NOTEWORTHY RECORDS OF SATURNIIDS FROM NORTHERN MYANMAR WITH NOTES ON THE TRUE IDENTITY OF LOEPA DIVERSIOCELLATA

(Lepidoptera, Saturniidae)

Luigi RACHELI (*)

Introduction

Since the publication of the account of the moth fauna of northern Myanmar (Burma) by Bryk (1944) and excluding some previous papers (e.g. Hampson 1892), only a few contributions treating the Saturniids of this country were published. Indeed the description of a new species from southern Myanmar (Paukstadt et al. 1998) or the article dealing with Antheraea (Antheraeopsis) mezops, a species occurring also in this country (Paukstadt et al. 1999), are some examples. Furthermore, the recent discovery in China of Sinobirma malaisei by Rougerie (2003), and the subsequent further record in Myanmar given by Vinciguerra & Racheli (2005), are further examples of papers concerning the Saturniid fauna of this country. More recently, Brechlin (2007a; 2007b) described some new Saturniid species from China, and some of these new species occur also in northern Myanmar. However the Saturniid fauna of Myanmar remains poorly known and official checklists of the species occurring in this country were never published.

In this paper, some distributional records for Saturniid species from Kachin state, northern Myanmar, are given. In detail, all the specimens examined were collected in the extreme northeastern part of the state of Kachin, near the border with the Chinese province of Yunnan. In some ways, the records reported herein represent an update account of those reported by Bryk (1944). This is due to the fact that most of the present records are from a site not so far from

^(*) Research Associate, Staatliches Museum für Naturkunde, Stuttgart, Germany. To whom correspondence should be addressed Via Piero Carnabuci, 29 - 00139 Roma, Italy. E-mail: luigi.gi.racheli@alice.it



Fig. 1 – Antheraea (Antheraeopsis) mezops (Bryk, 1944), female.



Fig. 2 – *Loepa diversiocellata* Bryk, 1944, males and female (top right).



Fig. 3 – Salassa katschinica Bryk, 1944, male and females.

that cited by Bryk (1944) in his account of the Swedish expedition to Burma in 1934. Indeed, great part of the specimens listed by Bryk (1944) are from Kambaiti, a site located in the central eastern part of the Kachin state, near the Chinese border (province of Yunnan). However, Kambaiti is located southwards in respect to the site where the specimens cited in this paper were collected. According to the species listed below, most of them are present at both sites.

Among the records reported in this article, the female of *Salassa katschinica* Bryk, 1944 is figured for the first time, *Cricula zubsiana* Nässig, 1985 is reported for the first time for this country and some records for the recent described *Actias winbrechlini* Brechlin, 2007 are given. Notes on *Loepa diversiocellata* Bryk, 1944 with particular reference to the true identity of this taxon and related misidentications found in recent literature are given.

All the specimens reported below are in the collection of the author, and they are all labelled as follow: Myanmar (Burma), Kachin State, 30 m. [= miles] E of Kawnglanghpu, Chudu Razi Hills, local people leg., via A. Cotton (hereafter, MK1).

Species account

Samia kohlli Naumann & Peigler, 2001

Remarks. Three males and two females from MK1 were examined. The males were collected on 18 June, 29 June and 8 July 2006 whereas the two females collected on 3 June and 7 July 2006. This species was already reported by Peigler & Naumann (2003) for the state of Kachin.

"Saturnia" simla (Westwood, 1847)

Remarks. This is a common and widespread species. Five males and two females from MK1 were examined. The males were collected on 19 August (2 specimens), 14 September, 16 September and 20 September 2006. The two females were collected on 12 and 19 September 2006, respectively.

Rinaca zuleica Hope, 1843

Remarks. A single male from MK1, 27 June 2006, was examined. Although Bryk (1944) described the ssp. *malaisei* from Kambaiti, the single male examined fits the type of *malaisei* but they do not differ from specimens from northern Thailand (Chiang Mai province). This suggests that *malaisei* is only a synonym of the nominate subspecies which is widely distributed in the Oriental region. However, more material is needed to ascertain definetely its status.

Caligula anna (Moore, 1865)

Remarks. Two males (collected on 1 July 2006) and three females (collected on 20 June 2006 and 6-7 August 2006) were examined. All of them are from MK1.

Bryk (1944) described the population from this area (type locality: Kambaiti, 2000 m) and named it *diversa* Bryk, 1944. The status of this subspecies was announced by D'Abrera (1998) to be revised in a German journal by an unspecified author/s given that no differences from the nominate subspecies were noticed. Up to date, this revision of the status was never published.

Actias selene (Hübner, 1806)

Remarks. A single male from MK1, 7 July 2006, was examined. Bryk (1944) described the subspecies *malaisei* Bryk, 1944 from central Myanmar. The single male examined does not differ from those of central Thailand (Phrae prov.).

Actias winbrechlini Brechlin, 2007

Remarks. A total of three males from MK1 were examined. Two specimens were collected on 16 June 2006 while the other one on 20 June 2006. This species was described from China but it was already recorded also for northeastern Myanmar in the original description.



Fig. 4 - Salassa mesosa excellens Bryk, 1944, male and female.

Antheraea roylli Moore, 1859

Remarks. A total of five males collected on 26-27 June and on 8 July 2006, and a single female collected on 27 June 2006 were examined. All the specimens are from MK1.

Antheraea (Antheraeopsis) mezops (Bryk, 1944)

Remarks. A total of 19 males and 1 female from MK1 were exam-

ined. The males were collected on 24 May 2006, 3 June 2006, 18 June 2006, 27-29 June 2006, 3 July 2006 and on 7 August 2006 whereas the single female on 27 June 2006. Given these records, it seems a common species in this area. The female was unknown when Bryk (1944) described this taxon. Subsequently, a female from Vietnam was figured by Paukstadt et al. (1999). Given that this latter female seems to be quite different from that listed above, the female from Myanmar is figured herein for comparison (fig.1).

Loepa diversiocellata Bryk, 1944

Remarks. Bryk (1944) described this taxon on one male and one female from Kambaiti, 2000 m, collected on 17 and 26 June, respectively. The holotype male and the female of this species were figured by Bryk (1944). Furthermore, the holotype and its genitalia can be found on the website of Swedish Museum of Natural History. This allowed the opportunity to compare the available specimens (see below) with the holotype for their identification. A total of 10 males and 3 females from MK1 were examined. They were collected on 10 June, 14 June, 16 June, 17 June, 28 June (2 males), 6 July, 7 July, 8 July (2 males) whereas the females were collected on 14 and 16 June 2006. To show the variability of the males, three of them and a female are figured (fig. 2). The available male specimens were identified also through the examination of the genitalia. This confirmed the present identification and the true identity of this taxon in respect to some recent identifications found in the literature.

Indeed, the name *diversiocellata* was assigned to various specimens from several countries but all of them must be considered misidentifications (e.g., Pinratana & Lampe 1990: pl. 32; D'Abrera 1998). Also in other major books and articles dealing with Oriental and Indonesian Saturniids, the name *diversiocellata* was inaccurately assigned to specimens related to the *megacore* species-group. On the contrary, *Loepa diversiocellata* must be assigned to the *sikkima* species-group.

Moreover, it is also possible that *diversiocellata* replaces *sikkima* in this area of northern Myanmar given that specimens of *sikkima* are not recorded yet. In any case, the specimens reported above were compared with specimens of *sikkima* from nearest countries (e.g.

Thailand, Laos). These comparisons confirm the validity of *diversio-cellata* in respect to the other populations of *sikkima* distributed in the nearest countries.

Loepa miranda Atkinson, 1865

Remarks. A single male from MK1, 8 June 2006, was examined. Although it is a widespread species in the Oriental region, it seems to be uncommon in this area.

Solus parvifenestrata parvifenestrata Bryk, 1944

Remarks. This taxon was described and figured by Bryk (1944). According to Brechlin (2007b), the range of the nominotypical subspecies is from northern Myanmar through southern China (Yunnan) to northern Vietnam. Four males from MK1 were examined. One male was collected on 16 June 2006 while the others on 22 June 2006.

Cricula zubsiana Nässig, 1985

Remarks. This species was described from China (NW Yunnan). Furthermore a male specimen (paratype) was figured later also by D'Abrera (1998). The single male examined is from MK1, 26 June 2006. This is the first record of this species for this country.

Salassa katschinica Bryk, 1944

Remarks. Witt & Pugaev (2007), revising the status of this taxon, claimed that only the type of this species is known. Three males and two females from MK1 were examined. The males were collected on 28 May and 9 June 2006 (2 specimens) whereas the females on 28 May and 26 June 2006, respectively. The unknown female is figured here for the first time. Given the variability of the two females examined, both specimens are figured herein together with a male specimen (fig. 3).

Salassa mesosa excellens Bryk, 1944

Remarks. The taxon *excellens* was described by Bryk (1944) from Kambaiti, and both male and female were figured. A pair of this species is figured also herein (fig. 4). A total of nine males and one female from MK1 were examined. The males were collected on 26 June, 27 June, 3 July, 6 July (2 specimens), 8 July (3 specimens), and the last one was without the collecting date. The single female was collected on 8 July 2006. According to the series of males examined, it can be noticed that there is an evident variability in the ocelli of both wings.

Salassa sp.

Remarks. A single male labelled MK1, 1 July 2006, was examined. It belongs to the *thespis* Leech, 1890 species-group but its identification remains doubtful.

ACKNOWLEDGEMENTS. I am grateful to Adam Cotton for sending the specimens listed in this paper. A special thank is due to Steve Kohll who kindly sent me some recent articles dealing with Oriental Saturniidae. Both Stefan Naumann and Roberto Vinciguerra shared with me information on some species treated in this paper.

RIASSUNTO

Segnalazioni di Saturnidi del Myanmar settentrionale con note sull'identità di Loepa diversiocellata (Lepidoptera, Saturniidae).

Vengono riportati dati sulla distribuzione in Myanmar settentrionale per quindici taxa di Saturnidi. Le segnalazioni di Salassa katschinica Bryk, 1944, Cricula zubsiana Nässig, 1985, Actias winbrechlini Brechlin, 2007 e Loepa diversiocellata Bryk, 1944 sono ritenute di particolare interesse per diversi motivi: Cricula zubsiana viene segnalata per la prima volta per questo paese; Salassa katschinica era conosciuta solo sulla serie tipica e la femmina viene raffigurata per la prima volta; nuovi dati di raccolta vengono riportati per Actias winbrechlini ed infine vengono riportate alcune informazioni sull'identità di Loepa diversiocellata, una specie che era stata erroneamente identificata nella recente letteratura.

SUMMARY

Records for fifteen Saturniid taxa from northen Myanmar, Kachin state, are given. Those for *Salassa katschinica* Bryk, 1944, *Cricula zubsiana* Nässig, 1985, *Actias winbrechlini* Brechlin, 2007 and *Loepa diversiocellata* Bryk, 1944 are notheworthy records. Indeed, *Cricula zubsiana* is reported for the first time for this country. *Salassa katschi*

nica was apparently known only on the typical series. New records for the recent described *Actias winbrechlini* are reported. The true identity of *Loepa diversiocellata* is briefly discussed on the basis of comparisons of the holotype with recently collected specimens.

REFERENCES

- Brechlin, R. 2007a. Fünf neue Taxa der Gattung *Actias* Leach, 1815 aus China (Lepidoptera: Saturniidae). Entomofauna, monogr., 1: 12-27.
- Brechlin, R. 2007b. Anmerkungen zur Gattung *Solus* Watson, 1913 mit Beschreibung eines neuen Taxons aus China (Lepidoptera: Saturniidae). Entomofauna, monogr., 1: 44-49.
- Bryk, F. 1944. Entomological results from the swedish expedition 1934 to Burma and British India. Lepidoptera: Saturniidae, Bombycidae, Eupterotidae, Uraniidae, Epiplemidae und Sphingidae. Gesammelt von René Malaise. Ark. Zool., 35A (8): 17-55, 6 pls.
- D' ABRERA, B. 1998. Saturniidae Mundi. Saturniid Moths of the World. Part III: 171 pp. Goecke & Evers, Keltern, and Hill House, Melbourne & London.
- Hampson, G. F. 1892 The Fauna of British India including Ceylon and Burma, Moths, vol. 1. London, Taylor & Francis.
- Paukstadt, U., U. Brosch & L. H. Paukstadt. 1999. Taxonomische Anmerkungen zu *Antheraea (Antheraeopsis) mezops* Bryk 1944, (stat. rev.) von Myanmar und Vietnam, sowie die Beschreibung des unbekannten Weibchens (Lepidoptera: Saturniidae). Entomol. Z., 109 (11): 450-457.
- Paukstadt, U., L.H. Paukstadt & U. Brosch. 1998. *Antheraea (Antheraea) myanmarensis* n. sp., eine neue Saturniide von Südostasien (Lepidoptera: Saturniidae). Entomol. Z., 108 (2): 57-64.
- Peigler, R. S. & S. Naumann. 2003. A revision of the Silkmoth genus *Samia*: 227 pp., 228 figs. University of the Incarnate Word, San Antonio.
- Pinratana, A. Bro. & R. E. J. Lampe. 1990. Moths of Thailand, vol. one, Saturniidae: V + 47 pp., 44 pls. Brothers of St. Gabriel in Thailand, Bosco Offset, Bangkok.
- ROUGERIE, R. 2003. Re-captured of *Sinobirma malaisei* in China: description of the female genitalia and comments on the systematic position of the genus in the tribe Urotini (Saturniidae). Nota lepid., 25 (4): 227-233.
- SWEDISH MUSEUM OF NATURAL HISTORY. http://nrm.museum/en/lep_nrm/lepm.html
- VINCIGUERRA, R. & L. RACHELI. 2005. A further record of *Sinobirma malaisei* (Bryk, 1944) from Myanmar (Lepidoptera: Saturniidae, Saturniinae). Beiträge zur Kenntnis der wilden Seidenspinner (Wilhelmshaven), 3 (1): 46-48.
- Witt, T. J. & S. N. Pugaev. 2007. *Salassa belinda* sp. n. a new Nepalese Saturniidae species from the *lola* Westwood, 1847 group (Lepidoptera, Saturniidae). Entomofauna, monogr., 1: 1-11.