

## RESEARCH ARTICLE

# Occasional photographic records of butterflies (Lepidoptera, Papilionoidea) in Cambodia. 1. The coastal Cardamom foothills (SW Cambodia), 2010-2018

O.E. Kosterin

*Institute of Cytology & Genetics Siberian Branch Russian Academy of Science,  
Acad. Lavrentyev ave. 10, Novosibirsk, 630090, Russia;  
Novosibirsk State University, Pirogova str. 2, Novosibirsk, 630090, Russia.  
E-mail: [kosterin@bionet.nsc.ru](mailto:kosterin@bionet.nsc.ru)*

Results are presented of occasional photographic records of butterflies (Lepidoptera, Papilionoidea) made along with studies on the Odonata fauna in 63 localities of four coastal provinces of SW Cambodia (Koh Kong, Preah Sihanouk, Kampot and Kep) in 2010-2018. In total, 151 identified and 15 provisionally identified species are listed; 39 identified species (*Troides helena*, *Graphium agetes*, *Prioneris philomone*, *Abisara echerias*, *Arhopala abseus*, *A. aedias*, *A. aida*, *A. alitaeus*, *A. atosia*, *A. avatha*, *A. bazaloides*, *A. elopura*, *Cigaritis lohita*, *Sinthusia nasaka*, *Lampides boeticus*, *Udara selma*, *Zizeera karsandra*, *Danaus affinis*, *Euploea phaenareta*, *Parantica agleoides*, *Cyrestis themire*, *Euthalia malaccana*, *E. phemius*, *Discophora timora*, *Lethe mekara*, *Badamia exclamationis*, *Burara harisa*, *Odina decorata*, *Tagiades menaka*, *Ancistroides nigrita*, *Gangara lebadea*, *Halpe zola*, *Hyrtaotis adrastus*, *Lotongus calathus*, *Matapa aria*, *M. sasivarna*, *Pirdana hyela*, *Suastus minutus*, *Thoessa masoni*) and 8 provisionally identified species (*Poritia* cf. *erycinoides*, *Nacaduba* cf. *pavana*, ?*Cephenes acalle*, *Erionota* cf. *torus*, *Halpe* cf. *hauvillei*, *Notocrypta* cf. *clavata*, *Potanthus* cf. *subochraceus*, ?*Polytremis lubricans*) are for the first time reported for Cambodia. These, as well as some other provisionally identified and unidentified species are illustrated. The only not so expected record is a Sondaic species *Arhopala athada*.

**Key words:** butterflies; Cambodia; Indochina; Diurna; Rhopalocera; Papilionoidea; unidentified species

## Introduction

Butterflies are creatures traditionally attracting much attention, of public because of their doubtless aesthetic value as well as of scientists since their assemblages are useful indicators of habitat quality. Cambodia still retains large but fast shrinking areas of primary and moderately disturbed tropical forests (of which most important are lowland forests, chiefly exterminated elsewhere) which must be reach in butterflies. Paradoxically, its butterfly fauna is worst known among the countries of Indochina and, broadly, of the Indomalayan area. In recent decades, only four papers appeared: three reports of the trips by Hiraoki Onodera to the northern and eastern Cambodia ([Onodera, 2007](#); [2008](#); [2009a](#)) and a report of a detailed study of butterflies (except for HesperIIDae) of the Phom Samkos Wildlife Sanctuary in the Cambodian Cardamoms by [Monastyrskii, Yago, & Odagiri \(2011\)](#), as well as a popular atlas of the butterflies of South-Western Cambodia, chiefly focusing at Botum Sokor Natilnal Park ([Woodfield & Murton, 2006](#)). On dot maps of distribution of even many most common and widespread species presented at the site 'A Check List of Butterflies in Indo-China' by Yutaka [Inayoshi \(2018\)](#), the Cambodian territory looks as a white spot between the territories of Thailand and Vietnam, which are dotted quite densely. No checklist of Cambodian butterflies is published, but [Inayoshi \(2018\)](#) summarised at his site all faunistic information concerning butterflies of Thailand and Indochina, available to him personally and published in scientific literature (although the Cambodian records of many species made by [Monastyrskii et al. \(2011\)](#) are still missed).

No doubt, the knowledge of the Cambodian butterflies will gain with time, but the rate of deforestation of the country is frighteningly high, so that the current speed of extermination of butterfly habitat may have already exceeded

the speed of their study. Meanwhile the knowledge of this group is very important just for the purposes of nature conservation for the two above given reasons: the human love to these beautiful creatures and their conspicuous manifestation of the habitat quality. In this respect, any new and even preliminary knowledge of butterfly species composition and distribution are welcome. Photographical data can be considered as such. Butterflies are very popular object of wildlife photography. With their rich, elaborate and as a rule species specific wing pattern, butterflies are among creatures most likely identifiable by photographs. Nevertheless, many of their groups, especially in Hesperidae, have very similar or identical wing patterns and are identifiable only by male genitalia, that makes them the least investigated and hence most interesting. Among Cambodian butterflies, most representatives of quite a number of speciose genera, e.g. *Melanitis*, *Mycalesis*, *Ypthima*, *Potanthus*, cannot be identified by the wing pattern while identification (especially by only one wing side) of many species in the genera *Miletus* Hübner, [1819], *Allotinus* C. & R. Felder, [1865], *Arhopala* Boisduval, 1832, *Jamides* Hübner, [1819], *Nacaduba* Moore, [1881], *Prosotas* Druce, 1891, some *Euploea* Fabricius, 1807 etc. and the whole family Hesperidae is problematic. Although all photographic records should be considered as preliminary, to be once proved by voucher specimens, they worth publishing with a relevant degree of caution, as a certain step of revealing so insufficiently known butterfly fauna of Cambodia. Some photographs of interesting insects could even inspire special directed studies.

Since 2006, I have been conducting field faunistic studies of dragonflies and damselflies (Odonata) of Cambodia and to the present moment have made eleven, mostly 2-3 week long, trips to that country. Although my attention was mostly absorbed by dragonflies and damselflies, I used to occasionally photograph some butterflies along with my main activity. I tried to make the faunal data on Odonata of Cambodia published soon after their being obtained but this was hardly possible for butterflies, which are much more speciose and not my main research subject. To get started, in this report I summarised the faunal data from butterfly photos made in the four provinces of SW Cambodia, Koh Kong, Preah Sihanouk, Kampot and Kep Provinces, occupying the coastal foothills of the Cardamom Mts., where I have nearly completed my very preliminarily odonatological survey.

## Material and methods

### Methods

The butterflies were photographed in the wild in purely natural conditions, without any restriction of their freedom and mobility, using the Olympus Camedia C8080 camera, since 2014 also using the Canon EOS 350D camera with Sigma AF 24-70 mm F2.8 EX DG Macro lens and, rarely, the Pentax WG-10 camera. As few as ten specimens in total were occasionally collected (indicated in the text) and kept in Siberian Zoological Museum at the Institute of Systematics and Ecology of Animals SB RAS, Novosibirsk. Coordinates were obtained with Garmin eTrex H personal GPS navigator and revised using Google Earth; elevations were retrieved from Google Earth.

### Identification and taxonomy

The taxonomic system used in the site 'A Check List of Butterflies in Indo-China' ([Inayoshi, 2018](#)) is adopted, but more subfamilies are recognised.

The butterflies on the photos were mostly identified using the comprehensive book on the butterfly fauna of the adjacent Thailand ([Ek-Amnuay, 2006](#)), with corrigenda ([Ek-Amnuay et al., 2007](#)), the internet site 'A Check List of Butterflies in Indo-China' ([Inayoshi, 2018](#)) and some more specific sources, e.g. a paper on Riodininae of Vietnam ([Callaghan, 2009](#)). Of great (critical) use were the papers by Hiraoki Onodera on the butterflies of Cambodia ([Onodera, 2007](#); [2008](#); [2009a](#)) and Laos ([Onodera, 2009b](#); [2015](#)) and his unpublished reports on the butterflies of Laos, kindly provided by the author. Useful hints came from internet sites 'The Thailand Butterflies Species Gallery' by Antonio [Giudici \(2018\)](#) and 'Gee's Nature Tours' by Gerard [Chartier \(2018\)](#). For identifications of some difficult cases, at different time and different sets of photos, I consulted Leslie Day, Antonio Giudici and Gerard Charter. They confirmed most, suggested some, kindly corrected others and wisely refrained from decisions on many, so all responsibility for identifications is mine.

Most of the photos were identified to species. Many identifications are provisional; these are indicated with 'cf'. With very few exceptions indicated below, no subspecies identification was attempted but, since subspecies of Oriental butterflies as a rule have distinct geographical ranges, each species was formally attributed to a biogeographically relevant subspecies according to [Inayoshi \(2018\)](#).

All the photos are available for critical consideration as presented at my internet site ([Kosterin, 2018](#)).

### Abbreviations and designations

The abbreviations standard across the butterfly literature is used: FW and HW – fore and hind wing, respectively, UPS and UNS – upperside of both wings, respectively, UPF, UPH, UNF and UNH – upperside of fore and hind wing and underside of fore and hind wing, respectively; vein 3 is the first cubitus upper branch, vein 4 is the median third branch; the numeration of spaces follows the standard English system (see e.g. [Ek-Amnuay, 2006](#)).

### Data presentation

The dates are given in the dd.mm.year system. The coordinates are given in decimal degrees (to facilitate filling search forms without the sign "°"); in most cases their range for the area actually studied in each locality is indicated. The elevations above sea level are followed just with 'm'. The locality data are provided via geographical rather than temporal

order. The Koh Kong, Preah Sihanouk, Kampot and Kep Provinces are abbreviated with two boldface letters **KK**, **PS**, **Ka** and **Ke**, respectively. To avoid confusion of numerals, localities are also denoted by conventional nicknames (underlined), partly coinciding with those given and used in my odonatological publications ([Kosterin, 2010](#), [2011](#), [2012a,b](#); [2014](#); [2015](#); [Kosterin & Chartier, 2017](#)). These nicknames follow the locality ordinal numbers after back slash, both underlined. The ordinal numbers correspond to those of the map of Fig. 1, the base of which was adopted from Google Earth. The localities where the butterfly photos were taken are as follows:

#### Koh Kong Province (**KK**)

1\Prodasineura Rivulet: a medium-sized rapidous left tributary of the Koh Bopw River with an evergreen forest valley, 27 km NNW of Koh Kong, 11.8319-8342 N, 102.8908-8939 E, 10-72 m;

2\Thma Dar: Thma Dar locality, evergreen forest and grassy opening at Koh Bopw River at the waterfall, 27 km NNW of Koh Kong, 11.8328 N, 102.8889 E, 10 m;

3\Koh Por: rapids and a waterfall on Koh Por River, with broad sandstone valley surrounded by lush evergreen forest, upstream of Koh Kong, 11.7197-7494 N, 103.0744-0858 E, 11-20 m;

4\Poacher River: the first rivulet W of Koh Kong Estuary flowing through foothill evergreen forest, 11.6500-6592' N, 103.0167-0250 E, 100-220 m;

5\Koh Kong: in the town, 11.61 N, 102.98 E, 3-5 m;

6\Cora Marsh: A sedge marsh surrounded by mangroves and shrubbery W of the road to Boyeng Kayak just behind where it leaves Koh-Kong at the school, 11.5908 N, 102.9814 E, 2 m;

7\Calamorum Ponds: ponds with tall trees at banks surrounded by coastal open marshy shrubbery and low tree stand, E of the road from Koh Kong to Boyeng Kayak, 11.5822-5850 N, 102.9840-9861 E, 3-4 m;

8\Koh Kong Estuary: its right bank next to the town of Koh Kong, a beach and bamboo thickets, 11.5817 N, 102.9761 E 2 m;

9\Boeng Kayak: mangrove edges at Boyeng Kayak village and Peam Krasaop Wildlife Sanctuary, 11.5583 N, 102.9917 E, 2 m;

10\Hemicordulia Brook: a forest brook with a small open plantation aside, 13 km ENE Koh-Kong, 11.6653 N, 103.0928 E, 315 m;

11\Archibasis Brook: a forest brook 14.5 km ENE Koh Kong, 11.6553 N, 103.1131 E, 344 m;

12\Glaucum Brook: a forest brook 15 km ENE Koh Kong, 11.6642 N, 103.1192 E, 317 m;

13\Nannophya Rivulet: a forest rivulet through primary evergreen forest with a small village and an open place aside, 17 km ENE Koh Kong, 11.6622-6658 N, 103.1150-1192 E, 318-336 m;

14\Macromia Rivulet: a forest rivulet through primary evergreen forest, 17.5 km ENE of Koh Kong, 11.6717-6719 N, 103.1222-1247 E, 294-307 m.

15\Road: 21 km NE Koh Kong: a road in an evergreen forest, 11.69 N, 103.15 E, ~ 330 m (coordinates uncertain);

16\Nepenthes Brook: a forest brook in evergreen forest crossing a road 22.5 km ENE Koh-Kong, 11.6953 N, 103.1528 E, 286 m;

17\Capricornis Rivulet: a considerable rivulet in evergreen forest near its fall into the Sala Muntun River, 25.5 km ENE Koh-Kong. 11.7078-7089 N, 103.1982-1991 E, 301-310 m;

18\Macromidia Rivulet: a rivulet at foothills clad with evergreen forest, crossing the road to Tatai 10 km E of Koh Kong, 11.6008-6017 N, 103.0708 E, 114-123 m;

19\Themire Brook: a brook in secondary forest 0.4 km WNW of Tatai waterfalls, 11.5883 N, 103.0933 E, 66-69 m;

20\Rhinagrion Brook: a brook in secondary forest 0.8 km S Tatai Waterfall, 11.5811 N, 103.0936 E, 80 m;

21\Tatai Waterfall: on the Sala Muntun River, the valley bordered with secondary forest, 11.5855-5873 N, 103.0958-0977 E, 18-26 m;

22\Lake Area: the left bank of a widening of the Sala Muntun River bordered with primary evergreen forest, 11.5961-5994 N, 103.1200-1228 E, 58-100 m;

23\Rainbow Lodge: secondary tall bamboo forest at Rainbow Lodge at the Kep River estuary right bank near Phum Doung village, 11.5967-5989 N, 103.1258-1286 E, 5-70 m;

24\Halpe Rivulet: a rivulet in secondary forest, 11.5670-5686 N, 103.1105-1113 E, 80-91 m;

25\Phum Doung: Phum Doung village in Tatai Commune, farms, secondary growth, river banks, evergreen forest margins, 11.5650-5894 N, 103.1249-1380 E, 7-31 m;

26\Oculata Brook: a rapidous brook with a sandstone valley in foothill evergreen forest on the estuary right bank opposite to Phum Doung village, 11.5610-5650 N, 103.1231-1247 E, 30-100 m;

27\Hyalina Brook: a stony foothill brook, in its lower reaches flowing through primary evergreen forest, further through secondary tall bamboo growth, 11.5561 N, 103.1325-1350;

28\Viola Veal: a large savannah opening with sandy soil on sandstone plates (loc. 'veal') at the road to Thma Bang, 11.5833-5919 N, 103.2275-2381 E, 339-380 m;

29\Neurobasis River: a mediums-sized river in evergreen forest SE of the previous locality, 11.57 N, 103.23 E (coordinates uncertain), ca 280 m;

30\Microgomphus River: a medium-sized river with primary evergreen forest at the left bank and some fruit plantations at the right bank, 6.5 km SW Thma Bang village, 11.6450-6463 N, 103.3953-3975 E, 343-346 m;

31\Thma Bang River: 5 km SW of Thma Bang, a Thma Bang River widening bordered with evergreen forest stripes, 11.6586 N, 103.4039 E, 366 m;

32\Thma Bang Waterfall: primary evergreen forest margining the Thma Bang River at the waterfall, , 11.661 N, 103.399 E, 351-358 m

33\Triangularis Pond: a large pond surrounded with secondary vegetation within Thma Bang village, 11.670 N, 103.409, 372 m (coordinates uncertain);

34\Andoung Tuek: in the centre of Andoung Tuek village, 11.189 N, 103.471, 12-15 m

35\Melaleuca forest: an inundated forest of *Melaleuca cajuputi* Powell examined for 1.4 km along the road to Srae Ambel between the village of Andoung Tuek and the border of Andoung Tuek and Kandal Districts, 11.1967-2078 N 103.4750-4833 E, 2-6 m a.s.l.

#### Preah Sihanouk Province (PS)

36\Long Beach: a road through foothill primary evergreen forest along Long Beach at Koh Rong Island, 10.680 N, 103.258 E, 7-12 m.

37\Windy Stone: at Windy Stone Pass through the ridge in the western part Koh Rong Island, primary foothill forest mostly disturbed in 2017, 10.670 N, 103.262 E, 145-155 m;

38\Koh Rong Brook: a brook at S margin of Koh Touch village, at a slope base with primary evergreen forest which the understorey was cut and burnt in 2017, 10.6667-6678 N, 103.2689-2706, 5-70 m;

39\Koh Touch Beach: a beach on the cape 800 m NE of Koh Touch village at forest margin, 10.671 N, 103.279 E, 7 m;

40\Reservoir: bank of the huge upper water reservoir surrounded with evergreen forest, 3 km SE of Kbal Chhay Waterfall, 10.661-662 N, 103.603-606 E, 69-73 m;

41\Kbal Chhay: At and just below Kbal Chhay Waterfall, including the lowermost reaches of the right tributary of the main river, pools on sandstone rocks and evergreen forest, 10.6731-6782 N, 103.6090-6113 E, 33-57 m;

42\Prek Toeuk Sap: the Prek Toeuk Sap River 1-1.5 km downstream Kbal Chhay Waterfall, with a broad sandstone valley surrounded by evergreen forest (logged in late 2018) and some small farms, 10.6675-6703 N, 103.6183-6227 E, 11-16 m;

43\Ream Pagoda: foothill evergreen forest margins and secondary vegetation at and above the pagoda at Ream Peninsula coast (formerly the Ream National Park recreation centre), 15 km SE Sihanoukville. 10.5146-5195 N, 103.6160-6198 E, 34-44 m;

44\Coconut Beach: a swamp and a marsh ('veal') near the Coconut Beach of Ream Peninsula, 10.4999-5004 N, 103.6506-6514 E, 7-12 m;

45\Mesalliance Rivulet: a rivulet flowing partly in primary evergreen forest, partly in secondary bamboo thickets (now logged) and partly farmland, with slow reaches with shaded valley and raffly reaches with open sandstone valley, 3.3 km SSW of Ream, 10.5565-5586 N, 103.6560-6599 E, 16-24 m;

46\Amphicnemis Rivulet: A small shady rivulet in Ream 'National Park' flowing through lowland primary evergreen forest, completely logged in late 2018, close to the sea, a small grassy plantation nearby, 8.6 km SE of Ream. 10.5213-5244 N, 103.6956-6958 E, 16-20 m;

47\Atrocyana Rivulet: a rivulet like above but with an open sandstone roadside reach and swamped pools, 10.2 km SE of Ream, 10.5175-5180 N, 103.7090-7095 E, 18 m;

48\Big Tree: a shady road in lowland evergreen forest near the famous Big Tree in Ream 'National Park'. 10.5240-5244 N, 103.7119-7122 E, 33-34 m;

49\Peak Lingam: the Lingam Hill S. foot, evergreen forest, 10.524 N, 103.724 E, ~40 m (coordinates uncertain);

50\Veal Rinh: Veal Rinh Town, 10.708 N, 103.815 E, 7 m;

#### Kampot Province (Ka)

51\Popokvil Waterfall: a waterfall at the Popokvil River with a broad sandstone valley surrounded with evergreen forest, 4.9 km NE Bokor Palace. 10.6589-6594 N, 104.0511 E, 912-918 m;

52\ldionyx Reach: a slow reach of the Popokvil River surrounded by low evergreen forest, 3.6-3.9 km NE Bokor Palace, 10.6533-6553 N, 104.0367-0392 E, 925-932 m;

53\Bokor Mire: a road from Bokor Hill Station to Popokvil Waterfall between stony low montane forest at large peat-moss mires (now dried and used for construction), at the old pagoda: a road through low upland hill forest and peat-moss mires, 10.645 N, 104.036 E, 930 m;

54\Bokor Hill Station: alternating dense and open misty low montane forest at rocks at the old French ruins ('Bokor Palace' etc.) and new Chinese casino area, at present mostly cleared and built up, 10.619-638 N, 104.008-031 E, 1012-1066 m;

55\Bokor Slope: evergreen forest at Bokor Plateau S slope, ?ca 10.606-618 N, 104.086-088 E, 1030-1037 m (coordinates uncertain).

56\Tek Chhou Rapids: on the right major river forming the River of Kampot, secondary vegetation nearby, 10.6703-6719 N, 104.1297 E, 6-12 m;

57\Decoratus Oxbow: an oxbow at the left board of the Kampot River valley surrounded by secondary vegetation, 10.672 N, 104.137 E, 6 m (coordinates uncertain);

58\Kampot: at Orchid Guesthouse in the Kampot City, 10.61 N, 104.18 E, 5-6 m;

#### Kep Province (Ke)

59\Kep Beach: the beach in the centre of Kep, 10.480 N, 104.294 E, 6 m;

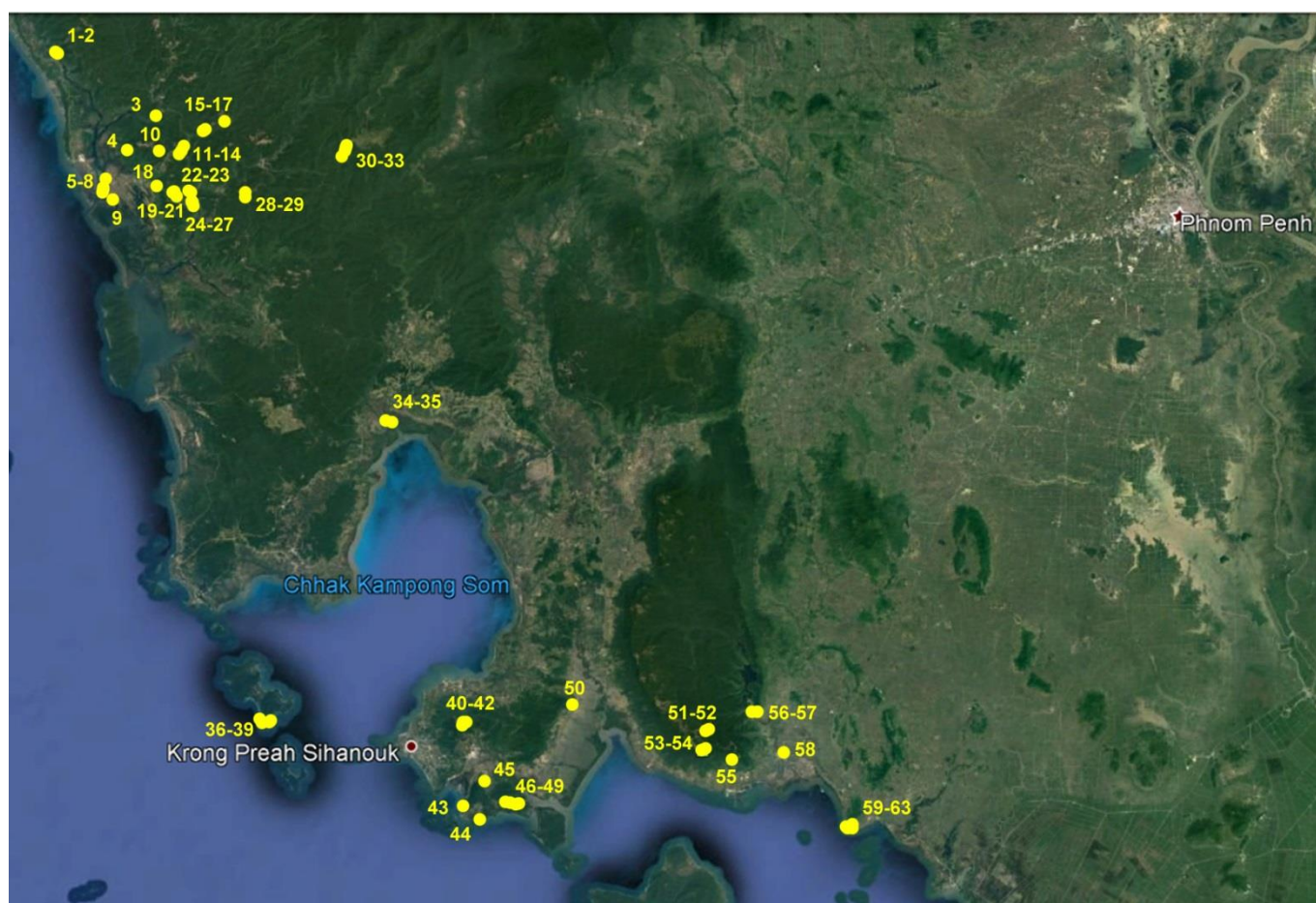
60\Ludwigia Pond: a large lowland pond within Kep, 10.4858-4863 N, 104.2931-2935 E, 24-27 m;

61\Treetop Bungalow: Treetop Bungalow Resort in Kep, a grassy/bushy area just below Kep National Park, 10.4936 N, 104.2958 E, 51 m;

62\Kep National Park: a road around the hill, clad with primary evergreen forest, in Kep, 10.477-500, 104.296-308 E, 80-150 m;

63\Platystylus Brook: a forest brook in 62\Kep National Park, 10.4903 N, 104.3025-3036 E, 90-110 m.

For more information about the localities examined (and also some circumstances of the trips) see my following odonatological publications concerning Koh Kong Province ([Kosterin, 2010](#), [2011](#), [2012a,b](#); [2015](#); [Kosterin & Chartier, 2017](#)), Preah Sihanouk Province ([Kosterin, 2010](#); [2014](#); [2015](#)), Kampot Province ([Kosterin 2010](#), [2011](#), [2012a,b](#); [2015](#)) and Kep Province ([Kosterin, 2010](#); [2011](#)).



**Fig. 1.** Disposition of localities where butterfly photos were taken in the coastal provinces of Cambodia. The numerals correspond to those used for the localities in the text.

## Results

Below given is a list of butterfly species identified by photos, with their localities and dates and, where possible, sex. For some species a short comment is added. According to the Internet site 'Butterflies of Indochina' by Yutaka [Inayoshi \(2018\)](#), taken as the most complete compendium of the data available on Indochinese butterflies, and the paper by [Monastyrskii et al. \(2011\)](#) (information from which still is not completely included into that site), some species appear to be for the first time reported for Cambodia hereby. They are marked in the text with asterisk (\*). These, as well as many

uncertain records, are illustrated by their photographic proofs (presented not to scale). After a taxon name an evaluation of its rarity in the neighbouring Thailand by [Ek-Amnuay \(2006\)](#) is provided, as §, §§, §§§ from common to rare.

## Papilionidae

### Troidinae

*Losaria coon doubledayi* (Wallace, 1865) §§§ – **PS**: f, [40\Reservoir](#), 26.05.2013.

*Pachilopta aristolochiae goniopeltis* (Rotschild, 1908) § – **KK**: male, [30\Microgomphus River](#), 2.06.2014.

*Troides aeacus aeacus* (C. & R. Felder, 1865) § – **PS**: male, [56\Tek Chhou Rapids](#), 21.08.2011.

\* *Troides helena cerberus* (C. & R. Felder, 1865) § – **KK**: male, [30\Microgomphus River](#), 2.06.2014 (Fig. 2); **Ke**: male, [62\Kep National Park](#), 7.12.2010 (Fig. 3).

### Papilioninae

*Graphium agamemnon agamemnon* (Linnaeus, 1758) § – **KK**: male, [30\Microgomphus River](#), 24.05.2013; male, the same place, 21.03.2015.

\* *Graphium agetes agetes* (Westwood, 1843) § – **KK**: males, [17\Capricornis Rivulet](#), 29.11.2010 (Fig. 4); male, [30\Microgomphus River](#), 21.03.2015 (Fig. 5).

*Graphium antiphates pompilius* (Fabricius, 1787) § – **KK**: males, [17\Capricornis Rivulet](#), 29.11.2010; males, [30\Microgomphus River](#), 23.08.2011. **PS**: male, [39\Koh Touch Beach](#), 8.03.2017; male, [42\Prek Toeuk Sap](#), 6.03.2017.

*Graphium arycles sphinx* (Fruhstorfer, 1899) § – **KK**: male, [14\Macromia Rivulet](#), 22.07.2016; male, [30\Microgomphus River](#), 24.05.2013. **PS**: male, [41\Kbal Chhay](#), 9.11.2018.

*Graphium doson axion* (C. et R. Felder, 1864) § – **KK**: male, [21\Tatai Waterfall](#), 2.12.2010; male, [22\Lake Area](#), 24.08.2011; male, [30\Microgomphus River](#), 24.05.2013; males, the same place, 2.06.2014. **PS**: males, [42\Prek Toeuk Sap](#), 6.03.2017.

*Graphium megarus megapenthes* (Fruhstorfer, 1902) §§ – **PS**: male, [42\Prek Toeuk Sap](#), 6.03.2017; male, [45\Mesalliance Rivulet](#), 5.03.2017.

*Graphium sarpedon sarpedon* (Linnaeus, 1758) § – **KK**: male, [13\Nannophya Rivulet](#), 3.06.2014; males, [17\Capricornis Rivulet](#), 29.11.2010; males, [30\Microgomphus River](#), 23.08.2011; males, the same place, 24.05.2013; males, the same place, 2.06.2014. **PS**: males, [41\Kbal Chhay](#), 9.11.2018.

*Graphium xenocles lindos* (Fruhstorfer, 1902) § – **KK**: male, [17\Capricornis Rivulet](#), 29.11.2010. **PS**: males, [42\Prek Toeuk Sap](#), 6.03.2017; males, [45\Mesalliance Rivulet](#), 5.03.2017.

*Lamproptera curius curius* (Fabricius, 1787) § – **KK**: [11\Archibasis Brook](#), 04.12.2010; male, [14\Macromia Rivulet](#), 22.07.2016; male, [30\Microgomphus River](#), 23.08.2011; male, the same place, 24.05.2013; **PS**: male, [42\Prek Toeuk Sap](#), 9.11.2018; male, [45\Mesalliance Rivulet](#), 11.11.2018; male, [47\Atrociana Rivulet](#), 27.03.2015.

*Lamproptera meges annamiticus* (Fruhstorfer, 1909) § – **Ke**: male, [63\Platystylus Brook](#), 6.12.2010; the same place, 6-7.12.2010, males, the same place, 20.08.2011.

*Papilio clytia clytia* (Linnaeus, 1758) § – **PS**: male f. *clytia*, [41\Kbal Chhay](#), 9.11.2018.

*Papilio demoleus malayanus* Wallace, 1865 § – **KK**: males, females, larva, pupae, [34\Andoung Tuek](#), 25.07.2016. **PS**: male, [42\Prek Toeuk Sap](#), 6.03.2017.

*Papilio demolion demolion* Cramer, 1776 §§ – **KK**: male, [7\Calamorum Ponds](#), 21.07.2016

*Papilio helenus helenus* Linnaeus, 1758 § – **KK**: male, [30\Microgomphus River](#), 24.05.2013.

*Papilio memnon agenor* Linnaeus, 1758 § – **KK**: male, [17\Capricornis Rivulet](#), 29.11.2010; male, [30\Microgomphus River](#), 23.08.2011; male, the same place, 2.06.2014. **PS**: female f. *distantianus*, [41\Kbal Chhay](#), 10.03.2016.

*Papilio nephelus chaon* Westwood, 1845 § – **KK**: male, [26\Oculata Brook](#), 25.05.2013; male, [30\Microgomphus River](#), 21.03.2015.

*Papilio paradoxa telearchus* Hewiston, 1852 §§§ – **KK**: male f. *telearchus*, [3\Koh Por](#), 13.04.2010

*Papilio polytes romulus* Cramer, [1775] § – **KK**: female, [7\Calamorum Ponds](#), 23.07.2016; **PS**: male, [42\Prek Toeuk Sap](#), 6.03.2017, male, the same place, 9.11.2018; male, [45\Mesalliance Rivulet](#), 5.03.2017.

## Pieridae

### Pierinae

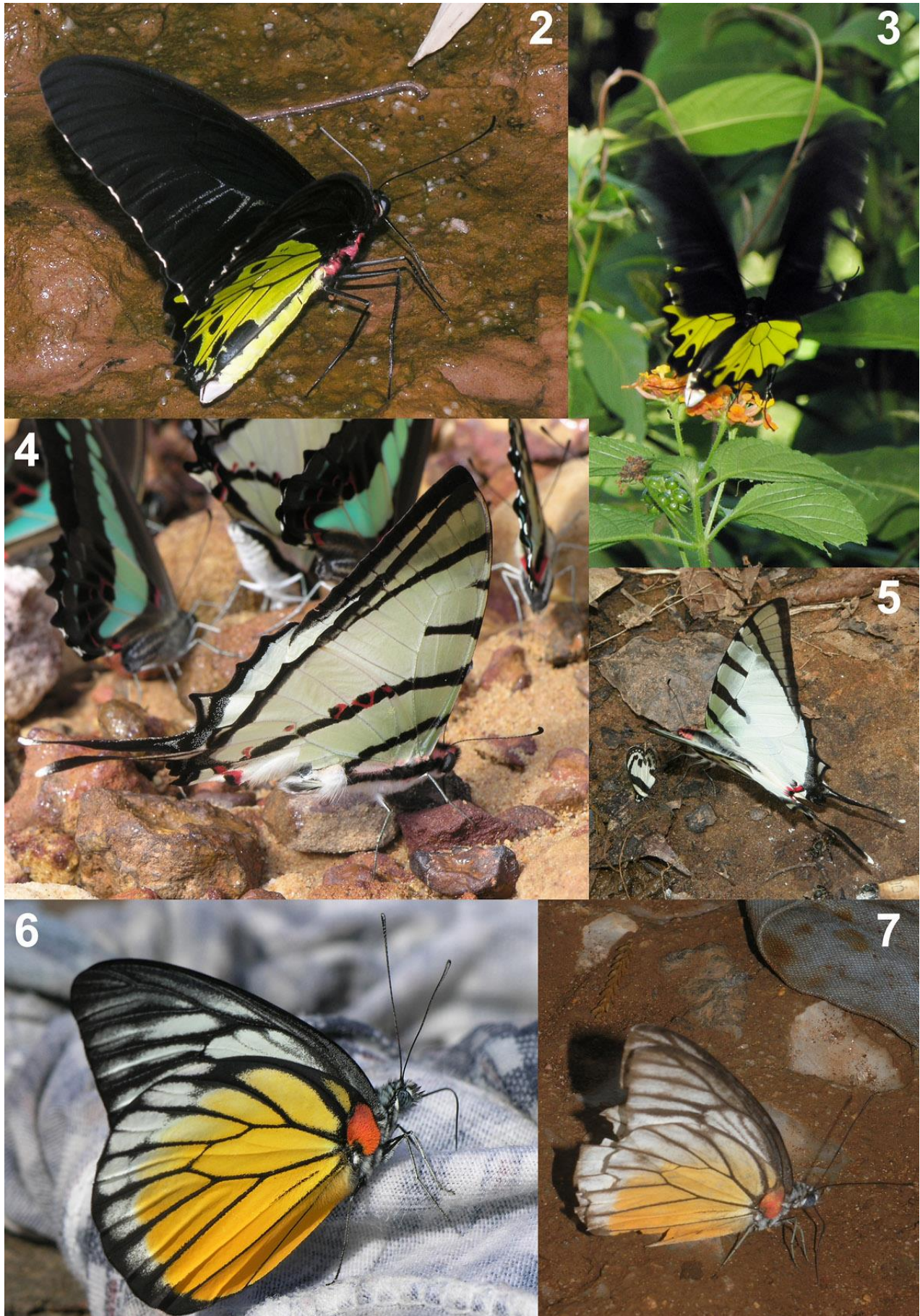
*Appias albina darada* (Felder et Felder, [1865]) § – **Ka**: male, [51\Popokvil Waterfall](#), 31.03.2015. **Ke**: male, [60\Ludwigia Pond](#), 21.04.2010.

*Appias lycinda eleonora* (Boisduval, 1836) § – **KK**: males, [17\Capricornis Rivulet](#), 29.11.2010. **Ka**: male, [51\Popokvil Waterfall](#), 1.04.2015.

*Cepora nadina nadina* (Lucas, 1852) § – **KK**: male, [17\Capricornis Rivulet](#), 29.11.2010; males, [21\Tatai Waterfall](#), 17.04.2010; male, [30\Microgomphus River](#), 21.03.2015.

*Delias hyparete indica* (Wallace, 1867) § – **PS**: [41\Kbal Chhay](#), 10.03.2017.

*Delias pasithoe thyra* (Fruhstorfer, 1905) §§ – **PS**: female, [42\Prek Toeuk Sap](#), 9.11.2018 (photo by N. Priydak).



**Figs. 2-7.** Papilionidae and Pieridae not yet recorded for Cambodia: 2-3 - *Troides helena cerberus*: 2 - male, 30\Microgomphus River, 2.06.2014; 3 - male 62\Kep National Park, 7.12.2010; 4-5 - *Graphium agetes agetes*: 4 - males, 17\Capricornis Rivulet, 29.11.2010; 5 - 30\Microgomphus River, 21.03.2015; 6-7 - *Prioneris philomone clemathe*: 6 - male, 8\Koh Kong Estuary, 30.11.2010; 7 - male (Fig. 7), 30\Microgomphus River, 2.06.2014.

*Hebomoia glaucippe glaucippe* (Linnaeus, 1758) ♂ – **KK**: males, 17\Capricornis Rivulet, 29.11.2010; males, 30\Microgomphus River, 23.08.2011; males, the same place, 2.06.2014.

*Leptosia nina nina* (Fabricius, 1793) ♂ – **Ka**: 58\Kampot, 2.04.2015.

\**Prioneris philomone clemathe* (Doubleday, 1846) ♂♂ – **KK**: male, 8\Koh Kong Estuary, 30.11.2010 (Fig. 6); male, 30\Microgomphus River, 2.06.2014 (Fig. 7).

#### Coliadinae

*Catopsilia pomona pomona* (Fabricius, 1775) ♂ – **KK**: males, 30\Microgomphus River, 23.08.2011; males, the same place, 2.06.2014. **Ke**: males, 59\Kep Beach, 22.04.2010; male, 60\Ludwigia Pond, 21.04.2010.

*Eurema hecabe hecabe* (Linnaeus, 1758) ♂ – **KK**: male, 17\Capricornis Rivulet, 29.11.2010; male, 30\Microgomphus River, 21.03.2015.

*Eurema sari sodalis* (Moore, 1886) ♂♂ – **KK**: males, 14\Macromia Rivulet, 22.07.2016; males, 17\Capricornis Rivulet, 29.11.2010; males, 18\Macromidia Rivulet, 1.06.2014; male, 30\Microgomphus River, 21.03.2015. **PS**: male, 41\Kbal Chhay, 9.11.2018.

*Gandaca harina burmana* Moore, 1906 ♂ – **KK**: males, 17\Capricornis Rivulet, 29.11.2010; males, 30\Microgomphus River, 23.08.2011. **PS**: males, 47\Atrociana Rivulet, 11.11.2018.

#### Lycaenidae

##### Riodinidae

\**Abisara echerias paionea* Fruhstorfer, 1904 ♂ – **KK**: female, 11\Archibasis Brook, 4.12.2010 (Fig. 8).

*Taxila harquinus berthae* Fruhstorfer, 1904 ♂♂ – **KK**: female, 13\Nannophya Rivulet, 23.05.2013; **PS**: male, 48\Big Tree, 10.11.2018. **Ka**: female, 52\ldionyx Reach, 19.08.2011.

*Zemeros flegyas* (Cramer, [1780]) ssp. ♂ – **KK**: female, 24\Halpe Rivulet, 19.03.2015; 26\Oculata Brook, 25.06.2013. **PS**: female, 45\Mesalliance Rivulet, 11.11.2018. **Ke**: 62\Kep National Park, 22.04.2010; 07.12.2010.

##### Poritinae

\**Poritia* cf. *erycinoides elsiei* Evans, 1925, 1878 ♂♂ – **KK**: 31\Thma Bang River, 15.04.2010 (Fig. 9). UNF: postdiscal and discal bands too much dislocated at vein 4 for the species as provisionally identified.

##### Miletinae

*Allotinus* cf. *unicolor rekkia* Riley et Godfrey, 1921 ♂♂ – **PS**: male, 45\Mesalliance Rivulet, 5.03.2017 (Fig. 10).

*Miletus* cf. *chinensis learchus* C. & R. Felder, 1862 ♂ – **KK**: female, 25\Phum Doung, 22.03.2015 (Fig. 11).

##### Theclinae

\**Arhopala abseus indica* Riley, 1923 ♂♂ – **KK**: 6\Cora Marsh, 14.10.2010 (Fig.12).

\**Arhopala aedias merittas* Corbet, 1941 ♂♂ – **KK**: 28\Viola Veal, 12.08.2011 (Fig. 13).

\**Arhopala aida aida* de Nicéville, 1889 ♂♂ – **PS**: 37\Windy Stone, 9.03.2017 (Fig. 15); 43\Ream Pagoda, 20.04.2010 (Fig. 14).

\**Arhopala alitaeus mirabella* Corbet, 1941 ♂♂ – **KK**: 26\Oculata Brook, 18.04.2010 (Fig. 16).

*Arhopala anthelus* (Westwood, 1852) ssp. ♂♂ – **KK**: 26\Oculata Brook, 18.04.2010; the same place, 26.08.2011; the same place, 25.05.2013; 27\Hyalina Brook, 1.06.2014.

\**Arhopala atosia jahara* Corbet, 1941 ♂ – **KK**: 26\Oculata Brook, 18.04.2010 (Fig. 17); male and female in copula, 27\Hyalina Brook, 1.06.2014 (Fig. 19); 32\Thma Bang Waterfall, 24.05.2013 (Fig. 18).

\**Arhopala avatha* de Nicéville, [1896] ♂♂ – **PS**: 42\Prek Toeuk Sap, 6.03.2017 (Fig. 20). The identification of this Sondaic species is based on the following characters: tailless, FW pointed, almost without metallic scales at UNH tornus; UPH upper part of postdiscal row of spots very slanting; UNH postdiscal spots in spaces 5-7 narrow, not touching each other, in echelon.

\**Arhopala bazaloides bazaloides* (Hewiston, 1878) ♂♂ – **PS**: 43\Ream Pagoda, 20.04.2010 (Fig. 21).

*Arhopala centaurus nacula* (C. & R. Felder, 1860) ♂ – **KK**: 7\Calamorum Ponds, 26.08.2011; female, the same place, 23.07.2016. **PS**: 43\Ream Pagoda, 20.04.2010; 45\Mesalliance Rivulet, 3.03.2017; the same place, 5.03.2017; the same place, 11.11.2018. **Ka**: 57\Decoratus Oxbow, 21.08.2011.

\**Arhopala elopura* Druce, 1794 ssp. ♂♂ – **KK**: 63\Platystylus Brook, 20.08.2011 (Fig. 22).

*Arhopala perimuta perimuta* (Moore, 1858) ♂♂ – **KK**: 21\Tatai Waterfall, 17.04.2010; 26\Oculata Brook, 18.04.2010. **PS**: 46\Amphicnemis Rivulet, 27.03.2015.

*Arhopala* sp1. – **KK**: 32\Thma Bang Waterfall, 24.05.2013 (Fig. 23). UNF: row of postdiscal spots uneven, there are costal spots above cell-end bar and cell central spot; UNH: space between cell end bar and postdiscal spot in space 5 very narrow while postdiscal spot in space 6 broad, with straight borders, well overlapping both spots underneath; spot in space 7 narrower, its borders not in line with those of the former; almost no metallic scales at HW tornus.





**Figs. 8-11.** Some Lycaenidae s.l. either not yet recorded for Cambodia or provisionally identified: **8** – *Abisara echerias paionea*, female, 11\Archibasis Brook, 4.12.2010; **9** – *Poritia* cf. *erycinoides elsiei*, 31\Thma Bang River, 15.04.2010; **10** – *Allotinus* cf. *unicolor rekkia*, male, 45\Mesalliance Rivulet, 5.03.2017; **11** – *Miletus* cf. *chinensis learchus*, female, 25\Phum Doung, 22.03.2015.

*Arhopala* sp2. – **PS:** 43\Ream Pagoda, 20.04.2010 (Fig. 24). UNF postdiscal row of spots dislocated at vein 3 as in *A. aida* but there is no costal spot above mid-cell spot and anterior rather than posterior border of postdiscal spot in space 6 is nearly in line with that in space 7; tail either absent or missed.

*Arhopala* sp3. – **PS:** 48\Big Tree, 27.03.2015 (Fig. 25). As sp. 3 but UNH with central spot in cell vestigial (very unusual - an aberration?) and the UNS pattern is more distinct; tail present. Maybe the same species.

*Arhopala* sp4. – **PS:** 48\Big Tree, 27.03.2015 (Fig. 26). FW apices rather rounded, UNS pattern somewhat resembles *A. elopura* but less distinct, UNH: postdiscal spot in space 7 narrow, with borders not in line with those of that in space 6, inner border of the spot in space 7 strongly concave in upper part; the spot in space 6 with straight borders, overlaps both postdiscal spot in space 5 and cell-end bar; tail either absent or missed.

*Cheritra freja evansi* Cowan, 1965 ♂ – **PS:** 43\Ream Pagoda, 20.04.2010.

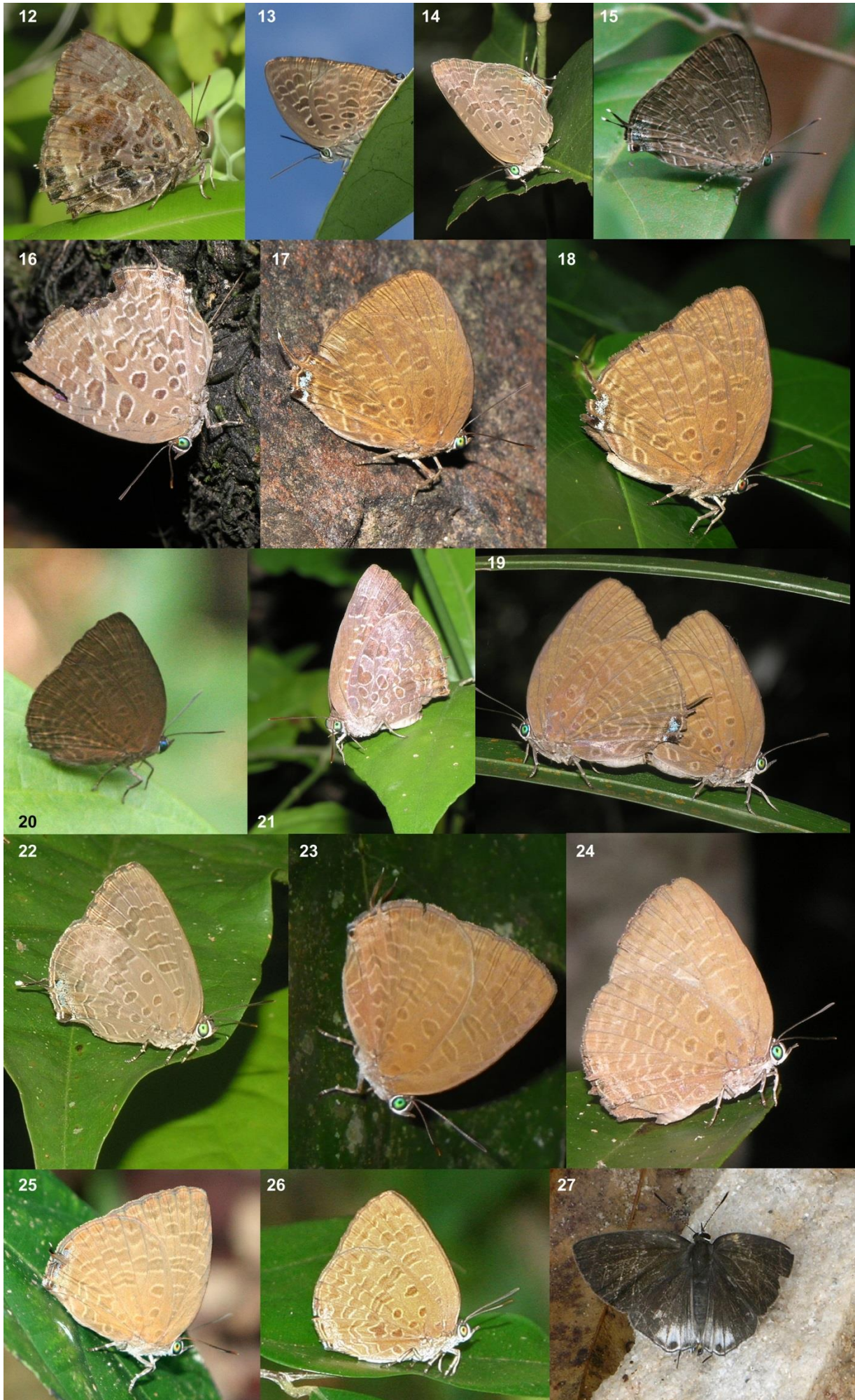
\**Cigaritis lohita himalayana* (Moore, 1884) ♀ – **KK:** female, 28\Viola Veal, 12.08.2011 (Figs. 28-29); 35\Melaleuca forest, 24.07.2016 (Fig. 30). Note the difference in the UNH ground colour.

*Cigaritis syama peguanus* (Moore, 1884) ♂ – **Ke:** 61\Treetop Bungalow, 05.12.2010.

*Flos diardi diardi* (Hewiston, 1862) ♂♂ – **PS:** 43\Ream Pagoda, 20.04.2010.

*Hypolycaena amasa amasa* (Hewiston, [1865]) ♂♂ – **KK:** male, 15\Road, 23.06.2013; **PS:** male, 42\Prek Toeuk Sap, 9.11.2018.

*Hypolycaena erylus himavantus* Fruhstorfer, 1912 ♂ – **KK:** 1\Prodasineura Rivulet, 28.08.2011; 7\Calamorum Ponds, 21.07.2016; the same place, 23.07.2016. **Ka:** male, 56\Tek Chhou Rapids, 21.08.2011.



**Figs. 12-27.** Some Theclinae (mostly *Arhopala*) either not yet recorded for Cambodia or unidentified: **12** – *Arhopala abseus indica*, 6\Cora Marsh, 14.10.2010; **13** – *A. aedias meritatas*, 28\Viola Veal, 12.08.2011; **14-15** – *A. aida aida*: **14** – 43\Ream Pagoda, 20.04.2010; **15** – 37\Windy Stone, 9.03.2017; **16** – *A. alitaeus mirabella*, 26\Oculata Brook, 18.04.2010; **17-19** – *A. atosia jahara*: **17** – 26\Oculata Brook, 18.04.2010; **18** – 32\Thma Bang Waterfall, 24.05.2013; **19** – 27\Hyalina Brook, 1.06.2014; **20** – *A. avatha*, 42\Prek Toeuk Sap, 6.03.2017; **21** – *A. bazaloides bazaloides*, 43\Ream Pagoda, 20.04.2010; **22** – *A. elopura* ssp., 63\Platystylus Brook, 20.08.2011; **23** – *Arhopala* sp1., 32\Thma Bang Waterfall; **24** – *Arhopala* sp2. – **PS**: 43\Ream Pagoda, 20.04.2010; **25** – *Arhopala* sp3., 48\Big Tree, 27.03.2015; **26** – *Arhopala* sp4., 48\Big Tree, 27.03.2015; **27** – *Sinthusa nasaka amba*, female, 53\Bokor Mire, 10.12.2010.

*Hypolycaena thecloides thecloides* (C. & R. Felder, 1860) ♂♂ – **KK**: 9\Boyeng Kayak, 12.04.2011; 25\Phum Doung, 19.04.2010; f, 35\Melaleuca forest, 24.07.2016.

*Loxura atymnus continentalis* Fruhstorfer, [1912]) ♂ – **KK**: 10\Hemicordulia Brook, 22.05.2013; male, 26\Oculata Brook, 18.04.2010; 35\Melaleuca forest, 24.07.2016. **PS**: male, 38\Koh Rong Brook, 28.03.2015; male, female, the same place, 30.03.2015.

*Neomyrina nivea hiemalis* (Distant et Salvin, 1878) ♂♂♂ – **KK**: many females photographed, 7\Calamorum Ponds, sparsed low trees on a coastal marshy plain, 23.07.2016.

*Rapala manea schistacea* (Moore, 1879) ♂♂ – **KK**: 5\Koh Kong, NE suburbs, 14.04.2010;

\**Sinthusa nasaka amba* Kirby, 1878 ♂♂♂ – **Ka**: female, 53\Bokor Mire, 10.12.2010 (Fig. 27).

*Yasoda tripunctata tripunctata* (Hewiston, 1863) ♂♂ – **PS**: 48\Big Tree, 10.11.2018.

#### Polyommatainae

*Anthene emolus emolus* (Godart, 1824) ♂ – **KK**: male, 3\Koh Por, 13.04.2010; male collected, the same place, 01.12.2011; male, female collected, 8\Koh Kong Estuary, 30.11.2011; males, 13\Nannophya Rivulet, 23.07.2016; 18\Macromidia Rivulet, 1.06.2014; f, 25\Phum Doung, 11.03.2017; male, the same place, 25.05.2013; male.

*Caleta roxus roxana* (de Nicéville, 1897) ♂♂ – **KK**: male, 30\Microgomphus River, 21.03.2015.

*Catochrysops panormus exiguus* (Distant, 1886) ♂♂ – **KK**: female collected, 3\Koh Por, 1.12.2010; male, 26\Oculata Brook, 25.05.2013.

*Castalius rosimon rosimon* (Fabricius, 1775) ♂ – **KK**: female, 12\Glaucum Brook, 28.11.2010; male, 15\Road, 23.05.2013.

*Discolampa ethion ethion* (Fabricius, 1775) ♂♂ – **KK**: male, 15\Road, 23.05.2013; male, 30\Microgomphus River, 21.03.2015.

*Euchrysops cnejus* (Fabricius, 1758) ♂ – **KK**: male collected, 8\Koh Kong Estuary, 30.11.2010; 25\Phum Doung, 11.03.2017.

*Everes lacturnus lacturnus* (Godart, [1824]) ♂♂ **PS**: male, 44\Coconut Beach, 11.11.2018.

*Ionolyce helicon merguiana* (Moore, 1882) ♂♂♂ – **KK**: male, 30\Microgomphus River, 21.03.2015.

*Jamides celeno aelianus* (Fabricius, 1793) ♂ – **Ke**: male, 60\Ludwigia Pond, 22.04.2010.

\**Lampides boeticus* (Linnaeus, 1758) ♂ – **KK**: female, 25\Phum Doung, 22.03.2015 (Fig. 31).

*Nacaduba* cf. *bernice aphyra* Fruhstorfer, 1916 ♂♂ – **KK**: male, 30\Microgomphus River, 21.03.2015 (Fig. 32).

\**Nacaduba* cf. *pavana vajuva* Fruhstorfer, 1916 ♂♂ – **KK**: male, 30\Microgomphus River, 21.03.2015 (Fig. 33).

*Nacaduba* cf. *sanaya naevia* Toxopeus, 1929 ♂♂♂ – **KK**: 26\Oculata Brook, 25.05.2013 (Fig. 34).

*Nacaduba* cf. *subrerusia lysa* Fruhstorfer, 1916 ♂ – **KK**: female, 25\Phum Doung, 22.03.2015 (Fig. 35).

*Prosotas dubiosa indica* (Evans, 1925) ♂ – **KK**: male, 7\Calamorum Ponds, 21.07.2016. **PS**: male collected, 50\Veal Rin, 10.12.2010.

\**Udara selma cerima* (Corbet, 1837) ♂♂♂ – **Ka**: male (+3 males collected), 51\Popokvil Waterfall, 19.12.2010 (Fig. 36).

*Una usta usta* (Doubleday, 1886) ♂ – **KK**: male, 30\Microgomphus River, 21.03.2015.

\**Zizeera karsandra* (Moore, 1865) ♂ – **Ke**: female, 60\Ludwigia Pond, 21.04.2010 (Fig. 37, photo by N. Priydak).

*Zizina otis sangra* (Moore, [1866]) ♂ – **KK**: 30\Microgomphus River, 21.03.2015.

*Zizula hylax hylax* (Fabricius, 1775) ♂ – **Ke**: female, 60\Ludwigia Pond, 22.04.2010.

#### Nymphalidae

##### Danainae

\**Danaus affinis malayana* (Fruhstorfer, 1899) ♂♂♂ – **KK**: male, 7\Calamorum Ponds, 21.07.2016 (Fig. 38); female, 9\Boeng Kayak, 11.12.2010 (Fig. 39).

*Danaus melanippus hegesippus* (Cramer, [1777]) ♂♂ – **KK**: male, 10\Hemicordulia Brook, 04.12.2010; male, female in copula, 25\Phum Doung, 11.03.2017.

*Euploea core godarti* Lucas, 1853 ♂ – **PS**: male, 42\Prek Toeuk Sap, 6.03.2017; male, 43\Ream Pagoda, 25.03.2015. **Ke**: female f. *layardi*, 63\Platystylus Brook, 06.12.2010.

*Euploea crameri bremeri* (C. & R. Felder, 1860) ♂♂ – **KK**: 25\Phum Doung, 11.03.2017.



**Figs. 28-37.** Some Lycaenidae (Theclinae and Polyommatainae), either not yet recorded for Cambodia or provisionally identified: **28-30** – *Cigaritis lohita himalayana*, **28-29** – female, 28\Viola Veal, 12.08.2011; **30** – 35\Melaleuca forest, 24.07.2016; **31** – *Lampides boeticus*, female, 25\Phum Doung, 22.03.2015; **32** – *Nacaduba* cf. *berenice aphyra*, male, 30\Microgomphus River, 21.03.2015; **33** – *N.* cf. *pavana vajuva*, 30\Microgomphus River, 21.03.2015; **34** – *N.* cf. *sanaya naevia*, 26\Oculata Brook, 25.05.2013; **35** – *N.* cf. *subrerusia lysa*, female, 25\Phum Doung, 22.03.2015; **36** – *Udara selma cerima*, male, 51\Popokvil Waterfall, 19.12.2010; **37** – *Zizeera karsandra*, female, 60\Ludwigia Pond, 21.04.2010 (photo by N. Priydak).

*Euploea eyndhovii gardineri* (Fruhstorfer, 1898) ♂♂ – **KK**: males, 30\Microgomphus River, 2.06.2014. **PS**: male, 43\Ream Pagoda, 25.03.2015.

*Euploea mulciber mulciber* (Cramer, 1777) ♂ – **KK**: males, 30\Microgomphus River, 2.06.2014. **PS**: male, 42\Prek Toeuk Sap, 6.03.2017.

\**Euploea phaenareta drucei* Moore, 1883 ♂♂ – **PS**: female, 36\Long Beach, 9.03.2017 (Fig. 40); female, 38\Koh Rong Brook, 7.03.2017 (Fig. 41-42).

*Euploea radamanthus radamanthus* (Fabricius, 1793) ♂ – **KK**: male, 30\Microgomphus River, 24.05.2013; males, the same place, 2.06.2014.

*Ideopsis vulgaris contigua* Talbot, 1939 ♂ – **KK**: female, 9\Boeng Kayak, 22.05.2013.

*Parantica aglea melanoides* Moore, 1883 ♂ – **KK**: male and female, 25\Phum Doung, 11.03.2017.

\**Parantica agleoides agleoides* (C. & R. Felder) ♂♂ – **KK**: male, 13\Nannophya Rivulet, 22.07.2016 (Fig. 43); 7\Calamorum Ponds, 23.07.2016 (Fig. 43); 25\Phum Doung, 16.04.2010. **PS**: female, 43\Ream Pagoda, 25.03.2015 (Fig. 44).



**Figs. 38-44.** Danainae not yet recorded for Cambodia: **38-39** – *Danaus affinis malayana*: **38** – male, 7\Calamorum Ponds, 21.07.2016; **39** – female, 9\Boeng Kayak, 11.12.2010; **40-42** – *Euploea phaenareta drucei*, females: **40** – 36\Long Beach, 9.03.2017; **41-42** – 38\Koh Rong Brook, 7.03.2017; **43-44** – *Parantica agleoides agleoides*, **43** – male, 13\Nannophya Rivulet, 22.07.2016; **44** – female, 43\Ream Pagoda, 25.03.2015.

## Bibliodinae

*Ariadne ariadne pallidior* (Fruhstorfer, 1899) ♂ – **PS:** 45\Mesalliance Rivulet, 11.11.2018.

*Ariadne specularia arca* (Fruhstorfer, 1906) ♂ – **KK:** 14\Macromia Rivulet, 22.07.2016. **Ke:** 62\Kep National Park, 7.12.2010.

## Cyrestinae

*Chersonesia risa risa* (Doubleday, [1848]) ♂ – **KK:** 26\Oculata Brook, 25.05.2013.

\**Cyrestis themire themire* Honarh, 1884 ♂ – **KK:** 19\Themire Brook, 17.04.2010 (Fig. 45).

## Nymphalinae

*Kallima inachus siamensis* Fruhstorfer, 1912 ♂♂ – **Ka:** 54\Bokor Hill Station, 1.04.2015.

*Hypolymnas bolina jacintha* (Drury, [1773]) ♂ – **KK:** male, 7\Calamorum Ponds, 23.07.2016; female, 16\Nepenthes Brook, 29.11.2010; male, 30\Microgomphus River, 21.03.2015. **Ke:** male, 63\Platystylus Brook, 06.12.2010.

*Junonia almana almana* (Linnaeus, 1758) ♂ – **KK:** 15\Road, 23.05.2013. **PS:** 45\Mesalliance Rivulet, 25.03.2015.

*Junonia atlites atlites* (Linnaeus, 1763) ♂ – **KK:** 25\Phum Doung, 20.03.2015; 22.03.2015; 30\Microgomphus River, 2.06.2014; the same place, 21.03.2015. **Ka:** 54\Bokor Hill Station, 31.03.2015.

*Junonia iphita iphita* (Cramer, 1779) ♂♂ – **KK:** 30\Microgomphus River, 3.12.2010.

*Junonia lemonias lemonias* (Linnaeus, 1758) ♂ – **KK:** 18\Macromidia Rivulet, 25.05.2013.

*Junonia orithya ocyale* (Huebner, 1819) ♂ – **KK:** female, 7\Calamorum Ponds, 21.07.2016.

## Heliconiinae

*Acraea violae* (Fabricius, 1793) ♂ – **Ka:** male, 54\Bokor Hill Station, 31.03.2015.

*Cirrochroa tyche mithila* Moore, 1872 ♂ – **KK:** female, 7\Calamorum Ponds, 21.07.2016.

*Cupha erymanthis erymanthis* (Drury, [1773]) ♂ – **KK:** 30\Microgomphus River, 24.05.2013.

*Terinos trepander intermedia* Godfrey, 1916 ♂♂ – **KK:** male, 3\Koh Por, 13.04.2010; male, 14\Macromia Rivulet, 22.07.2016. **PS:** 43\Ream Pagoda, 20.04.2010; male, 48\Big Tree, 10.11.2018.

*Vindula erota erota* (Fabricius, 1798) ♂ – **KK:** male, 13\Nannophya Rivulet, 23.07.2016; male, 17\Capricornis Rivulet, 29.11.2010; male, 30\Microgomphus River, 23.08.2010.

## Limenitinae

*Athyma perius perius* (Linnaeus, 1758) ♂ – **KK:** 2\Thma Dar, 27.08.2011; 35\Melaleuca forest, 24.07.2016. **P.S.:** 42\Prek Toeuk Sap, 10.03.2017; 9.11.2018. 45\Mesalliance Rivulet, 5.03.2017; 46\Amphicnemis Rivulet (a grassy clearing), 4.03.2017.

*Cynitia lepidea cognata* Moore, [1897] ♂♂ – **KK:** male, 4\Poacher River, 30.11.2010; male (they were numerous), 10\Hemicordulia Brook, 04.12.2010; male, 16\Nepenthes Brook, 29.11.2010. **PS:** male, 48\Big Tree, 26.03.2015; male, 37\Windy Stone, 29.03.2015; male, 9.03.2017.

*Euthalia aconthea garuda* (Moore, 1858) ♂ – **KK:** male, 7\Calamorum Ponds, 26.08.2011.

*Euthalia evelina* Stoll, 1790 ?ssp. *annamita* (Moore, 1879) ♂♂ – **PS:** female, 49\Peak Lingam, 4.03.2017.

\**Euthalia malaccana malaccana* Fruhstorfer, 1899 ♂♂ – female, 30\Microgomphus River, 21.03.2015 (Fig. 46-47).

*Euthalia monina kesava* (Moore, 1857) ♂♂ – **KK:** female, 3\Koh Por, 13.04.2010; male, 26\Oculata Brook, 18.04.2010.

\**Euthalia phemius phemius* (Doubleday, [1848]) ♂♂ – **Ke:** female, 63\Platystylus Brook, 20.08.2011 (Fig. 48).

*Lasippa tiga siaka* (Moore, 1881) ♂♂ – **PS:** 46\Amphicnemis Rivulet, 27.03.2015 (Fig. 49). The range of two subspecies, *L. t. siaka* and *L. tiga camboja* (Moore, 1879), are shown by [Inayoshi \(2018\)](#) as overlapping in continental Thailand, that is impossible. Most probably the taxon *camboja* is rather *bona species* than conspecific to *L. tiga*, as assumed by [Ek-Amnuay \(2006\)](#). The photographed butterfly corresponds to the taxon *L. t. siaka*, which has not been reported for Cambodia, while *camboja* has ([Inayoshi, 2018](#)).

*Lebadea martha martha* (Fabricius, 1787) ♂♂ – **PS:** male, 42\Prek Toeuk Sap, 10.03.2017; female, 43\Ream Pagoda, 20.04.2010; female, 46\Amphicnemis Rivulet, 5.03.2017; male, 48\Big Tree, 10.11.2018. **Ka:** female, 54\Bokor Hill Station, 31.03.2015.

*Lexias albipunctata albipunctata* (Crowley, 1895) ♂♂ – **KK:** male, 15\Road, 23.05.2013; male, 28\Road, 12.08.2011.

*Modusa procris procris* Cramer, 1777 ♂ – **KK:** female, 3\Koh Por, 1.12.2010; female, 13\Nannophya Rivulet, 23.07.2016; male, 18\Macromidia Rivulet, 1.06.2014.

*Neptis clinia susruta* Moore, 1872 ♂ – **KK:** male, 4\Poacher River, 30.11.2010.

*Neptis hylas kamarupa* Moore, 1875 ♂ – **Ke:** 62\Kep National Park, 7.12.2010.

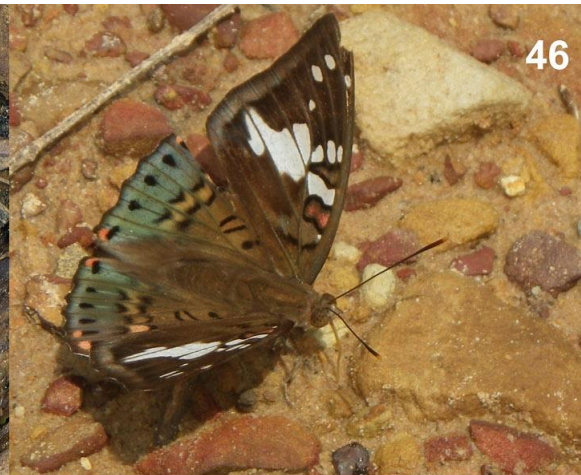
*Pantoporia hordonia hordonia* (Stoll, 1790) ♂♂ – **KK:** 33\Triangularis Pond, 25.08.2011.

*Tanaecia jahnu* (Moore, [1858]) ♂♂ – **KK:** male, 10\Hemicordulia Brook, 4.12.2010.

*Tanaecia julii odilina* (Fruhstorfer, 1913) ♂♂ – **Ke:** males, females (they were very numerous), 62\Kep National Park, 6.04.2010.

## Charaxinae

*Polyura athamas athamas* (Drury, [1773]) ♂ – **KK:** 13\Nannophya Rivulet, 23.07.2016.



**Figs. 45-51.** Nymphalidae s.l. not yet recorded for Cambodia: **45** – *Cyrestis themire themire*, 19\Themire Brook, 17.04.2010; **46-47** – *Euthalia malaccana malaccana*, female, 30\Microgomphus River, 21.03.2015; **48** – *E. phemius phemius*, female, 63\Platystylus Brook, 20.08.2011; **49** – *Lasippa tiga siaka*, 46\Amphicnemis Rivulet, 27.03.2015; **50** – *Discophora timora timora*, 20\Rhinagrion Brook, 14.04.2010; **51** – *Lethe mekara krijnana*, male, 23\Rainbow Lodge, 24.08.2011.

#### Amathusiinae

\**Discophora timora timora* Westwood, [1850] ♂♂ – **KK:** 20\Rhinagrion Brook, 14.04.2010 (Fig. 50); 1 male collected, the same place, 25\Phum Doung, 24.05.2013.

*Melanocyta faunula kimurai* Saitoh, 2003 ♂♂ – **KK:** male, 30\Microgomphus River, 2.06.2014; male, the same place, 21.03.2015.

*Thaumantis diores splendens* Tytler, 1939 ♂♂ – **Ka:** female, 52\Iidionyx Reach, 19.08.2011.

#### Satyrinae

*Elymnias hypermnestra tinctoria* Moore, 1879 ♂ – **PS:** male, 42\Prek Toeuk Sap, 9.11.2018.

\**Lethe mekara krijnana* Fruhstorfer, 1911 ♂ – **KK:** male, 23\Rainbow Lodge, 24.08.2011 (Fig. 51).

*Melanitis* sp. – **PS:** 45\Mesalliance Rivulet, 3.03.2017; 38\Koh Rong Brook, 30.03.2015. **Ke:** 60\Ludwigia Pond, 22.04.2010; 61\Treetop Bungalow, 5-6.12.2010.

*Mycalesis anxiooides* Marshall et de Nicéville, 1883 ♂♂ – **KK:** 12\Glaucum Brook, 28.11.2010.

*Mycalesis mnasicles perna* Fruhstorfer, 1906 ♂♂ – **KK:** 10\Hemicordulia Brook, 15.08.2011.

*Mycalesis* cf. *perseus tabitha* (Fabricius, 1793) ♂ – **KK:** 7\Calamorum Ponds, 23.07.2016; 14\Macromia Rivulet, 22.07.2016.

*Mycalesis* spp. – **KK:** 13\Nannophya Rivulet, 16.08.2011; 22.07.2016, **Ke:** 61\Treetop Bungalow, 5.12.2010.

*Orsotriaena medus medus* (Fabricius, 1775) ♂ – **KK:** male and female in copula, 25\Phum Doung, 25.05.2013, **Ke:** 61\Treetop Bungalow, 5-6.12.2010.

*Ypthima* sp. – **Ke:** 61\Treetop Bungalow, 6.12.2010.

#### Hesperiidae

##### Coeliadinae

\**Badamia exclamationis* (Fabricius, 1775) ♂ – **KK:** female, 7\Calamorum Ponds, roadside trees on a coastal marsh, 23.07.2016 (Figs. 52-53).

\**Burara harisa harisa* (Moore, [1866]) ♂♂ – **PS:** 42\Prek Toeuk Sap, 9.11.2018 (Fig. 54).

##### Pyrginae

\**Odina decorata* (Hewiston, 1867) ♂♂ – **KK:** male, 20\Rhinagrion Brook, 17.04.2010 (Fig. 55).

*Odontoptilum angulatum angulatum* (C. Felder, 1862) ♂ – **PS:** 45\Mesalliance Rivulet, 5.03.2017

*Tagiades gana meetana* Moore, 1879 ♂ – **PS:** 41\Kbal Chhay, 10.03.2017 (Fig. 56).

*Tagiades gana* ssp. – **Ke:** 63\Platystylus Brook, 07.12.2010 (Fig. 57). Looks like *T. gana gana* (Moore, [1866]) from Malay Peninsula. Photographed more southerly (Kep Province) than the previous entry.

*Tagiades japetus ravi* (Moore, 1866) ♂♂ – **Ka:** 55\Bokor Slope, 23.04.2010. **Ke:** 63\Platystylus Brook, 06.12.2010.

*Tagiades vajuna vajuna* Fruhstorfer, 1910 ♂ – **KK:** 23\Rainbow Lodge, 24.08.2011.

\**Tagiades menaka menaka* Moore, 1866 ♂ – **Ka:** 54\Bokor Hill Station (a forest margin at the brink of the bluff), 1.04.2015 (Fig. 58).

##### Hesperiinae

*Ampittia dioscorides camertes* (Hewiston, 1868) ♂ – **Ka:** male, 54\Bokor Hill Station, 31.03.2015.

\**Ancistroides nigrita maura* (Snellen [1880]) ♂ – **KK:** 5\Koh Kong, 28.08.2011 (Fig. 59); 8\Koh Kong Estuary, 30.11.2010; 10\Hemicordulia Brook, 15.08.2011; 13\Nannophya Rivulet, 23.07.2016; 14\Macromia Rivulet, 22.07.2016; 23\Rainbow Lodge, 24.08.2011 (Fig. 60); 28\Viola Veal, 12.08.2011. **PS:** 6\Amphicnemis Rivulet, 4.03.2017 (Fig. 61).

*Astictopterus jama olivascens* Moore, 1878 ♂ – **PS:** 42\Prek Toeuk Sap, 9.11.2018. **Ke:** 61\Treetop Bungalow, 6.12.2010.

\**Cephenes acalle oceanica* (Mabille, 1904) ♂♂ – **KK:** 5\Koh Kong, 28.08.2011 (Fig. 59).

\**Erionota* cf. *torus* Evans, 1941 ♂ – **Ke:** 63\Platystylus Brook, 6.12.2010 (Fig. 62).

\**Gangara lebadea lebadea* (Hewiston, 1868) ♂♂ – **KK:** male, 23\Rainbow Lodge, 24.08.2011 (Fig. 63).

\**Halpe* cf. *hauxwelli* Evans, 1937 ♂ – **KK:** 24\Halpe Rivulet, 19.03.2015 (Fig. 64).

\**Halpe zola zola* Evans, 1937 ♂ – **KK:** female, 26\Oculata Brook, 25.05.2013 (Fig. 65).

\**Hyarotis adrastus praba* (Moore, 1860) ♂♂ – **PS:** female, 40\Reservoir, 26.05.2013 (Fig. 66); 46\Amphicnemis Rivulet, 10.11.2018 (Fig. 67).



*lambrix salsala salsala* (Moore, [1866]) ♀ - KK: 25\Phum Doun, 19.04.2010; 30\Microgomphus River, 24.05.2013; PS: 42\Prek Toeuk Sap, 9.11.2018; 43\Ream Pagoda, 20.04.2010.



**Figs. 52-58.** Some Coeliadinae and Pyrginae: 52-53 - *Badamia exclamationis* female, 7\Calamorum Ponds, roadside trees on a coastal marsh, 23.07.2016; 54 - *Burara harisa harisa* 42\Prek Toeuk Sap, 9.11.2018; 55 - *Odina decorata*, male, 20\Rhinagrion Brook, 17.04.2010; 56 - *Tagiades gana meetana*, 41\Kbal Chhay, 10.03.2017; 57 - *Tagiades gana* ssp., 63\Platystylus Brook, 07.12.2010; 58 - *Tagiades menaka menaka*, 54\Bokor Hill Station (a forest margin at the brink of the bluff), 1.04.2015.



**Figs. 59-70.** Hesperinae not yet recorded for Cambodia: **59** – *Ancistroides nigrita maura* (below) and ?*Cephrènes acalle oceanica* (above), 5\Koh Kong, 28.08.2011; **60-61** – *A. nigrita maura*: **60** – 23\Rainbow Lodge, 24.08.2011; **61** – 6\Amphicnemis Rivulet, 4.03.2017; **62** – *Erionota* cf. *torus*, 63\Platystylus Brook, 6.12.2010; **63** – *Gangara lebadea lebadea*, male, 23\Rainbow Lodge, 24.08.2011; **64** – *Halpe* cf. *hauxwelli*, 24\Halpe Rivulet, 19.03.2015; **65** – *Halpe zola zola*, female, 26\Oculata Brook, 25.05.2013; **66-67**: *Hyarotis adrastus praba*: **66** – female, 40\Reservoir, 26.05.2013; **67** – 46\Amphicnemis Rivulet, 10.11.2018; **68-70**: *Lotongus calathus*. **68-69** – female, 25\Phum Doung village, 16.04.2010; **70** – male, the same place.

- \**Lotongus calathus balta* Evans, 1949 §§ – **KK**: female, 25\Phum Doung village, 16.04.2010 (Fig. 68-69); male, the same place, 25.05.2013.
- \**Matapa aria* (Moore, 1866) § – **PS**: 42\Prek Toeuk Sap, 9.11.2018 (Fig. 71).
- \**Matapa sasivarna* (Moore, 1866) §§ – **KK**: 23\Rainbow Lodge, 24.08.2011 (Fig. 72); 14\Macromia Rivulet, 22.07.2016; male, 26\Oculata Brook, 25.05.2013 (Fig. 73).
- \**Notocrypta cf. clavata theba* Evans, 1949 § – **Ke**: 63\Platystylus Brook, 6.12.2010 (Fig. 74).
- Notocrypta paralyos asawa* Fruhstorher, 1911 § – **KK**: 8\Koh Kong Estuary, 30.11.2010; 14\Macromia Rivulet, 22.07.2016.
- Pelopidas cf. mathias mathias* (Fabricius, 1798) § – **Ke**: 61\Treetop Bungalow, 5.12.2010.
- \**Pelopidas cf. subochraceus barneyi* (Evans, 1937) § – **KK**: male, 7\Calamorum Ponds, roadside trees on a coastal marsh, 23.07.2016 (Fig. 75). Identification is based on the presence of white dots on UPH.
- \**Pirdana hyela rudolphii* Elwes & de Nicéville, 1887 §§ – **Ka**: 52\ldionyx Reach, 19.08.2011 (Fig. 76).
- \*?*Polytremis lubricans lubricans* (Herrich-Schaeffer, 1869) § – **KK**: male, 15\Road, 23.05.2013 (Fig. 77-78).
- Potanthus* spp. – **KK**: 9\Boeng Kayak, 11.12.2010; 14\Macromia Rivulet, 22.07.2016 (Fig. 79; see the unusual two yellow spots at costa on UPH); 18\Macromidia Rivulet, 25.05.2013. **Ka**: female, 53\Bokor Mire, 10.12.2010. **Ke**: 63\Platystylus Brook, 20.08.2011.
- Psolos fuligo subfasciatus* (Moore, 1879) § – **Ke**: 63\Platystylus Brook, 06.12.2010.
- \**Pyroneura* sp. §§ – **Ka**: female, 52\ldionyx Reach, 19.08.2011 (Fig. 80-81). UPF: spots in spaces 1b and 2 do not overlap but the dorsodistal corner of the former is at the level of the ventroproximal corner of the latter, a condition approaching to their scarcely overlapping in *P. margherita* Diherty, 1889, but the two cell spots are well separated, unlike in that species.
- \**Suastus minutus aditia* Evans, 1943 §§ – **KK**: 26\Oculata Brook, 18.04.2010 (Fig. 82).
- \**Thoressa masoni* (Moore, 1878) § – **KK**: 20\Rhinagrion Brook, 17.04.2010 (Fig. 83-84).
- Gen. sp. (?aberrant *A. dioscorides*?) – **KK**: 13\Nannophya Rivulet, 23.05.2013 (Fig. 85).

Some common and easily recognisable species were observed and registered in the field notes, but did not happen to be photographed, such as:

- Ixias pyrene verna* Druce, 1874 – **KK**: 2\Thma Dar, 27.08.2011)
- Pareronia cf. anais anais* Lesson, 1837 – **Ke**: m, 62\Kep National Park, 7.12.2010; m, 63\Platystylus Brook, 20.08.2011),
- Danaus chrysippus chrysippus* (Linnaeus, 1758) – **KK**: 9\Boeng Kayak, 22.05.2013; 7\Calamorum Ponds, 10.05.2014; the same place, 21.07.2016;
- Danaus genutia genutia* (Cramer, [1779]) – **KK**: 30\Microgomphus River, 15.04.2010; **PS**: 42\Prek Toeuk Sap, 9.11.2018.
- Tirumala septentrionis septentrionis* (Butler, 1874) – **KK**: 30\Microgomphus River, 24.05.2013; **PS**: 41\Kbal Chhay, 10.03.2017. **Ke**: 62\Kep National Park, 7.12.2010),
- Parthenos sylvia apicalis* Moore, [1879] – **KK**: 3\Koh Por, 13.04.2010; **Ka**: 54\Bokor Hill Station, 9.12.2010),
- Amathusia cf. phidippus phidippus* (Linnaeus, 1763) – **KK**: 27\Hyalina Brook, 1.04.2014. **Ke**: 63\Platystylus Brook, 6.12.2010),
- \**Udaspes folus* (Cramer, 1775) – **PS**: 44\Coconut Beach, 11.11.2018).

## Discussion

Cambodia is half-embraced by Thailand and has less of common border with Laos and Vietnam, that made it possible to dare butterfly identification by the Thai and Lao literature. The presented data may become useful when the butterfly studies in this country will come to compilation of checklists of provinces and districts.

This paper reports 151 identified, and 15 provisionally identified, and some unidentified species (visual registrations not counted), although a distinction between identified and provisionally identified is naturally vague when the identification basis was photos. Herewith 39 identified species (*T. helena*, *G. agetes*, *P. philomone*, *A. echerias*, *A. abseus*, *A. aedias*, *A. aida*, *A. alitaeus*, *A. atosia*, *A. avatha*, *A. bazaloides*, *A. elopura*, *C. lohita*, *S. nasaka*, *L. boeticus*, *U. selma*, *Z. karsandra*, *D. affinis*, *E. phaenareta*, *P. agleoides*, *C. themire*, *E. malaccana*, *E. phemius*, *D. timora*, *L. mekara*, *B. exclamationis*, *B. harisa*, *O. decorata*, *T. menaka*, *A. nigrita*, *G. lebadea*, *H. zola*, *H. adrastus*, *L. calathus*, *M. aria*, *M. sasivarna*, *P. hyela*, *S. minutus*, *T. masoni*) and 8 provisionarily identified species (*P. cf. erycinoides*, *N. cf. pavana*, ?*C. acalle*, *E. cf. torus*, *H. cf. hauxvillei*, *N. cf. clavata*, *P. cf. subochraceus*, ?*P. lubricans*) are for the first time reported for Cambodia. These two lists are enriched by the speciose groups difficult to identify, the genus *Arhopala* (8 of 11 identified species are newly reported for Cambodia) and the family Hesperidae. Some of these newly reported species, such as *T. helena*, *G. agetes*, *C. lohita*, *L. boeticus*, *Z. karsandra*, *P. agleoides*, *A. nigrita*, are so common and widespread that their hitherto missing from literature was just a matter of chance. Most of the species here added to the registered Cambodian fauna were quite expectable as occurring in the nearby continental part of Thailand. Only one species, *A. avatha* (quite firmly identified by quite a poor photo) was known to be confined to Sundaland, including the Peninsular Thailand (Ek-Amnuay, 2006; Inayoshi, 2018). However, this is in line with the discovery by Monastyrskii et al. (2011) of a number of Sondaic butterfly species in the inner part of the Cardamoms for the first time in Indochina (as well as some generally Sondaic species of Odonata were found in Indochina



**Figs. 71-85.** Hesperiiinae not yet recorded for Cambodia: **71** – *Matapa aria*, 42\Prek Toeuk Sap, 9.11.2018; **72-73** – *Matapa sasivarna*: **72** – 23\Rainbow Lodge, 24.08.2011; **73** – male, 26\Oculata Brook, 25.05.2013; **74** – *Notocrypta cf. clavata theba*, 63\Platystylus Brook, 6.12.2010; **75** – *Pelopidas cf. subochraceus barneyi*, male, 7\Calamorum Ponds, roadside trees on a coastal marsh, 23.07.2016; **76** – *Pirdana hyela rudolphii*, 52\ldionyx Reach, 19.08.2011; **77-78** – *?Polytremis lubricans lubricans*, male, 15\Road, 23.05.2013; **79** – *Potanthus sp.*, 14\Macromia Rivulet, 22.07.2016; **80-81** – *Pyrroneura sp.*, female, 52\ldionyx Reach, 19.08.2011; **82** – *Suaetus minutus aditia*, 26\Oculata Brook, 18.04.2010; **83-84** – *Thoressa masoni* (Moore, 1878), 20\Rhinagrion Brook, 17.04.2010; **85** – Gen. sp., 13\Nannophya Rivulet, 23.05.2013.

in Cambodia and southern Vietnam, see [Kosterin & Kompier, 2018](#)). Another generally Sondaic butterfly species reported here for the coastal Cambodia is *E. phaenareta* ([Ek-Amnuay, 2006](#); [Inayoshi, 2018](#)).

[Ek-Amnuay \(2006\)](#) provided rough estimates of butterfly species rarity in the neighbouring Thailand. Expectedly, my occasional, almost random (with minimum selectivity) photography without knowledge of and focus to rare species, mostly provided records of widespread and common species. Of the species reported here, only 22, namely *L. coon*, *P. paradoxa*, *T. harquinus*, *P. erycinoides*, *A. abseus*, *A. alitaeus*, *A. perimuta*, *N. nivea*, *S. nasaka*, *I. helicon*, *N. sanaya*, *U. selma*, *D. affinis*, *E. phaenareta*, *E. malaccana*, *E. moinia*, *L. albipunctata*, *O. decorata*, *G. lebadea*, *L. calathus*, *M. sasivarna* and *P. hyela*, were marked as rare in Thailand. Of these, *T. harquinus* and *A. perimuta* were obviously common and *E. moinia*, *L. calathus* and *M. sasivarna* appeared seemingly common in the coastal provinces of Cambodia (for the two former species an error in indication of their rarity in Thailand in the source ([Ek-Amnuay, 2006](#)) is not excluded).

Most of the here presented data refer to coastal lowlands and lower foothills. These relief positions had been mostly devoid of natural habitats long ago in the neighbouring continental Thailand but largely retained them in Cambodia until the time of my study, being fast exterminated right now. Unfortunately, most the butterfly diversity outlined will soon be lost and all these data may become more useful as comparative historical rather than actual data, since the loss of natural habitats in Cambodia driven by unlimited and unrestricted Chinese investments, even in the so-called 'national parks, is going proceed with the same tempo as presently. For instance, the author had witnessed nearly complete extermination of the unique lowland evergreen tropical forest in what is still called Preah Sihanouk Ream National Park, which took place between spring 2017 and autumn 2018, as well as extermination of peat moss mires at the Bokor Hill Station between 2010 and 2015 in Preah Monivong National Park.

The richest locality appeared to be one of the most inland of those (43 km NE of the sea), 30\Microgomphus River (visited five times), a medium-sized river bordering the pristine evergreen forest and fruit plantations at 340-350 m a.s.l. 6.5 km SW Thma Bang village. As many as 38 species were recorded there, 8 of which (*C. roxus*, *I. helicon*, *N. cf. berenice*, *N. cf. pavana*, *U. usta*, *J. iphita*, *E. malaccana*, *M. faunula*) were found (photographed and seen) only there.

The hills and mountains of the examined areas are formed almost exclusively by sandstone, and only the hill in Kep by limestone; no igneous rocks. Among the localities examined, only those on the famous Bokor Plateau (55\Bokor Slope, 54\Bokor Hill Station, 53\Bokor Mire, 52\ldionyx Reach, 51\Popokvil Waterfall) were elevated at ~900-1070 m a.s.l. and offered such peculiar habitats as misty low montane forest and peat-moss mires. They were examined at Bokor Hill Station still nearly pristine, before extermination in 2011-2014. Curiously, they were poor in butterflies, with their set generally looking as an impoverished lowland fauna. However, such butterflies as *S. nasaka*, *U. selma*, *K. inachus*, *T. diores*, *T. menaka* and *Pyrroneura sp.* were found only there.

Photographic data on butterflies obtained by me in some inland Provinces of Cambodia will hopefully be published in due course.

There exist much more photographic data on Cambodian butterflies. Gerard Chartier, a passionate naturalist and a resident of Tatai Commune in Koh Kong Province, accumulated a great lot of butterfly photographic records from the vicinity of his place. These data ([Chartier, 2018](#)), comprising an uniquely comprehensive assessment of a local fauna of a little-disturbed area of evergreen tropical low hill rainforest transiting to lowland evergreen forest, marshes and mangroves, for some reason await publication for years. At present the butterflies are the popular subject of citizen science in Cambodia. Their numerous photographs are being posted, mostly by Eddie Smith, an eager insect photographer at Siem Reap, to the Facebook group 'Natural Cambodia' (and quite a number of them have been posted to the presently dormant group 'Cambodian Insects), to be hopefully summarised and published some day by some butterfly enthusiast. Social networks are far from being a good place for accumulating scientific data but can serve as their transitory reservoir, and we can only pray for these informational treasures, whatever be the obvious limitation of their precision by the photographic method, to be eventually become available to scientific community through relevant publication.

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