

## New taxa and new records of butterflies from Vietnam (5)

(Lepidoptera, Papilionoidea)

by

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**Abstract:** Two new species and three new subspecies of Papilionoidea discovered in Vietnam between 2013-2015 are described and illustrated: *Celaenorrhinus markus spec. nov.*, *Faunis caelestis spec. nov.*, *Dodona eugenes indigena sub-spec. nov.*, *Horaga albimacula insulana subspec. nov.*, and *Remelana jangala daoana subspec. nov.* Six additional species in the families Nymphalidae and Lycaenidae are newly recorded to Vietnam.

**Introduction:** Several taxa new to science and new to the country were discovered during studies of the Vietnamese butterfly fauna in 2013-2015. These observations span the entire country, including Lao Cai and Ha Giang Provinces (northern Vietnam, Dong Van and Meo Vac Districts) and Ba Ria - Vung Tau Province (southern Vietnam, Con Son Is., Con Dao National Park). The former area is saturated with species distributed throughout the Sino-Himalayan region that penetrate into montane habitats in Vietnam along the Vietnam-China border. The latter includes an isolated butterfly assemblage, similar to continental species in southern Vietnam that have diverged enough to be considered as new subspecies. This descriptive work reports recent progress in my ongoing work to document the spectacular butterfly diversity of Vietnam (MONASTYRSKII, 2004; MONASTYRSKII, 2012). Casual inspection of unsorted material from Con Dao National Park suggests that more new discoveries are forthcoming. The butterfly material, with new taxa, was collected by the author and local collectors and is deposited in the Vietnam Forest Museum of the Forest Inventory and Planning Institute.

**Collecting localities:** Northern Vietnam: Ha Giang Province (Dong Van District - 23°16'N, 105°22'E, and Meo Vac - 23°10'N, 105°25'E); Lao Cai Province, Hoang Lien National Park (22°08'-23°N, 103°45'-104°00'E). Southern Vietnam: Ba Ria - Vung Tau Province Con Dao National Park - Con Son Is. (8°37'-48'N, 106°32'-106°45'E); Kien Giang Province, Phu Quoc Island, Phu Quoc National Park (10°12'-27'N, 103°50'-104°05'E).

### Abbreviations:

NHML: The Natural History Museum (London).

HT - PT: Holotype - paratype.

LC: Local collector.

MNHN: Museum National d'Histoire Naturelle (Paris).

TME: Toyosato Museum of Entomology (Tsukuba, Japan).

VFM/FIPI: Vietnam Forest Museum of the Forest Inventory and Planning Institute;

VNMN: Vietnam National Museum of Nature

### New taxa and new records

#### Hesperiidae

##### *Celaenorrhinus markus spec. nov.* (figs. 1-4)

HT ♂: Northern Vietnam, Ha Giang Province, Dong Van District, V.2013, LC leg. PTs: 4 ♂♂, 4 ♀♀ from the same locality and date as HT.

**Description:** Antennae brown, base of club white-ringed. Palpi whitish below. Abdomen striped at both sides. Wing shape, colour and pattern are similar in both sexes. Length of forewing: 21-23 mm.

Upperside (♂ fig. 1; ♀ fig. 3). Forewing upperside: ground colour uniformly dark brown; with several hyaline white spots. Subapical spots in cells R5-R3 almost in line; spots in cells M2 and M1 slightly smaller, elongated and detached; the spot in cell M3 is rhomboid and well separated from the spots in the discal cell and cell Cu1a; the latter two spots are large, generally subequal, and well separated, though the spot in discal cell usually larger; the discal cell spot is never above the radius; two small spots in cell Cu1b are subequal and directed toward the dorsum; basal spot in cell Cu1b is small, slightly elongated and divided into two very small dots when viewed under magnification. Fringes uniformly pale brown.

Hindwing: ground colour as in forewing; subbasal dark orange spots are absent; a dark orange spot at the end of discal cell is large; small discal spots in spaces Cu1b (double) are rather obscure; discal spots in cells Cu1a (elongated) and Rs (round) are well developed; the submarginal series is represented by double spots in cell Cu1b and spots in cells Cu1a and M3; small spots in cells M2 and M1 are always present; all spots in the ♂♂ much smaller. Fringes chequered brown and yellow.

Underside (♂ fig. 2, ♀ fig. 4). Ground colour as on the upperside, being much paler in cell 2A and slightly paler in basal area of the forewing; subbasal yellowish spots in discal cell (double in some specimens) and in cells Cu1b and R1 well developed; all other markings of the hindwing similar to that on upperside but larger, brighter and more sharply defined; the discal cell spot of the forewing is never present above the radius.

♂ genitalia (figs. 5 a-e): Inner contour of uncus short arms U-shaped (fig. 5 b) and its ends indented in lateral view (fig.

5 a). Gnathos is long and narrow with fine spines on the distal part. Clasp elongate; costa and sacculus well developed; cuiller well sclerotized, distally serrated and smoothly rounded towards the opposite clasp (figs. 5 c); costal side terminates with a flattened, laterally bent, and pointed process (fig. 5 d). In ventral view the aedoeagus is short and thickened with oval extension of distal dorsal part which is 1/3 of the aedoeagus length (fig. 5 e) covering vesica with two cornuti. Juxta rather broad and well sclerotised with an unusual, thin tubular medial process (fig. 8), the supposed function of which is discussed below. This structure is rare in hesperiids and is absent in other Asian *Celaenorrhinus*.

♀ genitalia (fig. 5 f): Papillae anales triangular; apophyses posteriores weakly developed. Postvaginal plate rectangular, weakly sclerotized with concavity in central part. Ostium copulatrix strongly sclerotized and adjoining antevaginal plate. Ductus bursae straight, gradually wider and fusing with the bursa copulatrix, which diverges into two parts: 1) a strongly sclerotized oval bursa, dorsal part of which is a well sclerotized, concave leaf-shaped surface with parallel rows of wrinkles dotted with tiny spines; 2) a spherical, wrinkled and weakly sclerotized appendix. Anterior apophyses absent.

**Diagnosis and discussion:** This new species is assigned to the yellow-spotted *Celaenorrhinus* section because of the yellow-orange spotted pattern on its hindwings. The species bears a unique combination of characters that is unknown in other members of the genus. These characters are as follows: 1. White hyaline spot in discal cell on both sides of the forewing does not extended above the radius. This character is seen in both sexes on both sides of the forewing. A similar character is found in some species of the *maculosa-oscule* group; however, members of *maculosa-oscule* group are distinguished by a basal, yellow stripe on both sides of the wings and similar genitalia patterns in the ♂♂; 2. Presence of a basal spot in cell Cu1b is also characteristic of the *maculosa-oscule* species group; 3. Absence of yellow-orange spots in the basal area of the hindwing upperside is not a character of *maculosa-oscule* group; however, it may be seen in the *putula-putula* (MOORE [1866]) group. Similar characters also may be seen in some Taiwanese species, but these have distinctively different genitalia; 4. The clasp structure is abnormal; though the distal part is similar only to *C. morena* EVANS, 1949. Both have a very long cuiller bent over the style, but the structure of the uncus is different in *C. morena* EVANS; it is reduced to two long narrow arms. In the new species, the uncus reminds this structure in Taiwanese endemic *C. horishanus* (SHIRÔZU, 1960). Moreover, EVANS (1949) does not report about the medial juxta process. This indicates absence of relationship with *C. morena* EVANS, and the clasp similarity is probably convergent. 5. The bursa copulatrix in ♀♀ is unusual (fig. 5 f) and practically a total reduction of both pair apophyses.

Several of the unique morphological characters found in this new species suggest affinity with some members of the *C. putula-putula* group. This supposition may be supported by structures of the uncus, the clasp (the well developed cuiller and costal process), and the long, pointed gnathos. The unusual caudal process on the juxta; its function requires further study. Nevertheless, during coitus, it is possible to assume that as the top of juxta bends inwards, the medial process turns upwards, resting against the end of the ♀ abdomen, after which the valvae turn back, capturing the ♀ (STEKOLNIKOV, pers. comm.).

#### Nymphalidae - Satyrinae

##### *Ypthima conjuncta* LEECH, 1891

4 ♂♂, 1 ♀, Northern Vietnam, Ha Giang Province, Meo Vac District, 16.-23.VI.2014, secondary vegetation at 1200 m, A. MONASTYRSKII leg.

*Ypthima conjuncta* LEECH, 1891 has been reported from Vietnam in previous surveys. However, a more detailed study showed that these specimens were other species that had been misidentified as *Y. atra* CANTLIE & NORMAN, 1959 (UÉMURA & MONASTYRSKII, 2004) and *Y. persimilis* ELWES & EDWARDS, 1893 (MONASTYRSKII & DEVYATKIN, 2003). The population of *Y. conjuncta* LEECH discovered in Ha Giang Province is identical to specimens of *Y. conjuncta luxurians* FORSTER, 1948 [China, Fukien (Fujian), Kuatan] in genitalia structure, wing pattern, and androconial scales.

#### Amathusiinae

##### *Faunis caelestis* MONASTYRSKII & LANG spec. nov. (figs. 6-9)

HT ♂: Northern Vietnam, Ha Giang Province, Dong Van District, VI. 2013, Nguyen Tu leg. PTs: 7 ♂♂, 5 ♀♀, same locality as HT, VI.2013, Nguyen Tu leg.; 3 ♂♂, 2 ♀♀ in the vicinity of Dong Van, 20.VI.2014, A. MONASTYRSKII leg.

**Description:** ♂ (figs. 10, 11) Upperside. Ground colour of both wings uniformly dark grey with blackened submarginal and marginal areas. Forewing: narrow, creamy edge of costa extends from the base to the end of vein Sc; apical and submarginal areas are blackish. Fringes dark grey.

Underside. Ground colour of both wings dark brown with much darker subbasal, discal and submarginal fasciae; submarginal creamy spots in cells Cu1a - R5 small, similar to those in the nominate *Faunis aerepe* (LEECH, 1890). Size of submarginal spots varies from small but distinct in every cell to barely perceptible dots, especially in cells Cu1a and M1 on the forewings and cells M2 and M1 on the hindwings; basal area in discal cell of the forewing sometimes bears a small dark spot. Length of forewings: HT 44 mm; other PTs 43-47 mm.

♀ (fig. 14) Upperside. Forewing: Ground colour dark grey (basal area) and grey with whitish (albescent) tinge (postdiscal area); submarginal and marginal areas black with diffuse inner border to postdiscal area; edge of costa dark grey; the inner bent of discal vein darkened. Hindwing: Ground colour uniformly dark grey with blackish marginal border and fringes.

Underside. Generally, ground colour of both wings similar to that of the ♂♂; in some specimens discal area between subbasal and discal fasciae slightly but distinctly darker. Size of submarginal spots varies similar to the ♂♂; basal area

in discal cell of the forewing usually with a small dark spot. Length of forewings: 46–52 mm.

♂ genitalia (figs. 10, 11): Clasp of the new species (figs. 12, 13) is much longer than in *F. aerope* (LEECH) and similar in shape to the clasp of *F. excelsa* (FRUHSTORFER, 1901); however, it has a distinctive structure: the clasp is longer and thicker than in *F. excelsa* (FRUHST.), slightly enlarged at the end, and densely covered with four rows of spines (figs. 10, 11), while the population of *F. excelsa* (FRUHST.) from the type locality (N. Vietnam, Lang Son Province, Than Moi) bears only one row of spines (figs. 12, 13). The structure of the clasp in the new species is similar to a population from Vu Quang, Vietnam, (MONASTYRSKII, 2004) but the wing patterns of the butterflies in this population closely resemble *F. excelsa* (FRUHST.).

♀ genitalia (fig. 14): The antevaginal plate is symmetrically well sclerotized on the right and left, similar to that in *F. excelsa* (FRUHST.). Each portion is elongated with an undulate dorsal edge; the ventral part has a rather complicated, strongly sclerotized, and spiny surface. The antevaginal plate in *F. excelsa* (FRUHST.) (fig. 15) is rather distinctive; it is much broader than in this new species, and each portion has a quadrate shape with large spiny area on the ventral side.

**Etymology:** The name originates from the Latin word “caelestis” meaning “glorious”

**Diagnosis and discussion:** Externally, the underside of the wings in both sexes of the new species are similar to *F. aerope* (LEECH) in that both have a wing pattern with small, submarginal spots. The ♀ of the new species is similar to the ♀ of *F. a. yunnanensis* BROOKS, 1933 characterised by a dark, grey ground colour on the upperside of both wings with a broad, black submarginal border. However, the ♀ of *F. a. yunnanensis* BROOKS lack a whitish (albescens) tinge in postdiscal area of the forewing. Uniform grey ground colour on the upperside of both wings in ♂♂ is much darker than in ♂♂ of the nominate subspecies of *F. aerope* (LEECH) and *F. excelsa* (FRUHST.). The underside of both wings is much darker than in *F. aerope* (LEECH), *F. a. yunnanensis* BROOKS and *F. excelsa* (FRUHST.). The most important characteristic of the new species that clearly demonstrates its taxonomic status is the structure of the ♂ claspers. All taxa of the *F. aerope* complex may be divided into two rather distinctive subgroups based on claps structure. The ♂♂ of the first subgroup are characterised by short and rather thin claspers with the apex covered by relatively scarce and large spines. Such clasp structure has been found in *F. a. aerope* (LEECH, 1890) (fig. 16); *F. a. yunnanensis* BROOKS (fig. 17); *F. a. indistincta* MELL, 1942 (fig. 18); and *F. a. montana* NAKAMURA, 2010 (fig. 19).

However a detail analysis shows that the taxonomic situation in the group of species, *F. aerope* (LEECH) is more complicated than it suggested above. ♂♂ of these taxa differ from each other by rather minor but invariant, distinctive characters. The stability of these characters suggests that this stenotopic group is a separate species. The other *F. aerope* subgroup includes taxa in which the ♂♂ have rather long and thickened claspers with apexes densely covered in small spines. These include: *F. excelsa* (FRUHSTORFER, 1901), *F. centrala* MONASTYRSKII, 2004, and *F. caelestis* **spec. nov.** The unique differences in the ♂ genitalia of this new taxon strongly justifies its separation as a different species. Note that both of these subgroups include taxa with submarginal whitish spots on the underside of the wings that vary markedly in size. *Faunis excelsa* (FRUHST.), *F. centrala* MONASTYRSKII and *F. a. montana* NAKAMURA bear larger spots while the wing patterns of *F. a. aerope* (LEECH), *F. a. yunnanensis* BROOKS, *F. a. indistincta* MELL and *F. caelestis* **spec. nov.** are characterized by smaller submarginal spots.

Thus, like forest-dwelling representatives of continental Asian amathusiids (e.g., genera *Aemona* and *Stichophthalma* (MONASTYRSKII & DEVYATKIN, 2003; DEVYATKIN & MONASTYRSKII, 2004)) the genus *Faunis* and in particular the *F. aerope* species complex may be prone to endemism in areas where suitable conditions become mosaic and peculiar. Such areas include mountain massifs located from central China (Sichuan, and Hunan) south to southern Yunnan and further to northern and central Vietnamese highlands. I have found a geographical pattern in some combinations of morphological characters that seem to indicate endemism. In particular, there is a tendency for the clasp to thicken and lengthen and for a reduction in the number of apical spines. At the same time, there is a trend for the forewing length and underside submarginal spot size to increase in both sexes.

### Nymphalinae

#### *Araschnia prorsoides* (BLANCHARD, 1871)

1 ♀, Northern Vietnam, Ha Giang Province, Dong Van District, vicinity of Dong Van town, in secondary vegetation, VI. 2014. LC leg.

This record from Vietnam seems to be the southernmost in the species' distribution, which includes western China (southern Gansu, Sichuan, northern Yunnan) and southeast Tibet. The sole specimen collected bears a rather reddish-brown tinge. However, a dearth of material prevents a conclusion on the taxonomic status of the Vietnamese population. It is well known that both sexes of this species are characterized by seasonal and interseasonal variations that cause difficulties in the detection of subspecific features.

### Limnitiidae

#### *Chalinga elwesi* (OBERTHÜR, 1883)

1 ♂, Northern Vietnam, Ha Giang Province, countryside in the vicinity of Dong Van town, 14.VI.2014, A. MONASTYRSKII leg.

This is the first record from Vietnam. The ♂ specimen collected in Ha Giang bears characters similar to that in the type from Tseku (Yunnan) and populations recorded in eastern Tibet, southwest Sichuan, northwest Yunnan, and Xishuangbanna (southern Yunnan) near the borders to Laos and northern Vietnam (LANG, 2010, 2012).

*Euthalia omeia xamneuana* YOKOCHI, 2011

3 ♂♂, Northern Vietnam, Vinh Phuc Province, Tam Dao N.P., LUU HOANG YEN leg.  
The ♂ specimens resemble the HT (YOKOCHI, 2011: 18, fig. 236).

**Riodinidae**

*Dodona eugenes indigena* subsp. nov. (figs. 20-23)

HT ♂: Northern Vietnam, Ha Giang Province, Dong Van District, VI. 2013, Nguyen Tu leg. Paratypes 6 ♂♂, 3 ♀♀, the same locality as HT, VI.2013, Nguyen Tu leg.; 1 ♂, same locality as HT, VI.2014, A. MONASTYRSKII leg., 2 ♂♂, northern Vietnam, Lao Cai Province, Cong Troi pass (Tram Ton), Hoang Lien National Park, 17.IV.2015, A. MONASTYRSKII leg.

**Description:** ♂ (figs. 20, 21) Upperside. Ground colour of both wings varies from dark brown to blackish brown. Forewings have series of yellowish-creamy subbasal spots; postdiscal spots in cells Cu1b and Cu1a are yellowish; postdiscal spots in cells M2, M1 are pale creamy-white; submarginal spots in cells Cu1b and Cu1a are yellow orange; other submarginal spots (cells M3, M2, M1) are creamy white. Hindwing tailed with pale greyish, indistinct postdiscal and submarginal lines and blackish submarginal area; prominent white spot located in distal part of cell R1.

Underside. Forewing: Ground colour dark brown; pattern of markings similar to the upperside with additional basal, short whitish transverse bar approaching but not touching the whitish basal streak in cell Sc; costal whitish spots are a continuation of the subbasal creamy fascia and postdiscal creamy bar in cells M2 and M1; all markings are broader and much paler on the upperside. Hindwing: Ground colour brown to dark brown with series of subbasal, postdiscal and submarginal silver fasciae. Postdiscal silvery fascia divided to three well-developed parts: a precostal bright bar in cell R1, a discocellular bar and a postdiscal lower line. Fringes weakly chequered creamy and brown. Length of forewing: holotype 20 mm; other ♂♂ 18-20 mm.

♀ (figs. 22, 23) Upperside: The ground colour of both wings is dark brown but slightly paler than in the ♂; forewing with a pattern of creamy, yellowish spots similar to that in the ♂, but all spots are broader and brighter. Hindwing: Pattern similar to that in the ♂, but with two prominent, white spots in the distal part of cell R1 and in the middle area of cell M1. Underside: Forewing ground colour dark brown with blackish spaces between submarginal and postdiscal spots in cells M2 - Cu1b; pattern of markings similar to the upperside with additional basal short whitish transversal bar approaching but not touching the whitish basal streak in cell Sc. Hindwing ground colour brown with pattern of silvery lines similar to the ♂♂. Silvery discocellular bar of postdiscal silvery line well developed and its lower part slender without broadening in cells M3 - Cu1b. Fringes weakly chequered creamy and brown. Length of forewing: 20.0-21.5 mm.

**Etymology:** The Latin name *indigena* may be translated as "local."

**Diagnosis and discussion:** The new species is externally similar to the nominate subspecies: *Dodona e. eugenes* BATES, 1868, HT ♂, NHML; type locality: Nepal, northern India), BATES coll.; *Dodona eugenes* BATES, GODMAN & SALVIN coll. 1914-3. It also resembles the synonymous taxon *D. eugenes venox* FRUHSTORFER, 1912, type ♂ NHML; type locality Bhutan [FRUHSTORFER's autograph: *eugenes venox* FRUHSTORFER]. At the same time, the new taxon differs from these taxa in the following characteristics.

1. Yellowish-creamy markings on the upperside of both sexes is more intensive.
2. The dark brown ground colour on the underside of hindwing is much darker than in nominate subspecies and ssp. *D. eugenes venox* FRUHST.
3. Both sexes have a silvery bar at the discocellular vein on the underside of the hindwing that is much prominent than in *D. e. eugenes* BATES and *D. eugenes venox* FRUHST.

**Lycaenidae - Theclinae**

*Cordelia comes* (LEECH, 1890)

1 ♀, Northern Vietnam, Ha Giang Province, countryside in the vicinity of Dong Van town, 14.VI.2014, LC leg. First record from Vietnam. The species ranges Provinces of central China: Shaanxi, Hubei (type locality: Changyang), Sichuan and Jiangsu (Wang Min & Fan Xiaoling, 2002; Koiwaya, 2007). It was recently discovered in northern Myanmar (KOIWAYA, 2007).

*Horaga albimacula insulana* subsp. nov. (figs. 24-28)

HT ♂, Southern Vietnam, Ba Ria - Vung Tau Province, Con Son Is., 25.III.2015. A. Monastyrskii leg.

PTs 6 ♂♂, 3 ♀♀, the same locality as HT, 21-25.III.2015, A. MONASTYRSKII & NGUYEN DINH TRUNG leg.

**Description:** ♂ (figs. 24, 25) Upperside. Forewing: Ground colour grades from black (distal part) to blackish-brown (basal part); central patch pure white; fringes chequered white (~1/3 of termen adjoined to apex and ~1/3 of termen adjoined to tornus) and brown (mid part of termen). Hindwing: Ground colour from black (distal part) to blackish-brown (basal part); tornal part of termen with a thin greenish line and sparkled tornus; fringes white.

Underside: Ground colour of both wings uniformly dark olive-brown with slightly paler basal area.

Forewing: Whitish spot rather broad and its outer margin is bordered with a dark brown line.

Hindwing: Pale postdiscal line with delicate violet tinge which is variable and in some specimens disappears, making the line colour similar to the ground colour; the tornal V-shaped lines covered with greenish-blue sparkled scales. Length of forewing: 11.5-12.5 mm



♀ (figs. 26, 27) Upperside. Forewing: Ground colour uniformly blackish-brown with subbasal bluish area adjoined to dorsum; central patch pure white; fringes chequered white and brown similar to the ♂.

Hindwing: Ground colour uniformly dark brownish with bluish subbasal area adjoined to dorsum.

Underside: Ground colour of both wings is uniformly brown.

Forewing: Central whitish spot slightly elongated and outwardly bordered with dark brown line.

Hindwing: Postdiscal whitish band with thin but distinct dark brown line; the tornal V-shaped lines covered with greenish-blue sparkled scales similar to the ♂. Length of forewing: 13.5-14.5 mm.

♂ genitalia (fig. 28): Generally, genitalia structure of a new taxon similar to that in other continental subspecies of *H. albimacula*: *triumphalis* MURAYAMA & SIBATANI, 1943 (fig. 29) (BASCOMBE et al., 1999), *albistigmata* MOULTON, 1912 (fig. 30) (ELIOT, 1986). The uncus lobes form an equilateral triangle. Well sclerotised gnathos asymmetrical: the left arm elongated with relatively straight mid portion (fig. 28); the right arm short and bent. The terminal part of the valvae are long and slender with a slight bend at the tip; the vesica of the aedoeagus is studded with numerous, minute teeth.

**Etymology:** The Latin name *insulana* may be translated as “islander”.

**Diagnosis and discussion:** ELIOT (1986) showed that the *Horaga albimacula* (WOOD MASON & DE NICEVILLE) complex comprises two well distinct species: *H. albimacula* (WOOD MASON & DE NICEVILLE) and *H. chalcedonyx* FRUHSTORFER, 1914. The ♂♂ or each are characterised by distinctive genitalia. According to analysis the population from Con Son Island is a variation of *H. albimacula* (WOOD MASON & DE NICEVILLE): similar pattern of uncus, clasp, aedoeagus and both arms of gnathos. At the same time in comparison with the continental subspecies *H. a. viola* MOORE, 1882 and *H. a. albistigmata* MOULTON, 1912, the clasp of the new subspecies is more elongated and straight in its distal part. The left arm of gnathos is elongated, whereas the right arm is slightly shorter. The structure of aedoeagus is typical. The main subspecific differences concern colour and pattern of the under surface of both wings and the size and shape of the white spot on both sides of the forewing. The new species has a relatively large white spot without any suffusion as in *H. a. viola* MOORE or dark veins inside the spot (e.g., *H. a. triumphalis* MURAYAMA & SIBATANI). The black ground colour of the upper surface of both wings is without any bluish scales in the basal areas, while in the continental subspecies *H. a. viola* MOORE the white spot is much smaller and the upperside is more violet brown (Seitz, 1910). In *H. a. triumphalis* MURAYAMA & SIBATANI, 1943 the upperside ground colour of both wings is also black; however, it has some other distinctive characters: the white spot on the upperside of forewing is crossed by blackish vein. The undersides of both wings are mustard-yellow in ♂♂ and pale mustard-yellow in ♀♀; there is a whitish postdiscal line with distinct reddish inner border and without shining fasciae in the tornal area of the hindwings.

#### *Dacalana cotys* (HEWITSON, [1865])

2 ♀♀, Southern Vietnam, Kien Giang Province, Phu Quoc Island (Phu Quoc National Park), III. 2015.

The species has been mentioned from southern Vietnam (S. Annam) around a hundred years ago (GODFREY, 1919). However, the population discovered in Phu Quoc Island is the first record since that time. It is notable that the Thailand population has been also recorded in some southern continental parts of the country (Chanthaburi and Kanchanaburi) that are located rather close to Phu Quoc Island.

#### *Remelana jangala d a o a n a* subsp. nov. (figs. 31-34)

HT ♂, Southern Vietnam, Ba Ria Vung Tau Province, Con Son Island, Con Dao National Park, 24.III.2015; A. MONASTYRSKII leg. PTs: 18 ♂♂, 3 ♀♀, the same locality as HT, 24-25.III.2015, A. MONASTYRSKII & NGUYEN DINH TRUNG leg.

**Description:** ♂ (figs. 31, 32) Upperside: Ground colour of both wings is black. Forewing: Purple-blue area restricted to the lower part of discal cell and the basal ~ 1/2 of cells 2A and Cu1b. Hindwing: Purple-blue narrow patch spreads from the basal to postdiscal area including cells Cu1a, M3 and M2. Underside: Both wings are uniformly dark brown with a distinct double bar at the discocellular vein. Forewing: Pale brown tornal area in cells 2A and Cu1b. Hindwing: The tornal area has large black spots in cells 2A, Cu1a and M3, which are bordered with shiny turquoise line. Fringes short, whitish. Length of forewing: 17.5-21 mm.

♀ (figs. 33, 34) Upperside: Ground colour of both wings similar but slightly paler than in the ♂. Forewing: the blue area is restricted of lower part of discal cell and ~ 1/2 of cells 2A and Cu1b and basal part of cell Cu1a and M3. Hindwing: Pattern similar to that in the ♂, however blue patch is not distinct; tornal blackish spots bordered by shiny turquoise lines. Underside: Both wings ground colour ochreous-brown with discal cell-end double line spots. Forewing: Pattern similar to the ♂ however tornal area in cells 2A and Cu1b much paler than ground colour. Hindwing: tornal area with whitish and large black spots in cells 2A, Cu1a and M3 bordered with shiny turquoise lines. Fringes short, whitish. Length of forewing 19.5-21.5 mm.

**Etymology:** The name originates from the Vietnamese word “đảo” meaning “island.”

**Diagnosis and discussion:** In contrast to the continental *R. j. ravata* (MOORE, 1865) and *R. j. travana* (HEWITSON, [1865]) ♂♂ of the new subspecies are characterized by reduced blue area in discal-median part of the hindwing upperside; in the ♀ the reduction of blue area is very conspicuous on the upperside of the forewing. In addition, in continental populations the blue area in cell Cu1b of the forewing upperside extends 2/3 of the length, while in the new subspecies the blue patch extends only 1/2 length of cell Cu1b.

This species is similar in size to the dry season forms of both sexes of another continental subspecies *R. j. mudra* FRUH-

STORFER, 1907 (southeastern China, Guangdong Province; Hong Kong). However, the bluish gloss on the upperside of *R. j. mudra* FRUHST. is more extensive; the underside ground colour of *R. j. daoana* **subspec. nov.** is reddish brown with dark brown, whereas the hindwing tornus in *R. j. mudra* FRUHST. is black hindwing with marginal spots. Both sexes have weakly developed, shiny turquoise lines in the tornal area of the underside hindwing.

Another, geographically close subspecies, *R. j. hainanensis* JOCEY & TALBOT, 1922 is characterised by a distinctive wing pattern: in the ♂, the blue patch on upperside is confined to a small spot at the hind-margin along the tornal edge; in the ♀ the blue area is usually absent; the turquoise lines in tornal area of underside hindwing are very small.

*Virachola reperculsa* (LEECH, 1890)

1 ♂, Northern Vietnam, Ha Giang Province, countryside in the vicinity of Dong Van town, VI.2014, local collector leg.

First record from Vietnam.

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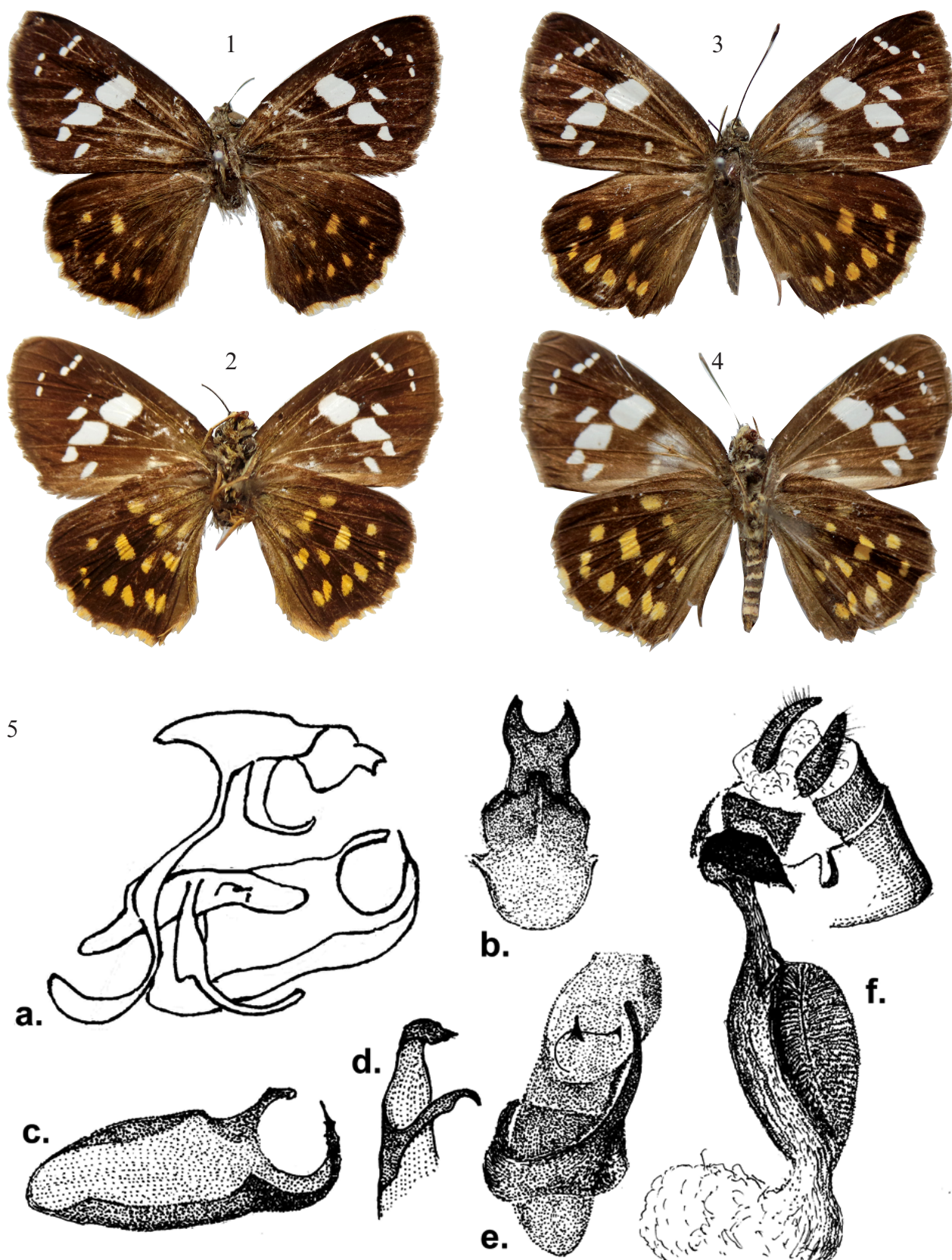
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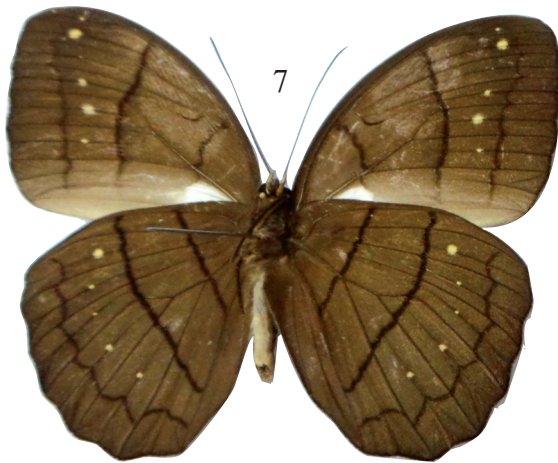


Figs. 1, 2: *Celaenorrhinus markus* spec. nov., HT ♂, N. Vietnam, Ha Giang Province, Dong Van, LC.

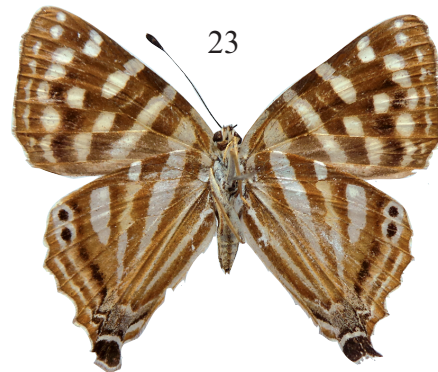
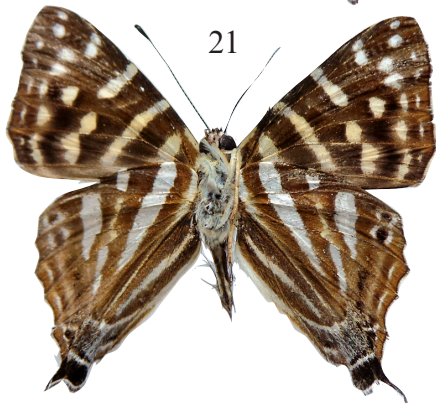
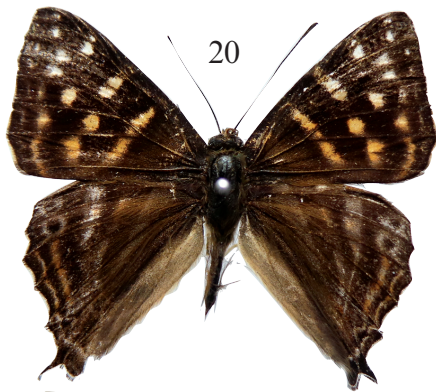
Figs. 3, 4: *Celaenorrhinus markus* spec. nov., PT ♀, N. Vietnam, Ha Giang Province, Dong Van, LC.

Fig. 5: ♂ and ♀ genitalia of *Celaenorrhinus markus* spec. nov.: a) general lateral view of ♂ genitalia; b) tegumen and uncus in dorsal view; c) right clasp in lateral view; d) end of right clasp in dorsal view; e) aedoeagus and juxta in ventral view; f. general view of ♀ genitalia NGUYEN TU leg., upper- and underside.





Figs. 6, 7: *Faunis caelestis* spec. nov., HT ♂, N. Vietnam, Ha Giang Province, Dong Van, NGUYEN TU leg.  
Figs. 8, 9: *Faunis caelestis* spec. nov., PT ♀, N. Vietnam, Ha Giang province, Dong Van, NGUYEN TU leg.



Figs. 20, 21: *Dodona eugenes indigena* subspec. nov., HT ♂, N. Vietnam, Ha Giang province, Dong Van, Nguyen Tu leg., upper- and underside.  
Figs. 22, 23: *Dodona eugenes indigena* subspec. nov., PT ♀, N. Vietnam, Ha Giang province, Dong Van, Nguyen Tu leg., upper- and underside.



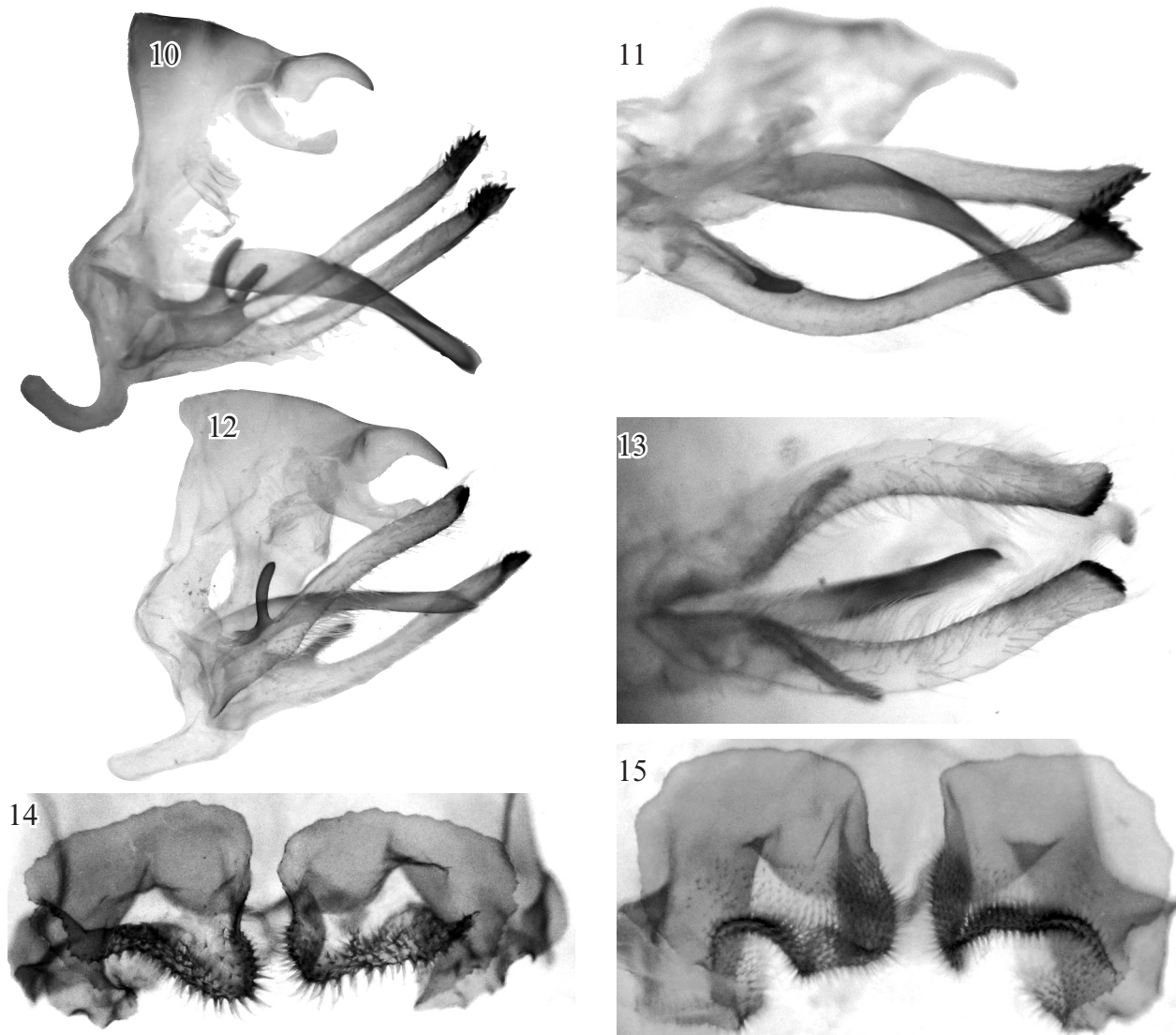
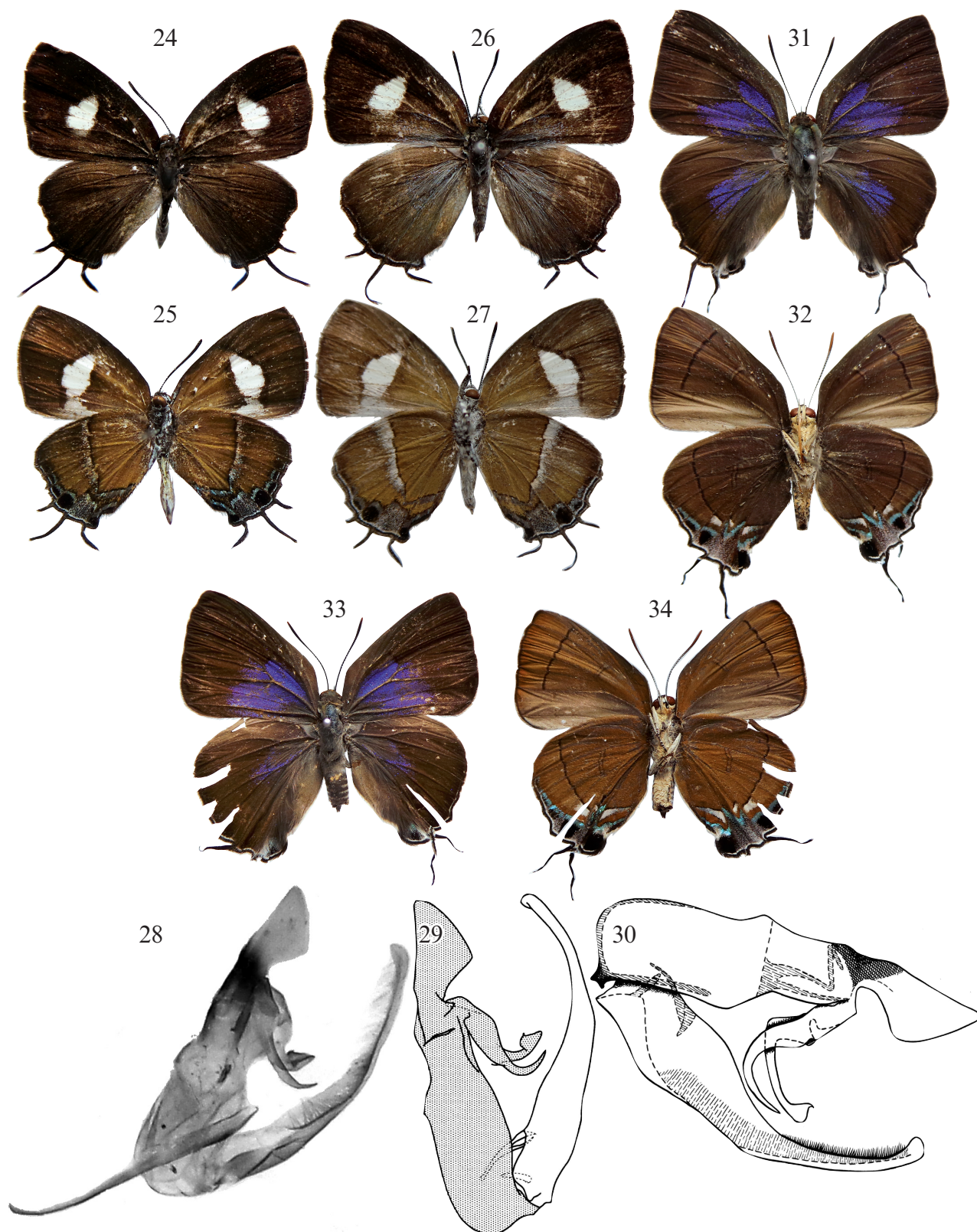


Fig. 10: ♂ genitalia of *Faunis caelestis spec. nov.* in lateral view.  
 Fig. 11: ♂ genitalia of *Faunis caelestis spec. nov.* in ventral view.  
 Fig. 12: ♂ genitalia of *Faunis excelsa* (FRUHSTORFER, 1901). in lateral view.  
 Fig. 13: ♂ genitalia of *Faunis excelsa* (FRUHSTORFER, 1901) in ventral view  
 Fig. 14: ♀ genitalia of *Faunis caelestis spec. nov.*: antevaginal plate in ventral view.  
 Fig. 15: ♀ genitalia of *Faunis excelsa* (FRUHSTORFER, 1901): antevaginal plate in ventral view.



Fig. 16: ♂ genitalia of *Faunis aerepe aerepe* (LEECH, 1890): right valva in lateral view.  
 Fig. 17: ♂ genitalia of *Faunis yunnanensis* BROOKS, 1933: right valva in lateral view.  
 Fig. 18: ♂ genitalia of *Faunis indistincta* MELL, 1942: right valva in lateral view.  
 Fig. 19: ♂ genitalia of *Faunis montana* NAKAMURA, 2010: right valva in lateral view.



Figs. 24, 25: *Horaga albimacula insulana* subspec. nov., HT ♂, S. Vietnam, Ba Ria Vung Tau province, Con Son Is., A. MONASTYRSKII leg.

Figs. 26, 27: *Horaga albimacula insulana* subspec. nov., PT ♀, S. Vietnam, Ba Ria Vung Tau province, Con Son Is., A. MONASTYRSKII leg.

Fig. 28: ♂ genitalia of *Horaga albimacula insulana* subspec. nov. in lateral view.

Fig. 29: ♂ genitalia of *Horaga albimacula triumphalis* MURAYAMA & SIBATANI, 1943 (after Bascombe et al., 1999)

Fig. 30: ♂ genitalia of *Horaga albimacula albistigmata* MOULTON, 1912 in lateral view

Figs. 31, 32: *Remelana jangala daoana* subspec. nov., HT ♂, S. Vietnam, Ba Ria Vung Tau province, Con Son Is., A. MNASTYRSKII leg.

Figs. 33, 34: *Remelana jangala daoana* subspec. nov., PT ♀, S. Vietnam, Ba Ria Vung Tau province, Con Son Is., A. MONASTYRSKII leg.

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