ZooNotes 231: 1-4 (2024)
www.zoonotes.bio.uni-plovdiv.bg
ISSN 1313-9916

DOI:10.69085/zn20240231

One more “Asian” psocid (Insecta: Psocodea) found in Africa?

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Abstract. The study presents new findings of *Peripsocus* cf. *constrictus* Thornton & Wong, 1968, in Uganda, near Buvi village, along the shores of Lake Victoria. Specimens were collected on July 30th, 2022, from a swampy area with bushes, palms, and various hygrophytes. A total of 12 female specimens were collected by beating the vegetation and stored for further analysis. The species *P. constrictus* was previously described based solely on a male specimen from Southeast Asia, so its identification based on females from Africa remains uncertain.

Key words: insect, zoogeography, distribution.

Introduction

Faunistic studies on the psocid fauna (Insecta, Psocodea) of Central Africa are very scarce. Information about this insect group in Uganda was published in the works of Karny (1924), Pearman (1934), Smithers (1960), Mockford (1993), and Georgiev (2023a, b, c, d). A total of 50 species of Psocoptera were known from this region until now. At the same time, other studies by the author (Georgiev 2021a, b, 2022) have shown that many species traditionally considered Asian likely have a circumtropical distribution, or at the very least are Afro-Asian. The intensive transportation of seedlings for plantations, fruits, vegetables, and other similar products across continents, may also have contributed to this type of distribution in some species, while in others, it likely occurred due to natural, non-human-related causes.

In this short article, I report on another species known from Southeast Asia, possibly found on the African continent, *Peripsocus constrictus* Thornton & Wong, 1968. The species is described solely based on male specimens, while the discovery in Africa is of females only. Identification is further complicated by the fact that the genus *Peripsocus* is extremely rich in species (252, according to Johnson *et al.* 2024), distributed across all continents except Antarctica.

Material and Methods

The study was conducted between July 24th and August 1st, 2022, in Buvi village, Wakiso area, near Lake Victoria. The vegetation beating technique was employed for collection, and the specimens were preserved in 96% ethanol. The photos (specimens in glycerin) were taken by a camera Canon PowerShot SX500IS through the eyepiece of a light microscope Optika.

Results and Discussion

During the current study, a species of the genus *Peripsocus* was collected, which did not resemble any of the species known in Africa. Upon reviewing the literature for the Asian

Received: 08.02.2024, Accepted: 10.02.2024, Университетско издателство “Паисий Хилендарски”
Published: 10.02.2024 Plovdiv University Press “Paisii Hilendarski”

region, similarities were found in the coloration of the body, eyes, and wings, as well as their morphology (venation and, more precisely, the shape of the pterostigma), with those described by Thornton & Wong (1968) as *P. constrictus*. It was described from the Brinchang Mountains in Malaya, at an altitude of 1700 m, based solely on a male specimen collected on December 12, 1961. Although the color (cream-yellowish) is typical for many species of this genus, the pattern on the forewings is specific. However, while the discovery in Africa is of females only, so the identification of the specimens remains uncertain.

***Peripsocus* cf. *constrictus* Thornton & Wong, 1968**

Material examined: 30.07.2022, Uganda, near Buvi village, at the shores of Lake Viktoria, N00 07 40.4 E32 27 28.8, 1133 m a. s. l., swampy area with bushes, palms and various hygrophyts (Fig. 1), from dry palm leaves, 12 ♀ (Fig. 2), collected by beating the vegetation.

Remark: These specimens were reported by Georgiev (2023a) as *Peripsocus* sp.

Fig. 1. Habitat view of the locality of *Peripsocus* cf. *constrictus* in Uganda, at the shores of Lake Viktoria.

Description of the female: Coloration: As in the male, described by Thornton & Wong (1968) (Fig. 2A, B, C). Morphology (additional notes to the original description): Epiproct rounded, flattened dorso-ventrally, with long setae (Fig. 2B). Paraprocts smaller, triangular, with rounded apex, with long setae too. Subgenital plate as shown on Fig. 2D, lobe relatively long, with V-shaped arms.

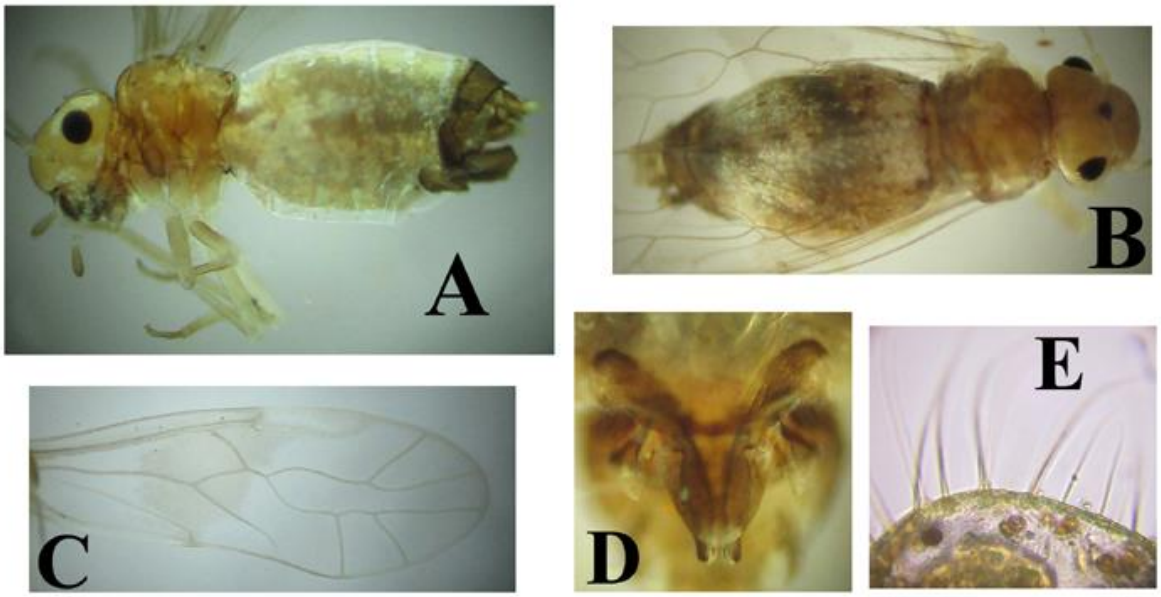

Fig. 2. *Peripsocus* cf. *constrictus* from Africa, female: A – lateral view, B – dorsal view, C – forewing, D – subgenital plate, C – ciliation of the epiproct.

The discovery of *Peripsocus* cf. *constrictus* in Africa, specifically near Buvi village in Uganda, marks a significant addition to the psocid fauna of Central Africa, which has been understudied until now. This finding expands our understanding of the distribution of psocids beyond their traditionally known ranges, highlighting the need for further faunistic studies in the region. The resemblance of the collected specimens to the Asian species described by Thornton & Wong (1968) suggests the possibility of a circumtropical distribution or a recent introduction of this species to Africa.

However, the absence of male specimens in our collection poses a challenge to definitive species identification. Future expeditions should aim to collect male specimens to facilitate accurate taxonomic classification and confirm the identity of *Peripsocus* cf. *constrictus* in Africa. Additionally, molecular techniques such as DNA barcoding could provide valuable insights into the genetic relationships between the African specimens and their Asian counterparts, shedding light on the dispersal mechanisms and evolutionary history of this species.

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