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A new species of *Cassida* L. from Palaearctic China (Coleoptera: Chrysomelidae: Cassidinae)

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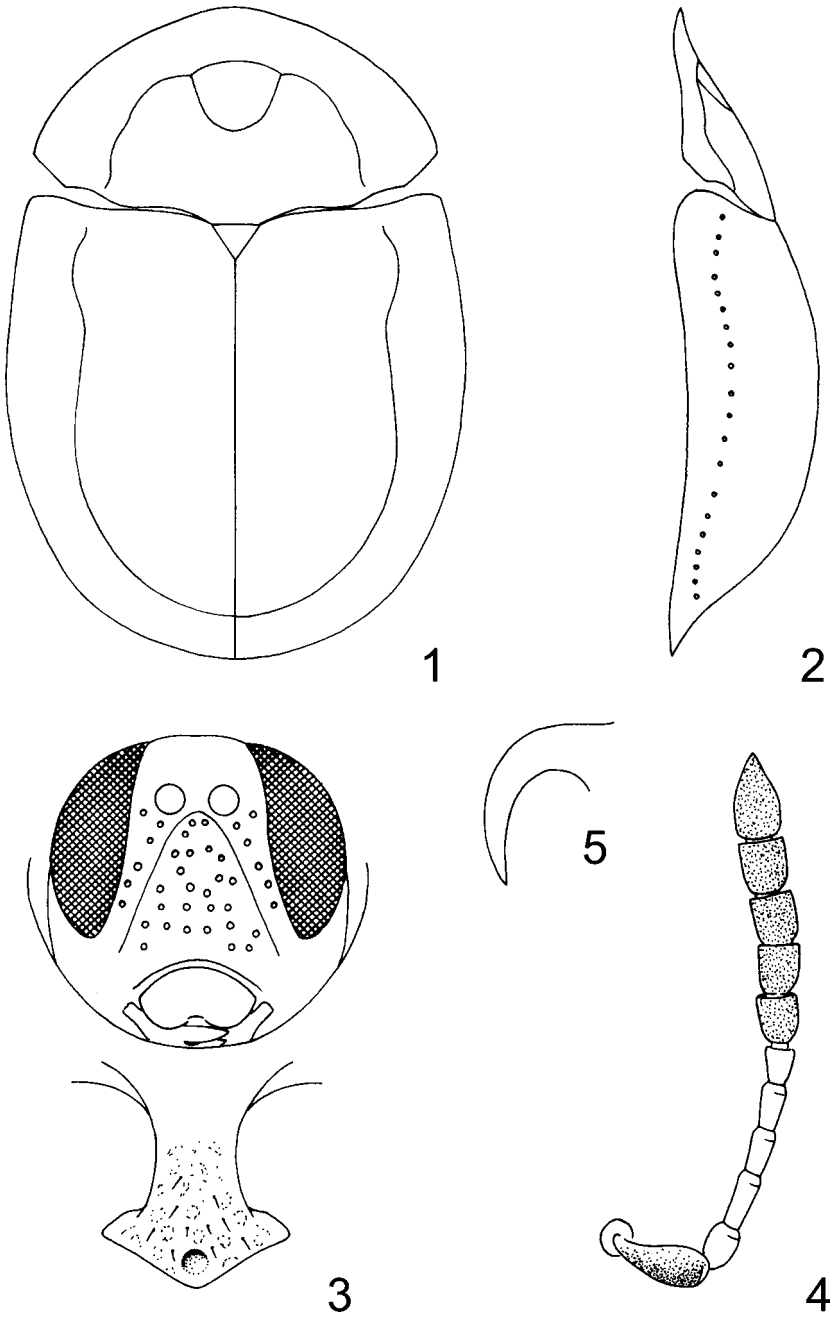
ABSTRACT. *Cassida atrofemorata*, a member of the nominotypical subgenus is described from Qinghai and Sichuan provinces of China. It is close to *C. sanguinosa* SUFFRIAN and its relatives.

Key words: entomology, taxonomy, new species, Coleoptera, Chrysomelidae, Cassidinae, *Cassida*, China.

The genus *Cassida* L. with 400 described species is the most speciose and the most diverse member of the subfamily Cassidinae (BOROWIEC 1999, 2001; BOROWIEC & ŚWIĘTOJAŃSKA 2001a, 2001 b). Most of them occur in tropics and subtropics of the Old World, 158 were recorded from the Palaearctic Region including border parts of the Oriental Region. The Chinese fauna is rich, at least 90 species occur in the region. They were reviewed by CHEN et al. (1986) under three generic names (the system proposed by CHEN is artificial and needs revision based on species from whole range of the genus *Cassida*). The true Palaearctic species form a well characterised group classified in the nominotypical subgenus (sensu SPAETH and REITTER 1926). In China the group comprises hitherto 14 species, 7 of them belong to widespread Palaearctic species, the remaining occur in the eastern part of the Palaearctic Region, only two are endemic to China.

In recent materials from central China we found two specimens representing a new species belonging to the nominotypical subgenus. Its description is given below.



1-5. *Cassida atrofemorata*: 1 – dorsal, 2 – lateral, 3 – head and prosternum, 4 – antenna, 5 – claw

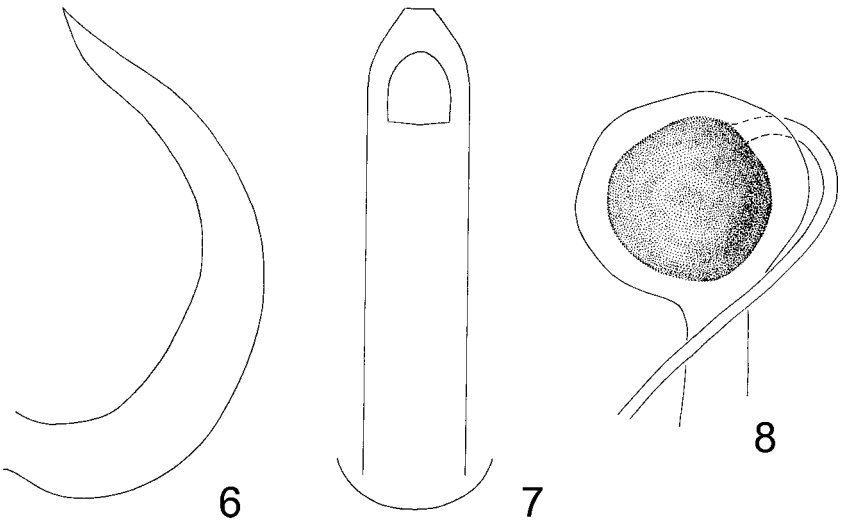
***Cassida* (s. str.) *atrofemorata* n. sp.**

ETYMOLOGY

Named after almost completely black femora.

DIAGNOSIS

It belongs to the group of species close to *C. sanguinosa* SUFFR. characterised by mostly yellow dorsum (green in life), sometimes with red spots, puncturation at least partly irregular, black and broad clypeus, legs at least partly yellow, elytral disc without erect setae and along suture without brown pattern, and abdomen partly black. The group comprises 10 species, partly widespread and difficult to identify. *C. atrofemorata* differs from all relatives, except *C. aurora* WEISE, in deep black basal 3/4 length of femora. *C. aurora* has femora more or less infuscate, but never deep black, it differs also in elytra mostly red (yellowish-green in *C. atrofemorata*), and smaller and especially slimmer body (when length 5.5 mm then width below 3.5 mm, in *atrofemorata* above 3.7 mm). *C. denticollis* SUFFR., *C. leucanthemi* BORDY, and *C. sanguinosa* SUFFR. sometimes have infuscate basal part of femora but the dark area is never deep black and extending at most to half length of femora. These three species are at first glance very similar to *C. atrofemorata* but differ in well marked elytral, longitudinal elevations (gently marked or absent in *C. atrofemorata*). *C. denticollis* differs also in large black teeth on anterior margin of elytra and deeply emarginate labrum. *C. leucanthemi* and *C. sanguinosa* have shallowly emarginate labrum, but the emargination is slightly deeper than in *C. atrofemorata*. Elytral puncturation in *C. atrofemorata* is



6-8. *Cassida atrofemorata*, male genitalia: 6 – dorsal, 7 – lateral, 8 – ejaculatory apodeme

slightly sparser than in *C. leucanthemi* and *C. sanguinosa*. Both European members are usually larger, with length above 6 mm. Other Palaearctic species of the group are much distinctive. *C. spaethi* WEISE and *C. stigmatica* SUFFR. differ in pronotum narrower than elytral base; *C. inquinata* BRULLÉ differs in yellow pro- and mesocoxae; *C. rufovirens* differs in slimmer body and elytra in fully sclerotized specimens mostly pink or red; *C. sanguinolenta* MÜLL. differs in slimmer body, prominent elytral elevations, and elytra at base, in fully sclerotized specimens, with red triangle; *C. prasina* ILL. differs in prominent elytral elevations and elytra at base, in fully sclerotized specimens, with small red spots. Clypeus in *C. atrofemorata* is slightly narrower and with more distinct clypeal sulci than in all mentioned above relatives. Only four of these species occur in China: *C. spaethi*, *C. stigmatica*, *C. denticollis*, and *C. prasina*, but none of them were recorded from Qinghai and Sichuan provinces, the distribution area of *C. atrofemorata*.

DESCRIPTION

Length: 5.55-6.0 mm, width: 3.8-4.2 mm, length of pronotum: 2.0 mm, width of pronotum: 3.35-3.6 mm, length/width ratio: 1.43-1.46, width/length of pronotum ratio: 1.68-1.80. Body short-oval.

Pronotum and scutellum yellow. Elytral disc yellow, at base and behind scutellum punctures marked with brown areola, the areolae partly coalesce and form small brown spots, similar as in some specimens of European *C. sanguinosa*. Explanate margin of elytra yellow. Clypeus black. Thorax black, abdomen black, only extreme margins yellowish-brown. Trochanters yellow to yellowish-brown, femora in basal 3/4 length black, apices yellow, tibiae mostly yellow, in the middle more or less infuscate, tarsi yellow. First antennal segment dorsally dark brown, ventrally yellowish brown, segments 2-6 yellow, segments 7-11 dorsally brown to brownish-black, ventrally yellowish-brown.

Pronotum semicircular, with maximum width at posterior angles. Disc moderately convex, indistinctly bordered from explanate margin, moderately punctate, similar as in *C. sanguinosa*, at top of disc distance between punctures mostly narrower than puncture diameter. Explanate margin densely, shallowly punctate, similar as in other species of *C. sanguinosa* group. Surface of disc and marginalia shiny. Posterior angles slightly less angulate than in *C. sanguinosa* and *C. leucanthemi*, but slightly more angulate than in *C. denticollis*.

Scutellum triangular, without impressions. Base of elytra as wide as pronotum, humeri only slightly protruding anterad, rounded. Elytral margin behind humeral angle not emarginate. Basal margin of disc with very small black teeth, similar as in *C. prasina*, distinctly smaller than in *C. denticollis*. Disc evenly convex, with very shallow, barely marked, postscutellar impressions, no other impressions. Puncturation of disc mostly irregular, sparse, slightly sparser than in European members of the *C. sanguinosa* groups. Punctures along suture and in lateral parts of disc tend to form more or less regular rows. Intervals completely flat or in position of 3rd intervals, in basal part of disc, there is impunctate, very slightly elevated area, but postscutellar impressions along borders do not appear costate,

even so gently as in *C. denticollis*. Whole surface of disc smooth and shiny, slightly much shiny than in European relatives. Marginal row distinct, in the middle not broken by lateral fold, its punctures distinctly coarser than in lateral part of disc. Marginal interval moderately broad, c. twice wider than submarginal punctures. Explanate margin narrow, in widest part as wide as 1/3 width of each disc of elytron. Whole surface of marginalia shallowly and densely punctate but shiny. Apex of elytral epipleura bare.

Clypeus flat, c. 1.25-1.3 times as wide as long, microreticulate, coarsely punctate. Clypeal grooves distinct, deeper than in relatives, converging in triangle with obtuse top. Eyes large, gena very short. Labrum very shallowly emarginate, even slightly shallower than in *C. leucanthemi*. Prosternal process broad, moderately expanded apically, densely punctate, its surface appears irregular (fig. 3).

Antennae stout, segment 9 as wide as long, segment 10 slightly longer than wide. Length ratio of antennal segments: 100:54:77:65:58:38:58:58:62:65:108. Segment 3 c. 1.4 times as long as segment 2, and 1.2 times as long as segment 4 (fig. 4).

Claws simple (fig. 5).

Male genitalia: typical for the group, without species characters (figs 6, 7, ejaculatory apodeme almost spherical (fig. 8). Spermatheca unavailable, both examined specimens were male.

DISTRIBUTION

Central China: E Qinghai and N Sichuan.

TYPE

Holotype: "CHINA, N Sichuan, Zoige env., 4-6 VI 1995, lgt. Beneš"; paratype: "China, Dinghai" "Laji Shan range, Chan-Hu villg., VII-97 Gorodinski" (holotype preserved at the Department of Systematic Zoology and Zoogeography, Wrocław University, Wrocław, Poland, paratype in coll. D. SASSI, Castelmarte, Italy).

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