

## A new subspecies of *Mycalesis suaveolens* WOOD-MASON & DE NICÉVILLE 1883 from the western Himalaya, India (Lepidoptera, Nymphalidae, Satyrinae)

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**Abstract:** *Mycalesis suaveolens ranotei* ssp. n. (holotype male in coll. Butterfly Research Centre, Bhimtal, Uttarakhand, India, finally National Forest Insect Collection, Forest Research Institute, Dehra Dun) is described from the Indian state of Uttarakhand in the Western Himalaya.

**Eine neue Unterart von *Mycalesis suaveolens* WOOD-MASON & DE NICÉVILLE 1883 vom westlichen Himalaya, Indien (Lepidoptera, Nymphalidae, Satyrinae)**

**Zusammenfassung:** *Mycalesis suaveolens ranotei* ssp. n. (Holotypus Männchen in coll. Butterfly Research Centre, Bhimtal, Uttarakhand, India, später in National Forest Insect Collection, Forest Research Institute, Dehra Dun) wird vom indischen Bundesstaat Uttarakhand in westlichen Himalaja beschreiben.

### Introduction

*Mycalesis suaveolens* WOOD-MASON & DE NICÉVILLE (in MARSHALL & DE NICÉVILLE 1883) is a rather rare butterfly which was originally described from a single specimen collected on Nemotha, N. Cachar (= Silchar, Assam) at an elevation of 1080 m in September (MARSHALL & DE NICÉVILLE 1883).

Subsequently, *M. suaveolens sebonga* TYTLER (1926) was described from Sebong, Manipur, and the N. Chin Hills and *M. suaveolens duguidi* TYTLER (1926) from Loimwe in the Southern Shan States. In his description for *sebonga*, TYTLER (1926) stated: “A male and a female from the North Chin Hills in the British Museum and a large series taken by my collectors at Sebong, Manipur, and in the Manipur valley and Naga Hills are quite distinct from the typical race of *suaveolens* from Sikkim and Bhutan and form a well marked race. Underside: *wet season form* very similar to the typical form but all the ocelli very much smaller; the *dry season form* in addition to having the ocelli much smaller has the outer area beyond the discal band on both wings very conspicuously paler.”

Owing to the erroneous assumption of the type locality by TYTLER (1926), the Manipur and N. Chin Hills population of this butterfly was compared with the E. Himalayan population instead of with the population from Silchar, the original type locality.

This error was discovered by TALBOT (1947), who synonymised the nominotypical race with *sebonga* TYTLER on the grounds that the two type localities were nearby rather than on a comparison of primary types in the following words: “The name *sebonga* TYTLER must sink as a synonym, as it covers the area of the nominotypical race described from Cachar. The name *suaveolens* [sic] has, inadvertently, been applied to the Sikkim form so a new name must be given to this.”

The E. Himalayan population was then named *M. suaveolens tytleri* TALBOT (1947) and distinguished from *M. s. suaveolens* and its new synonym, *M. s. sebonga*, in the following words: “Distinguished from the nominotypical form by the much larger ocelli on the underside. In the dry season form the distal area of both wings is not, or but little, paler than the proximal area. Habitat: Sikkim and Bhutan; rare. Occurs in thick forest at about 3,000 feet. Described from specimens in the British Museum” [= The Natural History Museum, London; BMNH] (TALBOT 1947).

However, in the original description, concerning the ocelli pattern on the underside of the hindwing, WOOD-MASON (in MARSHALL & DE NICÉVILLE 1883) stated: “Seven ocelli arranged in 2 decreasing series, the first of which consists of 4 slightly decreasing ocelli and the second of 3 more rapidly decreasing ones, of which the first corresponds to the one visible above, but is larger, extending beyond the limits of its interspace on both sides, so as to touch the second, which is united to the third, or anal [ocellus].”

This latter description fits specimens of *M. suaveolens* from Nepal and Sikkim in the collection of the BMNH and does not match the type series of *M. s. sebonga* in the same collection.

Clearly, the original specimen described by WOOD-MASON corresponds to *M. s. tytleri* and not *M. s. sebonga*. This is why, although *M. s. tytleri* was treated as a valid taxon by SHIROZU (1960), it was treated as a synonym of *M. s. suaveolens* by D’ABRERA (1985).

In addition to the above two subspecies (*M. s. suaveolens* and *M. s. duguidi*), two other subspecies of the butterfly species are recognized, *M. suaveolens konglua* TYTLER 1939, which was originally described from a single specimen from Konglu, NE. Burma, and *M. suaveolens kagina* FRUHSTORFER 1908 from Taiwan (SHIROZU 1960).

### Material and methods

A single ♂ of *M. suaveolens* was recorded from Kukuchina (2133 m elevation, 29°50'23.9" N, 79°27'12.6" E), Almora district, Uttarakhand, India, on 6. vi. 2010 in Himalayan oak forest (*Quercus leucotrichophora* A. CAMUS). This constitutes a range extension westwards from its previously reported limit of Nepal (SMITH 1989). After its presence in the Western Himalaya was thus established, the possibility that this butterfly had been recorded earlier but had been misidentified arose. Therefore, photographs and specimens of this group of *Mycalesis* HÜBNER from the Western Himalaya were examined and it turned out that the specimen of *Mycalesis nicotia*

WESTWOOD 1850 reported by SINGH (2009) from the Kedarnath Musk Deer Sanctuary in the Garhwal Himalaya is actually a ♀ of *Mycalesis suaveolens*. The pair examined comprises the only known specimens of this species from the Western Himalaya.

John CHAINEY kindly provided photographs of specimens in the collection of the BMNH, notably a ♂ *M. suaveolens suaveolens* from Sikkim (forewing length 32 mm) bearing the following data: “Mongpo ?famoni, Sikkim” (handwritten label); “ELWES collection 1902–85” (printed label); and a ♀ of the same subspecies from Nepal (forewing length 32 mm) bearing the following data: “K3807 Kathmandu Boloju 4500 ft, 11. VIII. 1979, C. SMITH” (handwritten label) “Acc.: 1980–44” (printed label). Since TALBOT (1947) stated while describing *M. suaveolens tytleri* that the type series was in the BMNH, it is not unlikely that the photograph of the ♂ from Sikkim examined in the present study is of an unidentified synonym paratype of *M. suaveolens tytleri*.

In addition, photos of the type specimens of *M. suaveolens sebonga* (forewing length ♂ 31 mm and ♀ 35 mm) were kindly sent by J. CHAINEY (Figs. 9–12). The data labels read: “♂, Sebong, Manipur E 5.13 [= end v. 1913?]” (printed, the latter figures evidently meaning May 1913); Type HT (round red bordered printed label); “BM Type Male No. Rh. 15722 *Mycalesis suavolens* [sic] *sebonga* TYTLER” (printed, with handwritten taxon name and number) “H. C. TYTLER Coll. BM 1941–92” (printed); “BMNH #141480”. (printed) and a handwritten label stating “*Mycalesis suaveolens sebonga* TYT.”.

The ♀ allotype of *M. s. sebonga* bears the following labels: “Saitu, Manipur, E 5.13 [= end v. 1913?]” (printed); Type AT (round red bordered label); “AT BM Type female No. Rh. 15723 *Mycalesis suavolens* [sic] *sebonga* TYTLER” (all printed except taxon name and number); “H. C. TYTLER Coll. B.M. 1941–92” (printed); and a printed label stating “BMNH #141479”.

In the description of *M. s. tytleri*, TALBOT (1947) stated: “In the dry season form the distal area of both wings is not, or but little, paler than the proximal area.”

Since the distal area of both wings is distinctly paler in the West Himalayan pair examined, it seems necessary to designate it as a separate subspecies or geographical variation, in order to distinguish it from other geographical variations of the species.

### *Mycalesis suaveolens ranotei* ssp. n.

(Figs. 1–4, 13)

**Holotype** ♂ (Figs. 1, 2): India, Uttarakhand, Almora district, Kukuchhina (29°50'23.9" N, 79°27'12.6" E, 2133 m, 6. VI. 2010), Almora district, Uttarakhand, India; leg., coll. et det. Peter SMETACEK (Type #136) (coll. Butterfly Research Centre, Bhimtal, Uttarakhand, India, finally National Forest Insect Collection, Forest Research Institute, Dehra Dun).

Single **paratype** (= allotype) ♀ (Figs. 3, 4): India, Uttarakhand, Chamoli district, Mandal (1750 m, 7. VII. 2007, leg. Arun Pratap SINGH (coll. Forest Research Institute, Dehra Dun, India; det. Peter SMETACEK)

**Etymology:** The new taxon is named in honour of Arun Pratap Singh RANOTE, Forest Research Institute, Dehra Dun, who recorded the first specimen of this taxon.

**Description.** Forewing length: 30 mm.

♂: Dry season form: Head, thorax and abdomen uniform dark brown; antennae concolorous with body above, indistinctly annulated below, tip rufous. Wings *recto* groundcolour dark brown, with pale, faintly marked discal line to both wings; area beyond discal line paler on forewing; prominent ocelli in spaces 2 and 5 of forewing and 2 of hindwing; pale submarginal and marginal lines to both wings, obscure on forewing, less so on hindwing. Dense, long, dark brown hair along basal part of vein 1 of hindwing.

*Verso* groundcolour dark brown, lightly suffused with golden brown scales; a prominent pale discal line; the area beyond it distinctly paler on both wings. Ocelli above Cu1b, M2 and M1 of forewing, the ocelli in Cu1b and M2 smaller than the corresponding ones on the *recto*; ocellus in M1 conjoined to the upper part of the ocellus in M2, the ocellus in Cu1b with a minute conjoined ocellus on vein Cu1a; hindwing with seven ocelli in two decreasing series, the upper consisting of four well separated ocelli in spaces Cu1a to M1 and the lower series of three ocelli in spaces Cu1b to CuP; the ocellus in Cu1b larger than the corresponding ocellus on the *recto* surface; the tornal ocelli conjoined. An obscure pale line following the distal configuration of the ocelli on both wings, followed by submarginal and marginal pale lines. Cilia white.

Hindwing *recto* brand pale yellow, tuft pale brown; forewing *verso* brand small, pale yellow.

♀ (Figs. 3, 4): Differs from the ♂ in being generally paler and in having a minute ocellus conjoined to the ocellus in M2 on forewing *recto*; minute ocelli in spaces Cu1a and M3 of hindwing *recto*.

Forewing *verso*, the iris of the ocellus in Cu1b extended to include a minute ocellus below it as well as an equally minute one above it.

**Diagnosis.** Differs from *M. s. suaveolens* in the groundcolour beyond the discal line being distinctly paler than on the basal half of the wing. The holotype described above is undoubtedly a dry season form, being recorded on 6. VI.; the form of the ♀ is uncertain, since 7. VII. is usually considered the wet season in the area, yet it matches the ♂ in most respects. In *M. s. suaveolens* (= *tytleri*), TALBOT (1947), describing ssp. *tytleri*, stated that, “In the dry season form the distal area of both wings is not, or but little, paler than the proximal area.” Thus,

**Plate:** *Mycalesis suaveolens*, different subspecies. **Figs. 1–4:** *Mycalesis suaveolens ranotei* ssp. n. **Figs. 1–2:** holotype ♂; **Fig. 1:** upperside (= *recto*; ups.), **Fig. 2:** underside (= *verso*; uns.). **Figs. 3–4:** paratype (allotype) ♀; **Fig. 3:** ups., **Fig. 4:** uns. **Figs. 5–8:** *Mycalesis suaveolens suaveolens* (= *tytleri*). **Figs. 5–6:** ♂; **Fig. 5:** ups., **Fig. 6:** uns. **Figs. 7–8:** ♀; **Fig. 7:** ups., **Fig. 8:** uns. **Figs. 9–12:** *Mycalesis suaveolens sebonga*, “types” (syntypes? Status not clear). **Figs. 9–10:** ♂; **Fig. 9:** ups., **Fig. 10:** uns. **Figs. 11–12:** ♀; **Fig. 11:** ups., **Fig. 12:** uns. **Fig. 13:** holotype of *Mycalesis suaveolens ranotei* ssp. n. in nature.







*M. s. ranotei* may be distinguished from *M. s. suaveolens* by the groundcolour in the dry season form. As noted above, the wet season form of *M. s. ranotei* is not known with certainty.

In the card index of the BMNH and in D'ABRERA (1985), the taxon *sebonga* TYTLER is not treated as a separate subspecies, but as a plain synonym of *M. suaveolens*. Here, however, I treat it as a subspecies of *suaveolens* on the following grounds:

- the wing pattern is identical to *M. suaveolens*, except for the size of the ocelli;
- the seasonal variation is the same, i.e. the distal area is paler than the proximal area in the dry season form, as in *M. s. duguidi* and *M. s. ranotei*;
- no other form of *M. suaveolens* is known that inhabits the area from which *M. s. sebonga* has been reported; this tract connects the known populations of *M. s. suaveolens*, which is known from Nepal to Silchar (Cachar), Assam and *M. s. duguidi* in the Southern Shan States in Burma.

Until there is definite evidence to the contrary, therefore, it would be best to treat *sebonga* under *M. suaveolens*.

From *M. s. sebonga*, *M. s. ranotei* differs in the much larger ocelli on both surfaces of both wings and the slightly paler groundcolour.

From *M. s. duguidi*, *M. s. ranotei* differs in the discal band not being tinged with brown and in having white cilia on both wings, not brown.

From *M. s. konglua*, *M. s. ranotei* differs in having the discal band of the same width as in the nominotypical subspecies, not much wider as in *konglua*; the sub-marginal and marginal lines of both wings of the same intensity and width as in the nominotypical form, not much whiter as in *konglua*.

From *M. s. kagina*, *M. s. ranotei* differs in having more prominent sub-marginal and marginal lines to both wings; the upper series of 4 ocelli on the hindwing *verso* decreasing in *ranotei*, not decreasing in *kagina*.

**Biology.** Unknown. Both known specimens were collected a month apart, so they are from the summer brood. Other members of the genus have at least two generations in the western Himalaya, one between April and July and the second in September and October.

**Distribution.** Almora and Chamoli districts, 1750–2130 m, Uttarakhand, India.

**Comments.** Although some differences between the two specimens of ssp. *ranotei* described above have been noted, these should not be taken to denote sexual dimorphism, but individual variation. It is not unlikely that there is little difference between the seasonal forms in ssp. *ranotei*, but this will require confirmation.

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