



Redescription of *Argyresthia mirabiella* Toll, 1947 (Lepidoptera: Argyresthiidae)

EDWARD BARANIAK¹ & URSZULA WALCZAK

Department of Systematic Zoology, Faculty of Biology, Adam Mickiewicz University, Umultowska 89, 61-614 Poznań, Poland.

E-mail: baraniak@amu.edu.pl; urszulaw@amu.edu.pl

¹Corresponding author

Moths of the family Argyresthiidae are widely distributed globally, as they include a few cosmopolitan species (Dugdale *et al.* 1999). So far the family has not been the subject of any monograph, and the systematic position of many species is unclear (Agassiz 1996). This applies also to *Argyresthia mirabiella* (Toll, 1947). Its type specimen with the microscopic slide of the female genitalia is deposited in the collection of S. Toll, at the Institute of Systematics and Animal Evolution, Polish Academy of Sciences (Krakow, Poland). Toll's (1947) description of this species is limited to a few lines of text. The female genitalia are described in a few sentences concerning the antrum, ductus bursae, and signum. The drawing is schematic and greatly simplified. That brief description of *A. mirabiella* does not allow its proper identification. Here we provide a more detailed re-description and illustrations based on a re-examination of the type.

Argyresthia mirabiella Toll, 1947

(Figs. 1–2, 5, 6a)

Redescription. Forewing span 12.5 mm. Labial palpus white with slight lustre, scales appressed. Head covered with white and yellow scales, appressed on frons. Antenna with scape and pedicel white; flagellum dark brown, with white band at base of each segment. Thorax white. Forewing elongate, pointed apically, white, slightly lustrous, with pale brown-golden patches, arranged linearly into interrupted bands; costa 2/3 of its length, pale brown-golden; apex pointed, white with a small black spot. Hindwing pale grey.

Female genitalia: Papillae anales small, membranous. Posterior apophyses longer than anterior ones. Antrum membranous, small, strongly sclerotized near entrance of ductus bursae, cup-shaped. Ductus bursae evenly narrow, only slightly dilated near inception of bursa copulatrix. Bursa copulatrix slightly sclerotized only near entrance of ductus bursae. Signum large, strongly sclerotized in middle and proximal portion; markedly less sclerotized in distal, narrower portion.

Type. Holotype: ♀, labelled: “Typus.” [printed red rectangular label]; “Hyrkania, Kuh I Mirabi mont, 2000m. VII.–VIII.” [printed]; “Praeparat No 1300.” [hand-written]; “*Argyresthia mirabiella* Toll.” [hand-written], deposited in the Institute of Systematics and Evolution of Animals, Polish Academy of Sciences (Krakow, Poland).

Type locality. Northeastern Iran, Kuh-i-Mirabi Mts. (mountain range between Mashhad and Neyshabur), 2000 m.

Diagnosis. The external appearance clearly distinguishes this species from the others described so far. *Argyresthia goedartella* (Linnaeus, 1758) is coloured similarly but its wings are more shiny and the bands always well-defined (uninterrupted) (Fig 3). Toll (1947) noted that the signum of *A. mirabiella* is similar to that of *A. pygmaella* (Denis et Schiffermüller, 1775) (Fig 6c) but this statement concerns only the middle portion. The rear portion of the signum of *A. mirabiella* is less sclerotized, visible only with Nomarski illumination at high magnification. The signum of *A. goedartella* (Fig. 6b) is also very different from that of *A. mirabiella*.

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