

ORIGINAL ARTICLE

A new record of *Ctenoplusia kosemponensis* (Strand, 1920) (Lepidoptera: Noctuidae: Plusiinae) from Karnataka, India

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ABSTRACT

This paper reports noctuid moth, *Ctenoplusia kosemponensis* (Strand, 1920) that is new record to the Karnataka fauna. A new record of species is described from south India based on single male specimen from Kapanahalli region of Karnataka. In this article the external characteristics, genitalia photos, and the barcode of this species provided, and the materials examined in this study is deposited in the collection of the National Pusa Collection, Division of Entomology, Indian Agricultural Research Institute, Pusa campus, New Delhi.

KEY WORDS: Lepidoptera, Noctuidae, Plusiinae, new record.

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INTRODUCTION

Subfamily Plusiinae that consists of small to average sized, robust bodied moths, usually with a characteristic metallic spot in the center of the forewing. The Plusiines are represented by approximately 500 species worldwide, of which 59 species are reported in India [8]. The mentioned species was described by Strand in 1920 comes under genus *Ctenoplusia*, family noctuidae, including eight species from India. Genus *Ctenoplusia* taxonomically closely allied genera with American *Agrapha* and African *Plusiotricha* are discussed in detail by Lafontaine and Poole [7]. Their proposal to keep these as distinct genera is fully accepted by Goater *et al* [3], and *Ctenoplusia* is treated as full genus. The genus *Ctenoplusia* is divided in to two subgenus; Subgenus *Ctenoplusia* Dufay, 1970 and subgenus *Acanthoplusia* Dufay, 1970 which contain several more or less distinct species groups.

MATERIALS AND METHODS

For the present study the specimen was collected from Kapanahalli, Shivamogga, Karnataka on 6.ix.2015 (14°15'48.88"N, 75°17'44.93" and Elevation 611.124m) with light trap and white screen. Further, collected freshly killed specimens were pinned and stretched on adjustable stretching box after that prepared wings & genitalia slides. For genitalia preparation, the abdomen of moth was placed in a test tube containing 10 % KOH solution and left overnight to soften the chitin and fat bodies. Genitalia were then transferred to a cavity block containing water and washed repeatedly to remove excess KOH. The abdomen were dissected and aedeagus was separated from male genitalia with the use of fine forceps. Later, they were placed in glycerol on a slide for further examination and taking photographs. Terminology for male and female genitalia is after Klots [6] & Kitching [5] & the general terminology is after Kitching (2003). For Photographs were taken with a Leica DFC425C digital camera mounted on a Leica M205FA stereozoom microscope. Photographs of adult specimens were taken using a Canon EOS D70 digital camera with macro lens (110mm).

RESULTS AND DISCUSSION**Taxonomic accounts:**

Family- Noctuidae (Latreille, 1809)

Genus *Ctenoplusia* [2]

Type species: *Plusia limbirena* [4]

Species *Ctenoplusia kosemponensis* [9]

Synonymy: *Argyrogramma yunnanensis* (Chou & Lu, 1978); Type-locality: Yunnan, Jinghong.

Diagnosis: The species closely related with other its two sister species *C. furcifera fuircifera* [10] and *C. sumbawana* [1], but easily identified by its darker forewing colouration with respect to other two species. Gamma mark outlined by silver colour and brilliantly reflects on outer portion. Male genitalia also shows variation in broader valvae and vinculum structure in respect to other species.

Redescription: *C. kosemponensis*) is smaller dark coloured moth with wingspan 25mm; sinous post medial line outlined by silver colour. Gamma mark outlined by silver colour and brilliantly reflects on outer portion. Median area dark coloured with olive colour patterns and golden patch present below the gamma mark. Antimedial and subterminal line not visible. There is fine yellow spots present at the coastal margin near apex region of forewing. Hindwing dark brown coloured. Head with frons and vertex dark brown coloured. Frons coarsely and densely scaled, with a stronger roof like tuft present between antennae. Thoracic tuft roughly present. Labial palpi upturned with black and yellow scales present on it. Male genitalia with broader valvae and rounded cucullus. Tegumen broader and shorter than uncus. Uncus hook shaped, Saccus u-shaped. Clavus longer. Aedeagus with short length vesica and a long cornutus present in the middle. A picture of male genitalia provided for correct identification of species *C. kosemponensis* (Fig. 1) is Provided.

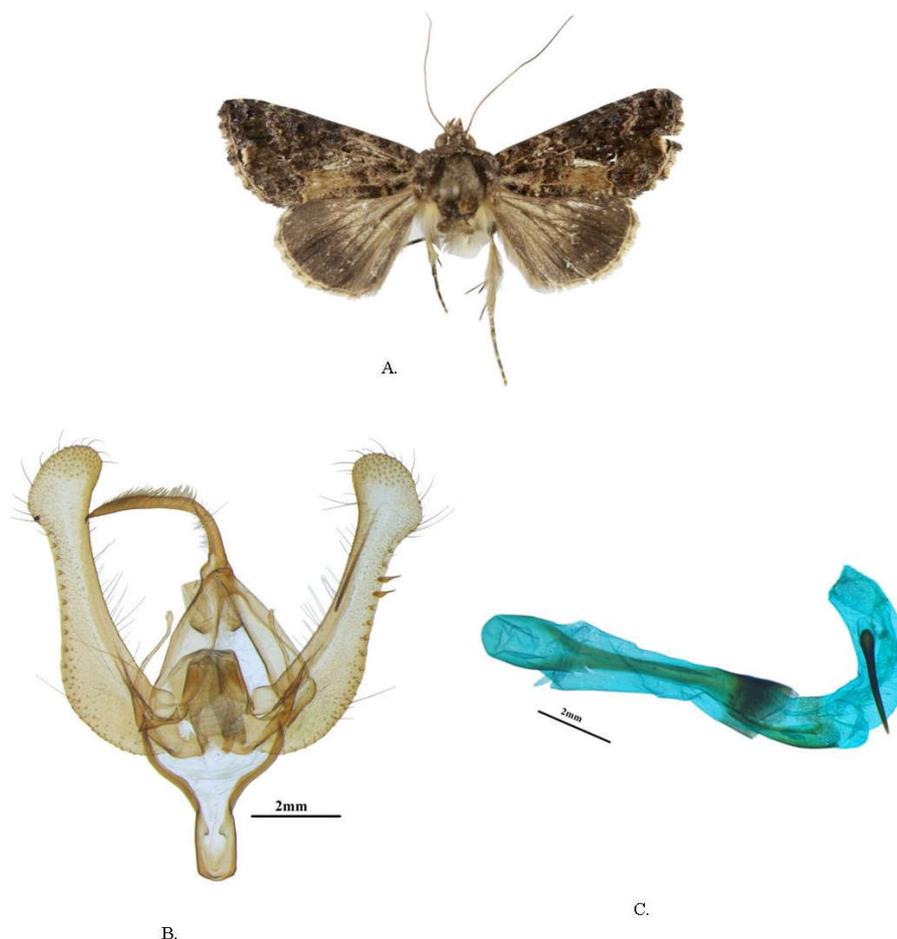


Fig. 1: A. *Ctenoplusia kosemponensis* adult (Male) B. male genitalia C. Aedeagus

CONFLICT OF INTEREST

The authors report no conflict of interest.

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