First records of two species of *Tephritis* (Diptera: Tephritidae) from Armenia, with notes on other species of the genus

Находки двух видов рода *Tephritis* (Diptera: Tephritidae) в Армении с заметками о других видах рода

D.A. Evstigneev & N.S. Boyko

**Abstract.** *Tephritis ruralis* (Loew, 1844) and *T. sahandi* Mohamadzade, Korneyev et Khaghaninia, 2011 are recorded from Armenia for the first time. The morphological details of five species of *Tephritis* Latreille, 1804 [*T. arailer* Evstigneev, 2020, *T. conarailer* Evstigneev, 2020, *T. ruralis*, *T. sahandi*, and *T. truncata* (Loew, 1844)] are illustrated in colour photos. It is shown that some Armenian specimens of *T. ruralis* have two hyaline spots in the pterostigma (as does *T. truncata*), unlike the European specimens of *T. ruralis*. The glans of the phallus of *T. truncata* is illustrated for the first time. *Scorzonera rigida* Auch. ex DC. is recorded for the first time as a host plant of *T. arailer*.


**Key words:** Armenia, Russia, host plants, diagnostic characters, Tephritidae, *Tephritis*, new records

**Ключевые слова:** Армения, Россия, кормовые растения, диагностические признаки, Tephritidae, *Tephritis*, новые находки

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This paper continues the series of publications on the tephritid fauna in the Caucasus and Transcaucasia (Evstigneev & S. Korneyev, 2018; S. Korneyev & Evstigneev, 2019; Evstigneev, 2020a, 2020b, 2022, 2023; Evstigneev & Glukhova, 2020, 2021, 2022; Evstigneev & Przhiboro, 2021). During studies on the tephritid fauna of Armenia, two species of *Tephritis* Latreille, 1804 previously unknown from this country were discovered, namely *T. ruralis* (Loew, 1844) and *T. sahandi* Mohamadzade, Korneyev et Khaghaninia, 2011. In addition, we illustrate and discuss...
the morphological details of these and three other species of *Tephritis* (*T. araileri* Evstigneev, 2020, *T. conaraileri* Evstigneev, 2020 and *T. truncata* (Loew, 1844)], and provide the new data on host plants of *Tephritis*.

Figs 1–12. *Tephritis araileri* Evstigneev, 2020 (1–6) and *T. conaraileri* Evstigneev, 2020 (7–12). 1, female wing; 2, male wing; 3, glans of phallus; 4, spermatheca; 5, aculeus; 6, apex of aculeus; 7, female wing; 8, male wing; 9, glans of phallus; 10, spermatheca; 11, aculeus; 12, aculeus tip. Female reared from *Scorzonera rigida* (1, 4–6); male reared from *S. latifolia* (2, 3); female reared from *S. latifolia* (7, 10–12); male reared from *S. latifolia* (8, 9).

The material was collected in 2018–2022 by the first author and stored in his private collection. The methods generally follow Evstigneev & Glukhova (2020), Evstigneev (2021), and Evstigneev & Przhiboro (2021).
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Material examined. Armenia, Vayots Dzor Prov., nr. Martiros Vill., mountain steppe, 1 female reared on 31.VII.2022 from capitulum of Scorzonera rigida collected on 23.VII.2022; Aragatsotn Prov.: Mt. Ara (= Arailer), mountain side facing Egward Town, mountain meadow, 1 female reared on 1.VIII.2018 from capitulum of Scorzonera latifolia collected on 31.VII.2018; same locality and habitat, 6 females and 4 males reared on 17–21.VIII.2018 from capitula of S. latifolia collected on 24–31.VII.2018; Mt. Ara, nr. Tsaghkevank Monastery, mountain meadow, 11 fe-

**Tephritis arailer** Evstigneev, 2020
(Figs 1–6)

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Figs 13–25. *Tephritis ruralis* (Loew, 1844). 13, female habitus (lateral view); 14, female abdomen (dorsal view); 15, 16, female wing; 17, male wing; 18, 19, glans of phallus; 20, female head (dorsal view); 21, aculeus; 22, 23, aculeus tip; 24, 25, spermathecae. Female from Ul’yanovsk Province, European Russia (13, 15, 23, 24); male from the same province (18); female from Armenia (14, 16, 20–22, 25); male from Armenia (17, 19).

**Comments.** *Scorzonera rigida* Auch. ex DC. is recorded for the first time as a host plant of *T. araileri*. Previously, *S. latifolia* (Fisch. et C.A. Mey.) DC. was recorded as a host plant of this species (Evstigneev, 2020b). Both host plants grow together near the village of Martiros. Larvae develop in capitula of *S. latifolia* along with *T. conaraileri* (see below).

*Tephritis araileri* differs from *T. conaraileri* in minor details of the wing pattern (small spot in anal lobe in *T. araileri* and distinct spot in the shape of a ring or semi-ring in *T. conaraileri*) and the shape of apex of the aculeus (apex of the aculeus with distinct steps in *T. araileri* and without steps in *T. conaraileri*). Thus, two species display small differences in wing markings and strong differences in the shape of the female genitalia. The shape of the aculeus is a major distinguishing character between the two species.

**Distribution.** Armenia: Aragatsotn Province (Evstigneev, 2020b) and Vayots Dzor Province (this paper).

*Tephritis conaraileri* Evstigneev, 2020 (Figs 7–12)


*Tephritis ruralis* (Loew, 1844) (Figs 13–25)


**Comments.** This species is recorded from Armenia for the first time. Larvae of *T. ruralis* develop in capitula of the genus *Pilosella*: *P. officinarum* FW. Schultz et Sch. Bip. (as *Hieracium pilosella* L.) (Hendel, 1927; Mihályi, 1960; White, 1988; Merz, 1994; Baugnée, 2006; Evstigneev, 2016) and *P. lactuella* (Wallr.) P.D. Sell et C. West (as *Hieracium lactuella* Wallr.) (Merz, 1994).

Some Armenian specimens of *T. ruralis* have two hyaline spots in the pterostigma (Fig. 16), as does *T. truncata* (Loew, 1844) (see below). The specimens of *T. ruralis* from European Russia...
(Ul’yanovsk Province) display a classic wing pattern (Figs 13, 15).

**Distribution.** Armenia (new record), Georgia (Korneyev, 2016), Russia (Rozkov, 1956; Stackelberg, 1958), Ukraine (Korneyev, 1985), throughout Europe (Merz, 1994). Korneyev (2016) reported this species from Iran, but it was not listed in the checklist of tephritid flies of Iran published later (Mohamadzade Namin & Korneyev, 2018).

**Tephritis sahandi** Mohamadzade, Korneyev et Khaghaninia, 2011
(Figs 26–31)

**Material examined.** Armenia: Gegharkunik Prov., Geghovit Vill., 2 males reared on VII.2021 from capitula of *Tanacetum* sp. collected on 25.VII.2021; Vayots Dzor Prov., nr. Martiros Vill., 1 female and 1 male reared on 21–23.VII.2022 from capitula of *Tanacetum* sp. collected on 9.VII.2022.

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Figs 32–40. *Tephritis truncata* (Loew, 1844). 32, female wing; 33, male habitus (lateral view); 34, female abdomen (dorsal view, in glycerin solution); 35, male abdomen (dorsal view, in glycerin solution); 36, spermatheca; 37, aculeus; 38, medium and distal parts of aculeus; 39, aculeus tip; 40, glans of phallus.
Comment. Previously T. sahandi was not recorded from Armenia, but it was known from bordering Iran.

Distribution. Iran (Khaghaninia et al., 2011; Korneyev, 2016), Armenia (new record).

Tephritis truncata (Loew, 1844) (Figs 32–40)


Comment. The glans of the phallus of T. truncata (Fig. 40) is illustrated for the first time.

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