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## NOTE

### A NEW RANGE RECORD OF NOCTUID MOTH *OWADAGLAEA ELONGATA* (LEPIDOPTERA: NOCTUIDAE: XYLENINAE) FROM INDIA

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**A NEW RANGE RECORD OF NOCTUID MOTH  
*OWADAGLAEA ELONGATA* (LEPIDOPTERA:  
NOCTUIDAE: XYLENINAE) FROM INDIA**

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Knowledge on the Noctuidae fauna of Himalayan and some adjacent territories has been considerably increased from the early 1900s (Benedek et al. 2005). Most of the Xyleninae and Orthosiini fauna of the Himalayan region was explored and published by M. Hreblay & Laszlo Ronkay (Bálint & Katona 2013), Owada (1993), Ronkay & Ronkay (2001), Benedek et al. (2005), Ronkay et al. (2010), Benedek et al. (2012a,b), Benedek et al. (2013), Saldaitis et al. (2014), and Benedek & Saldaitis (2014). The Indian part of the Himalaya, however, was least explored for Noctuidae in recent years except for the inclusion of a few described species in major taxonomic revisions. In the present study under ICAR-Network Project on Insect Biosystematics a few explorations were undertaken in parts of Sikkim and we report here new range records of the Winter Moth *Owadaglaea elongata* Hreblay & Ronkay, 1998.

The genus *Owadaglaea* was first established by Hacker & Ronkay (1996) with type species *Owadaglaea chloromixta* from India, Himachal Pradesh. Hreblay & Ronkay (1998) provided the detailed characterizations and distribution patterns by describing seven new species and discussed relationships within four species groups. Further, Ronkay & Ronkay (2000) reduced those four groups to the *lucida*, *chloromixta* and *barna* species-groups. Recently, Benedek et al. (2012b) described four new species from Himalayan region and provided a revised checklist of the genus

with the taxonomic placement of the new species. Hreblay & Ronkay (1999) described two subspecies, viz., *Owadaglaea elongata* ssp. *siamica* Hreblay & Ronkay, 1999 and *O. e.* ssp. *annamica* Hreblay & Ronkay, 1999 from Thailand and Vietnam, respectively.

The specimens included in the study were collected from parts of Sikkim, India, using ultraviolet light traps. The voucher material is deposited at the National Pusa Collection, Division of Entomology, Indian Agricultural Research Institute (IARI), New Delhi, India (NPC). Nomenclature, male and female genitalia studies were carried out as described by Ronkay & Ronkay (2000) and Ronkay et al. (2010). The abdomen was treated in 10% KOH for 10 to 20 min at 90°C using a Dry Block Heizgerat 2800. Subsequently, genitalia were cleaned and stored in glycerol. For photographs, genitalia were placed on a slide in glycerol with a cover slip. Photographs were taken with a Leica DFC425C digital camera mounted on a Leica M205FA stereozoom microscope with automontage.

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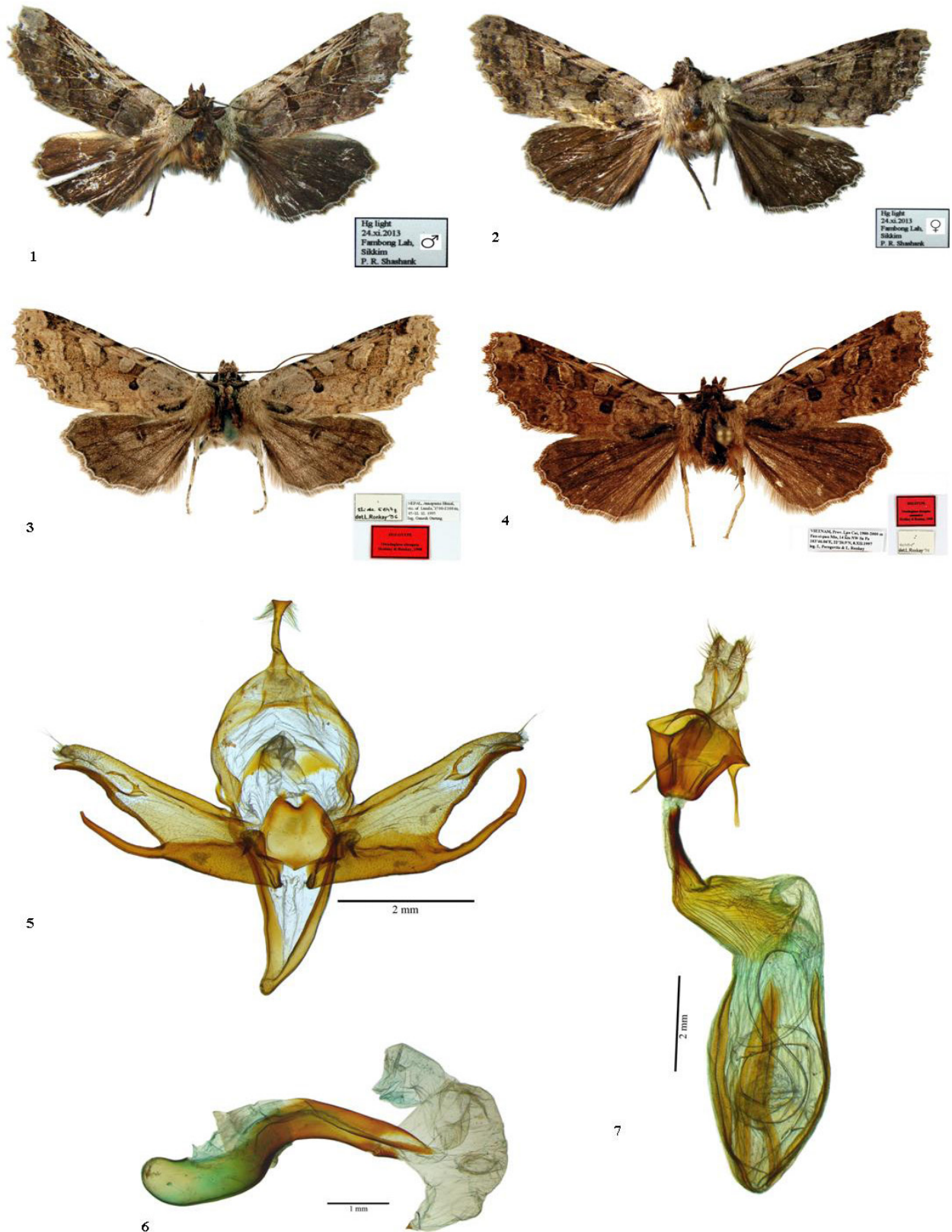
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Images 1–7. *Owadaglaea elongata* Hreblay & Ronkay, 1998  
 1 - male (Reg.no: NPC-13-01); 2 - female (Sikkim) (Reg.no: NPC-13-02); 3 - holotype female (HNHM, Hungary Reg.no: 5647);  
 4 - *O. elongata* ssp. *annamica* (Holotype, Vietnam, HNHM, Hungary Reg.no: 6049); 5 - *O. elongata* male genitalia; 6 - *O. elongata* male aedeagus; 7 - *O. elongata* female genitalia. (Photo credit: 1,2,5,6,7 - P.R. Shashank; 3,4 - G. Ronkay)



***Owadaglaea* Hacker & Ronkay (1996)**

*Owadaglaea* Hacker & Ronkay (1996) *Esperiana* 4: 348, TS: *Owadaglaea chloromixta* Hacker & Ronkay

***Owadaglaea elongata* Hreblay & Ronkay 1998**

Diagnosis: The closest species of *Owadaglaea elongata* are *O. yoshimotoi* and *O. kulmani*. *O. elongata* can be separated from *O. kulmani* by the larger size and the more light chocolate brown-olive forewing pattern. The male clasping apparatus of the three species is essentially similar, but *O. elongata* has narrower valva, a differently curved ampulla and differently shaped cucullus. The female genitalia of the *O. elongata* has a basin shaped ostium, broader ductus and larger cervix bursae mostly similar to *O. kulmani*.

Description (Images 1, 2, 3): Wingspan 33–36 mm, length of forewing 16–17 mm. Front collar striped brindle with dark brown yellow and black hairs; tegulae sandy-brown; mid thorax blackish-brown; antennae ciliate; forewings elongate with pointed apex; ground color of males light shiny cream color mixed with chocolate brown ground color on male with some olive, females similar but lighter; subterminal area, costa, reniform and frame of orbicular light sandy color; cilia rather long, crenulate and dark brown on male and females; hindwing oval, male blackish brown and dark chocolate brown on female; discal spot poorly visible; cilia short.

Male genitalia (Images 5, 6): Uncus medium size, apically dilate; tegumen high; juxta large, bell-shaped; vinculum elongate, V-shaped with thick shafts; valva elongate and narrow, asymmetrical; cucullus pointed; corona reduced; sacculus asymmetrical, on the right side larger with longer process; clavus large, thumb-shaped; harpe long, thick and also asymmetrical as left side is slight longer and more curved downwards; basal shaft long, strongly sclerotized running down to saccular plate on the ventral margin; ampulla narrow, asymmetrical, connected with long but narrow basis to the harpe; aedeagus arched at middle, carinal process weak; vesica moderately broad with a two diverticulum and one small cornutus.

Female genitalia (Image 7): Ostium triangular, basin shaped, ductus narrow and sclerotized; cervix bursae large, conical and gently ribbed; corpus bursae large, oval.

Material examined: Reg. no: NPC008, 1 male, 2 females, India, Sikkim, Gangtok, 1,650m, 27.3271°N & 88.5955°E, 21.xi.2013, coll. P.R. Shashank.

Distribution: Nepal, India (Sikkim, Gangtok) (present study)

Remarks: The specimens collected from Sikkim are

slightly darker and olive in colour compared to type specimen. However, there is no genitalia variation in these. This may be due to variation in season or the effect of environment. Two subspecies, *O. e. ssp. siamica* Hreblay & Ronkay, 1999 and *O. e. ssp. annamica* Hreblay & Ronkay, 1999, are different from typical *O. elongata*. They differ in the wing ground colour, *O. e. ssp. siamica* brightly white ocher is more clearly recognizable with elongate blurred transverse lines that are evidently double and lighter. *O. e. ssp. annamica* (Image 4) is blackish-brown. The underside of both wings are monochrome chocolate-brown with indistinguishable drawings, which clearly differ from the sharper drawing of *O. e. ssp. siamica* and *O. elongata*.

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