



DNA BARCODING AND MORPHOLOGICAL CHARACTERIZATION OF MOTH *ANTOCULEORA ORNATISSIMA* (WALKER, 1858) (LEPIDOPTERA: NOCTUIDAE), A NEW RANGE RECORD FROM WESTERN HIMALAYAN REGION OF INDIA

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Abstract: DNA barcoding of *Antoculeora ornatissima* (Walker, 1858) was done for the first time from India. Redescriptions of genitalia and diagnoses of genus and species are presented with images and illustrations.

Keywords: *Antoculeora ornatissima*, DNA barcoding, Lepidoptera, morphology, new range record, Noctuidae, Plusiinae, western Himalaya.

Noctuidae is one of the largest families of moths with more than 35,000 known species documented in the world. The subfamily Plusiinae (Lepidoptera: Noctuidae) is represented by approximately 500 species worldwide (Ronkay et al. 2008) of which 59 are reported in India (Shashank & Longjam 2014), which were grouped in three tribes, Abrostolini Eichlin & Cunningham, 1978, Argyrogrammatini Eichlin & Cunningham, 1978, and Plusiini Boisduval, 1928. Abrostolini is represented by two species, Argyrogrammatini by 33 species, and Plusiini by 24 species. Under the subfamily Plusiinae,

the genus *Antoculeora* is represented by three species, namely, *A. yoshimotoi* (Ronkay, 1997), *A. locuples* (Oberthür, 1880), and *A. ornatissima* (Walker, 1858). Walker (1858) described *Plusia ornatissima* on a single female specimen from the southern Himalayan region (northern Hindustan). Later, *Antoculeora* was erected as a subgenus of *Erythroplusia* Ichinose, 1962 (Ichinose, 1973) and raised to a full genus by Chou & Lu (1979). Further, Oberthür (1880) described *P. locuples* for the island of Askold located in the Bay of Vladivostok, Russia. These two taxa were treated as synonyms by Staudinger & Rebel (1901), whose opinion was accepted by Hampson (1913) and Warren (1913), followed by all subsequent authors till Ronkay (1997). Kitching (1987) expressed his opinion that *A. ornatissima* might be a complex of closely related taxa but may also be a single species. A detailed history of generic classification and species changes was provided by Kitching (1987), Ronkay (1997), and Ronkay et al. (2008).

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