



<http://dx.doi.org/10.11646/zootaxa.4013.2.5>

<http://zoobank.org/urn:lsid:zoobank.org:pub:7E00F895-233E-4826-AE45-D1F8AF9E6E1F>

PLusiinae (Excl. Abrostolini) (Lepidoptera: Noctuidae) of Ethiopia. A faunistical survey with biogeographical comments

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Abstract

The extensive survey in different regions of Ethiopia between 1987–1990 and 2005–2011 resulted in the recognition of 39 species of Plusiinae. The majority of the species belong to two large genera, *Ctenoplusia* (15 species) and *Thysanoplusia* (16 species). A new synonymy is established, *Plusiotricha gorilla* (Holland, 1894) is proved to represent the female sex of *Plusiotricha livida* Holland, 1894 (**syn. nov.**). The present paper does not include the records of the species of the tribe Abrostolini. Eighteen species are recorded for the first time from Ethiopia. Twenty species of the identified taxa are known only from tropical and subtropical Africa, while the areas of ten species extend from Africa to the Arabian Peninsula or even further to the north. Eight species are widespread not only in Africa but also in the Palearctic and Oriental regions. One species—*Autographa gamma*, a well-known Palearctic pest of different vegetables—is found in the Afrotropical region only in Ethiopia, at medium and high mountain elevations but not in the tropical lowlands.

Key words: Noctuidae, Plusiinae, new synonym, Ethiopia, Biogeography, Afrotropical

Introduction

The territory of Ethiopia is a land of extraordinarily diverse ecoregions, comprising: 1) tropical and subtropical moist broad-leaved forests, 2) tropical and subtropical grasslands, savannas, and scrublands, 3) montane grasslands and scrublands and 4) deserts and xeric scrublands (Olson *et al.* 2001). The Ethiopian (Abyssinian) highland, with heights exceeding 2.000 m above sea level (a.s.l.), is covered by grassland and deciduous woodland, while the tropical highland forest occupies the greater part of the country. The mountain ecosystems include a number of endemic ephemeroïd plant and insect species with restricted local ranges, found only at high altitudes (Basilewski 1962). Hedberg (1971; 1975) considered the Ethiopian high mountains as a separate biogeographical unit, differing from the other tropical East-African regions. Moreover, Franz (1979) suggested the existence of two distinct faunas in the Ethiopian mountains with an ecological border between them at 3.000 m a.s.l.

The list of Noctuidae species collected by us at different elevations in the West Shewa region comprises 118 species. The species assemblages differed highly among the collection sites, with only three ubiquitous and polyphagous species found throughout the entire area of research (Kravchenko *et al.* 2007). The list of the subfamily Catocalinae (*sensu stricto*) collected from different Ethiopian mountainous locations comprises 72 species, with 49 of them (68%) being new records for the country (Kravchenko *et al.* 2010).

The Plusiinae is a compact subfamily of the family Noctuidae distributed worldwide with an estimated number of 400 species (Goater *et al.* 2003). The Plusiinae might have first arisen in the south-eastern Palearctic/north-eastern Oriental regions because in this area are currently found the most plesiomorphic plusiine (Kitching 1987). About 160 species of this family are found in Eurasia and North Africa (Ronkay *et al.* 2008, 2010), and 59 species were recorded in India (Shashank & Singh 2014). The larvae of many species are polyphagous with a preference for plants of the family Asteraceae. A few well-known pests of vegetables, like *Autographa gamma* (Linnaeus,