

**A NEW RECORD OF *BIBASIS GOMATA* (LEPIDOPTERA:
HESPERIIDAE) ON KESSERU, *HETEROPANAX FRAGRANS*
(ROXB.) FROM INDIA**

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[Kumar, R., Chutia, P., Gogoi, B., Ahmed, M. & Rajkhowa, G. 2015. A new record of *Bibasis gomata* (Lepidoptera: HesperIIDae) on kesseru, *Heteropanax fragrans* (Roxb.) from India. Munis Entomology & Zoology, 10 (2): 502-505]

ABSTRACT: *Bibasis gomata* Moore (1865) is belongs to the family HesperIIDae in order Lepidoptera was noticed feeding on kesseru plant, *Heteropanax fragrans* (Roxb.) Seem (Family: Araliaceae) during 2013 and analysis of literature indicates that this is the first record of *B. gomata* Moore on kesseru plantation crop at Farm No. 3, Central Muga Eri Research and Training Institute, Central Silk Board, Ministry of Textiles, Govt. of India, Lahdoigarh, Assam. In the manuscript the host range of *B. gomata* and taxonomy and morphological characters are presented.

KEY WORDS: *Bibasis gomata*, new record, kesseru, Assam, India.

Kesseru, *Heteropanax fragrans* (Roxb.) Seem (Family: Araliaceae) is primary host plant for Eri Silkworm, *Samia ricini*, Helfer (Lepidoptera: SaturnIIDae) in whole Assam and other North Eastern Region of India where the eri silkworm rearing occurs. This tree usually attacked by many pests, leaf eating weevil, sucking pests, mealy bugs etc. Recently, *Bibasis gomata* Moore (1865) (Lepidoptera: HesperIIDae) was noticed feeding on the leaves of *H. fragrans* during the year 2013. North eastern region of India is abode to endemic insect biodiversity. Kesseru plantation is available in North Eastern India and eri silkworm is grown to get silk for making fabric and pupae for eating. The purpose of this paper is to highlight important observations of *B. gomata* found feeding on leaves of kesseru.

MATERIALS AND METHODS

All the specimens were collected and preserved in well fumigated wooden boxes. Prior to collection, the beetles were photographed in the field condition during the year 2013 at Farm No. 3, Central Muga Eri Research and Training Institute, Central Silk Board, Ministry of Textiles, Govt. of India, Lahdoigarh, Assam. For field observations specimens and damage symptoms were photographed by Nikon 14.0 mega pixel. The photographs were edited using software ACDSee 9.0 Photo Manager and prepared plate in 600 dpi using software Adobe Photoshop 7.0.

RESULTS AND DISCUSSION

***Bibasis gomata* (Lepidoptera: HesperIIDae)**

Bibasis gomata Moore, 1865

Ismene gomata Moore (1866)

Choaspes gomata

Burara gomata

Burara gomata gomata

Type Locality: Darjeeling

LARVAL CHARACTERS (Figs. 1-3)

26 mm last instar. 6 black spots are present at head on last instar of larva. First instar larva 4 mm in size.

PUPAL CHARACTERS (Figs. 4-6)

Pupa forms upperside of leaves. Pinkish and brown in color, cremaster present at the last segment. Wings and thorax are light grey. Laterally, black spots are present extending to last segment. Ventrally, two black spots present in head. Thorax contains one spindle shaped black spot on dorsal side.

ADULTS (Figs. 7-13)

Male: Wing span 46 mm, Upperside pale vinaceous brown ; both wings with pale brownish yellow streaks longitudinally between the veins. Abdomen blackish brown with yellowish bands. Cilia yellow, underside dark brown, with the veins and longitudinal streaks between them greyish green, the brown showing only along each side of the veins; posterior margin of forewing broadly pale vinaceous; exterior margin of both wings defined by a brown line. Labial palpus three segmented and third segment turns down and brown in color, the rest is yellow. Thorax, legs and abdomen beneath orange are yellow.

Female: Wing span 40 mm, Upperside very dark glossy bronzygreen, shading off into glossy indigo-blue at the apex and outer margin. Forewing with a pale green spot in the second median interspace, with a larger one in the interspace below it, in the male these spots are merged in a large patch of the ochreous ground-colour from the inner margin. The green markings everywhere more restricted and of a darker shade. Labial palpus three segmented and third segment turns down and brown in color, the rest is yellow. Thorax, legs and abdomen beneath orange are yellow.

Male Genitalia: Uncus broad and sclerotized; valvae symmetrical, and harpae sclerotized present on both the valvae. Juxta less sclerotized. Vinculum present and membranous; saccus V-shaped and less sclerotized. Sclerotized spiny cornutii present in aedeagus and vesica present.

Female Genitalia: Anterior apophysis and posterior apophyses present, but short. Ostium bursae sclerotized and ductus bursae long. Corpus bursae balloon shaped, long contains hard denticulate sclerotized brown color signum.

Host plants: *Schefflera octophylla* (Lour.) Harms (Family Araliaceae) (oldhks.org/info-b_gomata.html); *Schefflera lurida*, *Trevesia sunaica*, *Embelia gracinaefolia*, *Horsfieldia* sp. (Corbet and Pendlebury, 1992) Corbet *et al.*, (1992). New record on kesseru plant, *Heteropanax fragrans* (Roxb.) Seem (Family: Araliaceae).

Distribution: Hong Kong, China, Mala peninsula, Philippines, Indonesia archipelago, India (Assam, Sikkim, West Bengal, South India and Himalayan Belt of India) (Wikipedia).

Damage Symptoms: Larvae always feed after folding the leaves.

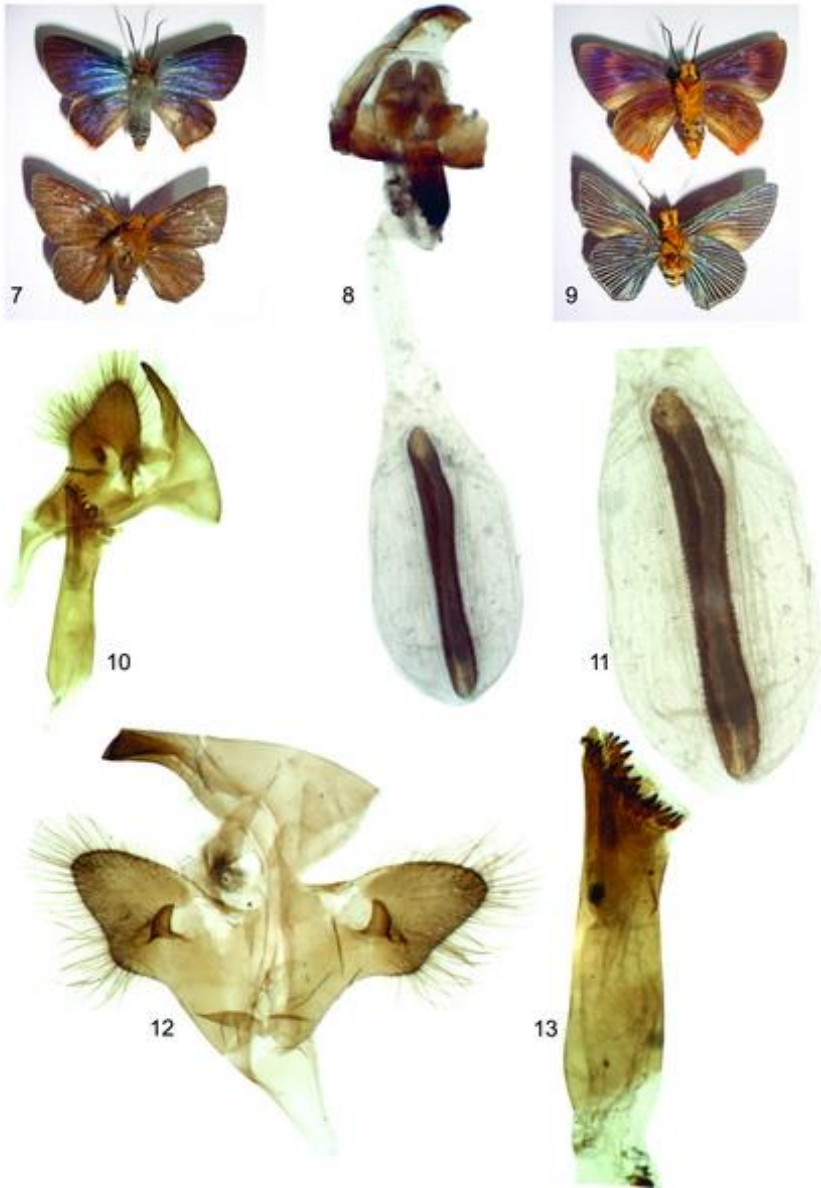
Material Examined: 3 ♂♂, 29.09.2013, 06.10.2013, 29.09.2013. 4 ♀♀, 10.10.2013, 10.04.2013, 10.10.2013, 15.11.2013. Farm No. 3, CMERTI, Lahdoigarh, Jorhat, Assam (India) leg. P. Chutia and Rajesh Kumar feeding on *Heteropanax fragrans* (Roxb.) Seem (Family: Araliaceae).

LITERATURE CITED

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Web address: oldhks.org/info-b_gomata.html
Wikipedia, 2014. En.wikipedia.org/wiki/Bibasis_gomata



Figure 1-5. *Bibasis gomata*- 1-2. Prepupal stage of larva, 3. Head capsule of larvae, 4. Dorsal side of pupa, 5. ventral view of pupa, 6. Lateral view of pupa.



Figures 7-13. *Bibasis gomata* – 7. Dorsal view of male & female, 8. Female genitalia, 9. Ventral view of male & female, 10. Lateral view of male genitalia along with aedeagus, 11. Signum in corpus bursae of female genitalia, 12. Ventral view of male genitalia, 13. Aedeagus.