–2.4 mm.

Note. Specimens from the Far East described by Hebauer (1995) as "sp. 1" were examined and proved to be typical *C. olibrus*. F. Hebauer was confused by the vague figures of the male genitalia by Shatrovskiy (1989).

Distribution. Korea (new record), Japan, Russia (Far East).

Environmental preferences. Unknown, probably the species inhabits decaying organic matter. It comes frequently to light.

Cercyon rotundulus group

This group comprises two species with broadly oval body (index length/width 1.4–1.5), strongly convex dorsal side, linear clypeus, pale maxillary palpi, reddish brown to dark brown head, yellowish brown to reddish brown pronotum, yellowish brown to dark brown elytra. Elytra without microsculpture, elytral intervals flat, preepisternal elevation narrow, and metasternum without femoral lines.

Cercyon (Cercyon) rotundulus Sharp, 1884 (Figs 4–8)

Cercyon (Cercyon) rotundulus: Zaitsev, 1908; Winkler, 1926; Shatrovskiy, 1989; Hebauer, 1995; Hansen, 1999.

Lectotype (designated here): ♀, "*Cercyon rotundulus*, Type D.S., Chiuzenji, 19 August 1981, Lewis" (Sharp's writing), "Sharp Coll. 1905–313", "Lectotypus *Cercyon rotundulus* Sharp, design. Ryndevich S., 2005" (NHML).

Paralectotype: ♀, "Syntype", "Miynoshita", "Japan, Lewis, 1910–320", "*Cercyon rotundulus*, D.S. (Sharp's writing), "Paralectotypus *Cercyon rotundulus* Sharp, design. Ryndevich S., 2002" (NHML).

Other material examined. Russia, Primorsk Terr.: 5 spcm, Cheremukhovaya R., 15 km downstream of Cheremshan, Kamenny Klyuch, 2–3.VIII.1996, leg. Zherikhin & Grachev (ZMUM, CSR); 1 spcm, Primorsky, sea coast, 26.VIII.1980, leg. Kirejtshuk (ZMUM); 2 spcm, Kamenushka nr. Ussuriysk, 20. and 23.VI.1984, leg. Nikitskiy & Belov (ZMUM); 2 spcm, Ussuriyskiy Nature Reserve, 19.VI.1984, leg. Nikitskiy & Belov (ZMUM); *Kuril Islands, Kunashir:* 2 spcm, near Mendeleevo, at light, 6. and 10.VII.1985, leg. S.V. Saluk (CSR); 1 spcm, Okhotsk Sea coast, cape Stolbchaty, 25.VII.1985, leg. Nikitskiy (ZMUM).

Description. Body broadly oval. Dorsal side rather strongly convex, shiny, without microsculpture. Head and pronotum reddish brown. Clypeus linear. Punctuation of head and pronotum dense and regular. Pronotum widest at base, strongly narrowed anteriorly, without transverse series of punctures along posterior margin. Sides of pronotum weakly rounded. Lateral margins at most scarcely continued (sometimes not continued) round posterior angles. Antennae and maxillary palpi dark yellow to yellowish brown. Scutellum small. Elytra darker than head and pronotum, yellowish brown to reddish brown, posteriorly paler. Humeral tubercles strong, yellowish or reddish. Elytra with one reduced punctate stria and nine distinctly punctate striae. Intervals of elytra flat, with shallow and regular punctuation smaller than that on head and pronotum and in punctate striae. Ventral side brown to reddish brown; legs and abdomen yellowish brown to reddish. Elytral epipleura yellow to reddish. Meso- and metasternum darker. Prosternum tectiform and finely carinate medially. Preepisternal elevation narrow (index length/width 4.8–5.2),

almost always with marginal edge (Figs 7, 8). Metasternum densely and coarsely punctate, without femoral lines. Metasternal pentagon shiny, with dense and fine punctation, has two small deepenings posteriorly (Fig. 7). First segment of abdomen with median carina, twice as long as second segment. Male genitalia as in Figs 4-6. Length 2.3-2.7 mm.

Distribution. Japan, Russia (Far East).

Environmental preferences. Inhabits decaying organic matter, comes frequently to light.

Cercyon (Cercyon) saluki Ryndevich, 1998 (Figs 9-14)

Cercyon (Cercyon) saluki: Hansen, 1999.

Holotype. ♂, **Russia**, Kuril Islands, Kunashir, Mendelevo, 20.VII.1985, leg. S.V. Saluk (ZISP).

Paratypes: 5 ♂, 18 ♀, same locality and collector, various dates from 27.VI. to 20.VII.1985 (ZISP, ZMBU, CSR).

Description. Body broadly oval (Fig. 11). Dorsal side rather strongly convex, shiny, without microsculpture. Main body colour dark brown to reddish brown. Anterior part of head paler. Clypeus linear. Pronotum widest at base, strongly narrowed anteriorly, without transverse series of punctures along posterior margin. Sides of pronotum weakly rounded. Lateral margins hardly appreciably continued round posterior angles. Punctuation of head and pronotum dense and regular. Elytra with punctation weaker than that on head and pronotum. Antennae and maxillary palpi yellow-red. Anterior margin and lateral margins of pronotum paler than disc of pronotum. Angles of pronotum broadly rounded. Scutellum small. Elytra darker than head and pronotum. Lateral margin and apex of elytra yellowish brown. Humeral tubercles weak, reddish brown. Elytra with one reduced punctate stria and nine distinctly punctate striae. Intervals of elytra flat, with shallow and regular punctation smaller than that on head and pronotum and in punctate striae. Ventral side and legs reddish. Meso- and metasternum dark brown. Prosternum tectiform and finely carinate medially. Preepisternal elevation flat and narrow (index length/width 3.5-4), usually without marginal edge or sometimes with slight marginal edge apically (Figs 9, 10). Females with narrower preepisternal elevation. Metasternum densely and coarsely punctate, without femoral lines. Metasternal pentagon shiny, with dense and fine punctation, has two small deepenings posteriorly (Fig. 9). First segment of abdomen with median carina, twice as long as second segment. Male genitalia as in Figs 12-14. Length 2.1-2.9 mm.

Comparison. The species is similar to *C. rotundulus*, but differs in the weak humeral tuber-

cles, broader preepisternal elevation and metasternal pentagon, and the structure of the male genitalia. Preepisternal elevation is in *C. rotundulus* almost always with marginal edge, while in *C. saluki* usually without marginal edge or with only slight edge apically. Metasternal pentagon in *C. rotundulus* is narrower than in *C. saluki*. The penis of *C. rotundulus* is widest medially, while in *C. saluki*, basally. The base of the genital segment of *C. rotundulus* is rounded.

Distribution. Russia (Kunashir).

Environmental preferences. The species comes frequently to light and was found under the bark of a rotten alburnum of *Ulmus*.

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