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Two new species of the genus *Oedemera* from China (Coleoptera: Oedemeridae)

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Abstract
The study of material conserved at the National Museum (Prague), revealed the presence of two new species belonging to the genus *Oedemera* (Seidlitz, 1899): *Oedemera* (*Oedemera*) *svihlai* n. sp. and O. (*Oedemera*) *jani* n. sp. These new species are described and illustrated.

Key words: false-blister beetles, taxonomy, Palaearctic Region.

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Introduction

The genus *Oedemera* Olivier, 1789 is one of the largest genera in the family Oedemeridae, with 78 species known worldwide (Švihla 1999; Kubisz 2020), and mainly distributed in the Palaearctic Region, with a few of them reaching also the Oriental region, such as *O.* (*Oedemera*) *testaceithorax* Pic, 1927, occurring in China, Vietnam, Taiwan, and Japan (Švihla 1999). The genus is divided in three subgenera: *Oncomera* Stephens, 1829, *Stenaxis* Schmidt, 1844 and the nominotypical one (Kubisz, 2020), even if their status has been questioned in the past decades and probably needs revision. The nominotypical subgenus is the richest, with 64 species, the subgenus *Oncomera* follows with 12 species and then, the subgenus *Stenaxis* with two species. In China 16 species occur, 15 belonging to the nominotypical subgenus and one to *Stenaxis* [*O.* (*Stenaxis*) *amurensis* Heyden, 1884] (Kubisz 2020).

In this paper two new species of the subgenus *Oedemera* from China are described and illustrated, and diagnostic characters are provided.

Material and Methods

Specimens were observed with a Zeiss Stemi SV11 microscope with magnification between 6× and 66×. Measures were obtained using a reticle mounted on the eyepiece and calibrated with a stage micrometer. Body length was measured from clypeus to the tip off elytra. Photographs were taken with a Nikon d7100 camera and a Sigma 105mm F2.8 EX DG OS HSM Macro lens mounted on a reproduction stage and flash light provided by two Meike MK-MT24II flashes (specimens) and with a Leica DFC 420C camera mounted on a Leica M205A microscope (male genitalia).

Final images were obtained with focus stacking performed with Zerene Stacker 1.04 (Zerene Systems LCC) and handled using Affinity Photo 1.10.5 (Serif Ltd). Pictures of genitalia were drawn using Inkscape 1.2 (Inkscape development team, 2022). Data labels are reported literally, with different localities separated by a ";", the different lines of the same label separated by a double dash ("//") and the different labels of the same specimen separated by a triple dash ("///").

Terminology refers mainly to Švihla (1985).

The examined material is hosted in the following collections:

NMPC – National Museum, Prague, Czech Republic
RP – Author's collection, Formigine (Modena), Italy.

Results

***Oedemera* (*Oedemera*) *svihlai* n. sp.**
Figs 1-4, 10-11

Material examined

Type Material. Holotypus, ♂: **China**: YUNNAN prov. // pass 50 km W Judian // 11.-13.vi.2005 // O. Nakládal lgt. (NMPC). Paratypi: same locality, 4 ♂, 2 ♀ (NMPC), 2♂, 1 ♀ (RP).

Description of the male, holotype

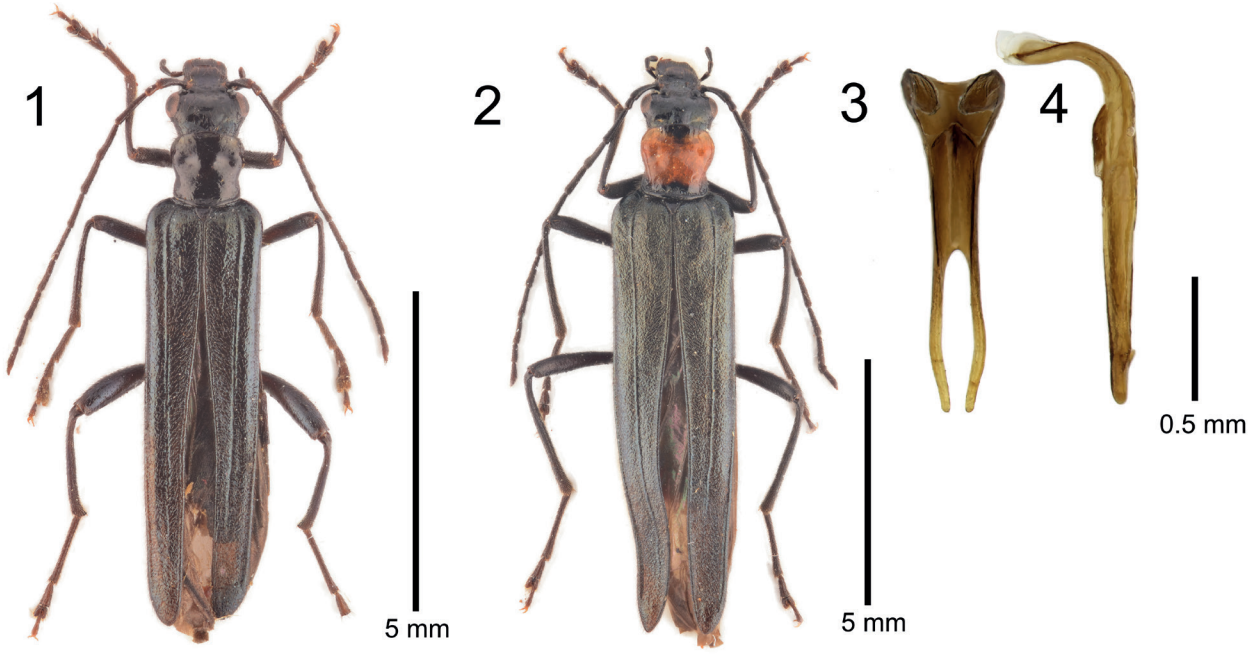
Coloration (Fig. 1). Integuments (head, thorax, elytra, abdomen and appendices) completely black, shiny and with a distinct blue-green metallic tinge on elytra. The whole surface covered with a sparse, short, recumbent white pubescence.
*External morphology***.** Body length: 5,5 mm. Head moderately rostrate, eyes distinctly protruding and sub-oval. Space between the scapes half of the interocular space. Surface of the head with no distinct depressions, smooth and without punctures, with sparse and short brown hairs. First and second maxillary palpomeres equal in length, last one 1.5 times longer. Antennae 11-segmented, the scape 3 times longer than the second antennomere and almost as long as the third one, the following progressively shortening. Last antennomere slightly emarginated at apex. Pronotum moderately cordiform, shiny, impunctate. The disc of pronotum glabrous, with only a few brown setae on the sides. The anterior and posterior margin of pronotum slightly emarginated. Elytra dehiscent, so that the first costae are separated in the posterior part in the median portion. Third vein and elytral suture raised, becoming fainter but still visible towards the elytral apex. Surface of elytra shiny and with a strong metallic tinge, the surface rugose. The legs surface micro-shagreened. Claws simple. Thorax with surface rugose. Abdomen smooth. The pubescence of both thorax and abdomen slightly longer than on legs. Pygidium ogival. Last ventrite simple, not emarginated at apex.
Male genitalia: as in Figs 3-4, 10-11.

Variation of paratypes

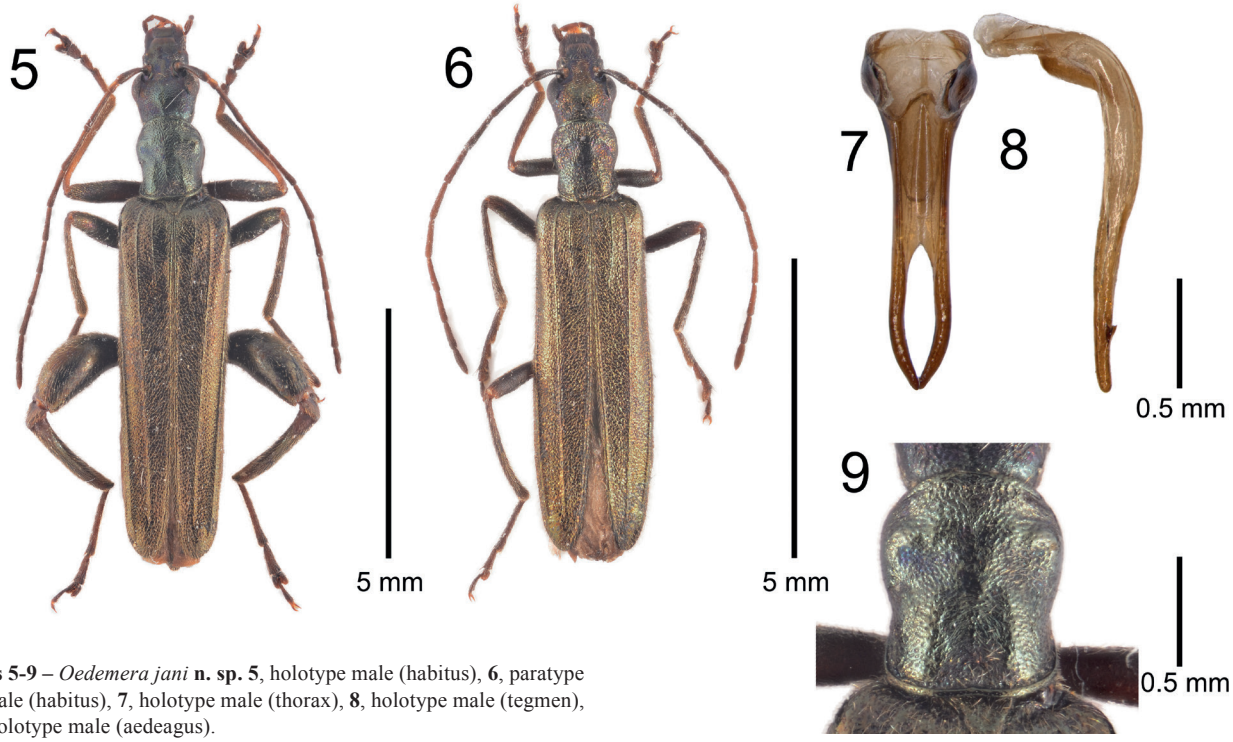
Sexual dimorphism. Female differ from male in the following characters: a) bigger size (see below), b) central part of pronotum dark orange and basal and apical margins black, c) pygidium hastate and with more widely rounded apex, d) elytra more metallic (Figs 1-2). Hind femurs are very slightly thickened in males.
Length. 8,5-10,2 mm (males); 10,1-12,6 mm (females).
Variability. The type specimens show scarce variability in the extent and colour of elytral metallic tinge and in body size.

Comparative diagnosis

This species, according to male genitalia (parameres rounded distad) is more similar to *O.* (*Oedemera*) *sichuana* Švihla, 1999 which belongs to the *O. femorata* species group, as defined by Švihla (1999). The habitus, however, is more similar to *O.* (*Oedemera*) *nigripes* (Ganglbauer, 1890), having similar coloration and morphology. From *O. sichuana* it can be distinguished by a) the pronotum in females, almost completely orange (bearing only two orange lateral spots in *O. sichuana*), b) less thickened hind femurs in males and c) male genitalia: parameres more rounded distad and aedeagus straighter and not tapered. From *O. nigripes* it can be distinguished by a) wider parameres, with the apex converging to the center (divergent in *O. nigripes*) (Figs 3, 10, 12) and the aedeagus, straight and



Figs 1-4 – *Oedemera svihlai* **n. sp. 1**, holotype male (habitus), **2**, paratype female (habitus), **3**, holotype male (tegmen), **4**, holotype male (aedeagus).



Figs 5-9 – *Oedemera jani* **n. sp. 5**, holotype male (habitus), **6**, paratype female (habitus), **7**, holotype male (thorax), **8**, holotype male (tegmen), **9**, holotype male (aedeagus).

rounded at the apex (slightly curved and more tapered in the other species) (Figs 4, 11, 13) (Švihla 1999).

Etymology. the species is named after Vladimir Švihla (1952-2015), renowned specialist of Oedemeridae that worked at the National Museum, Prague and contributed more than any other entomologist to the knowledge of the genus *Oedemera*.

***Oedemera* (*Oedemera*) *jani* n. sp.**
Figs 5-9, 14-15

Material examined

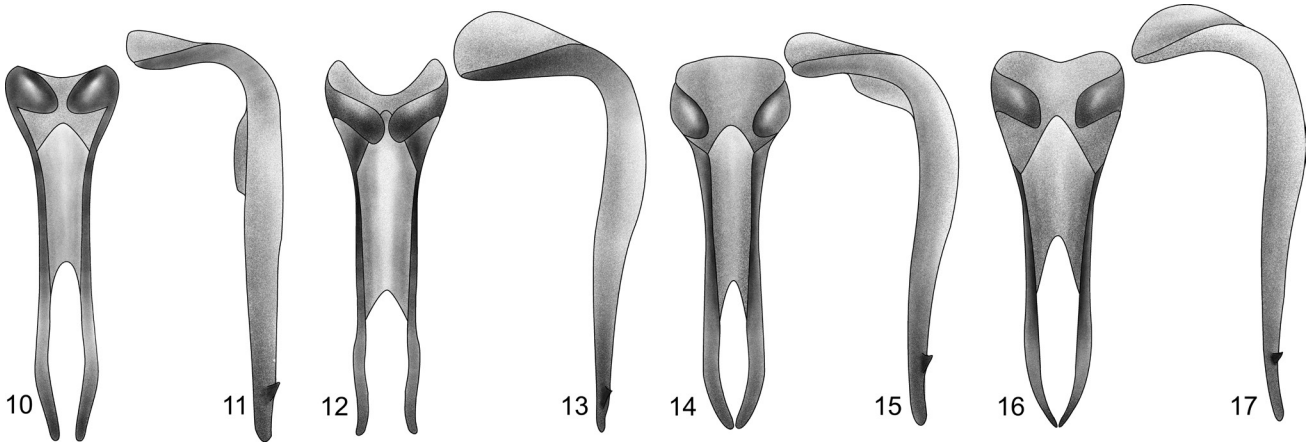
Type Material. Holotypus, ♂: **China**: SICHUAN prov. // Wolong National Nature // Reserve, Namasi vill., // 2150 m, 23.VI.2014, // 31°01’28’’N 103°09’40’’E, /// shrubs in close stream valley // along stream bank, above // small water dam, side valley, // J. Hájek & J. Růžička leg. Paratypi: same locality, 1 ♂, 1 ♀ (all types at NMPC).

Description of the male, holotype

Coloration. (Fig. 5) Elytra, pronotum and head olivaceous green, metallic. Legs sienna, proximal side of fore tibiae terra-cotta. Tarsi and second antennomere terra-cotta. The whole surface covered with a sparse, short, recumbent white pubescence.

External morphology. Body length: 6,6 mm. Head rostrate, eyes slightly protruding. Space between the scapes half of the interocular space. Apical and central part of head with shallow and dense punctures, space between punctures micro-shagreened. Posterior part of head wrinkled. Only the apical part of the head with long, erect, yellow setae. First maxillary palpomere 1.5× longer than the second, last antennomere twice as long as the second, slightly securiform. Antennae 11-segmented, the scape 3× longer than the second antennomere, the third 1.5× longer than the scape, the following progressively shortening. Last antennomere slightly emarginated at apex. Pronotum moderately cordiform and distinctly elongated anteriorly. Surface glabrous, wrinkled, except in the central part, characterized by an irregular punctuation and smoother ventrally. Disc with two antero-basal depressions. Sides slightly emarginated, smooth. Elytra with surface rugose and shagreened. Intermediate venation and elytral suture raised, first venation extended on 1/3 of elytral length. Claws simple. Thorax, in his ventral side smooth, with shallow and sparse punctures. Abdomen with sparse, shallow punctures. Pygidium rounded. Last ventrite simple, not emarginated at apex.
Male genitalia: as in Figs 7-8, 14-15.

Variation of paratypes
Sexual dimorphism: The female differs from male by having hind femora not thickened and the pronotum not distinctly elongated anteriorly (Fig. 6).
Length: 10,3 (holotype male); 9,4 (paratype male); 8,3 (paratype female).



Figs 10-17 – Male terminalia. **10-11**: *O. svihlai* **n. sp.** (**10**, tegmen, **11**, aedeagus); **12-13**: *O. nigripes* (Ganglbauer) (**12**, tegmen, **13**, aedeagus); **14-15**: *O. jani* **n. sp.** (**14**, tegmen, **15**, aedeagus); **16-17**: *O. virescens chalybea* Faldermann (**16**, tegmen, **17**, aedeagus). The drawings of already described and published species were partly modified from Švihla (1999).

Comparative diagnosis

This species belongs to the *O. virescens* species group as defined by Švihla (1999). It can be easily distinguished from the other members of this group by the shape of pronotum, cordiform and distinctly elongated anteriorly (especially in male, Fig. 9) and by the shape of male genitalia from the similar *O.* (*Oedemera*) *virescens* (Linnaeus, 1767). In the latter species the aedeagus has a wider base and more tapered apex, and larger and more tapered parameres. The ssp. *chalybea* Faldermann, 1837 is characterised by the shape of aedeagus, straight and not tapered (Fig. 17) and by longer and larger parameres (Fig. 16) (Švihla 1999), and is thus particularly similar to *O. jani* n. sp. The new species can be anyway distinguished by the shape of pronotum, by the aedeagus, thicker in the apical portion (Figs 8, 15), and by the more rounded and shorter parameres (Figs 7, 14).

Etymology. The species is named after one of the two collectors, Jan Růžička.

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