What is true *Ypthima motschulskyi* (Lepidoptera, Satyridae)?

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Abstract A status of *Satyris motschulskyi* Bremer & Grey is discussed. Lectotypes of *Satyris motschulskyi* and *Ypthima amphithea* are designated, studied and considered as conspecific. A valid name for *Y. motschulskyi* sensu Elwes & Edwards, 1893 is, thus, *Y. multistriata* Butler, 1883, stat. rev. A new subspecies, *Y. multistriata koreana* ssp. n. is described from Korea.

Key words Satyridae, *Ypthima motschulskyi*, *Ypthima amphithea*, lectotype, new synonymy, new subspecies, Japan, China, Korea, Primorye territory.

*Ypthima motschulskyi* (Bremer & Grey, 1852) was only briefly described from North China, surroundings of Beijing (Peking), as "Satyris motschulskyi". The type specimen has not been well figured yet except for a poorly known and not a good figure of Ménétriers (1855), and all conclusions about this species by different entomologists have been, therefore, completely subjective.

A few years later *Ypthima amphithea* Ménétriers, 1859 was described on the basis of the Maack collection from the Amur River basin, but soon this species was synonymized with *Y. motschulskyi* by Staudinger (1892).

In a first revision of the genus based on the structure of the male genitalia Elwes & Edwards (1893) accepted this point of view. They published a figure of the male genitalia of *Y. motschulskyi* and prepared a key to the species. They considered as *Y. motschulskyi* the specimens from Japan (Nagasaki), Korea (Fusan), China (Kiukiang, Shanghai), which are similar to one another in the male genitalia. Seitz (1906), probably taking account of this revision, also regarded all these butterflies as *Y. motschulskyi*. He published good figures of both sexes.

Following these publications the majority of lepidopterologists who identified *Ypthima* species by the structure of the male genitalia refer all the butterflies of the type considered to *Y. motschulskyi*.

Hiura (1969) pointed out that the butterflies from the mainland of Japan and the Japanese island, Tsushima, in the strait of the same name between the Japanese islands and the Korean Peninsula differ in the size of the male sexual brand and androconial scales, and considered that they belong to two distinct species. He applied *Y. motschulskyi* to the Tsushima population, separating the Japanese mainland population as *Y*. sp.

Murayama (1969) also discovered in his revision of *Y. motschulskyi* sensu Elwes & Edwards (1893) that specimens from the continental part of East Asia differ from those from Japan. He described *Y. niphonica* from Honshu, the mainland of Japan, as a new species, with a new subspecies *Y. n. tsushimana* from Tsushima I. But *tsushimana* was treated as a subspecies
of *motschulskyi* by Hiura (1970), and later *Y. niphonica* was united with *Y. motschulskyi* as a subspecies and *tsushimana* was included in the nominotypical subspecies of *motschulskyi* (Fugioka, 1975; Kawazoe & Wakabayashi, 1976). A detailed review of this matter was published by Koiwaya (1994).

It turned out that there are two *Ypthima* species with similar wing pattern inhabiting Korea: one being *Y. motschulskyi* sensu Elwes & Edwards (1893), the other *Y. obscura* Elwes & Edwards, 1893. Later *Y. obscura* was synonymized with the Amurian *Y. amphithea* (Uémiura, 1980; Lee, 1982). The same point of view was accepted by North Korean lepidopterists (Chu & Im, 1987).

The works of Russian entomologists were not concordant with these opinions. Kurentzov (1970 and others) did not distinguish *Y. motschulskyi* sensu Elwes & Edwards (1893) and *Y. amphithea*, probably because there is only one species of this group in the Russian territory. This opinion penetrated to the catalogues of butterflies of the former U. S. S. R. (Korshunov, 1972; Tuzov, 1993). By courtesy of V. S. Kononenko and Yu. A. Tshitstjakov in 1994, one of us, Dubatolov, had an opportunity to study a book of Lee (1982) on the Korean butterflies. Checking the Russian specimens of *Y. motschulskyi* on conspecificity with the two species considered in the cited book, Dubatolov found out that they are conspecific to *Y. amphithea* sensu Lee (1982). All males lack a dark androconial spot on the forewing upperside. As a result of this investigation Korshunov & Gorbunov (1995) mentioned *Y. amphithea* only in a handbook of the butterflies of Asian Russia.

Nevertheless, the question of the proper names of the species of this group still remained open since the type specimens of the two mentioned taxa had not been studied so far. We have studied the type specimens of *Y. motschulskyi* and *Y. amphithea*, which are preserved in the collection of the Zoological Institute of the Russian Academy of Sciences in St Petersburg, and designated the lectotypes.

The lectotype of *Y. motschulskyi* (Figs 1, 2) bears the following labels: a golden ring, “China” (printed on yellow paper), “coll. Acad./Petrop.” (printed on white paper), and additionally the label “*Ypthima/motschulskyi*/Lectotypus” (handwriting of A. L. Lvovsky on red paper). The specimen was most probably caught by Mr or Mrs Gaschkevitsch, because the material of Mr Tatarinoff was preserved in the collection of W. Grey. The male genitalia are shown in Fig. 7.

The paralectotype is conspecific with the lectotype; it bears the label: “k. Greya” (“collection of Grey”, in Russian) and additionally a red label with the legend “Paralectotypus”.

The lectotype of *Y. amphithea* (Figs 3, 4) bears the following labels: “Maack.”, “coll. Acad./Petrop.” (both printed on white paper), “Lectotypus *Ypthima/amphithea* Ménétriës, 1859/ design. Dubatolov et Lvovsky 1996”. Its genitalia are shown in Fig. 8.

In the collection of the Zoological Institute there are 3 more males of *Y. amphithea*, with the labels: “Ende Ching[an], 7–10 VII. 1857” and “coll. Acad. Petrop.” Most probably, all these specimens are syntypes, because they were collected before the description of *Y. amphithea* appeared in 1859 and apparently were in E. Ménétriës' hands at the time of preparation of the first description.

Maack (1859) wrote in his book that he left the Khingan Mountains (the Amur River valley about 100 km upstream of the mouth of the Sungari River) on 21–24 June according to the Julian calendar, which corresponds to 5–8 July of the Grigorian calendar. Therefore we consider the mentioned specimens to have been collected by Maack’s expedition.
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Although both lectotypes differ somewhat from each other in the wing pattern, from the structure of the male genitalia (Figs 7, 8) they are undoubtedly conspecific with each other and with *Y. obscura*. So we propose the following synonymy:


However, due to a noticeable difference in wing coloration between the first two taxa, we consider them as different subspecies.
**Ypthima motschulskyi motschulskyi** (Bremer & Grey, 1852) (Figs 1, 2, 7)


*Ypthima amphithea* Lee, 1982, *Butterflies of Korea*: 79, pl. 52, figs 183A-D; Chu & Im, 1987, *Butterflies of Korea*: 183, pl. 57, fig. 3.


*Y. motschulskyi motschulskyi (= obscura)* is characterized by larger size, forewing length being 22–23 mm in specimens studied (the wing expanse being 40–41 mm), and more distinctly marbled pattern of the wing underside. This subspecies occurs in North China and Korea (from where 2 male specimens from Pung-Tung, O. Herz leg., from the collection of Zoological Institute, St Petersburg, were studied).

**Ypthima motschulskyi amphithea** Ménétriès, 1859, *stat. rev.* (Figs 3, 4, 8)


*Ypthima amphithea amphithea* Uemura, 1980, in Makibayashi et al., *[Colln Pap. 10th Anniv. Takao Seminar]*: 212.


*Y. motschulskyi amphithea* is characterized by a small size (forewing length of the lectotype being 20.5 mm, wing expanse 34 mm), almost even dark ground colour on the hindwing underside, with a network of hardly visible transverse lines. It inhabits Middle Amur and the Primorye territories in Russia. The transition zone between this and the former subspecies is still to be found. Besides the lectotype a number of specimens were studied from the Bikin River, Novokachalinsk, the Sinii Range north from Chernyshevka, Gamov Peninsula and Cape Grebenchatyi (Khasan Region) in the collection of the Siberian Zoological Museum, Institute of Animal Systematics and Ecology, Novosibirsk.

Since it is not possible to use the name *Y. motschulskyi* for the species formerly known by this name (Elwes & Edwards, 1893; Seitz, 1906; Murayama, 1969; Lee, 1982; Chu & Im, 1987; Koiwaya, 1994) it is necessary to use the oldest name among the remaining names, which were proposed for different subspecies (Uemura, 1980; Inomata, 1986). Hence the valid name becomes *Y. multistrata* Butler, 1883 (*stat. rev.*) proposed for the populations.
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from Taiwan and East China. A subspecies that inhabits Korea, North-East and North China (Y. motschulskyi motschulskyi sensu Murayama, 1969) is described here as a new one.

**Ypthima multistriata** Butler, 1883, stat. rev.


The nominotypical subspecies is characterized by the absence of the apical spot and by the presence of the dark androconial spot on the forewing upperside; the tornal spot on the hindwing upperside with light ring. We have not found significant differences in the male genitalic structure between *Y. multistriata* and other subspecies.

Material. 1♂, Taiwan, Togenkyo, Takao, 1996.10.12, H. Mayumi, Dr Kawata bred (received from K. Maeda).

**Ypthima multistriata koreana** ssp. n. (Figs 5, 6)


Butterflies of this subspecies (Figs 5, 6) differ from the nominotypical one by the presence of the dark apical ocellus on the forewing upperside; from *Y. multistriata niphonica* by the presence of a dark androconial spot on the forewing upperside in males; from *Y. multistriata tsushimana* by less expressed pattern of transversal light lines on the wing underside. Unfortunately, we have had no opportunity to study the male genitalia of the Korean subspecies, because both specimens that we have received from K. Maeda lack abdomens.


**Ypthima multistriata niphonica** Murayama, 1969, **stat. n.**


This subspecies is characterized by the absence of the dark androconial spot on the forewing upperside in males and by the absence of the light rings around the apical spot of the forewing and the tornal spot of the hindwing upperside.

Material. 3 ♂ 1 ♀, Japan, Honshu, Hyogo, Himeji-shi, 1988. 6. 18–20, S. Yamanaka (received from T. Fujioka).

**Ypthima multistriata tsushimana** Murayama, 1969, **stat. n.**

Ypthima niphonica Murayama, 1969, *Tohoku Konchu Kenkyu* **4**: 20, pl. 2, figs 13–16, text-figs 2, 5, 8, 11, 14, 18, 19.


This subspecies is characterized by the presence of the dark androconial spot on the forewing upperside in males, light rings around the spots on the upperside, and by a well expressed pattern of transversal light lines on the wing underside.

Material. 2 ♂ 2 ♀, Japan, Tsushima I., Izuhara-machi, Yora-nai-in, 1986. 6. 12, S. Yama-
naka (received from T. Fujioka); 2 ♂♂, Sasuna, 1991. 10. 20, Dr Kawata bred; 3 ♂♂ 1 ♀, Toyotama, 1995. 9. 13, H. Tanisawa (received from K. Maeda).

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Ypthima motschulskyi (Bremer & Grey) の正体と韓国産ウラナミジャノメの亜種記載 (V. V. Dubatolov and A. L. Lvovsky)

St-Petersburg のロシア科学アカデミー动物学研究室に保管されている Satyrs motschulskyi Bremer & Grey, 1852 と Ypthima amphithea Ménétries, 1859 の模式標本を調べた結果、それらは同一種であることが分かった。両昆虫の後模様標本とそれらの♂交尾器を図示した。チョウセンウラナミジャノメの学名は Ypthima motschulskyi (Bremer & Grey) となるが、中国北部および韓国のものを原名亜種、沿海州のものを亜種 amphithea Ménétries とした。沿海州の亜種は原名亜種よりも小型、前翅裏面は全体に暗く、波状模様もあまり明瞭ではない。Y. motschulskyi がチョウセンウラナミジャノメの有効名となる関係で、ウラナミジャノメの有効名には台湾から記載された Y. multistriata Butler, 1883 が昇格する。原名亜種は台湾及び中国東部に産し、日本本土亜種は niponica Murayama, 1969, 対馬亜種は tsushima Murayama, 1969 となる。韓国産は tsushima よりも裏面の波状紋の発達が弱い点で区別されるが、Y. obscura Elwes & Edwards, 1893, Y. elongatum Matsumura, 1929 はいずれも motschulskyi のシノニムで、韓国産 multistriata の亜種名として適格なものがないため、新亜種 koreana ssp. n. を記載した。

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