A new *Celaenorrhinus* species (Lepidoptera: Hesperiidae) from a remarkable locality in the Philippines

R. de Jong & C.G. Treadaway

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Celaenorrhinus halconis spec. nov. is described from Mt. Halcon in Mindoro (Philippines). The new species does not seem to be closely related to other Philippine *Celaenorrhinus* species, but bears resemblance to the endemic Javanese montane species *C. toxopei* de Jong, 1981.

R. de Jong, Nationaal Natuurhistorisch Museum, Postbus 9517, 2300 RA Leiden, The Netherlands.

C.G. Treadaway, Forschungsinstitut Senckenberg, Senckenberganlage 25, 6000 Frankfurt am Main 1, Germany.

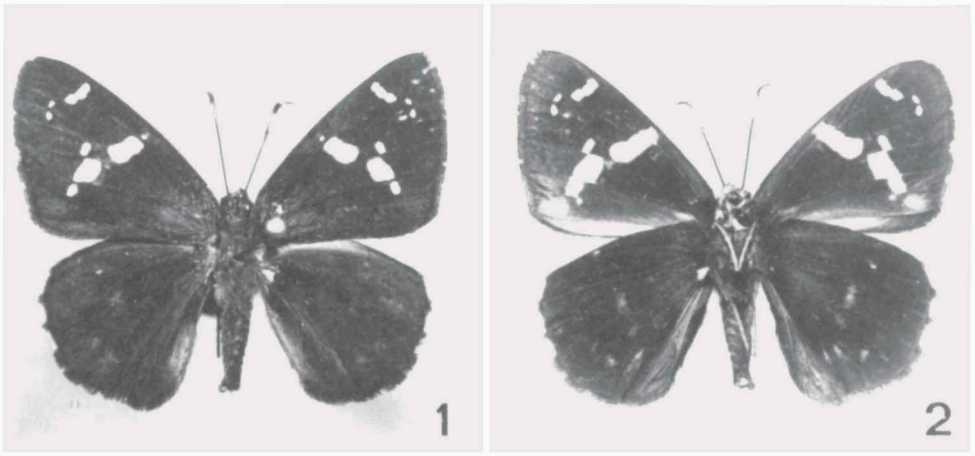
Introduction

The large pantropical genus *Celaenorrhinus* Hübner, 1819, is represented by four species only in the Philippines: *C. nigricans* de Nicéville, 1885 (as subspecies *mindanus* de Jong, 1981, from Mindanao and Luzon), *C. treadawayi* de Jong, 1981 (as subspecies *treadawayi* from Mindanao, and as subspecies *samarensis* de Jong, 1981, from Samar), *C. asmara* (Butler, 1877) (as subspecies *palajava* (Staudinger, 1889) from Palawan), and *C. bazilanus* (Fruhstorfer, 1909) (as subspecies *bazilanus* from Basilan and Mindanao). Recent collections made at higher altitudes on Mt. Halcon in the island of Mindoro has yielded a large number of remarkable butterflies, among which six males and two females of an undescribed *Celaenorrhinus* species.

Celaenorrhinus halconis spec. nov.

Material.— Holotype, ♂, Philippines, Mindoro, Mt. Halcon, 900 m, 10 April 1990, leg. Noel Mohagan. Paratypes, 5 ♂♂, 2 ♀♀: 1 ♂, Mt. Halcon, 2 June 1992; 1 ♂, same, but 3 June 1992; 1 ♂, same, but 5 June 1992; 1 ♂, same, but 8 June 1992; 1 ♂, same, but 10 June 1992, 1500 m; 1 ♀, same, but 12 June 1992, 1500 m; 1 ♀, same, but 7 Februari, 1991, high altitude. Holotype and three male and one female paratypes in the collection of C.G. Treadaway; two male and one female paratypes in the Nationaal Natuurhistorisch Museum (formerly Rijksmuseum van Natuurlijke Historie), Leiden.

External characters (figs. 1, 2).— Male. Antenna white on club and just extending on shaft, which is further checkered in distal half. Length of forewing 21.1-22.4 mm. Termen of forewing slightly convex. Upperside forewing plain dark brown, inconspicuous orange yellow hairs at base, along dorsum and at tornus. White hyaline spots in cell (over origin of vein 3; about twice as high as long), spaces 1c (small, under lower outer corner of next spot and separate from it; absent in one male), 2 (beyond origin of vein 3, about same size as cell spot and well separated from it), 3 (just distad of upper outer corner of previous spot, well separated from it, about



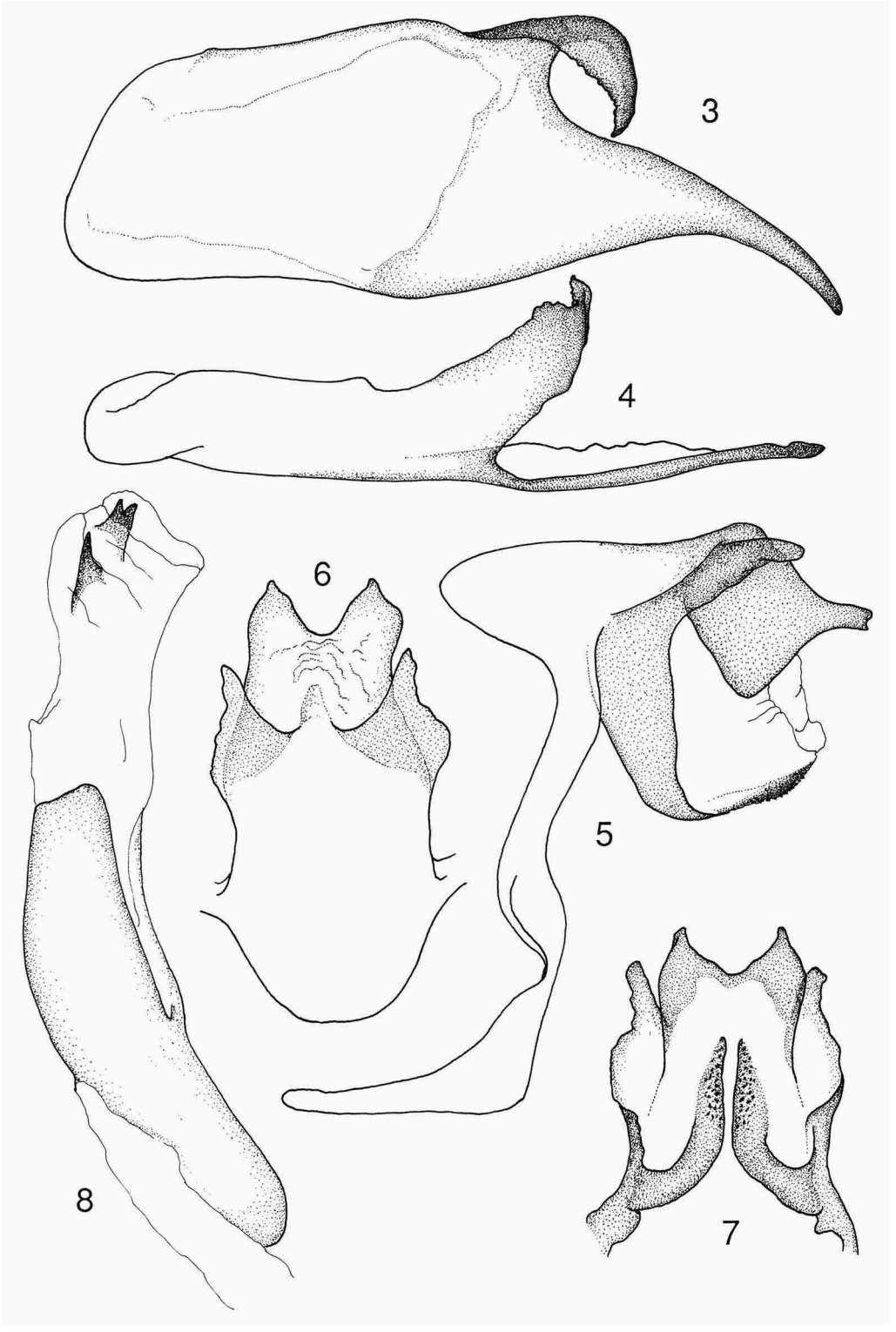
Figs. 1, 2. Upper (1) and underside (2) of *Celaenorrhinus halconis* spec. nov., holotype.

same size as spot in space 1c), 4 and 5 (small, absent in one male; spot in space 5 distinctly closer to spot in space 6 than to termen), and 6 to 8 (in straight line, more or less conjoined). A tiny opaque yellowish spot over cell spot in holotype and (somewhat larger) in one paratype. Fringes unicoloured, dark brown. Upperside hindwing dark brown with inconspicuous orange yellow hairs at base, in spaces 1b and 1c, basally and submarginally in space 2, submarginally in space 3 and, vaguely, in spaces 4 to 5 or 6, and across discocellular veins. Fringes dark brown, but whitish in spaces 4-5, 6 and 7. Underside as upperside, but in forewing cell spot always more or less continued to costa, spot in space 1c conjoined to spot in space 2, and more or less lighter scaling at tornus.— Female. Antenna only white at base of club, inconspicuously checkered on shaft just below club. Length of forewing 23.1-24.3 mm. As male but spots slightly larger.

Male genitalia (figs. 3-8).— Tegumen elongate, width about $^{3}/_{5}$ of length; broad, wing-like, distal projections with irregular outline, closely approaching each other on the humped back of the uncus. Uncus bifid, broadly indented to about midway apex and humped back; arms broad, as wide as long, slightly diverging, apices indented laterally. Gnathos consisting of separate, ventrally closely approaching parallel parts; area spinulosa not sharply defined, no spines but very small tubercles. Aedeagus a simple, slightly bent tube, about four times as long as wide; cornutus consisting of a wide and a narrow, pointed part. Cucullus long and narrow, gently curving downward, almost straight in dorsal view; costa of valva weakly developed, but costal process broad, with irregular upper edge, strongly curving inward and downward.

Female genitalia (fig. 9).— Eighth abdominal sternite a simple, smooth, well-sclerotized plate, no microtrichia visible (also not on the distal turned over part), but a few short hairs along distal edge; ostium occupying slightly over half of length of sternite. Antrum strongly sclerotized with longitudinal folds, about twice as long as

Figs. 3-8. Male genitalia of *Celaenorrhinus halconis* spec. nov., paratype. 3, inside of right valva; 4, dorsal aspect of left valva; 5, lateral (left) aspect of genitalia, valvae and aedeagus removed; 6, dorsal aspect of tegumen and uncus; 7, ventral aspect of uncus and gnathos; 8, aedeagus with extended vesica.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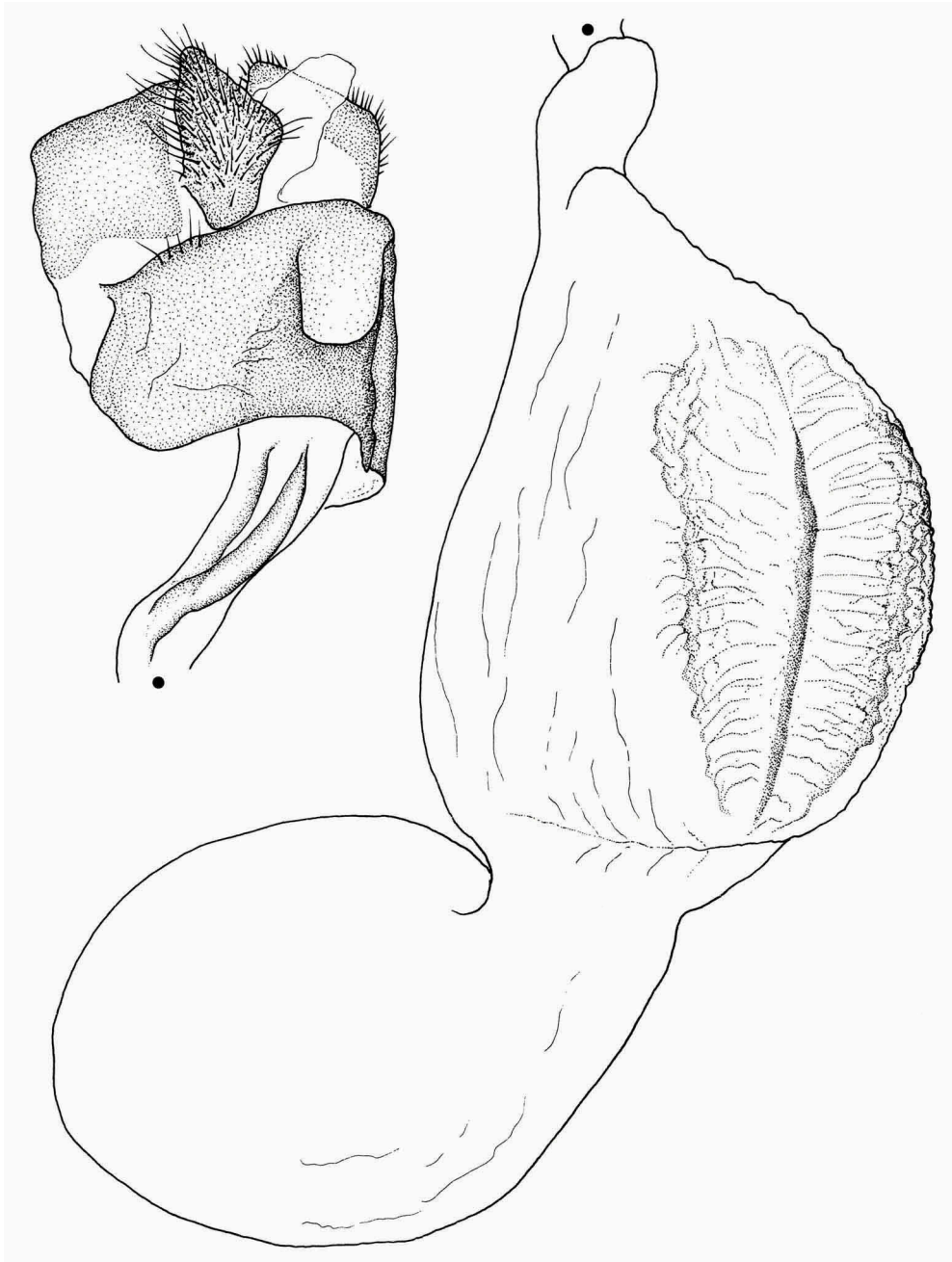

Fig. 9. Female genitalia of *Celaenorrhinus halconis* spec. nov., paratype, lateroventral aspect.

eighth sternite; ductus membranous, slightly longer than wide, smooth. Bursa bipartite; upper part ovoid, with indistinct longitudinal lines and large, conspicuous signum; lower part slightly smaller and more globular, with some indistinct lines. Papillae anales triangular.

Discussion.— The well marked separation of the spots on the forewing easily distinguishes this species from the other Philippine *Celaenorrhinus* species. In the genitalia the only other Philippine *Celaenorrhinus* species that comes a bit closer to the new species is *C. nigricans*, but the very long valval processes (cucullus and costal process) in the male genitalia, and the smooth eighth sternite and more elongate ostium in the female genitalia of *C. halconis* easily set this species apart. Remarkably, in the separation of the spots as well as in the male genitalia (shape of uncus, distolateral projections of tegumen, long valval projections) *C. halconis* resembles the endemic Javanese species *C. toxopei* de Jong, 1981. It differs, however, from the latter species in wing shape (in *C. toxopei* the termen of the forewing is straight) and in the following genitalic characters: in the male, the cucullus is broader and not curved inwards, and the costal process is much broader; in the female, the eighth sternite is smooth, also on the turned over distal part, the ostium occupies a smaller part of the sternite, the ductus bursae is much shorter and the bursa, particularly the upper part, larger. It seems unlikely that there is a close relationship between two montane species, one restricted to a single mountain in Mindoro, the other to mountains in West Java, while a number of other species of the same genus occupy the intermediate area. It would rather seem that *C. halconis* and *C. toxopei* belong to a group of species that also contains *C. nigricans*, *C. ruficornis* (India, Java, Sulawesi) and maybe one or two other species. A decision must await the outcome of a phylogenetic study of the genus (de Jong, in prep.).

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