

Rhinocypha ore spec. nov., a new damselfly from Vietnam (Odonata: Chlorocyphidae)

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Hämäläinen, M. & H. Karube, 2001. *Rhinocypha ore* spec. nov., a new damselfly from Vietnam (Odonata: Chlorocyphidae).

Zool. Med. Leiden 75 (23), 24.xii.2001: 405-408, figs 1-4.— ISSN 0024-0672.

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Key words: Odonata; Chlorocyphidae; *Rhinocypha*; new species; Vietnam.

Rhinocypha ore spec. nov. (holotype male, northern Vietnam, Vinh Phu province, Mt Tam Dao, 1993) is described and illustrated in both sexes. Its unique wing colour pattern among the chlorocyphids is emphasized.

Introduction

Chlorocyphids are attractively coloured forest stream damselflies in the Old World tropics. The taxonomic status of many described taxa is still unsettled, but some 140 species can be obviously recognized. These insects, aptly called “jewels” by Silsby (2001), reach their greatest diversity in South-East Asia.

From Vietnam, two species have been described recently: *Rhinocypha watsoni* from the central part of country by van Tol & Rozendaal (1995) and *R. seducta* from the southern part by Hämäläinen & Karube (2001). While our last paper was already in print, another lot of unidentified Vietnamese chlorocyphids from the Kanagawa museum collections was unexpectedly spotted by Mr Akihiko Sasamoto. This includes specimens of a new, colourfull-winged species from Mt Tam Dao in the northern part of Vietnam. All specimens were collected during the second author's visits at Tam Dao, but probably by local collectors.

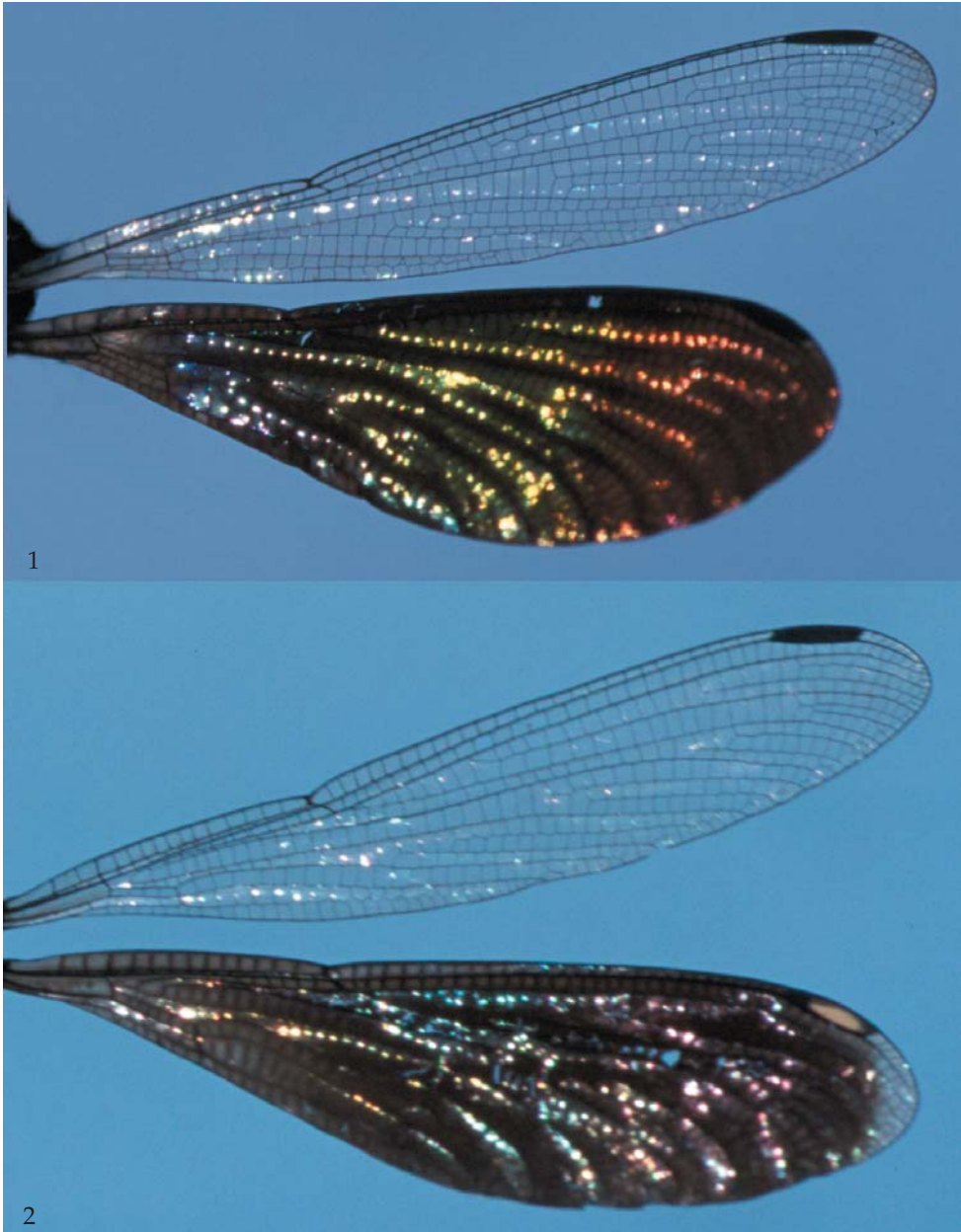
Rhinocypha ore spec. nov.
(figs 1-4)

Type material.— Holotype, ♂, “Vietnam, Vinh Phu province, Mt Tam Dao, 19.v-2.vi.1993. Deposited in the Kanagawa Prefectural Museum of Natural History, Odawara. Paratypes (4 ♂♂ + 1 ♀) from the same locality as the holotype; same date (2 ♂♂ + 1 ♀), 29-31.v. 1998 (1 ♂) and 1.vi.1998 (1 ♀). One male paratype placed in the collection of the National Museum of Natural History, Leiden, one male in the Hämäläinen collection and the others in Kanagawa Prefectural Museum of Natural History.

Description.— A nearly black species with hyaline forewings and with distinctly broader, almost completely opaque hindwings.

Male.— Head shining black anteriorly, matt black dorsally. Pale round spot in genae below base of antennae. Tiny yellowish spots at sides of lateral ocelli; very small postocular spots present in one male.

Thorax. Prothorax wholly matt black. Pterothorax matt black, suture between metepisternum and metepimeron narrowly pale from a little basad of stigma to over



Figs 1-2, wings of *Rhinocypha orea* spec. nov. (paratypes). Male above, female below. The photo of male wings was taken from an oblique view to show better delimitation of the colours. Due to this the mutual difference in wing breadth looks somewhat exaggerated.

halfway towards the wing base.

Legs. Fore legs black, the inner surface of femora with a narrow and short ochreous stripe in the apical third. Middle legs with outer surface black, but inner surface of

femora and coxa ochreous and inner surface of tibiae conspicuously yellowish white. Hind legs black, except inner surface of femora and coxa ochreous. Middle and posterior trochanters narrowly pale posteriorly. All spines black.

Wings (fig. 1). Forewing hyaline, venation black. In holotype (old specimen) wing membrane is dirty whitish at base over midway to nodus. Hindwing distinctly pleated, opaque throughout. Hindwing shorter and conspicuously broader than forewing; the broadest point of hindwing 1.43 times broader than in forewing. Extreme base of hindwing (to the level of fifth-sixth antenodal) is partly subhyaline. At an oblique angle, section between arculus and nodus reflects violet blue, middle section brilliant green and tip ($1/4^{\text{th}}$ of the wing length) coppery brown. R3 starts 1-1.5 cells distad to subnodus. In forewing 12-15 antenodals (at first row) and 23-30 postnodals, in hindwing 12-15 and 24-30, respectively. Arculus at 3rd antenodal, or slightly proximal to it. Sectors of arculus separated at base. Quadrangle with 3-4 crossveins in forewing and 4-5 in hindwing. Pterostigma blackish brown in forewing, paler brown in hindwing, except in basal $1/4^{\text{th}}$.

Abdomen. Black, only lateroventral acrotergites between segments obscurely pale. Also ventral side between S1-2 partly paler. S2-S4 only slightly broader than S1 and S5; S7-8 being the narrowest segments. Appendages black, shaped as in figs. 3-4.

Measurements (in mm).— Forewing 25-27, hindwing 23.5-25, abdomen (incl. appendages) 20-21.5.

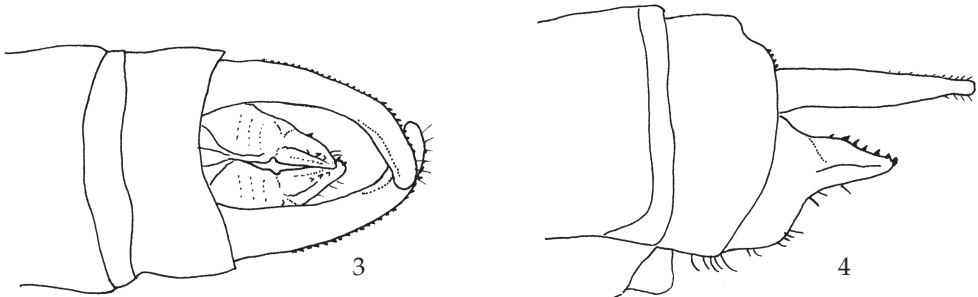
Female.— Superficially resembling the male. Abdomen more robust and spindle-shaped.

Head black, with more pale markings than in male. The round yellowish spot on genae conspicuous, also a narrow yellow streak higher up on genae. Oblong, yellowish spot also at base of posterior surface of rhinarium. Tiny postocular spots and spots on sides of lateral ocelli.

Thorax. As in male, but furnished also with a small yellowish triangular band at metepimeron near wing base.

Legs (only one middle and one hind leg present). Black, with underside of femur somewhat paler, and underside of coxa yellowish.

Wings (fig. 2). Forewing hyaline, distinctly (1.5 mm) broader than in male. Hindwing opaque brownish with only the extreme tip beyond pterostigma wholly hyaline with whitish tint. Hindwing clearly broader than forewing, 1.33 times so at the broadest point. Base of hindwing partly subhyaline, the rest of wing surface reflects violet,



Figs 3-4, anal appendages of paratype male *Rhinocypha orea* spec.nov., dorsal and lateral view, respectively.

greenish and coppery tint. The tint is much less intensive and less sharply delimited than in male. R3 starts one (or less than one) cell after the subnodus. Pterostigma uniform blackish brown in forewing. In hindwing pterostigma is distinctly bicolorous, with an oval ochreous interior.

Abdomen coloured as in male, but with small lateral pale spots near apex of S1-3, very obscure.

Abdomen spindle-shaped, rather robust. Distinctly broadening from the base to the apex of S3, then gradually narrowing to the base of S8 (which is slightly narrower than apex of S1). Apex of S9 as broad as apex of S1. Valves rather robust.

Measurements (in mm).— Forewing 28.5, hindwing 27.5; abdomen 20.

Comparative notes.— The striking difference in the breadth and colour of male fore- and hindwings, the latter being coloured more like a *Euphaea*-species than a chlorocyphid, enables an easy separation of *Rhinocypha orea* spec. nov. from all other oriental species in the family.

In the male the hindwing at its widest point is 1.43 times broader than in the forewing. Also in the other two Vietnamese *Rhinocypha* (sensu stricto) species the hindwing is clearly broader than the forewing, but less markedly so. In *R. watsoni* the corresponding ratio is 1.36 and in *R. seducta* 1.27. In the last two species only the apical part of hindwing is opaque, starting from the level of sixth postnodal in *watsoni* and tenth postnodal in *seducta*. The opaque wing area of these two species does not produce such striking reflections as in *R. orea* spec.nov. Whereas the pterothorax of *orea* sp.n. and *watsoni* is largely black, in *seducta* it bears conspicuous orange-reddish and yellowish stripes.

Etymology.— *Orea*, after the Greek word *οραα* meaning “beautiful”, denoting the attractively coloured male hindwings.

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Received: 28.ix.2001

Accepted: 4.x.2001

Edited: C. van Achterberg