

Hesperiidae of Vietnam, 18.¹ Three new species of *Halpe* MOORE, 1878

(Lepidoptera, Hesperiiidae)

by

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Summary: Three new species, *Halpe gammoides* spec. nov., most similar to *H. gamma* EVANS, 1937, *Halpe babensis* spec. nov., similar to *Halpe paupera* DEVYATKIN, 2002 (both North Vietnam), and *Halpe interposita* spec. nov. (Central Vietnam), combining characters of several species, are described and illustrated.

Halpe gammoides spec. nov. (colour plate 19A: 1-2)

Holotype ♂: North Vietnam, Phu Tho (formerly Vinh Phu) Province, Tam Dao National Park, 1000 m, 27.V.1995, A. L. MONASTYRSKII leg.

Paratypes: 3 ♂♂, the same data as the holotype; 1♂, the same locality, 18.VI. 1994, A. L. MONASTYRSKII leg.; 2 ♂♂, the same locality, 23.V.1999, A. L. DEVYATKIN leg.; 1 ♂, Central Vietnam, Nghe An Province, Pu Mat Nature Reserve, 10.V.1998, FFI expedition leg.; 2 ♂♂, Nghe An Province, Bu Huong Nature Reserve, V.1995, 13.V.1995, FRONTIER leg.

This species was mentioned earlier under the name of *Halpe gamma* EVANS, 1937, to which it is extremely similar externally, by DEVYATKIN & MONASTYRSKII (1999) (as the first record from Vietnam) and MONASTYRSKII & DEVYATKIN (2003a, 2003b). Due to the courtesy of Dr. YU-FENG HSU I had the opportunity to examine two specimens of *H. gamma* EVANS from the type locality (Taiwan) (colour plate 19A: 3-4) and found out that the Vietnamese “*gamma*” represented a previously undescribed species.

Most of the type series are deposited in the collection of the Department of Entomology, Moscow State University; one paratype will be transferred to The Natural History Museum, London (BMNH).

Description: Antennae above brown, apiculus reddish; below chequered brown and yellow, distal part with the club tawny yellow. Palpi above black with a great deal of golden scales; below yellowish white with a mixture of black hairs. Frons covered with golden hairs.

Upperside (colour plate 19A: 1). Ground colour brown; basal area on forewing and discal area on hindwing powdered with yellowish scales. Forewing with two small hyaline spots in spaces 6 and 7, sometimes with a dot in space 8, two rather small cell spots, the lower one being larger and produced basad, and two widely overlapping spots in spaces 2 and 3, the lower one also being larger and produced basad. All hyaline spots white or slightly yellowish.

Hindwing unmarked except the yellow scales in the discal area.

Underside (colour plate 19A: 2). Ground colour the same as on the upperside, with the same hyaline spots; costal and terminal areas of forewing and the whole hindwing powdered with yellow scales; forewing with a series of yellow submarginal spots; hindwing with traces of yellow discal and submarginal markings, the most distinct being placed in space 2.

¹ For (17) see DEVYATKIN, A. L. (2008): A further new species of *Coladenia* MOORE, [1881] (Lepidoptera, Hesperiiidae). - Atalanta 39: 279-280, Würzburg..

f-inges chequered on forewing, whitish on hindwing. Length of the forewing 18 - 18.5 mm.

♂ genitalia (fig. 1): It looks in general similar to that of *H. gamma* EVANS from the type locality (Taiwan) (fig. 2), but differs in the following characters: Uncus is narrower (dorsal view) and conspicuously angled from the ventral side (lateral view); lateral processes of tegumen are shorter, very robust and strongly curved in the lateral view; costal lobe of clasp ("footstalk") is longer, with more numerous dorsal teeth, sometimes with 1-2 teeth on the ventral side (left and right ones being rather asymmetrical); distal process of cuiller is more robust; on the contrary, the proximal process is extremely short. Aedeagus in both species similar.

The genitalia of the specimens of *H. gamma* EVANS examined from Sichuan (West China) (one examined by the author, the genitalia of another specimen is figured in HUANG & WU, 2003) show some very slight differences from those from Taiwan (the type also examined) and Fukien (East China), but in general keep the specific characters.

Halpe babensis spec. nov. (colour plate 19A: 5-6)

Holotype ♂: North Vietnam, Bac Can Province, Ba Be National Park, loc. Hoc Cum, 10.XI.1997, A. L. MONASTYRSKII leg., coll. of the Department of Entomology, Moscow State University.

Description: Antennae above dark brown, below chequered; end of club (nudum) reddish. Frons with yellowish hairs.

Upperside (colour plate 19A: 5): Ground colour of both wings dark brown. Forewing with a usual Halpe-stigma and 5 hyaline spots: two tiny dot-like subapical spots in spaces 6 and 7, an elongate upper cell spot and 2 short non-overlapping discal spots in spaces 2 and 3, the lower being slightly larger; all spots creamy white. Hindwing unmarked.

Underside (colour plate 19A: 6) brown, with more or less clear whitish submarginal markings on both wings and traces of discal band on the hindwings. Length of the forewing 16 mm.

♂ genitalia (fig. 3): Uncus expanded, its distal end shortly tapered and shallowly bifid (dorsal view); lateral processes evenly curved, not reaching the tip of uncus, distally extended and somewhat rounded (lateral view). Clasp rather narrow, with a short simple pointed costal lobe ("footstalk") at the base; cuiller with 2 dorsal processes, the proximal one being rather long and pointed, curved back and inwards, its distal part outwardly finely spined; the distal process longer and much more robust, its dorsal part greatly expanded and covered throughout with strong spines. Aedeagus short, rather straight, expanded in the median part; vesica densely covered with microtrichia.

Diagnosis and discussion: The new species seems to be somewhat similar to *H. paupera* DEVYATKIN, 2002, differing from the latter in the smaller and yellower hyaline spots, as well as in the absence of the lower cell spot, and in details of the structure of dorsal processes of cuiller. Externally, it may be also confused with the almost sympatric *H. frontieri* DEVYATKIN, 1997, which however belongs to another species group and differs sharply in the ♂ genitalia (DEVYATKIN, 1997). Similar spotting pattern and faint development of the underside bands are found in other different groups of species within the genus *Halpe*, thus making their identification extremely difficult without examination of the genitalia.

Halpe interposita spec. nov. (colour plate 19A: 7-8)

Holotype ♂: Central Vietnam, Thua Thien Hue Province, Bach Ma National Park, top 1400 m, 19.VI.2005, A. L. MONASTYRSKII leg., coll. of the Department of Entomology, Moscow State University.

Description: Antennae above dark brown, below chequered, club yellowish-white; nudum reddish. Frons and palpi with yellowish hairs.

Upperside (colour plate 19A: 7): Ground colour of both wings dark brown. The forewing with a usual *Halpe*-stigma below cell and 7 hyaline spots: three subapical spots in spaces 6 to 8, the latter being tiny and dot-like, the other two much larger and elongated, two rather small and subequal cell spots and two overlapping spots in spaces 2 and 3, the former being almost quadrangular, the latter larger and excavate towards termen. All spots are creamy white. Hindwing unmarked, with a slight yellowish tinge in the discal area.

Underside (colour plate 19A: 8) brown, with the same hyaline spots and traces of yellow submarginal markings on both wings. Length of the forewing 18 mm.

♂ genitalia (fig. 4): Uncus broad, slightly extended towards the end, the latter being rounded and narrowly but deeply bifid (dorsal view). Lateral processes far not reaching the end of the uncus, evenly curved at base but straight in the distal half; their tips blunt but slightly dent-like extended towards uncus in dorsal view, being pointed in lateral view. Clasp rather narrow but with a very robust costal process ("footstalk") at the base, the latter dorsally roughly serrate; cuiller with 2 dorsal processes, the proximal one being smooth and pointed, curved back and inwards; the distal process is much longer and more robust, expanded in the median part and strongly spined throughout. Aedeagus short, rather straight, expanded in the median part, its distal end bent down; the vesica covered with microtrichia.

Diagnosis and discussion: The ♂ genitalia of the new species shows certain similarity to those of the *H. homolea* (HEWITSON, [1868])-group (*H. aucma* SWINHOE, 1893, *H. handa* EVANS, 1949) but differs however in all the structures, especially in the lateral processes of tegumen, footstalk and the proximal process of cuiller. From this group of taxa the new species differs externally in the presence of two cell spots.

Within the species with two cell spots, the processes of the clasp looks somewhat like those in *H. hauxwelli* EVANS, 1937, the footstalk being entirely different, and *H. gamma* EVANS 1937, except the relative length and proportions of the processes.

Thus, the proper position of the new species in the genus *Halpe* MOORE, judging from a single ♂ specimen, cannot be located at present. At this very first glance, it seems to represent a kind of a link between the *H. homolea*-group, *H. gamma* EVANS and *H. hauxwelli* EVANS.

More specimens and the ♀ genitalia should be examined to clarify the taxonomic position of the new species within this morphological group of the genus *Halpe* MOORE.

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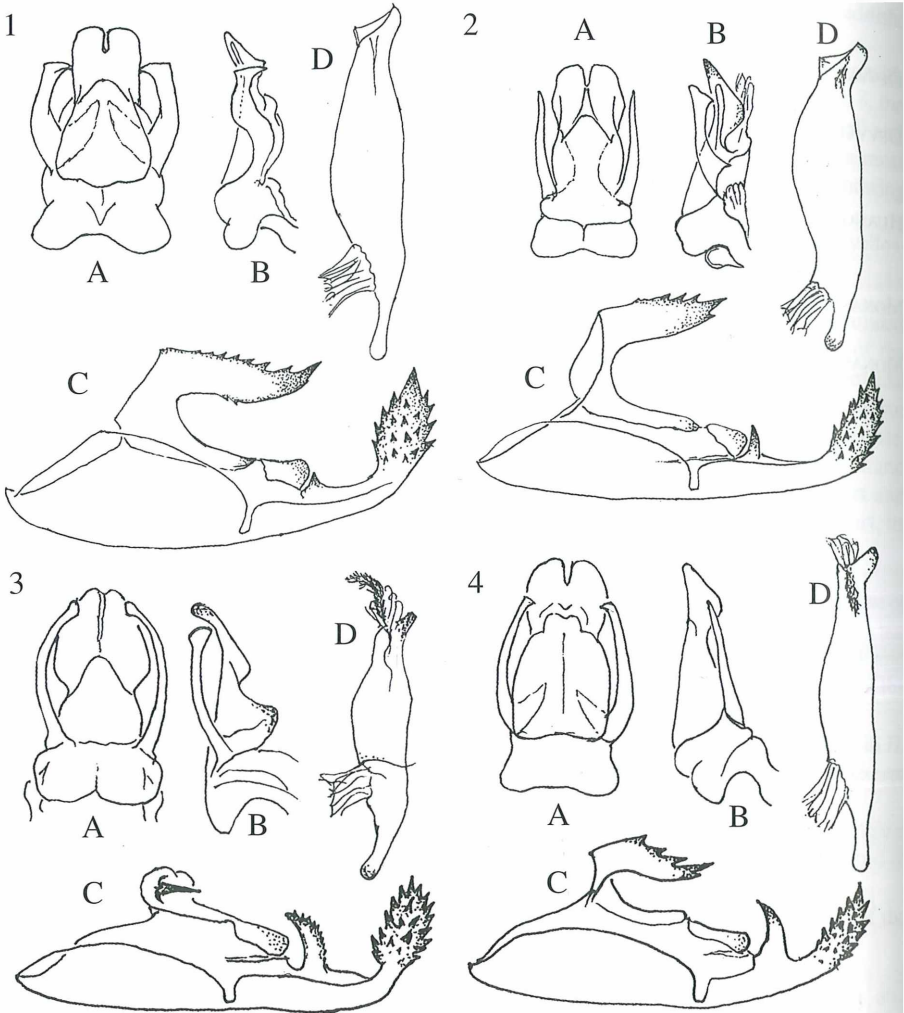


Fig. 1: *Halpe gammoides* spec. nov. A, B: Tegumen and uncus, dorsal and lateral view; C: right clasp, inner view; D: aedeagus, lateral view.

Fig. 2: *Halpe gamma* EVANS, 1937. A, B: Tegumen and uncus, dorsal and lateral view; C: right clasp, inner view; D: aedeagus, lateral view.

Fig. 3: *Halpe babensis* spec. nov. A, B: Tegumen and uncus, dorsal and lateral view; C: right clasp, inner view; D: aedeagus, lateral view.

Fig. 4: *Halpe interposita* spec. nov. A, B: Tegumen and uncus, dorsal and lateral view; C: right clasp, inner view; D: aedeagus, lateral view.

Colour plate 19A/ Farbtafel 19A

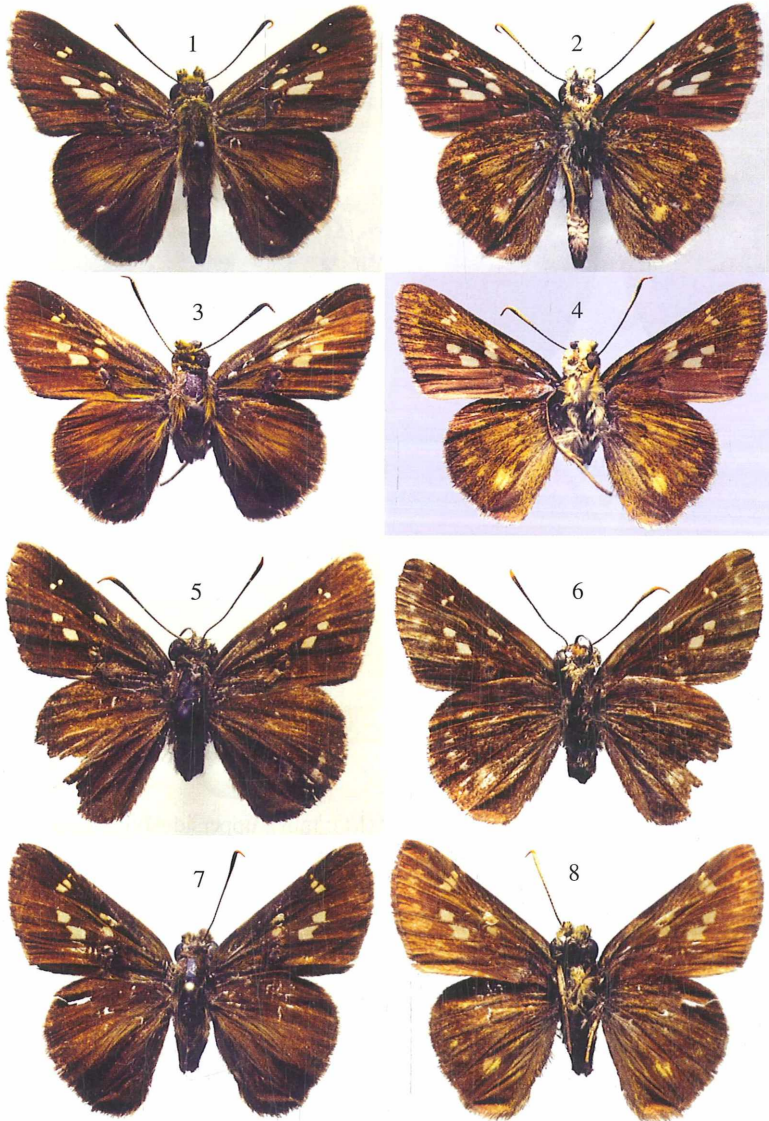


Fig. 1, 2: *Halpe gammoides* spec. nov., holotype ♂, North Vietnam, Phu Tho (formerly Vinh Phu) Province, Tam Dao National Park, 1000 m, 27.V.1995, A. L. MONASTYRSKII leg., upper- and underside. Fig. 3, 4: *Halpe gamma* EVANS, 1937. Taiwan, Taoyuan Co., Daman – Xuanyuan, 14.VI.1987, Y. F. Hsu leg., upper- and underside. Fig. 5, 6: *Halpe babensis* spec. nov., holotype ♂, North Vietnam, Bac Can Province, Ba Be National Park, loc. Hoc Cum, 10.XI.1997, A.L. Monastyrskii leg., upper- and underside. Fig. 7, 8: *Halpe inteposita* spec. nov., holotype ♂, Central Vietnam, Thua Thien Hue Province, Bach Ma National Park, top 1400 m, 19.VI.2005, A.L. Monastyrskii leg., upper- and underside.

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