

## A new *Ethmia* species (Ethmiidae) from Turkmenistan

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**Резюме.** В статье описывается новый вид *Ethmia turkmeniella* sp. n. (Ethmiidae) из горного Туркменистана. Новый вид близок к *E. quadrinotella* (Mann, 1861), отличается от него по строению выростов на гнатосе.

**Summary.** A new species, *Ethmia turkmeniella* sp. n. (Ethmiidae), is described from Turkmenistan. It belongs to the *E. distigmatella* (Erschoff, 1874) species group and differs from the most related species, *E. quadrinotella* (Mann, 1861), by large differences in the gnathos structure.

**Zusammenfassung.** Eine neue Art, *Ethmia turkmeniella* sp. n. (Ethmiidae), wird aus Turkmenistan beschrieben. Sie gehört in die *E. distigmatella* (Erschoff, 1874) Arten-gruppe und unterscheidet sich von der nächst verwandten Art — *E. quadrinotella* (Mann, 1861) — durch einen stark verschiedenen Gnathos.

**Résumé.** Une nouvelle espèce, *Ethmia turkmeniella* sp. n. (Ethmiidae), est décrite en provenance du Turkménistan. Elle appartient au groupe d'espèces de *E. distigmatella* (Erschoff, 1874) et diffère de la plus proche — *E. quadrinotella* (Mann, 1861) — par le gnathos fortement différent.

**Key words:** Ethmiidae, *Ethmia*, *turkmeniella* sp. n., species.

During the identification of Lepidoptera material collected by V. V. Dubatolov on the Kuhitang Mountains (south-eastern Turkmenistan), a new species of the genus *Ethmia* Hübner, [1819], was found: it belongs to the *E. distigmatella* (Erschoff, 1874) species group. A specimen of the same species was sent by A. L. Devjatkin for determination to P. Y. Ustjuzhanin. It was collected on the western Kopet-Dag Mountains. A description of the new species is given below.

### *Ethmia turkmeniella* sp. n.

**MATERIAL.** Holotype ♂. SW Turkmenistan, SW Kopet-Dag Mts., Kara-Kala, 22.VI.1985, leg. A. L. Devjatkin, coll. Siberian Zoological Museum of the Institute



of Animal Systematics and Ecology of the Siberian branch of the Russian Academy of Sciences (formerly Zoological Museum of the Biological Institute), Novosibirsk. Paratypes. ♂ SE Turkmenistan, Kuhitang Mts, 12 km N Charshanga, the junction of the roads to Svintsovyi Rudnik and to Gaurdak, at light, 16.V.1991, leg. V. V. Dubatolov: coll. Siberian Zoological Museum of the Institute of Animal Systematics and Ecology of the Siberian branch of the Russian Academy of Sciences; 4 ♂, Bazar-depe village, 13.V.1991, leg. V. V. Dubatolov: coll. Siberian Zoological Museum of the Institute of Animal Systematics and Ecology of the Siberian branch of the Russian Academy of Sciences.

**DESCRIPTION.** *Male.* Head, thorax, tegulae and antennae set with whitish scales; head bearing well developed frontal crests with a sharp outer edge. Palpae white, long, their first unit with a dense brush of scales. Legs whitish grey. Forewing length holotype 6.75 mm, paratypes 6.5–7.0 mm, wing expanse 14–15 mm. Forewings whitish grey, to some extent darker than hindwings; four contrasting grey spots arranged into two lengthwise rows and 6–7 black dots along the outer margin (fig. 1); fringes of the same colour as the wing ground-colour. Hindwing evenly white, slightly transparent, without spots.

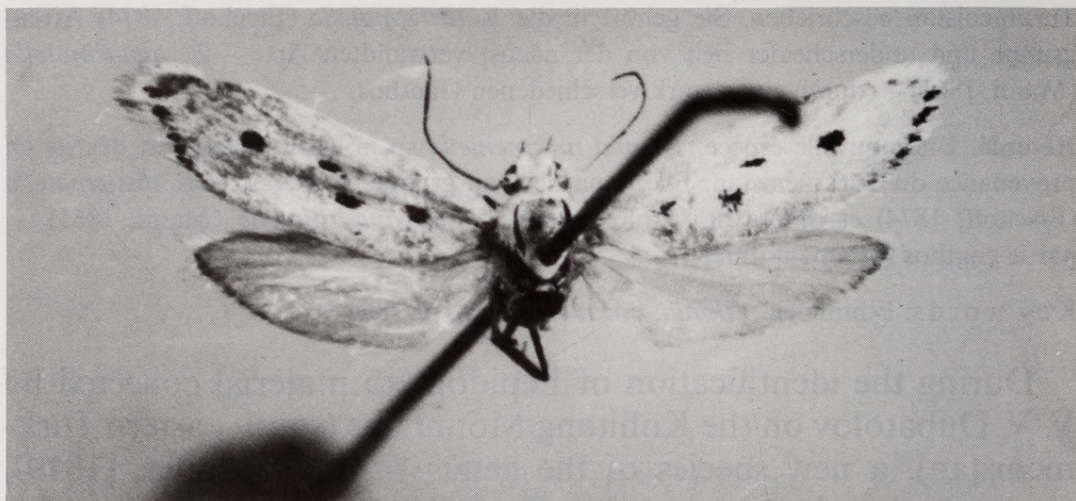


Fig. 1. *Ethmia turkmeniella* sp. n., holotype ♂.

*Female.* Unknown.

*Male genitalia* (fig. 2). Uncus wide, tapering to the apex and split into two acute lobes, each ending with two or three teeth. Distal part of gnathos weakly sclerotized, proximal part represented by two heavily sclerotized tooth-like curved processes.



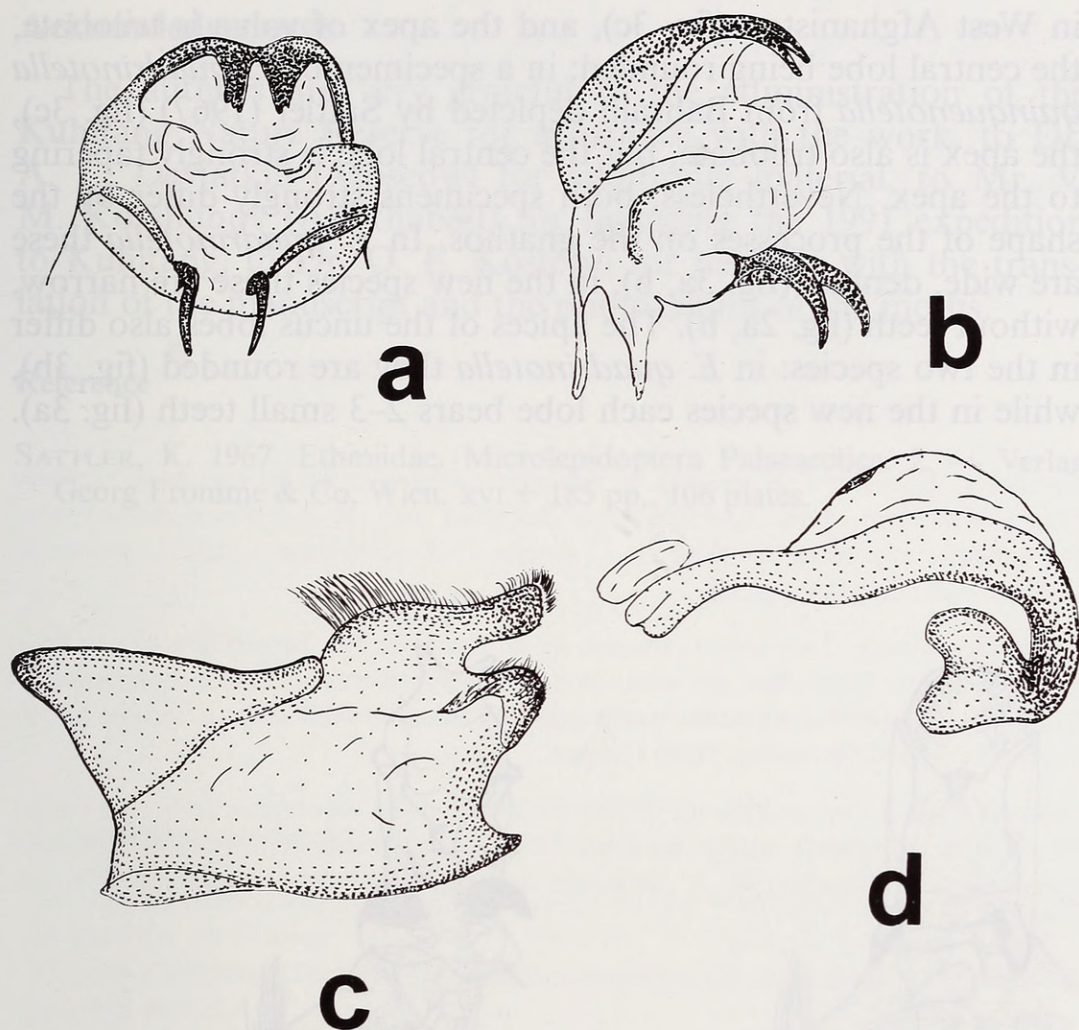


Fig. 2. *Ethmia turkmeniella* sp. n., holotype, male genitalia. a, b — tegumen and gnathos: a. caudal view; b. lateral view; c. valva; d. aedeagus.

Lateral appendages of transtilla (labis) narrow, long, slightly curved to uncus. Valve trilobate apically, with well expressed relatively wide cucullus. Saccus pointed apically. Aedeagus short, curved to half-ring.

**DIAGNOSIS.** By the shape of the valve the new species comes closest to *E. quadrinotella* (Mann, 1861) (fig. 3a), inhabiting the southern and eastern Mediterranean, Western Asia and southern Central Asia, especially to its subspecies *E. quadrinotella quinquenotella* (Chrétien, 1915) (fig. 3b–d), but in the new species the costal process of the valve is quite wide, resembling that in some specimens of *E. quadrinotella quinquenotella* from Herat



in West Afghanistan (fig. 3c), and the apex of valva is trilobate, the central lobe being rounded; in a specimen of *E. quadrinotella quinquenotella* from Bahrain depicted by Sattler (1967) (fig. 3c), the apex is also trilobate, but the central lobe is strongly tapering to the apex. Nevertheless, both specimens strongly differ by the shape of the processes on the gnathos. In *E. quadrinotella* these are wide, dentate (fig. 3a, b), in the new species these are narrow, without teeth (fig. 2a, b). The apices of the uncus lobes also differ in the two species: in *E. quadrinotella* they are rounded (fig. 3b), while in the new species each lobe bears 2–3 small teeth (fig. 3a).

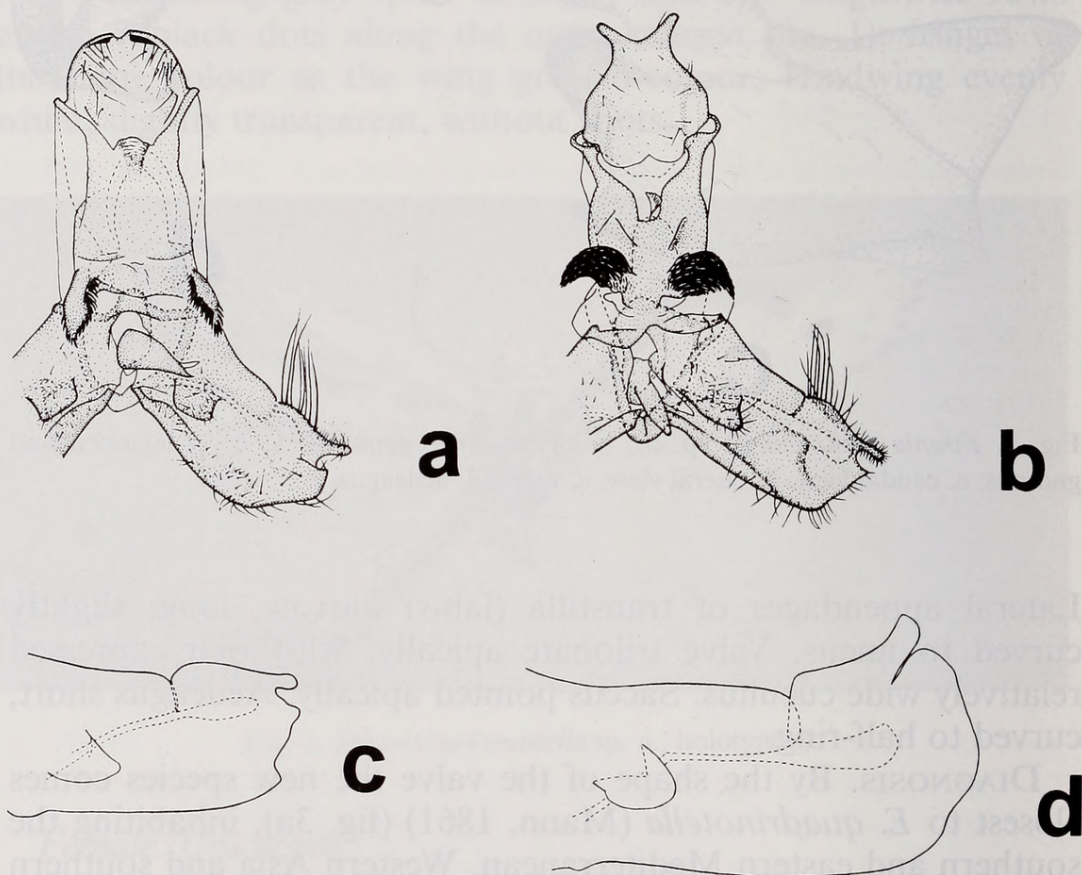


Fig. 3a. *Ethmia quadrinotella quadrinotella* (Mann, 1861) (from Sattler, 1967, plate 21, fig. 3-1), male genitalia; b. *Ethmia quadrinotella quinquenotella* (Chrétien, 1915) (from Sattler, 1967, plate 21, fig. 3a-1); c. valve, Bahrain (from Sattler, 1967, plate 22, fig. 3a-6); d. valve, Herat, W. Afghanistan (from Sattler, 1967, plate 22, fig. 3a-7).



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## Reference

- SATTLER, K. 1967. Ethmiidae. Microlepidoptera Palaearctica. 2. — Verlag Georg Fromme & Co, Wien. xvi + 185 pp., 106 plates.



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