**Salassa belinda** sp. n. – a new Nepalese Saturniidae species from the *lola* WESTWOOD, 1847-group (Lepidoptera, Saturniidae)

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Abstract

*Salassa belinda* sp. n. is described from Eastern Nepal. The holotype of the new taxon is deposited in Museum Witt (Munich). A new subspecies, *Salassa belinda aeos* ssp. n. is described from Western Nepal. The lectotype for *Saturnia lola* WESTWOOD, 1847 is here designated. *Salassa katschinika* BRYK, 1944 stat. nov. is upgraded in the rank of a separate species.

**Salassa belinda** sp. n. – eine neue Saturniidae-Art der *lola* WESTWOOD, 1847-Gruppe aus Nepal (Lepidoptera, Saturniidae)

Zusammenfassung


Key words. Lepidoptera, Saturniidae, *Salassa*, new species, new subspecies, taxonomy, Oriental Region, lectotype designation.

Introduction

A new fascinating species of the genus *Salassa* MOORE, 1859 was found among a sample of *S. lola* (WESTWOOD, 1847) from Nepal. Its description with short specific diagnoses and taxonomic notes to the species of the group is given below.

The following abbreviations are used in the text for the institutions where type material is kept:

HDOU – Hope Department of Oxford University (Great Britain);
RMS – Naturhistoriska Riksmuseet Stockholm (Sweden);
MWM – Entomological Museum Witt (Munich, Germany).

**Salassa belinda** sp. n. (figs 6, 8, 13-16, 19, 20, 26-28)


Wings of the same colour, with eye spot typical for the genus and modified medial fasciae. The eye spot almost round to rectangular with rounded corners, red with narrow circular white ring inside and black centre with narrow transparent window inside. The size of transparent window varies between specimens and sometimes it is absent completely. The eye spot is rounded with yellow ring which differs in width between specimens and is sometimes indistinct is enclosed into a circle formed by both medial fasciae joining in costal area. Both medial fasciae are weakly visible in Cu and A zones, Postmedial fascia externally with transparent narrow spots between veins, sometimes arranged in a continuous line. External fascia weakly deeply, pointed with brown scales, with short double teeth between veins. Outer margin of the same colour as in the forewing.

Underside of wings characteristically coloured, very contrasting. Basal area (inside postmedial fascia) dark blackish-brown, covered by single white scales, the area between postmedial fascia and external line light yellowish and external line ochreous - to greenish-brown. Postmedial fascia is here almost straight, external line of distinct zig-zag pattern with single teeth between veins. The hindwing with corresponding pattern and colouration but postmedial fascia beginning near base of the wing and therefore strongly curved basad. Discal spots transparent in both wings.

Female. Wingspan 70-81 mm, forewing length 55-59 mm. Similar in pattern to S. lola but differing by pale brown ground colour. Pattern of the underside is characteristic, where postmedial fascia begins near the base of the wing and is therefore strongly curved basad. Discal spots transparent in both wings, large, varying in shape from triangular to drop-like. Postmedial fascia of the hindwing stronger curved than in S. lola.

Male genitalia. Cup-shaped tegumen with pseudoucous, the latter almost 2 times shorter than in S. lola, uncurcus strongly, protracted, claw-shaped, heavy sclerotized, covered with sparse small setae and slightly enlarged to the tip. Socii well developed, elongate and densely covered with long setae. Gnathos weak and present only as a slender sclerotized plate. Vinculum band shaped with rounded saccus. Valvae weakly sclerotized, with apex tapering and ending in 2 points – the dorsal one (shorter and obtuse) and the ventral one (elongate and distinctly longer than the dorsal one). Saccus process strong, of triangular shape, its lower margin bears numerous teeth (symmetric or asymmetric for both valvae). In most specimens a membranous harpa directed basad is present. Aedeagus tubular, slightly but distinctly 5-curved; vesica small, without cornuti.

Female genitalia. Papillae anales of ovoid shape. Apophyses anteriores weakly sclerotized, almost 2 times longer the apophyses posteriores, the latter are distinctly thicker. Vaginal plate small, with two small rounded protuberances situated below ostium. Ostium sclerotized, antrum with straight to slightly excavate external margin. Antrum sclerotized, vaso- to cone-shaped, ductus short, thinner towards corpus bursae. Corpus bursae small, membranous, pear-shaped, without signa.

Diagnosis. The species is related to Salassa lola (WESTWOOD, 1847) and can be differentiated from the latter by the following characters: In both sexes forewing, medial fasciae stronger developed, without distinct teeth, with more obvious borders of paler scales. Generally, the ground colour is not so monotonous, darker, and looking like marble
pattern. Basal and medial areas of forewing often not concolourous. In the new species, the postmedial fascia don’t start in the apical area of the wing but at costal margin in most specimens and white apical end is more protruded. In hindwing, the external line is almost straight in the new species, with weakly developed zic-zac pattern. Underside with distinct contrasting fields and deeply curved postmedial fascia in hindwing. In male genitalia, saccular process is more robust, with more protruded teeth, pseudouncus much shorter and aedeagus almost 1.5 times longer, curved and more sclerotized. In female genitalia, ostium with distinct excavation which is often absent or just slightly visible in Salassa lola.

**Biology.** The species was collected in March-April to mid June in elevations from 1600 to 2980 m; supposedly develops 1 or 2 generation(s) per year. No information on preimaginal stages is available.

**Distribution.** So far is known only from Eastern Nepal (Annapurna Himal; Koshi (Tapelung area, Terahthum area); Deorali Danda; Milke Danda; Tinjure Danda; Arun valley; Solu Khumbu). Very similar in appearance and genitalic characters but much paler moths were found in Western Nepal; they can be considered as a separate subspecies.

**Etymology.** The species is named after Mrs. Belinda ABT (Königsbrunn).

**Salassa belinda aeos ssp. n.** (figs 5, 7, 21, 22)


**Male.** Wingspan 91-102 mm, forewing length 47-60 mm. Head, thorax and abdomen in most specimens ochreous coloured, with admixture of white scales. Ground colour varies from ochrous to reddish-brown, but ochreous colouration is more typical. Pattern and colour saturation are very similar to the nominate subspecies but less contrasting and much paler. Discal spot present, transparent, narrower than in the nominate subspecies to completely reduced, especially in the hindwing. Underside characteristically coloured, very contrasting. Basal area (inside postmedial fascia) dark chocolate-brown, covered with single white scales, the area between postmedial fascia and external line light ochrous-brownish. Postmedial fascia is here almost straight, externally with distinct zic-zac pattern with single tooth between veins. The hindwing with analogous pattern and colouration but postmedial fascia beginning near the base of the wing and therefore strongly curved basad.

**Female.** Wingspan 100 mm, forewing length 60 mm. Similar to the nominate subspecies but with ochreous colouration. Discal spots of the forewing rhomboid; postmedial fascia externally with orange scales.

**Male genitalia.** Similar to the nominate subspecies but with wider pseudouncus.

**Female genitalia.** No differences to the nominate subspecies found.

**Diagnosis.** The subspecies differs distinctly from the nominotypical one by being monotonous ochrous-brownish with more vague wing pattern and very narrow transparent discal spots on the forewings; those of the hindwings sometimes completely absent. In male genitalia, pseudouncus as short as in the nominate subspecies but 2 times wider.

**Biology.** The species was collected in elevations of (850) 2350 to 2800 m; supposedly develops 1 or 2 generation(s) per year with flight period in March and early May to early June. No information on preimaginal stages is available.

**Distribution.** So far known only from Western Nepal (surroundings of Dailekh).

**Etymology.** Aeos (Greek). Old Greek goddess of morning dawn.

**Taxonomic notes**

The new species occurs sympatrically with *Salassa lola* WESTWOOD in eastern Nepal. In the Kali Gandaki valley, *Salassa lola* and *Salassa belinda* occur quite close to each other which is a further indication that these taxa constitute different biospecies. *Salassa lola* was described from "Sylhet" as a distinct species and finely figured after a male (WESTWOOD 1847, pl. 12, fig. 3). Thanks to the courtesy of Mr Darren MANN (HDOU), images of typical specimens were obtained. The typical series of the species (kept in the Museum of Oxford University) consists of a male labeled "Ind[ia]." and a female labeled "Sylhet". According to Recommendation 74 B of the International Code of Zoological Nomenclature (fourth edition), we select here the male illustrated as lectotype of the taxon in spite of its type locality is not exact. The specimen is supplied by us with a red label with the following text and printing "Lectotype, Salassa lola WESTWOOD, 1847, WITT & PUGAEV des., 2007"; the female therefore should be considered as paratype of the taxon and is also supplied with a corresponding label.

**Remark.** One more taxon of the group was described. It is *Salassa lola katschinika* Bryk, 1944. The photo of the male holotype is published in the internet and was also obtained in better quality due to courtesy of Dr Bert GUSTAFSSON (RMS). The male is quite similar to *S. lola* in appearance but the genitalia are characterized by a narrower sacculus and long, curved, sclerotized aedeagus which is not typical for *lola*. The taxon *katschinika* is limited in its range to NE. Myanmar (Kambait). It is therefore considered here to be a separate species (*Salassa katschinika* Bryk, stat. nov.) closely related to *S. lola*.

**Checklist of the Salassa lola group**

Thus, this specific group consists of the following species:

*Salassa lola* (WESTWOOD, 1847) (figs 1, 2, 4, 9-12, 17, 18, 24, 25)

*Saturnia lola* WESTWOOD, 1847, *Cabinet Orient. Entomol.*: [25], pl. 12, fig. 3. Locus typicus: [Bangladesh] [Sylhet]. Lectotype (here designated): male (HDOU).
Distribution: mountains of Nepal and northern, north-eastern and eastern India and Bangladesh (Darjeeling, Sikkim, Sylhet).

**Salassa katschinika BRYK, 1944 stat. nov.** (figs 3, 23)


Distribution: so far is known only from the type locality in NE. Myanmar.

**Salassa belinda belinda** sp. n. (figs 6, 8, 13-16, 19, 20, 26-28)

Distribution: Mountains of eastern Nepal.

**Salassa belinda aeos** ssp. n. (figs 5, 7, 21, 22)

Distribution: Mountains of western Nepal.

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References

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Figs 1-16 Adults.


2. *Salassa lola* (WESTWOOD), ♀, figure from the original description.


Figs 17-28 Genitalia.


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