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New taxa and new records of butterflies from Vietnam

(Lepidoptera, Rhopalocera)

by

A. L. Monastyrskii & A. L. Devyatkin

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Summary: 6 new species and 6 new subspecies from different families of Rhopalocera are described and illustrated, on the base of material collected in 1996-1999, mostly in the mountain plateaus of Central Vietnam: *Delias vietnamensis* spec. nov. (Pieridae); *Limenitis rileyi ngoclinensis* subspec. nov., *Calinaga funeralis* spec. nov., *C. sudassana distans* subspec. nov. (Nymphalidae); *Lethe philesana* spec. nov., *L. konkakini* spec. nov., *Zipoetis unipupillata annamicus* subspec. nov. (Satyridae); *Stichophthalma louisa eamesi* subspec. nov., *S. uemurai gialaii* subspec. nov. (Amathusiidae); *Dodona speciosa* spec. nov., *D. katerina* spec. nov., *D. maculosa phuongi* subspec. nov. (Riodinidae). 16 species are new records for the country, and further 3 are recorded for the first time from Central Vietnam.

The data presented are the result of recent butterfly fauna surveys which were conducted during the course of various conservation projects. The majority of new records and new taxa were discovered in the central provinces of Vietnam situated in Kontum plateau and in Annamite montane area. Butterfly fauna studies were carried out by the BirdLife International Vietnam Programme and the Forest Inventory and Planning Institute (FIPI) expeditions within the course of a two-year project funded by the European Union, which was aimed to assist the establishment of protected areas in Central Vietnam. Studies carried out by Vietnam-Russian Tropical Centre expeditions in Hoang Lien Son Nature Reserve, Ba Be National Park, Vu Quang Nature Reserve and Ke Bang Nature Reserve were supported by the World Wide Fund for Nature Indochina Programme. Part of the material was collected by volunteers of the Frontier-Vietnam organization (United Kingdom) and by volunteers of the Fauna and Flora International.

The main collecting localities

North Vietnam (Tonkin)

Hoang Lien Son Nature Reserve, Lao Cai Province (22°09-24'N; 103°47-59'E)
The forest belongs to three types: sub-montane dry evergreen forest, tropical montane deciduous forest and sub-alpine forest. In addition, scrubland and savannah areas are found on ridge tops. The dwarf bamboo habitats are confined to the highest ridges of the Fansipan massif, at altitudes above 2800 m.

Ba Be National Park, Bac Can Province (22°23'N; 105°37'E)
The forest can be classified into two main types: *Streblus/Burretiodendron* forest on steep, rocky limestone slopes and mixed lowland rainforest on deeper soils. The second one is characterized by a diverse ground flora, including herbs and palms (Frontier report).

Central Vietnam (Annam)

Vu Quang Nature Reserve, Ha Tinh Province (18°18-20'N, 105°45-50'E)
Mostly lowland evergreen rainforest and deciduous and semi-deciduous monsoon forest, the vegetation type being dependant on annual rainfall at the site.

Phong Dien Nature Reserve, Thua Thien Hue Province (16°21-34'N, 107°01-17'E)
Tropical lowland evergreen and semi-evergreen rainforest. Originally forests were distributed throughout the coastal lowlands and foothills, which were almost completely deforested prior to 1945. The nature reserve represents one of the largest remaining tracts of lowland forest in Central Vietnam.

Ngoc Linh Nature Reserve, Kon Tum Province (14°45'-15°15'N, 107°21-108°20'E)
A montane area with the highest peak of 2598 m (Mount Ngoc Linh). According to the forest type classification by THAI VAN TRUNG (1978), the following types were found in the nature reserve: high montane broad-leaved evergreen forest; medium to high montane broad-leaved evergreen forest; low montane broad-leaved evergreen forest and secondary forest.

Kon Ka Kinh and **Kon Cha Rang** Nature Reserves, Gia Lai Provinces (14°09-30'N, 108°16-28'E)
Moderate to high montane broad-leaved evergreen forest; high montane coniferous forest where *Fokienia hodginsi* is the dominating species; riverine forest. The highest peak is about 1742 m (Mount Kon Ka Kinh).

Principal collectors
ALM - A. L. MONASTYRSKII; BXP - BUI XUAN PHUONG; FR - Frontier-Vietnam organization volunteers; FFI - Fauna & Flora International organization volunteers.

Type depositories
For the museums and institutions where the type-specimens of the new taxa will be kept, the following abbreviations are used: BMNH - the Natural History Museum (London); MNHN - Museum National d'Histoire Naturelle (Paris); MSU - Department of Entomology, Moscow State University; EMEM - Entomologisches Museum Eitschberger, Marktleuthen.

Papilionidae

Teinopalpus imperialis Hope, 1843

First record from Central Vietnam.
Ngoc Linh, 27.III.1998, 05.IV.1998, 2 ♀♀ (leg. ALM, in BirdLife/FIPI expedition).
The specimens were collected within upper riverine forest at 1700 m. The forest is characterized by domination of representatives of the families Fagaceae and Magnoliaceae. The species is distributed in mountainous areas of Nepal, N. E. India, S. China, Burma and N. Thailand, being rare and localized elsewhere; ssp. *gillesi* Turlin was recently found in N. Laos (Osada et al., 1999). In Vietnam, it was recorded only from the north (Sa Pa) (Vitalis de Salvaza, 1919; Dubois & Vitalis de Salvaza, 1921; Metaye, 1957). From C. Vietnam ("Haut-Donnai") another species of this genus was mentioned after a single specimen in the Gilles collection (d'Abrera, 1981), viz., *T. aureus* Mell, which is a characteristic of montane areas of S. E. China mainland and Hainan (Koiwaya, 1996).
The specimens collected in Ngoc Linh show some similarity to ssp. *gillesi*, but the material is insufficient for subspecific identification.
T. imperialis is known to be associated with particular habitats, its larvae feeding only on Magnoliaceae (Igarashi, 1987); such habitats should be listed as valuable and requiring conservation. For example, deforestation in India and Nepal is occurring throughout the range of *T. imperialis*, in this case it is important to determine localities with habitats which need conservation. *T. imperialis* is listed by IUCN/SSC as a rare species (Collins & Morris, 1985; New & Collins, 1991). At present, no butterfly species are included in the Red Data Book for Vietnam (RDB, 1992), but this situation probably reflects the lack of study of this group rather than the true status of Vietnamese butterfly species. The discovery of *T. imperialis* in Ngoc Linh means that this species should be recommended for inclusion in the next edition of the Vietnamese RDB.

Pazala glycerion G. R. Gray, 1831

First record from Central Vietnam.
Ngoc Linh, 25.–27.III.1998, IF; 03.IV.1998, 2 ♂♂ (leg. ALM, in BirdLife/FIPI expedition).
Distribution: N. Thailand, Laos, N. India to China (Pinratana, 1992). The species was recently recorded from Sa Pa (Monastyrskii & Hill, 1998; Hill & Monastyrskii, 1999).

Pieridae

Delias ***vietnamensis*** **spec. nov.**
(colour plate XVIII, figs. 1, 2)

Holotype ♂: Central Vietnam, Gia Lai Province, Kon Ka Kinh Nature Reserve, 07.IV.1999, 1300 m (leg. ALM).
Paratypes: 5 ♂♂, the same labels as the holotype, 1300–1500 m (all leg. ALM, in BirdLife/FIPI expedition). Holotype BMNH; paratypes BMNH, MSU, EMEM.

Description

Upperside ground colour pure white. Forewing: costa black; apex and part of termen broadly black with diffuse white subapical spots, scattered black scales almost reaching termen; veins bordering the cell black, with an irregular spot at the end of cell; other veins also dusted black, more densely in the distal part. Hindwing: pure white; dorsum, tornus and part of termen broadly bright orange-yellow, this colour in some specimens reaching vein 5. Underside: forewing ground colour black, with rather diffusely shaped large white spots in all spaces (the largest in space Ib); cell white but rather densely black-suffused; hindwing black with sharply defined orange-yellow white-bordered spots in cell and all spaces, which become larger and merging towards tornus; dorsum totally yellow. Length of forewing 29–30.5 mm; one of the paratypes is extremely small (25 mm).

The new species clearly belongs to the *georgina*-group, distributed in the islands of Indonesia and the Philippines, and in general is most similar to the nominate *D. georgina* Felder & Felder (from Luzon), especially in the respect of upperside and hindwing underside pattern (the latter differing however in cell being totally yellow, as in *D. simanabum* Hagen, from Sumatra). Striking yellow-stained hindwings distinguish *D. minae* from all known species of the genus *Delias*.

No species from the *georgina*-group have ever been mentioned from the mainland of S.E. Asia, except *D. orphne* Wallace (from the Malay Peninsula), to which the new species shows the least similarity. The discovery of this species so far from the main area of this group is rather unexpected and means that it may be endemic to the mountain areas of C. Vietnam.

Like other *Delias*, the butterflies are on the wing during earlier hours of the day and are usually flying around tree-tops.

Talbotia naganum (Moore, 1884)

First record from Central Vietnam.

Ngoc Linh, 1700 m, 27.III. 1998, IF; Kon Ka Kinh, 1,600 m, 20.–27.IV.1999, 5 ♂♂ (all leg. ALM, in BirdLife/FIPI expeditions).

According to Bernardi (1958), there are four subspecies of *T. naganum*, namely, *T. naganum naganum* Moore (Assam, Burma); *T. naganum cisseis* Leech (Houpe, Tche-Kiang, Hounan, Fokien, Kouang-Si, Kouang-Toung, Hainan); *T. naganum karumi* Ikeda (Taiwan), *T. naganum pamsi* Vitalis de Salvaza (Tonkin, Laos). The description of the last subspecies was based on material collected in Laos (Thado, Xieng-Khouang) and N. Vietnam (Chapa, Hagiang); butterflies from Tarn Dao Mts. and Laos (Osada et al., 1999) well agree with ssp. *pamsi*. At the same time, a single female found in Ngoc Linh is much smaller and lacks any spots on the hindwings. The material from Annam is yet insufficient to determine the subspecific status of these butterflies.

Nymphalidae

Limenitis rileyi Tytler, 1940, **stat. nov.**

The taxon *rileyi* Tytler was described from Htawgaw (Upper Burma) as a subspecies of *Limenitis mimica* Poujade, 1885 (type locality: Moupin, W. China). There are 2 identical specimens in

the BMNH collection, designated by TYTLER as the types for *Limenitis oberthuri safeda* and *Z. mimetica* [sic!] *rileyi*, respectively; both were taken in Htawgaw in the same place (5–8000ft) and on the same date (25.VI.1929). The description was published only for *rileyi*, thus leaving only this name valid for the taxon in question. *L. oberthuri* (LEECH, 1890) (described in the genus *Hestina* from Chang Yang, C. China) has been regarded as a synonym of *L. mimica* since the early 1900s; examination of the types of *Z. mimica* (discovered in the MNHN collection: a male labelled Moupin, Thibet, 1870, leg. P. ARM. DAVID, which fully corresponds to the single male on which the original description was based) and *L. oberthuri* (Chang Yang, C. China, deposited in the National History Museum, London), confirmed their complete identity. It is now apparent that *rileyi* does not represent any subspecies of *L. mimica*, but a distinct species. The features distinguishing it from *L. mimica* are as follows:

1. The wing shape is different, the forewing apex being heavier and more rounded, and the hindwing being shorter (less produced at tornus).
2. On the upperside, all the pale markings are very much extended and dark greenish grey suffused; the forewing end of the cell is free of the dark colour.
3. Underside ground colour is reddish brown (instead of dark brown in *mimica*), with all the pale markings extended and more suffused than in *mimica*. The transversal vein at the end of the forewing cell is as clear as on the upperside.
4. On the hindwing underside, the submarginal pale dots are placed midway between the postdiscal spots and the marginal lunules, while in *mimica* these dots are much closer to the marginal marks.

Quite recently (1995–1998), a number of subspecies of *L. mimica* were described from China, namely, ssp. *gaolingonensis* YOSHINO (W. Yunnan), ssp. *meilius* YOSHINO (N. Yunnan), ssp. *pe* YOSHINO (N. Yunnan) and ssp. *xizangana* HAO (E. Thibet). The descriptions are extremely poor, but it can be concluded with certainty that all these taxa have no relation to *L. rileyi* (a photo of *gaolingonensis* even being more suggestive of *Z. cottini* OBTH.).
At the same time, the specimens found in C. Vietnam show marked differences from the nominate *L. rileyi*, therefore we are describing them as a new subspecies:

Limenitis rileyi ***ngoclinensis***, MONASTYRSKII, DEVYATKIN & NGUYEN THI HONG, **subspec. nov.**
(colour plate XVIII, figs. 3, 4)

Holotype ♂: C. Vietnam, Kon Tum Province, Ngoc Linh Nature Reserve, 1700 m, 25.III.1998, (leg. ALM, in BirdLife/FIPI expedition).
Paratypes: 5 ♂♂, the same locality as the holotype, 1600–1700 m – 27.III.1998, 2 ♂♂; 1.IV. 1998, 1 ♂; 2.IV.1998, 2 ♂♂ (all leg. ALM in BirdLife/FIPI expedition). Holotype and paratype MNHN, paratypes BMNH, MSU.

Description
The new subspecies differs from the typical *L. rileyi* from Burma in the following characters:
1. All the pale areas on both wing surfaces are reduced, being narrower and shorter between veins and thus making the underside ground colour even more uniform reddish than in the nominate subspecies.
2. In the submarginal area, only one series of dots is fully developed on both wings.

3. The pale area in space Ib is almost complete, with only a short dark streak penetrating it from the termen.

Together with the original description, this is the third record of *Limenitis rileyi* from South East Asia, since it was also recently found in N. Laos (Osada et al., 1999); the male upperside figured (as *L. mimica* ssp.) is rather similar to the specimens from Ngoc Linh.

Neptis radha radha Moore, 1858

First record from Vietnam.
Kon Ka Kinh, 1200–1300 m, 22.III.–7.IV.1999, 3 ♂♂ (all leg. ALM, in BirdLife/FIPI expedition). Dubois & Vitalis de Salvaza (1924) reported ssp. *asterastilis* Obth. from Laos (Sala-Tong-King); according to Eliot (1969), this subspecies is distributed in N. E. Burma, and Osada et al.(1999) regard the specimens from mountainous N. Laos (Xam Neua) as the nominate subspecies, to which our specimens are also most similar.
The range of the nominate *radha* may thus be regarded as stretching from N. E. India to C. Vietnam, the ssp. *sinensis* Obth. being known from W. China (Szechwan).

Neptis manasa narcissina Oberthür, 1906

First record from Vietnam.
Ngoc Linh, 1600–1700 m, 25.III.–8.IV.1998, 2 ♂♂ (leg. ALM in BirdLife/FIPI expedition); Kon Cha Rang, 800–1000 m, 13.–20.III.1999, 2 ♂♂ (leg. ALM in BirdLife/FIPI expedition).
This subspecies, characterized by orange-yellow upperside markings (instead of creamy white in ssp. *manasa* Moore, 1857), was mentioned by Dubois & Vitalis de Salvaza (1924) from Laos (Sala-Tong-King, Sala-Pak-Kong-Keng, Ban-Soui). At the same time, an orange female illustrated by Osada et al. (1999), from N. Laos (Xam Neua), was classified by the last authors as the nominate subspecies, which is typically known from Nepal (Smith, 1993), South Shan States and N. Thailand (Eliot, 1969). According to Eliot (1969), ssp. *narcissina* is distributed only in N. W. Yunnan. However, Pinratana (1996) recorded ssp. *manasa* from N. W. Thailand (Chiang Mai), and ssp. *narcissina* from N. E. Thailand (Loei); both localities are separated by a distance hardly more than 300 km. Having in mind that the relations between both subspecies need further study, we consider the specimens from Ngoc Linh and Kon Cha Rang as being similar to ssp. *narcissina*, as is also the specimen from N. Laos figured by Osada et al. (1999).

Lasippa monata monata (Weyenbergh, 1874)

First record from Vietnam.
C. Vietnam, Quang Binh Province, Ke Bang Nature Reserve, 21.III.1999, 1 ♂ (leg. A. L. Devyatkin); Phong Dien, 200 m, 19.VI.1998, 1 ♂ (leg. ALM in BirdLife/FIPI expedition).
In Phong Dien, the species was discovered within one of the rare primary lowland forest fragments in Central Vietnam; in Ke Bang, it was collected on secondary vegetation among limestone forested hills. Both habitats belong to the same coastal area of C. Vietnam.
Eliot (1969) recognized two subspecies of *Z. monata*, the nominate one being distributed from Burma to Java (recently found in Laos) (Osada et al., 1999), whereas ssp. *cura* Weymer is known only from Nias.

Euthalia niepeiti STRAND, 1916

First record from Vietnam.
Ba Be, November 1997, IF (leg. ALM).
The species had been considered endemic to Hainan for a long time before it was reported from mainland China (D'ABRERA, 1993). The same species is illustrated from Lak Sao in Laos (OSADA et al. 1999) under the name *Cynitia whiteheadi* (CROWLEY, 1900). However, the real *whiteheadi* GROSE-SMITH, 1889 belongs to the *lubentina*-group of *Euthalia* and is distributed from S. Thailand to Indonesia (YOKOCHI, 1999).

Polyura dolon grandis (ROTHSCHILD, 1899)

First record from Vietnam.
Hoang Lien Son, 9.IV.1998, 1 ♂, (leg. FR). Ngoc Linh, 1600–1800 m, 27.III.1998, 2 ♂♂ (leg. ALM in BirdLife/FIPI expedition).; Vu Quang, 1500 m, 31.III.–9.IV.2000, 5 ♂♂ (leg. ALM, BXP).
The range of the species is from W. China and Sikkim to Indochina. SMILES (1982) listed 5 subspecies of *P. dolon* WESTW., ssp. *grandis* being distributed in Burma, Thailand and Laos. For the last country, it was mentioned from Luang Prabang (FRUHSTORFER, 1914), Nape (DUBOIS & VITALIS DE SALVAZA, 1924), Lak Sao and Xam Neua (OSADA et al., 1999); all these localities represent the northern mountainous part of Laos. The discovery of the species in C. Vietnam extends its distribution to the south, obviously due to the mountain corridor of Truong Son; it cannot be excluded that *P. dolon* may be found in southern areas of the Kon Tum Plateau or even in Dalat.

Calinaga ***funeralis*** **spec. nov.**
(colour plate XVIII, figs. 5, 6)

Holotype ♂: N. Vietnam, Bac Can Province, Ba Be National Park, 2.IV.1997 (leg. ALM).
Paratypes: 5 ♂♂, IF, the same locality as the holotype, 30.III.–07.IV.1997 (leg. ALM & BXP).
Holotype and paratype BMNH, paratypes MNHN, MSU.

Description
Male (colour plate XVIII, figs. 5, 6). Thorax covered with red hairs, most densely in the forepart. Upperside of wings: ground colour black, the scaling becoming more sparse in the basal half of both wings; white pattern reduced, discal spots being almost equal in size to submarginal spots; forewing spot in space Ib larger, elongate and almost reaching the base of vein 2; traces of white markings in cell. Hindwing discal pattern greatly reduced; in the holotype all spots are developed, although small, the spots in spaces 2, 3 and 6 being the largest; in one paratype there are only 2 small spots in spaces 6 and 7, and a diffuse dot in space 4. Hindwing tornus and dorsum golden yellow, this colour partly extending to space 3 and becoming whitish towards the base. Underside: forewing ground colour black, becoming brownish towards apex; all markings the same as on the upperside, except those in the cell, which are much more prominent; traces of white markings in the marginal zone against the white submarginal spots. Hindwing ground colour rather uniform brownish black, becoming paler towards the base, with very prominent black veins; discal spots reduced in the same manner as on the upperside; submarginal spots small, very sharply defined, mostly triangular, with marked dis-

tal border; tornus and dorsum yellow, traces of this colour extending through the wing base up to the costal area.
The single female differs from the males only in having hindwing underside markings even more reduced. Length of forewing: male 50–51 mm, female 50 mm.
The general appearance of the butterfly is striking, somewhat recalling that of *Delias belladonna* FABR. or female *Prioneris thestylis* DBLD. (Pieridae). The above mentioned peculiar external characters (darkened cells and reduced spots of both wings, bright yellow hindwing tornus, more or less uniform ground colour of hindwing underside with dark veins), combined with the hindwing venation which varies within the genus, makes the new taxon very different and clearly separable from all known taxa of *Calinaga*. In some characters, viz. the red-haired thorax, the new species is similar to *C. buddha bedoci* LE CERF and *C. sudassana* MELVILL. At the same time, the wing pattern of the new species shows great similarity (except of the underside being less variegated and some differences in the hindwing venation) to the taxon *funebris* OBTH. from Yunnan, which is mostly regarded as a subspecies of *C. lhatso* OBTH. Judging from the photograph of the lectotype in D'ABRERA (1993), *funebris* seems to be a good species more closely related to the *buddha*- than to the *lhatso*-group of *Calinaga*. Evidently, all taxa of the genus *Calinaga* need a revision involving an analysis of venation.

Calinaga sudassana ***distans*** **subspec. nov.**
(colour plate XVIII, figs. 7, 8)

Holotype ♂: C. Vietnam, Gia Lai Province, Kon Cha Rang Nature Reserve, 10.III.1999 (leg. ALM in BirdLife/FIPI expedition).
Paratypes: 2 ♂♂, the same locality as the holotype, 10. and 12.III.1998 (leg. ALM). Holotype and paratype MNHN, paratype BMNH.

Description
The new subspecies differs from the nominate *sudassana* MELVILL in having all pale basal and discal markings of the upperside slightly more suffused; tornal area of hindwing dull ochreous brown instead of bright orange-brown, this colour extending along termen and to the most part of space 2, so that vein Cu2 is dusted black only at its origin. Length of forewing 50 mm.
This is the first record of *C. sudassana* from Vietnam and represents the southernmost locality for this species, otherwise known from Burma (Shan States and Karens) N. W. Thailand (PINRATANA, 1996) and recently found in Laos (OSADA et al., 1999). None of the specimens examined by us (in BMNH and MNHN, including the types from Thailand) or illustrated, although being variable, exhibits the coloration characteristic of the new subspecies, the three specimens of which are uniform in external features.

Satyridae

Neorina neosinica LEE, 1985

First record from Vietnam.
Ngoc Linh, 1600 m, 24.III.1998, 1 ♂ (leg. ALM in BirdLife/FIPI expedition). The specimen is deposited in BMNH.

The species was first mentioned by D'Abrera (1983) as "*Neorina* ?sp. Vane-Wright M/S" on the base of two specimens from Laos in the BMNH collection. Two years later, it was described by Lee (1985) after a single female from Tengchong, W. Yunnan. The record from Laos in Osada et. al. (1999), without label or illustration, seems to be based on that of D'Abrera. Ngoc Linh is the southernmost record which makes the distribution of the species rather wide: its rarity may be explicable with high degree of localty exhibited by forest species of the genus *Neorina*.

Lethe ***philesana*** **spec. nov.**
(colour plate XIX, figs. 1–4)

Holotype ♂: N. Vietnam, Bac Can Province, Ba Be National Park, 12.X.1996 (leg. FR).
Paratypes (4 ♂♂, 3 ♀♀): the same locality as the holotype 9.IV.1996, 1 ♂; 1.XI.1996, 1 ♀; 8.IV.1997, 1 ♀; 1.VI.1997, 1 ♂; 5.XI.1997, 1 ♀ (all leg. ALM); 11.I.1998, 1 ♂ (leg. BXP); C. Vietnam, Ha Tinh Province, Vu Quang Nat. Reserve, 3.IX. 1996, 1 ♂ (leg. ALM). Holotype MSU, paratypes MSU, BMNH.

Description
Male (colour plate XIX, figs. 1, 2). Upperside: ground colour of both wings uniform deep velvet brown-black; apex indistinctly paler. Underside dark brown; outer part of forewing paler, with a series of ocelli in spaces 2–6, their number and development varying in different specimens (only present in spaces 4 to 6 in the holotype), the ocellus in space 5 being the largest and pale-ringed together with two adjacent small ocelli (in spaces 4 and 6). Hindwing with 6 ocelli, that in space 1c double, the largest in spaces 2 and 6; pale common border of all ocelli, as well as the submarginal line, silvery purple.
Female (colour plate XIX, figs. 3, 4). Upperside: ground colour dark brown, with faint traces of of ocelli and submarginal lines on both wings; on forewing, an oblique white, with a slight purplish gloss, band from mid-costa almost to tornus. Underside: similar to male except for the white band.
Length of forewing: male 29–30 mm, female 29 mm.
Male genitalia (fig. 1). General build is rather typical for the minerva-group; uncus pointed, slightly expanded in the distal half; subunci short, slender and curved; valva narrow, its distal end thin and pointed (both in lateral and dorsal view); saccus very long, about half the length of valva. Aedeagus rather slender, its distal end moderately sclerotized.
The new species is similar to *Z. philemon* Fruhst., being however much smaller and darker; male genitalia also differ, especially with respect to uncus and valva, both of which are expanded distally in *L. philemon* (fig. 2); saccus in the new species is much longer. Purplish gloss of the silvery lines on the underside recalls that of *Z. insana* Koll. or *L. brisanda* de Nicev. Most likely, this species (upperside only) was illustrated as *L. philemon* from C. Laos by Osada et al. (1999).

Lethe ***konkakini*** **spec. nov.**
(colour plate XIX, figs. 5–8)

Holotype ♂: C. Vietnam, Gia Lai Province, Kon Ka Kinh Nature Reserve, 19.IV.1999, 1600 m (leg. ALM in BirdLife/FIPI expedition).

Paratypes (1 ♂, 1 ♀): the same locality as the holotype, 1600 m – 25.IV. 1999, 1 ♂; 21.IV.1999, 1 ♀ (leg. ALM in BirdLife/FIPI expedition). Holotype and female paratype MSU, male paratype BMNH.

Description

Male (colour plate XIX, figs. 5, 6). Upperside of both wings uniform velvet brown, with faint golden gloss; dark androconial brand along vein 3 on hindwing. Underside yellow-brown; all linear pattern reddish brown. Forewing with two parallel streaks in cell, an oblique line from mid-costa, directed to tornus, and 4 very small ocelli, forming a straight line, in spaces 2 to 5. Hindwing outer discal line irregular, the streak in cell approximate to it; 6 distinct white-pupilled ocelli in spaces Ic to 6 (that in space Ic double), those in spaces 2 and 6 being the largest.

Female (colour plate XIX, figs. 7, 8). Upperside: ground colour similar to male, slightly darker at forewing apex. Forewing with an oblique white band roughly from mid-costa, directed to (but not reaching) tornus and tapering towards it. Hindwing with rather strong reddish-golden gloss; obscure spots in spaces Ic to 6, that in space 5 being dark and elongate, others round and pale ringed. Underside similar to male except for the white band. Length of forewing about 31.5 mm in both sexes.

Male genitalia (fig. 3). General build typical for the *minerva*-group (DE LESSE, 1956) and very similar to that of *L. latiaris* HEW. (fig. 4); in the latter, uncus is slightly shorter, and subunci straight.

The new species is similar to *L. latiaris perimele* FRUHST. (found in the same locality), differing mostly in the underside pattern: forewing discal line is less oblique in *latiaris*, beginning nearer to apex at costa and being directed to dorsum well before tornus; hindwing outer discal line in *latiaris* is more even and also directed to dorsum, thus being farther from the ocellus in space Ic; the streak in hindwing cell is placed midway between the two lines. Besides, hindwing termen is distinctly more serrate in the new species. Female *L. latiaris* has forewing band narrow, almost obscure, and running far from the cell (almost touching it in *L. konkakini*).

Lethe umedai KOIWAYA, 1998

First record from Vietnam.

Hoang Lien Son, 1600 m, 3.VI.1998, 3 ♂♂ (leg. ALM).

This species was described from mountainous areas of Sichuan (Kangding, Baoxing, Emeishan [Omei Shan], Jinfoshan). It belongs to the group IX of DE LESSE (1956) and is most similar to *L. proxima* LEECH and *L. trimacula* LEECH, the principal difference from both being the vertical position of two subcostal ocelli on hindwing underside, which are thus almost touching brown discal band (KOIWAYA, 1998). In Kangding, the holotype was taken at 2200–2700 m; this rather unexpected record from N. Vietnam gives another evidence for the connection of the faunas of these two regions through the meridional mountain ranges of S. China.

Lethe nicetas (HEWITSON, 1868)

First record from Vietnam.

Hoang Lien Son, 2100 m, 10.–12.XI.1997, 5 ♂♂ (leg. FR).

The species was so far known mostly from Sikkim (type-locality: Darjiling) and Assam, its occurrence in Burma being under question (D'Abrera, 1984). Examination of two specimens from Sikkim (in BMNH) did not reveal any significant differences between them and the Vietnamese specimens. With this rather distant record, one can expect further findings of this species in Burma, Yunnan and N. Thailand.

Lethe sidonis (Hewitson, 1868)

First record from Vietnam.
Hoang Lien Son, 1700–1900 m, 14.–25.X.1997, 3 ♂♂ IF; 2090–2150 m, 29.IX.–1.X.1998, 8 ♂♂ (leg. ALM, FR, Vu Van Lien).
As in the case of the previous species, the record of *L. sidonis* (distributed in Nepal, Sikkim, Bhutan and Assam) points to a certain similarity between the butterfly faunas of the mountainous areas of N. E. India and N. Vietnam. Comparison with the type-specimens (in BMNH) revealed no significant differences.

Lethe distans Butler, 1870

First record from Vietnam.
Ngoc Linh, 1600 m, 23 and 30.III.1998, 2 ♀♀; Kon Ka Kinh, 1500 m, 1.IV.1999, 1 ♀ (all leg. ALM in BirdLife/FIPI expeditions).
This species, distributed from Bhutan to N. Thailand, was never mentioned from more southern regions of Indochina; at the same time, a specimen from Laos (male, Muang Ban, 28.IV. 1932, leg. Dr. A. Kerr) was found in the BMNH collection. There can be found some differences between the type from Darjeeling (BMNH) and Burman (East Pegu) specimens, on the one hand, and specimens from Laos and Vietnam, on the other hand: underside is paler and the apical area on the upperside offorewings is darker in Indochinese butterflies. However, the material is insufficient to state any subspecific status of Laotian and Vietnamese populations.

Lethe minerva tritogeneia Fruhstorfer, 1911

First record from Vietnam.
S. Vietnam, Lam Dong Province, Dalat, 14.II.1932,1 ♂, ex. N. V. Lichy coll. (MNHN).
Despite extensive collecting of French entomologists (first of all R. Metaye) in the south of the country, this specimen of *Z. minerva*, found in MNHN and having remained unknown for a long time, still represents the only record of this species from Vietnam. This is rather surprising, since it was first mentioned from the neighbouring Laos by Dubois & Vitalis de Salvaza (1924) and later was always listed for this country (Motono & Negishi, 1989; Osada et al., 1999).

Orinoma damaris Gray, 1846

First record from Vietnam.
Ngoc Linh, 1500–1700 m, 20.III.–5.IV.1998, 4 ♂♂ (leg. Ha Van Hoach & ALM).

This seems to be the southernmost record for this rare species, otherwise distributed from N. E. India to N. Thailand (PINRATANA, 1988) and N. Laos (DUBOIS VITALIS DE SALVAZA, 1924; OSADA et al., 1999).

Callarge occidentalis LEECH, 1890

First record from Vietnam.
Hoang Lien Son, 1500 m, 13.IV.1998, 1 ♂ (leg. ALM).
Comparison of this single male with the type of *C. occidentalis*, described from Sichuan (Wassu-kow), revealed some differences, especially in the colour of hairs on the ventral side of thorax; however more material is needed to make any conclusions about the status of the Vietnamese population. This species has never been recorded from adjacent territories; the recently described *pseudouvrardi* YOSHINO clearly belongs to the *C. sagitta* LEECH-group of taxa.

Callerebia narasingha dohertyi (EVANS, 1923)

First record from Vietnam.
Ngoc Linh, 1000–1600 m, 9.–10.IV.1998, 4 ♂♂ (leg. ALM); Kon Ka Kinh, 1600 m, 20.–28.IV. 1999, 3 ♂♂ (leg. ALM); Vu Quang. 400–1500 m, 29.III.–10.IV.2000, 5 ♂♂, 2 ♀♀ (leg. ALM, BXP).
This subspecies, described form Shan States (N. Burma), was recorded from N. Thailand (PINRATANA, 1988) and N. Laos (MOTONO & NEGISHI, 1989; OSADA et.al., 1999). The nominate *narasingha* MOORE is known from Sikkim and Upper Burma.

Callerebia suroia TYTLER, 1914

First record from Vietnam.
Hoang Lien Son, 15.VII.–27.VIII.1998, 7 ♂♂ (leg. FR, BXP, VU VAN LIEN).
This species was originally described from Manipur (Assam); despite the type-specimens (male and female, cotypes) were listed by RILEY & GABRIEL (1924) as being deposited in the BMNH collection, we were not able to find them. Our specimens well correspond to the description and figure of *suroia* by TYTLER (1914); it is very similar in appearance to *C. orixa* MOORE but can be distinguished primarily by the very conspicuous brown bands and by the total absence of the tornal ocellus on the hindwing underside. At the same time, this species was reported by D'ABRERA (1992) from W. China, and the specimens illustrated (Sichuan and N. Yunnan) are somewhat different; definitely, this group of *Callerebia* species needs a revision.

Zipoetis unipupillata LEE, 1962

First record from Vietnam.
N. Vietnam, Tuyen Quang Province, Na Hang Nature Reserve, 13.VIII.1996, 1 ♂, IF (leg. ALM); Ba Be, III.–IV.1997, a number of ♂♂ and ♀♀ (leg. ALM, BXP).
Since the first description from Yunnan (LEE, 1962) this species has been found only in the extreme northeast of Laos (Nam Tha and Oudomxay) (OSADA et al., 1999). Generally, the discovery of it in the northern provinces of Vietnam is not surprising since both localities (separated by no more than 40 km) are not very distant from the type-locality. In Ba Be, the species was

recorded throughout the year, being more numerous in spring. The imago is shade-loving and prefers dense bamboo habitats.
In 1997, a few specimens were collected in Ben En National Park (Thanh Hoa Province) and in Quy Chau district of the neighbouring Nghe An Province, these localities being very near each other; in 1998, the species was collected in Pu Mat Nature Reserve (Nghe An Province) near the Laotian border. According to MacKinnon's biogeographical classification, these localities, situated more than 300 km south of Ba Be and Na Hang and separated by the wide deforested Red River valley, belong to north Annam (Annamese lowland) (MacKinnon, 1989).
There seems to be a certain gap in the distribution of *Z unipupillata* in Vietnam. Thus, several recent years of butterfly fauna studies in Cue Phuong National Park (both by Japanese and FFI), which occupies an intermediate position (Ninh Binh Province), brought no records of this species; neither has it been collected in the forests of Tarn Dao and Ba Vi National Parks. Although the original description is rather poor, from the geographical point of view it seems reasonable to assume that the N. Vietnamese population, as well as the Laotian specimens illustrated by Osada et al., (1999) (which are very similar to those from Ba Be) is most similar to the nominate subspecies.
At the same time, specimens from Annam have constant morphological differences, which allow us to treat them as a new subspecies the description of which is given below.

Zipoetis unipupillata ***annamicus*** **subspec. nov.**
(colour plate XX, figs. 1, 2)

Holotype ♂: C. Vietnam, Nghe An Province, Pu Mat Nature Reserve, 22.VI.1998, (leg. Quang) (FFI).
Paratypes (6 ♂♂, 3 ♀♀): the same locality as the holotype – 2.V.1998, 1 ♂; 25.V.1998, 1 ♀; 24.VI.1998, 1 ♂; VI.1998, 1 ♂, 1 ♀ (all leg. FFI expedition); C. Vietnam, Nghe An Province, Quy Chau district, Co Ba enterprise, 12.VII.1997, 1 ♂ (leg. Ha Van Hoach, FIPI); C. Vietnam, Thanh Hoa Province, Ben En National Park, 25.VII.1997, 1 ♂ (leg. FR); 30.VII.1997, 1 ♀ (leg. FR); 12.X.1997, 1 ♂ (leg. Ha Van Hoach). Holotype BMNH, paratypes BMNH, MSU.

The principal characters distinguishing the new subspeceies from the N. Vietnamese specimens (assumed as the nominate subspecies), though subject to some variation, are as follows:
1. Yellow ring bordering the ocellus in space 2 on hindwing underside noticeably broader, the ocellus itself being relatively slightly larger; 2. Postdiscal silvery fascia on hindwing underside broader and generally more curved;
3. Marginal and submarginal pale lines narrower and more suffused on both sides of wings, the submarginal line of the upperside being in most cases inwardly more sharply defined;
4. Underside of both wings paler, especially in the apical and subapical areas of the forewing.

Length of forewing: male 25–29 mm (holotype 29 mm), female 27–28.5 mm.

Stichophthalma louisa ***eamesi*** MONASTYRSKII, DEVYATKIN & UEMURA, **subspec. nov.**
(colour plate XX, figs. 3, 4)

Holotype ♂: C. Vietnam, Kon Tim Province, Ngoc Linh Nature Reserve, 900 m, 8.IV.1998 (leg. ALM in BirdLife/FIPI expedition).
Paratypes (9 ♂♂, 8 ♀♀): the same locality as the holotype - IV.1998, 3 ♂♂ (leg. HA VAN HOACH); 9.IV.1998, 1 ♂; 1100 m, 9.IV.1998, 2 ♂♂; 1100 m, 10.IV.1998, 1 ♂ (all leg ALM); 1200 m, 18.IV.1998, 1 ♀ (leg. TRAN HIEU MINH); 1300 m, 18.IV.1998, 1 ♀ (leg. ALM); Kon Ka Kinh, 1200 m, 24.IV.1999, 1 ♂ (leg. ALM); Gia Lai Province, Buon Luoi, 19.V.1993, 1 ♀ (leg. N. V. BELYAEVA); Thua Thien Hue Province, Bach Ma National Park, 13.VII.1996, 1 ♀; 15.VII.1996, 2 ♀♀; 19.VII.1996, 2 ♀♀; 25.VII. 1996, 1 ♂ (all leg. ALM). Holotype BMNH, paratypes BMNH, MNHN, MSU, Toyosato Museum of Entomology (Tsukuba, Ibaraki, Japan).

Description
The general appearance is suggestive of *S. louisa* WOOD-MASON, being most similar to *S. louisa mathilda* JANET, from which it however differs in the following characters:
Male (colour plate XX, figs. 3, 4). Forewings are more square and much more rounded; termen evenly convex. Upperside. Forewing: ground colour reddish brown (instead in yellowish brown in *mathilda*); distal part of the wing snowy white; the margin between the two colour fields sharp and almost straight, beginning at mid-costa and ending at the distal part of vein 1, leaving, however, the tornus white. Apex black; this colour narrowly extends along termen almost to tornus; margins white from vein 4 to dorsum. Arrowhead marks small, rather V-shaped and in most specimens separated from the marginal black border. Hindwing: ground colour the same as on forewing; black arrowhead marks large, merging with each other and, in the dorsal half of the wing, with the dark ground colour; they are narrowly separated from the latter by whitish colour in the costal part of the wing; the species between arrowhead marks and the narrow black submarginal band are snowy white, with violet tinge; margins of the same colour. Underside. Ground colour dark greenish olive, in general darker and duller than in *mathilda*, and thus making more contrast with white fields; on the forewing irregular black outer margin of the discal fascia in space 1b is directed towards termen along vein 1 (chiefly towards base in *mathilda* and *louisa*).
Female. Similar to male, paler from both sides, with more yellow colour on the upperside and more white on the underside of both wings.
Length of forewing: male 65–73 mm; female 70–76 mm.

Diagnosis
The main differences of the new subspecies from other taxa of *louisa* are rounded wings, dark ground colour, reduced arrowhead marks on forewing, absence of yellow in the submarginal and marginal zones of hindwing, and snowy white, with violet gloss, ground colour of pale areas.

Note
Both *mathilda* and the new taxon are very different from the nominate *louisa* and may in fact represent separate species.

Stichophthalma uemurai ***gialaii*** **subspec. nov.**
(colour plate XX, figs. 5, 6)

Holotype ♂: C. Vietnam, Gia Lai Province, Kon Cha Rang Nature Reserve, 15.IV.1999, secondary forest at 500 m (leg. ALM).
Paratype: 1 ♂, the same locality and date as the holotype (leg. ALM). Holotype MSU, paratype BMNH.

Description
Upperside. Ground colour dark brown with strong violet-blue gloss. Forewing: apex broadly dark, obscuring the submarginal arrowhead mark in space 5; basal dark coloration diffusely extended almost to tornus; white area restricted to a kind of band; arrowhead marks connected with U-shaped marginal marks, the lateral projections of the former touching adjacent veins, which are dusted with black in the marginal area. Hindwing: basal dark coloration extended; pale zone separating inner part of arrowhead marks from the ground colour extremely narrow and obscure; marginal white lunules, on the contrary, rather large and contrasting; pale submarginal areas with strong violet-blue gloss. Underside: This is rather typical of the *cambodia* (Hewitson, 1865)-group, the main differences from *uemurai* Nishimura, 1998 being the well-developed dark streak at the end of the cell as well as the eye-spot in space 5 on the hindwing. Length of forewing: 61–63 mm.
In the majority of external features the new subspecies is most similar to the nominate *S. uemurai*, described from Bao Lok (Lam Dong Province, sa. 500 km south of Kon Cha Rang), differing however in darker and much extended ground colour, which makes the general appearance of the butterfly strikingly dark. On the underside, development of the eye-spot in space 5 (which is equal in size to that in space 4 in the paratype) is characteristic. Neither of the *S. uemurai* specimens examined (male holotype and female paratype in BMNH and three previously unrecognized non-type specimens from type locality in the Metaye collection, MNHN) demonstrated this combination of characters.
At the same time, both taxa show a certain similarity to *S. cambodia* Hew., described from Cambodia (with the race *editha* Riley & Godfrey, from Siam) and theoretically may be treated as its distinct subspecies; upon profound study, all three may prove to be distinct species as well.

Zeuxidia masoni Moore, [1879]

First record from Vietnam.
C. Vietnam, Thua Thien Hue Province, Bach Ma National Park, 19.VII.1996, 1 ♂ (leg. BXP); Phong Dien, 20.–21.VI.1998, 2 ♂♂, 3 ♀♀ (leg. ALM).
The species, distributed in Burma (Tenasserim, Mergui) and differing from the similar *Z. amethystus* Btlr. in the number and colour of androconial patches on hindwing (D'Abrera, 1985), was also found in Thailand (Pinratana, 1988). In C. Vietnam, the species inhabits lowland forests in coastal areas; rapid deforestation there can influence its population, the more so its foodplant is still unknown.

Dodona ***speciosa*** **spec. nov.**
(colour plate XX, figs. 7, 8)

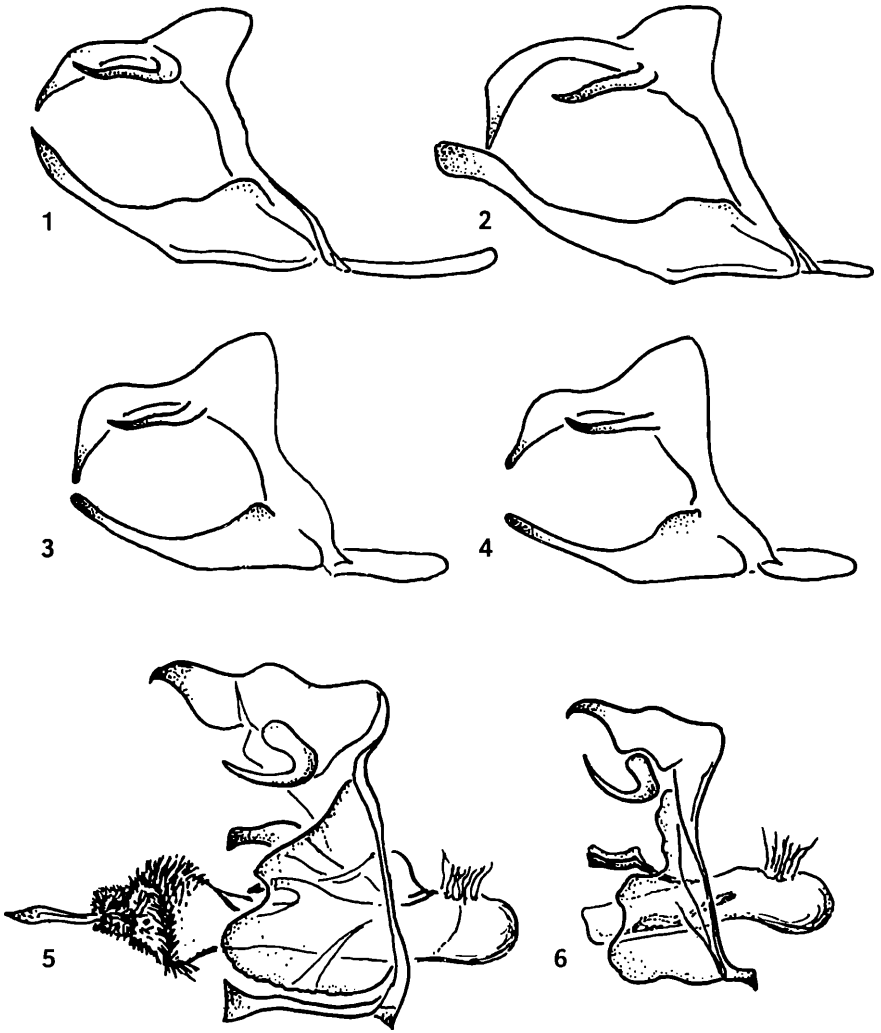
Holotype ♂: C. Vietnam, Kon Tum province, Ngoc Linh Nature Reserve, 1600 m, 28.III.1998 (leg. A. L. Monastyrskii). Holotype BMNH.

Description
Upperside. Forewing ground colour reddish rusty, marginal area darker; four short black bars at costa, each bar being continued into a brown band towards dorsum; the discal two of them are merged in the centre of discal area, forming a Y-like mark; two submarginal bands reach tornus; narrow black marginal markings in spaces Ib and 2 and two black submarginal dots in space Ib. Hindwing: ground colour the same as on forewing, paler at costa and dorsum and darker at termen; several narrow obscure bands from costa to dorsum, becoming darker and more distinct in the submarginal area. Underside. Forewing ground colour pale ochreous yellow, this colour being more intensive in space Ib; six oblique sharply defined reddish brown bands from costa to vein 2, three of them originating from and ending with distinct black spots, and the discal two merging Y-like; one discal and two submarginal space; termen narrowly reddish brown. Hindwing: ground colour the same as of forewing; seven red-brown bands along dorsum, from the base of the wing and from costa, all directed to termen but not reaching it; in the submarginal area, three fine parallel lines along termen, one of them (not reaching costa) merging with, the second touching, the last discal band and the third being parallel to termen; the latter narrowly reddish brown as on forewing; four tiny narrow, diffusely pale-bordered spots in subtornmal area. Length of forewing 23.5 mm.
Male genitalia as illustrated in fig. 5.
The new species seems to have no close relatives in the genus *Dodona*; at first glance, it bears a remote resemblance to *D. adonira* Hew. Unfortunately, the tornal part of the hindwing is absent and it is impossible to make any conclusion on tailing in the new species.

Dodona ***katerina*** **spec. nov.**
(colour plate XXIa, figs. 1, 2)

Holotype ♂: C. Vietnam, Gia Lai Province, Kon Ka Kinh Nature Reserve, 1500 m, 3.IV.1999 (leg. ALM in Birdlife/FIPI expedition).
Paratypes (1 ♂, 2 ♀♀, all from the same locality): the same label as the holotype, 1 ♀; 1600 m, 20.IV.1999, 1 ♀; 1700 m, 25.III.1999, 1 ♂ (all leg. ALM in BirdLife/FIPI expedition). Holotype and female paratype MSU, paratypes BMNH.

Description
The species is tailless; hindwing outer edge rather wavy than serrate. Male. Upperside: forewing ground colour dark brown, slightly paler in the basal area; all pale markings white; two narrow brown-sufused spots, forming an oblique band across cell and origin of vein 2 to the middle of vein 1; a series of small discal spots from mid-costa to space Ib, the lower two being diffuse; a small spot in space 3; two subapical spots, the upper being just a dot, near costa; submarginal markings represented by a narrow obscure band, small spots in spaces 2, 4, 5 and two apical dots. Hindwing: ground colour slightly paler than that of forewing; a small



Figs. 1-4: *Lethe* HÜBNER, general build of male genitalia (without aedeagus). Fig. 1 - *Lethe philesana* spec. nov.; fig. 2 *L. philemon* FRUHST; fig. 3 - *Z. konkakini* spec. nov.; fig. 4 - *L. latiaris perimele* FRUHST.
Figs. 5, 6: *Dodona* HEWITSON, male genitalia. Fig. 5 - *Dodona speciosa* spec. nov.; fig. 6 - *D. katerina* spec. nov.

whitish spot on the basal half of costa; four oblique and obscure paler bands from costa, directed towards tornus, those in the discal field merging V-like; two pale-ringed round black spots near apex; tornal lobe black, divided by a paler vein and sparated from the rest of the wing by a paler line.
Underside: forewing ground colour dark chocolate brown, becoming black towards dorsum; all markings the same as on the upperside (but larger and sharply defined), except a white spot at the wing origin and an additional oblique band near base; another rather wide band (instead of narrow suffused spots of the upperside) from the basal half of costa towards dorsum; narrow marginal markings in spaces Ib to 5. All markings white, becoming slightly yellowish in the dorsal field of the wing. Hindwing: ground colour the same as of the forewing; two whitish stripes in the dorsal area and four silky-white bands in the discal field, all directed to tornus, that from mid-costa being the widest and the outer being fine and not reaching costa; white border of black apical spots continued into a narrow submarginal band; marginal area yellowish, with a fine white subterminal line; a white-bordered black patch in space Ib and another diffuse black patch in the submarginal field, both merging with a grey subtornal spot; tornal lobe black, separated from the subtornal spot by white, inwardly black-bordered line.
Female. Very similar to male, wings squarer; upperside and underside pattern the same as in male, with all markings developed; apical black spots on hindwing upperside clearly bordered with white scales.
Length of forewing: ♂ 21 mm, ♀♀ 23–24 mm.
Male genitalia as illustrated in fig. 6.
The new species belongs to the "Durgiformes cohort" of STICHEL (1928), comprising tailless taxa such as *dipoea* HEW., *putaoa* TYTLER, *dracon* DE NICEV. and *kaolinkon* YOSHINO (the last species, described in 1999, being probably a variation of *dracon*). It can be easily distinguished from all these taxa by the dark brown ground colour and the broad white bands of the underside of the wings. At the same time, the pattern of both wing sides also somewhat resembles some tailed species from another species-group, like *D. eugenes* BATES; besides the absence of tail, combination of broad and narrow white bands on hindwing underside is quite different. Most characteristic of the new species is the presence of a white spot on the underside at the origin of forewing.

Dodona maculosa ***phuongi*** **subspec. nov.**
(colour plate XXIa, figs. 3, 4)

Holotype ♂: N. Vietnam, Bac Can Province, Ba Be National Park, 2.VI.1997, (leg. BXP). Holotype MSU.

Description
Upperside: ground colour of both wings dark black-brown, distinctly paler in the basal part. Forewing: two tiny apical dots in spaces 6 and 7; three small subapical spots in spaces 4, 5, 6; a narrow band from radius to vein 1, crossing the origin of vein 2; a series of discal spots at the end of cell, in spaces Ib, 2 and 3, typical for the *egeon-eugenes*-group; submarginal markings are distinct in spaces Ib, 2 and 3. All markings dark reddish-tawny and rather diffusely shaped, except white apical and subapical spots. Hindwing: a series of reddish bands across the wing from costa to tornus, those in the basal half being rather obscure. Underside: forewing ground

colour dark chocolate brown, becoming almost black towards dorsum; all markings the same as on the upperside, but better developed and with a tendency to merging in short bands; all costal, apical and subapical markings white, the others being pale tawny. Hindwing ground colour the same as of forewing; all bands directed to a grey subtornal spot; tornal lobe (damaged) black, separated from the grey spot by a fine white line. Length of forewing 25 mm.
The species (mostly mentioned as *D. eugenes maculosa* LEECH) is known to occur in W. and C. China (the female type specimen from Chang Yang and another supposed male type specimen from Omei-Shan in BMNH) and Taiwan.
The specimen from Ba Be distinctly differs from the nominate *maculosa* in faintly developed yellow streak in the cell of forewing (very distinct in *maculosa*), more diffusely shaped spots of forewing upperside and pure white colour of all markings of hindwing underside (in the nominate subspecies markings are mostly yellow, only two broader bands and part of the median band are white).

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Explanation of colour plate XVIII (p. 589):

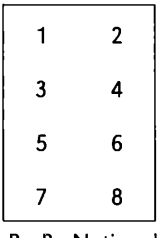

Fig. 1: *Delias vietnamensis* spec. nov., holotype ♂. C. Vietnam, Gia Lai Prov., Kon Ka Kinh Nature Reserve, 7.IV.1999, 1300 m, leg. A. L. MONASTYRSKII, upperside.
Fig. 2: Id., underside.
Fig. 3: *Limenitis rileyi ngoclinensis* MONASTYRSKII, DEVYATKIN & NGUYEN THI HONG, subspec. nov., paratype ♂. C. Vietnam, Kon Tum Prov., Ngoc Linh Nature Reserve, 1700 m, 27.III.1998, leg. A. L. MONASTYRSKII, upperside.
Fig. 4: Id., underside.
Fig. 5: *Calinaga funeralis* spec. nov., holotype ♂. N. Vietnam, Bac Can Prov., Ba Be National Park, 2.IV.1997, leg. A. L. MONASTYRSKII, upperside.
Fig. 6: Id., underside.
Fig. 7: *Calinaga sudassana distans* subspec. nov., paratype ♂. C. Vietnam, Gia Lai Prov., Kon Cha Rang Nature Reserve, 10.III.1999, leg. A. L. MONASTYRSKII, upperside.
Fig. 8: Id., underside.

Explanation of colour plate XIX (p. 591):

Fig. 1: *Lethe philesana* spec. nov., holotype ♂. N. Vietnam, Bac Can Prov., Ba Be National Park, 12.X.1996, leg. A. L. Monastyrskii, upperside.
Fig. 2: Id., underside.
Fig. 3: *Lethe philesana* spec. nov., paratype ♀. N. Vietnam, Bac Can Prov., Ba Be National Park, 1.XI.1996, leg. A. L. Monastyrskii, upperside.
Fig. 4: Id., underside.
Fig. 5: *Lethe konkakini* spec. nov., holotype ♂. C. Vietnam, Gia Lai Prov., Kon Ka Kinh Nature Reserve, 1600 m, 19.IV.1999, leg. A. L. Monastyrskii, upperside.
Fig. 6: Id., underside.
Fig. 7: *Lethe konkakini* spec. nov., paratype ♀. C. Vietnam, Gia Lai Prov., Kon Ka Kinh Nature Reserve, 1600 m, 21.IV.1999, leg. A. L. Monastyrskii, upperside.
Fig. 8: Id., underside.

Explanation of colour plate XX (p. 593):

Fig. 1: *Zipoetis unipupillata annamicus* subspec. nov., holotype ♂. C. Vietnam, Nghe An Prov., Pu Mat Nature Reserve, 22.VI.1998, leg. Quang (FFI), upperside.
Fig. 2: Id., underside.
Fig. 3: *Stichophthalma louisa eamesi* subspec. nov., paratype ♂. C. Vietnam, Kon Tum Prov., Ngoc Linh Nature Reserve, IV.1998, leg. A. L. Monastyrskii, upperside.
Fig. 4: Id., underside.
Fig. 5: *Stichophthalma uemurai gialaii* subspec. nov., holotype ♂. C. Vietnam, Gia Lai Prov., Kon Cha Rang Nature Reserve, 500 m, secondary forest, 15.IV.1999, leg. A. L. Monastyrskii, upperside.
Fig. 6: Id., underside.
Fig. 7: *Dodona speciosa* spec. nov., holotype ♂. C. Vietnam, Kon Tum Prov., Ngoc Linh Nature Reserve, 1600 m, 28.III.1998, leg. A. L. Monastyrskii, upperside.
Fig. 8: Id., underside.

Explanation of colour plate XXIa (p. 595):

Fig. 1: *Dodona katerina* spec. nov., holotype ♂. C. Vietnam, Gia Lai Prov., Kon Ka Kinh Nature Reserve, 1500 m, 3.IV.1999, leg. A. L. Monastyrskii, upperside.
Fig. 2: Id., underside.
Fig. 3: *Dodona maculosa phuongi* subspec. nov., holotype ♂. N. Vietnam, Bac Can Prov., Ba Be National Park, 2.VI.1997, leg. Bui Xuan Phuong, upperside.
Fig. 4: Id., underside.

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addresses of the authors

Dr. Alexander L. Monastyrskii
Vietnam-Russian Tropical Centre
Ngia Do, Cau Giay
Hanoi, Vietnam

Alexey L. Devyatkin
Department of Entomology, Faculty of Biology
Moscow State University
119899 Moscow, Russia

MONASTYRSKII, A. L. & A. L. DEVYATKIN: New taxa and new records of butterflies from Vietnam (Lepidoptera, Rhopalocera). – Atalanta **31** (3/4): 471–492.

Fig. 1: *Delias vietnamensis* spec. nov., holotype ♂. C. Vietnam, Gia Lai Prov., Kon Ka Kinh Nature Reserve, 7.IV.1999, 1300 m, leg. A. L. MONASTYRSKII, upperside.

Fig. 2: Id., underside.

Fig. 3: *Limenitis rileyi ngoclinensis* MONASTYRSKII, DEVYATKIN & NGUYEN THI HONG, subspec. nov., paratype ♂. C. Vietnam, Kon Tum Prov., Ngoc Linh Nature Reserve, 1700 m, 27.III.1998, leg. A. L. MONASTYRSKII, upperside.

Fig. 4: Id., underside.

Fig. 5: *Calinaga funeralis* spec. nov., holotype ♂. N. Vietnam, Bac Can Prov., Ba Be National Park, 2.IV.1997, leg. A. L. MONASTYRSKII, upperside.

Fig. 6: Id., underside.

Fig. 7: *Calinaga sudassana distans* subspec. nov., paratype ♂. C. Vietnam, Gia Lai Prov., Kon Cha Rang Nature Reserve, 10.III.1999, leg. A. L. MONASTYRSKII, upperside.

Fig. 8: Id., underside.

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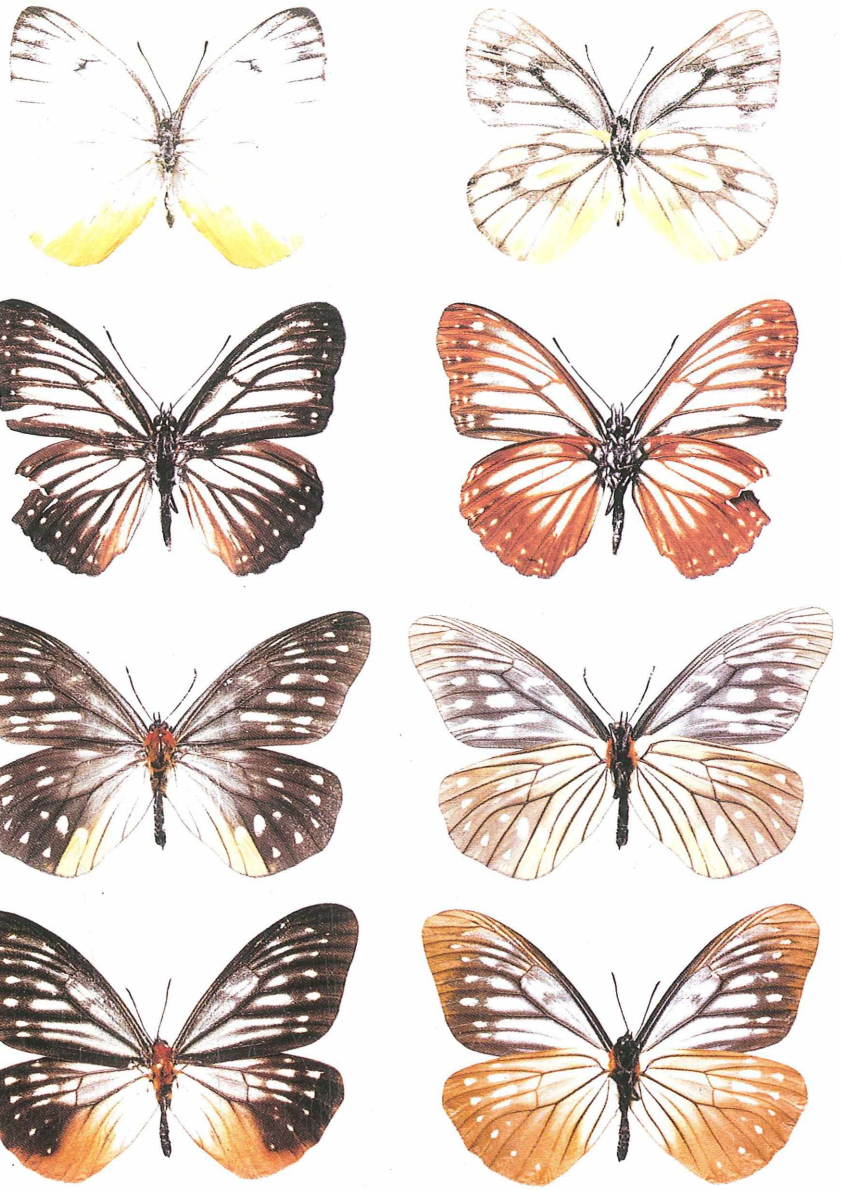
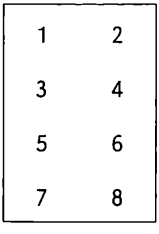
Colour plate XVIII

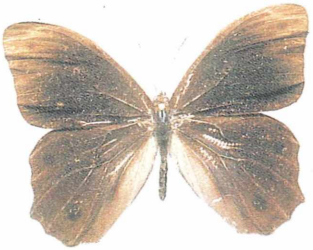


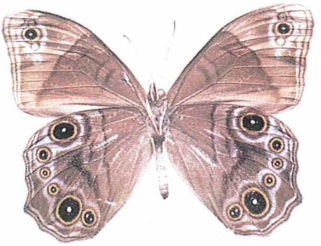
MONASTYRSKII, A. L. & A. L. DEVYATKIN: New taxa and new records of butterflies from Vietnam (Lepidoptera, Rhopalocera). - Atalanta **31** (3/4): 471-492.

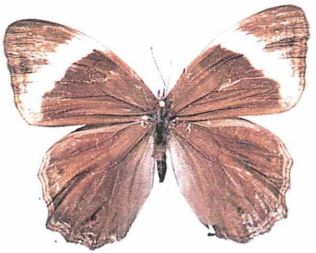
Fig. 1: *Lethe philesana* spec. nov., holotype ♂. N. Vietnam, Bac Can Prov., Ba Be National Park, 12.X.1996, leg. A. L. MONASTYRSKII, upperside.
Fig. 2: Id., underside.
Fig. 3: *Lethe philesana* spec. nov., paratype ♀. N. Vietnam, Bac Can Prov., Ba Be National Park, 1.XI.1996, leg. A. L. MONASTYRSKII, upperside.
Fig. 4: Id., underside.
Fig. 5: *Lethe konkakini* spec. nov., holotype ♂. C. Vietnam, Gia Lai Prov., Kon Ka Kinh Nature Reserve, 1600 m, 19.IV.1999, leg. A. L. MONASTYRSKII, upperside.
Fig. 6: Id., underside.
Fig. 7: *Lethe konkakini* spec. nov., paratype ♀. C. Vietnam, Gia Lai Prov., Kon Ka Kinh Nature Reserve, 1600 m, 21.IV.1999, leg. A. L. MONASTYRSKII, upperside.
Fig. 8: Id., underside.

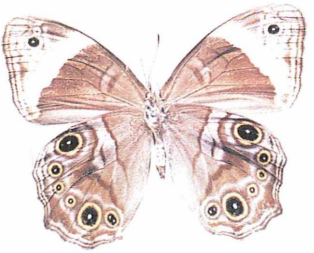


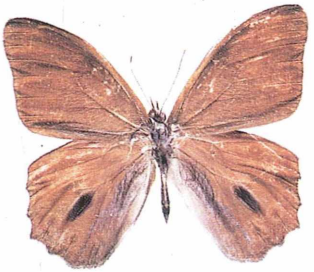
Colour plate XIX

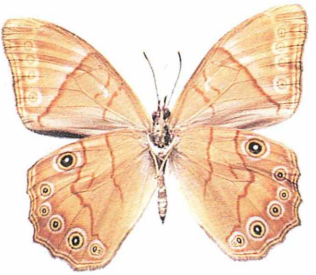


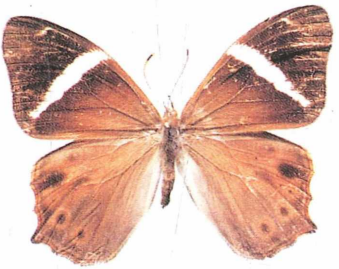


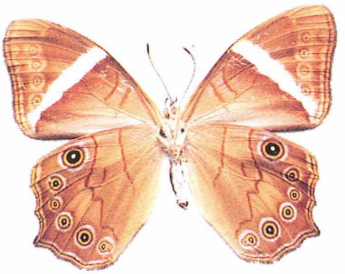












MONASTYRSKII, A. L. & A. L. DEVYATKIN: New taxa and new records of butterflies from Vietnam (Lepidoptera, Rhopalocera). – Atalanta **31** (3/4): 471–492.

Fig. 1: *Zipoetis unipupillata annamicus* subspec. nov., holotype ♂. C. Vietnam, Nghe An Prov., Pu Mat Nature Reserve, 22.VI.1998, leg. QUANG (FFI), upperside.
Fig. 2: Id., underside.
Fig. 3: *Stichophthalma louisa eamesi* subspec. nov., paratype ♂. C. Vietnam, Kon Tum Prov., Ngoc Linh Nature Reserve, IV.1998, leg. A. L. MONASTYRSKII, upperside.
Fig. 4: Id., underside.
Fig. 5: *Stichophthalma uemurai gialaii* subspec. nov., holotype ♂. C. Vietnam, Gia Lai Prov., Kon Cha Rang Nature Reserve, 500 m, secondary forest, 15.IV.1999, leg. A. L. MONASTYRSKII, upperside.
Fig. 6: Id., underside.
Fig. 7: *Dodona speciosa* spec. nov., holotype ♂. C. Vietnam, Kon Tum Prov., Ngoc Linh Nature Reserve, 1600 m, 28.III.1998, leg. A. L. MONASTYRSKII, upperside.
Fig. Id., underside.

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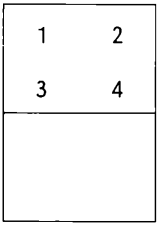
Colour plate XX

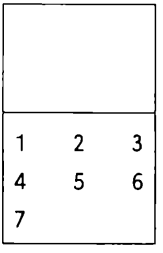
Colour plate XXIa



MONASTYRSKII, A. L. & A. L. DEVYATKIN: New taxa and new records of butterflies from Vietnam (Lepidoptera, Rhopalocera). - Atalanta **31** (3/4): 471-492.

Fig. 25: *Dodona katerina* spec. nov., holotype ♂. C. Vietnam, Gia Lai Prov., Kon Ka Kinh Nature Reserve, 1500 m, 3.IV.1999, leg. A. L. MONASTYRSKII, upperside.
Fig. 26: Id., underside.
Fig. 27: *Dodona maculosa phuongi* subspec. nov., holotype ♂. N. Vietnam, Bac Can Prov., Ba Be National Park, 2.VI.1997, leg. BUI XUAN PHUONG, upperside.
Fig. 28: Id., underside.

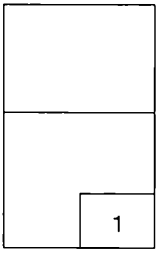
Colour plate XXIb



SALDAITIS, A., IVINSKIS, P. & S. CHURKIN: *Palearctia rasa* spec. nov, a new tiger moth from China (Lepidoptera, Arctiidae). - Atalanta **31** (3/4): 505-510.

Fig. 1: *Palearctia rasa* spec. nov., holotype ♂, upperside. China, Xin-Jiang, Karlik Mount, 3300 m, 85 km North-East of Hami city, 20.-30.VI.1998, leg. STANISLAV NYKL.
Fig. 2: *Palearctia rasa* spec. nov., paratype ♀, upperside. China, Xin-Jiang, Karlik Mount, 3300 m, 85 km North-West of Hami city, 18.-19.VII.1998, e.l.
Fig. 3: *Palearctia rasa* spec. nov., paratype ♂, underside. Same label as fig. 1.
Fig. 4: *Palearctia rasa* spec. nov., paratype ♀, upperside. Same label as fig. 1.
Fig. 5: *Palearctia rasa* spec. nov., paratype ♂, underside. Same label as fig. 2.
Fig. 6: *Palearctia rasa* spec. nov., paratype ♂, underside. Same label as fig. 1.
Fig. 7: *Palearctia rasa* spec. nov., ♂, underside. Same label as fig. 1.

Farbtafel XXIc



EITSCHBERGER, U.: Eine neue Art der Gattung *Callionima* LUCAS, 1857 aus Peru (Lepidoptera, Sphingidae). - Atalanta **31** (3/4): 493-496.

Abb. 1: *Callionima juliane* spec. nov., Holotypus ♂, Nordperu, 1000 m, Dep. Amazonas, Rio Maranon, Balzas, März-April 1998, local people leg., deponiert im EMEM.

Colour plate XXIa/XXIb – Farbtafel XXIc