J. Insect Biodivers. Syst. 11 (1), 227–237 *https://jibs.modares.ac.ir*

OPEN ACCESS

Tarbiat Modares University Press | Research Article | https://doi.org/10.61186/jibs.11.1.227 | **ISSN**: 2423-8112
Entomological Society of Iran | Taxonomy | *https://zoobank.org/urn:lsid:zoobank.org:F6E94849-D42F-484E-847D-D4551C614B57*

A new species of the genus *Solieria* Robineau-Desvoidy (Diptera: Tachinidae) from Iran

Ebrahim Gilasian
Insect Taxonomy Research Department, Iranian Research Institute of Plant Protection (IRIPP), Agricultural Research, Education and Extension Organization (AREEO), Tehran, 19395-1454, Iran.
✉ *gilasian@iripp.ir* *https://orcid.org/0000-0002-8760-870X*

Joachim Ziegler
Museum of Natural History, Leibniz Institute for Research on Evolution and Biodiversity, Invalidenstraße 43, 10115 Berlin, Germany.
✉ *joachim.ziegler@mfn.berlin* *https://orcid.org/0000-0002-9376-2375*

Received: *September 24, 2024*

Accepted: *November 01, 2024*

Published: *January 01, 2025*

Subject Editor: *Paul Beuk*

ABSTRACT. The discovery of the Holarctic tachinid genus *Solieria* Robineau-Desvoidy, 1849, in Iran led to the identification of a new species to science, which is described here as *Solieria variabilis* **sp. nov.** It can be separated from other related species by the absence of discal setae on abdominal tergites, lack of proclinate and latero-reclinate orbital setae in the male, the width of frons, and by colouration and microtrichosity of abdomen. The comparison of the morphological characters of *S. variabilis* **sp. nov.** with its close relatives *S. fenestrata* (Meigen, 1824) and *S. pacifica* (Meigen, 1824) is provided. Photographic images of the habitus and head as well as illustrations of terminalia are given.

Keywords: Fauna, Leskiini, parasitoid, new record, Tachininae, taxonomy

Citation: Gilasian, E. & Ziegler, J. (2025) A new species of the genus *Solieria* Robineau-Desvoidy (Diptera: Tachinidae) from Iran. *Journal of Insect Biodiversity and Systematics*, 11 (1), 227–237.

INTRODUCTION

The genus *Solieria* Robineau-Desvoidy, 1849 (Tachinidae) consists of 13 described species across the Palaearctic and Nearctic regions and belongs to the tribe Leskiini (Tachininae) (O'Hara et al., 2020). The tribe Leskiini is distinguished from other tribes by the following combination of characters: genal dilation present, parafacial bare, scutum with four longitudinal black vittae, postpronotum with 2–3 setae, lateral scutellar setae absent, subapical scutellar setae not convergent, and preapical postero-ventral seta on hind tibia distinctly shorter than preapical anteroventral seta. *Solieria* species are predominantly parasitoids of the larval stages of smaller Lepidoptera such as Pyralidae, Sesiidae and Tortricidae, but some genera have evolved into very specific parasitoids of Coleoptera, Embioptera and Orthoptera (Tschorsnig, 2017). Mesnil (1973) studied the Palaearctic species of *Solieria* and defined two subgenera, *Anthoica* Rondani and *Solieria*. He wrote a key to its five known species in the region including *S. ruficrus* Robineau-Desvoidy, 1830 which is known today as a synonym of *S. pacifica* (Meigen, 1824). Two further species were later described by Richter (1975, 1980) from the East Palaearctic region. In their review of the central European fauna of Tachinidae, Tschorsnig & Herting (1994) provided an identification key to five *Solieria* species and presented data about the host species.

This study is a part of our ongoing surveys on the fauna of the family Tachinidae in Iran and aims to improve the existing knowledge of the taxonomy of this family in the Palaearctic region.

MATERIAL AND METHODS

The specimens were collected using both insect net and Malaise trap in northern, western and southwestern Iran (Fig. 1). In order to properly recover the Malaise-trapped material from ethanol, we

Corresponding author: Ebrahim Gilasian, ✉ *gilasian@iripp.ir*

followed the AXA method proposed by van Achterberg (2009). For the photographs of the living specimens a Canon® camera EOS 500D, a Canon® macro lens EF 100 mm, and a Canon® macro ring lite MR-14EX were used. Leica® stereomicroscope MZ 12.5, equipped with a drawing tube, was used for preparing the drawings of male terminalia. Inked drawings were edited using Adobe® Photoshop CS2. The photographs of museum specimens were taken with a Stonemaster StackUnit equipped with an Olympus® OM-D digital camera, and the serial images were stacked using Helicon Focus® 7.6.4. The specimens were deposited in the Hayk Mirzayans Insect Museum (HMIM), Insect Taxonomy Research Department, Iranian Research Institute of Plant Protection, Tehran, Iran and in the Museum of Natural History Berlin (ZMHB), Leibniz Institute for Research on Evolution and Biodiversity, Berlin, Germany and also in the private collection of Joachim Ziegler (CZB), Bernau, Germany.

Measurements and ratios were calculated as proposed by Tschorsnig & Herting (1994) and Tschorsnig & Richter (1998). Statements given in square brackets in the description refer to paratypes. Overall lengths of specimens (in mm) were measured in lateral view from the anterior margin of the head, excluding the antenna, to the tip of the abdomen. The label data of the holotype is given verbatim, with a forward slash separating different lines, a double forward slash separating different labels and descriptive label information included in square brackets. The morphological terminology used in this paper follows Merz & Haenni (2000) (most external morphology), Stuckenberg (1999) (antenna), Sinclair (2000) (male terminalia) and Tschorsnig & Richter (1998) (wing).

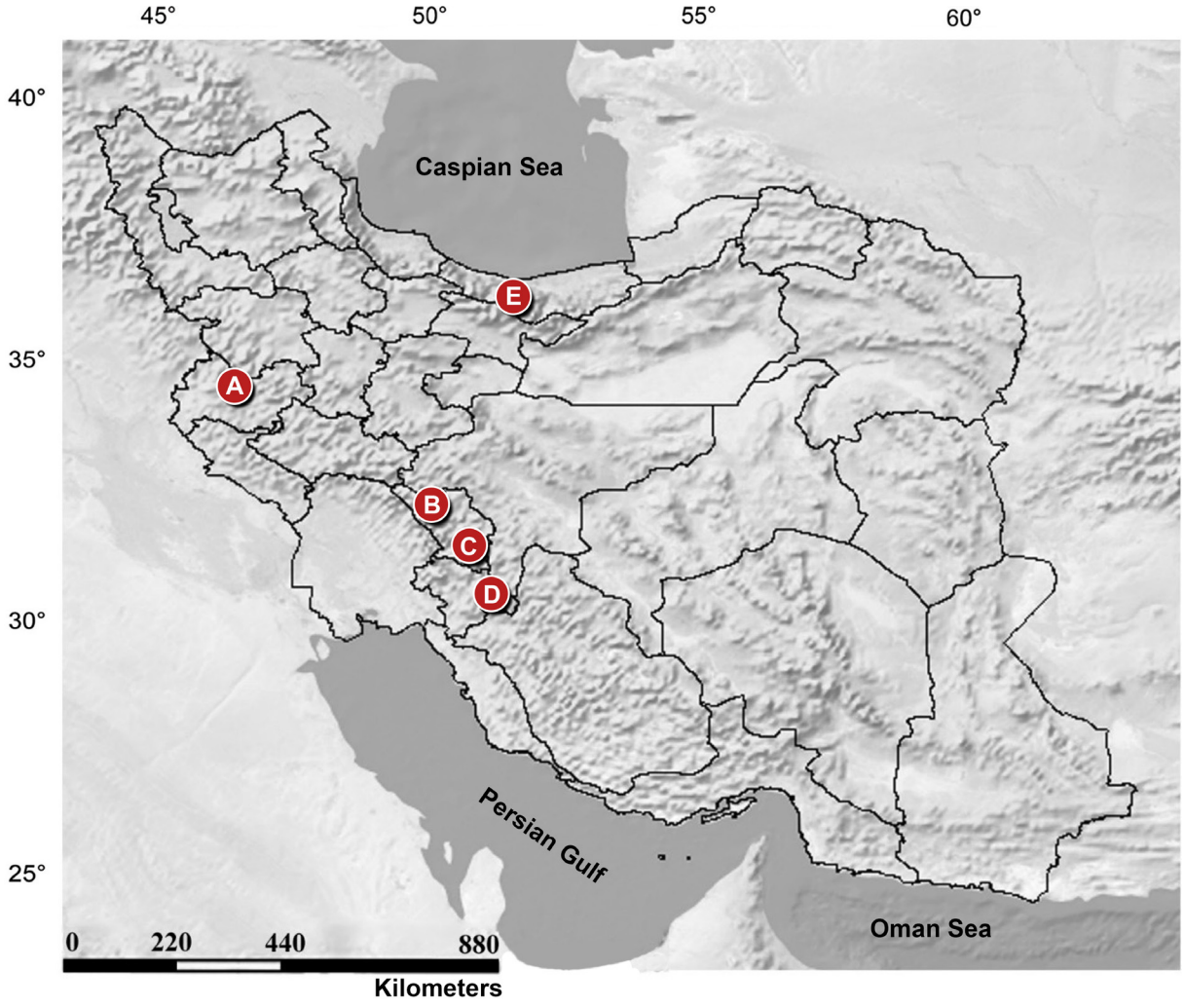

Figure 1. Distribution of *Solieria variabilis* **sp. nov.** in Iran. **A.** Gheshlagh; **B.** Guganak; **C.** Sabz Kuh; **D.** Dena; **E.** Kandovan.

RESULTS

Taxonomic hierarchy

Class Insecta Linnaeus, 1758

Order Diptera Linnaeus, 1758

Suborder Brachycera Zetterstedt, 1842

Superfamily Oestroidea Leach, 1815

Family Tachinidae Robineau-Desvoidy, 1830

Subfamily Tachininae Robineau-Desvoidy, 1830

Tribe Leskiini Townsend, 1919

Genus *Solieria* Robineau-Desvoidy, 1849

Solieria Robineau-Desvoidy, 1849:461. Type species: *Tachina inanis* Fallén, 1810, by subsequent designation of Coquillett (1910:606), see O'Hara & Wood (2004:264) and Evenhuis et al. (2010:150). [For synonyms see O'Hara et al. (2020:696).]

Diagnosis. Pedicel, tegula, legs and abdomen more or less yellowish-orange; eye bare; ocellar setae well developed; upper 1/3 of back of head with 1–4 rows of black setulae behind postocular row; lower facial margin visible in lateral view; antenna longer than height of gena; prosternum bare; scutum with 2 pairs of presutural dorsocentral and 3 pairs of postsutural intra-alar setae; katepisternum with 3 setae; lateral scutellar setae absent; vein R_1 bare; second costal section with short setulae ventrally; preapical anterodorsal seta on fore tibia shorter than preapical dorsal seta; mid tibia with 1 anterodorsal seta; preapical posteroventral seta on hind tibia distinctly shorter than preapical anteroventral seta; middorsal depression of syntergite 1+2 not extending to posterior margin of that segment.

***Solieria variabilis* Gilasian & Ziegler sp. nov.** (Figs 2, 3, 4A)
https://zoobank.org/urn:lsid:zoobank.org:act:E5B22DDD-0109-4F18-A200-B85B360969BA

Type material. **Holotype** ♂ (pinned) "IRAN: Mazanderan Province / Kandovan (Kuhha-ye Alborz) / north of Tehran / 36°10'20.8''N 051°18'55.8''E / 25.VII.2005 2570 m / legit Joachim Ziegler // 28.851" [white labels]; "HOLOTYPUS ♂ / *Solieria variabilis* / Gilasian & Ziegler 2024" [red label]; collected on flowers of *Mentha longifolia* var. *asiatica* (Boriss.) Rech.fil. (Lamiaceae) [ZMHB]. **Paratypes:** 3 ♂♂ (pinned) [coll. nos. 28.850, 28.852–853], same data as holotype [HMIM, ZMHB]; 1 ♀ [photographed (see Fig. 4A) and pinned, coll. no. 28.835]; same data as holotype except 24.VII.2005 [ZMHB]; 1 ♂ (pinned) [coll. no. 26.877] Iran, Kohgiluyeh & Boyer-Ahmad Province, Dena Protected Region, northeast of Si Sakht (Kuh-e Dihar), northwest of Yasuj, 30°53'15.4''N 051°30'42.2''E, 08.VII.2004, 3200 m, on flowers of *Euphorbia heteradenia* Jaub. & Spach (Euphorbiaceae), leg. J. Ziegler [ZMHB]; 3 ♂♂ (pinned) [coll. nos. 26.634–636] Iran, Chaharmahal & Bakhtiari Province, Guganak, northwest of Shahr-e Kord, 32°33'10.8''N 050°19'54.6''E, 03.VII.2004, 2200 m, on flowers of *Euphorbia* spec. (Euphorbiaceae), leg. J. Ziegler [HMIM, ZMHB]; 1 ♂ (pinned) Iran, Chaharmahal & Bakhtiari Province, Chelgerd, Guganak, 02.VII.2004, 2200 m, leg. E. Gilasian [HMIM]; 1 ♂ [coll. no. 26.772] Iran, Chaharmahal & Bakhtiari Province, Sabz Kuh Protected Area (Kuh-e Kalur), southeast of Naghan, south of Shahr-e Kord, Valley, 31°46'22.2''N 050°58'56.9''E, 05.VII.2004, 2550 m, on flowers of *Rhabdosciadium aucheri* Boiss. (Apiaceae), leg. J. Ziegler [ZMHB]; 2 ♂♂ 2 ♀♀ (glued to a card point) Iran, Kermanshah Province: Gheshlagh, 1544 m, 34°40'17''N 047°06'41''E, 01.VII. 2015, Malaise trap, M. Zardouei [HMIM, CZB].

Etymology. The name "*variabilis*" (Latin, adjective, nominative singular feminine) means "variable" and refers to the colouration of palpi, scutellum, abdomen and legs which varies within this species in many different degrees between dark and yellowish.

Diagnosis. Frons in male at its narrowest point 0.84–0.98 and in female 1.07–1.23 times as wide as an eye in dorsal view respectively; fronto-orbital plate in male without proclinate and latero-reclinate orbital setae; palpus varied from basal brownish-yellow and apical dark brown to fully brown; fore claw long, about 1.00–1.30 times as long as tarsomere 5; abdomen without discal setae, with a pale and indistinct dorsal longitudinal vitta; dorsolateral portions of syntergite 1+2 and tergite 3 mostly yellowish-orange, but sometimes more or less darkened up to completely black.

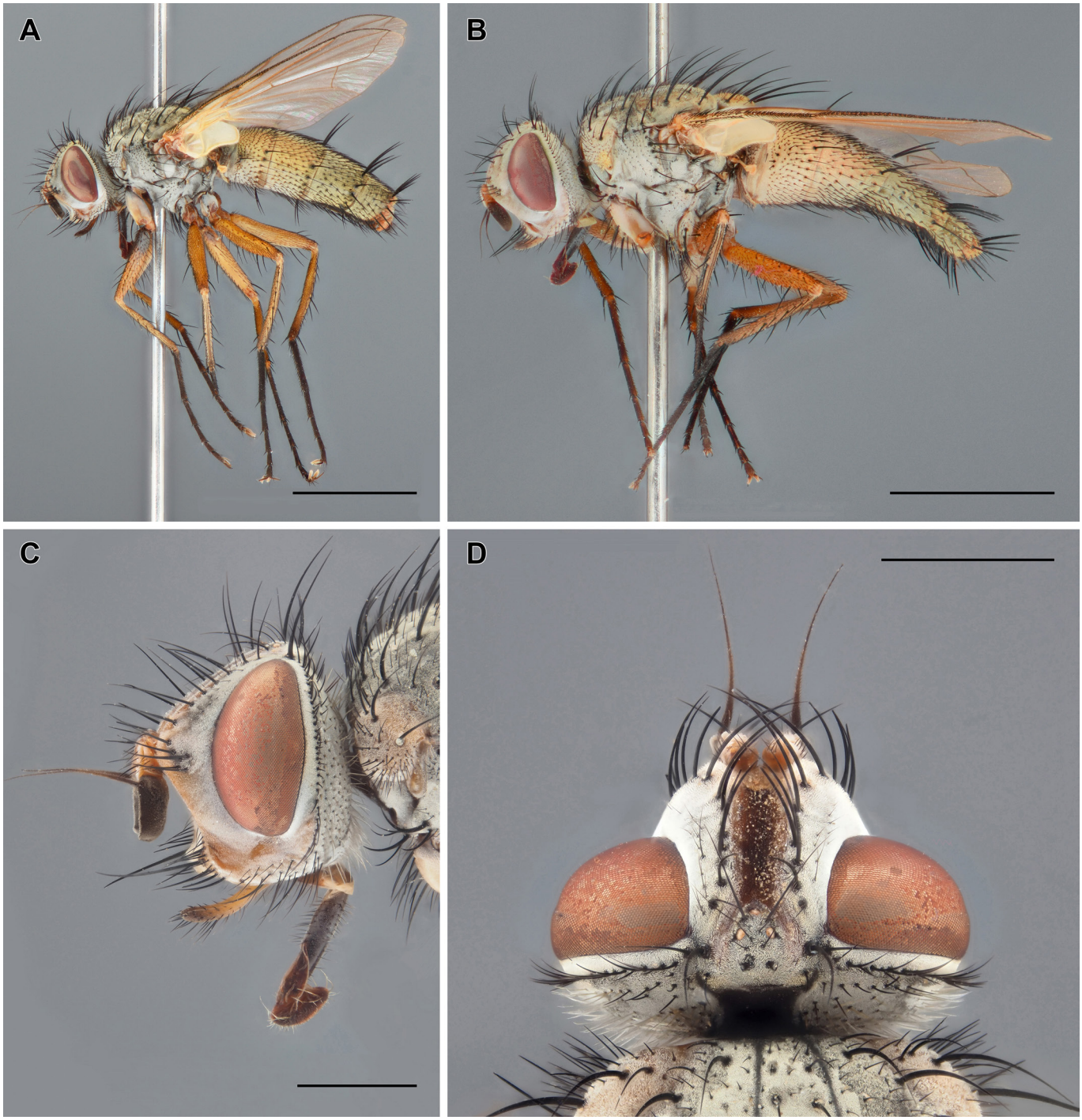

Figure 2. *Solieria variabilis* **sp. nov., A.** Male, habitus (holotype); **B.** Female, habitus (paratype); **C–D.** Male, head (paratype); **C.** Lateral view; **D.** Dorsal view. Scale: habitus: 3 mm; head: 1 mm.

Description. — **Male** (holotype) (Fig. 2A). Statements given in square brackets refer to the variation found among the paratypes. Overall length: 8.6 [6.8–8.8] mm.

Colouration and microtrichosity. Head predominantly brown; genal dilation with black setulae; frontal vitta brown; lunule and facial ridge brownish-orange; face, gena, parafacial, fronto-orbital plate and occiput covered with grey microtrichosity; upper 1/3 of back of head with 2[1–4] often irregular rows of black setulae; posteroventral setulae of occiput pale; scape and dorsal portion of pedicel brownish-orange [pedicel rarely entirely brown], other parts of antenna blackish brown; prementum blackish-brown; palpus dark brown in apical half and brownish-yellow basally [dark brown part varies greatly

between apical third to full length]; thorax black, predominantly covered with grey microtrichosity, scutum before median suture with 2 lateral semi-triangular and 2 median narrow longitudinal black vittae extending to postalar callus laterally and to first postsutural dorsocentral setae medially (strictly dorsal view); scutellum black with orange apical half [varies from fully black to orange with basal black margin], covered with grey microtrichosity (in dorsal view); wing hyaline; calypter white; tegula and basicosta yellowish-orange; halter yellowish-orange; legs predominantly orange, tarsi black, mid and hind femora entirely orange [sometimes ventral 1/5 of mid and hind femora black], fore femur orange, posterolateral basal third black [varies from black with small yellowish apical anterolateral area to dominant yellow with at least a small black posterolateral basal area]; abdomen entirely covered with grey microtrichosity, with a pale and indistinct dorsal longitudinal vitta; dorsolateral portions of syntergite 1+2 and tergite 3 yellowish-orange [sometimes reduced or entirely black]; tergite 5 black with an orange apical margin [rarely fully black]; terminalia brown, syncercus dark brown.

Head (Figs 2C–D). Eye bare; height of gena in lateral view about 0.28 [0.20–0.30] times as long as vertical diameter of eye; face 0.95 [0.90–1.00] times as long as frons in lateral view; frons at its narrowest point 0.86 [0.84–0.98] times as wide as an eye in dorsal view; frontal vitta medially almost 0.85 [0.80–1.00] times as wide as fronto-orbital plate; medial vertical seta nearly 0.62 [0.55–0.75] times as long as vertical diameter of eye; lateral vertical seta present, about 0.65 [0.55–0.65] times as long as medial vertical setae; ocellar setae proclinate [or latero-proclinate]; postocellar setae parallel, 0.90 [0.80–0.90] times as long as ocellar setae; occiput convex; frons with 10 [10–14] frontal setae descending to base of postpedicel; facial ridge bare, parafacial bare; fronto-orbital plate with a few scattered setulae outside of frontal setae, without proclinate orbital setae and without latero-reclinate orbital seta; fronto-orbital plate at level of scape nearly 0.50 [0.40–0.60] times as wide as transverse diameter of eye; parafacial at its narrowest point almost 0.28 [0.22–0.33] times as wide as transverse eye diameter and 0.90 [0.60–1.00] times as wide as postpedicel in lateral view; vibrissa arising at level of lower facial margin and 0.80 [0.65–0.85] times as long as face; lower facial margin visible in lateral view; postpedicel about 2.00 [1.60–2.60] times as long as pedicel and about 2.10 [1.80–2.90] times as long as wide; arista thickened almost on basal 1/4 [1/5–1/3], first and second aristomeres short, as long as wide; prementum short, about 3.9 [3.0–4.0] times as long as wide; palpus 1.1 [1.0–1.3] times as long as prementum, sub-cylindrical, apically only slightly widened.

Thorax. Prosternum and proepisternum bare; postpronotum with 3 setae, inner seta weaker; scutum with 2+1 acrostichal, anterior small [usually 1+1 acrostichal], 2+3 dorsocentral, 1+3 intra-alar, 2 notopleural, and 3 supra-alar setae; first postsutural supra-alar seta long, nearly as long as posterior notopleural seta; postalar callus with 2 setae; anatergite bare below lower calypter; katepimeron bare; katepisternum with 3 (2+1) setae; one anepimeral seta, well differentiated from adjacent setulae; postmetacoxal area membranous; scutellum with 2 pairs of marginal setae, subapical setae long and divergent, 1.2 [1.0–1.3] times as long as basal setae, apical and lateral marginal setae absent.

Wing. Second costal section with short setulae ventrally; costal seta not differentiated from other costal setae; third costal section almost 1.70 [1.70–2.10] times as long as fourth costal section; fourth costal section (between veins R_{2+3} and R_{4+5}) about 1.90 [1.40–2.70] times as long as second costal section (between subcostal break and vein R_1) and 3.20 [2.30–3.30] times as long as sixth costal section; vein R_{4+5} with 2–3 [2–4] basal setulae dorsally and with 2–3 [2–4] basal setulae ventrally; cell r_{4+5} open; section of vein M between crossveins r-m and dm-cu about 2.00 [1.80–2.40] times as long as section between dm-cu and bend of M; bend of M forming an obtuse angle without appendix; crossvein dm-cu nearly 4 times as long as crossvein r-m.

Legs. Fore leg: coxa bare on anterior and posterior surfaces; tibia with 2 long posterior setae and with a row of short anterodorsal and a few posterodorsal setae; preapical anterodorsal seta much shorter than very long preapical dorsal seta, preapical posterodorsal seta very short [or indistinct]; tarsomere 1 nearly 1.80 times as long as tarsomere 2 and 0.60 times as long as tibia; claw long, about 1.25 [1.00–1.30] times as long as tarsomere 5. Mid leg: tibia with 1 anterodorsal, 2 posterior and 1 ventral setae. Hind leg: tibia with a nearly complete row of irregular anterodorsal, 3–4 posterodorsal, 2–3 anteroventral and 2 distinct preapical dorsal setae, one strong seta each in size of preapical dorsal setae in the middle of anterodorsal and posterodorsal rows.

Abdomen. Middorsal depression of syntergite 1+2 not extending to posterior margin of that segment; syntergite 1+2 with 1 pair of median marginal, 2–3 pairs of lateral marginal and 2–4 pairs of lateral discal setae; tergite 3 with 1 pair of median marginal and 1–4 pairs of lateral marginal setae; tergite 3 nearly 0.65 [0.60–0.70] times as long as wide; tergites 4–5 each with a complete row of marginal setae; tergite 5 nearly 0.70 [0.60–0.75] times as long as tergite 4.

Terminalia (Fig. 3)**.** Sternite 5 nearly as long as wide, with a deep median V-shaped depression posteriorly, each lobe with one tooth (Fig. 3E); syncercus and surstylus as in Figures 3A–B, surstylus curved inwards in a hook shape; pregonite hook shaped, without setulae (Fig. 3C); postgonite rudimentary, tiny; aedeagus with an epiphallus dorsobasally (Fig. 3D).

Female (Figs 2B, 4A)**.** Body length 6.1–9.2 mm. Differs from male as follows: mid and hind femora almost entirely orange; frons at its narrowest point 1.07–1.23 times as wide as an eye in dorsal view; frontal vitta medially almost 0.6 times as wide as fronto-orbital plate; frons with 7–10 frontal setae; fronto-orbital plate with 1 upper latero-reclinate and two proclinate orbital setae.

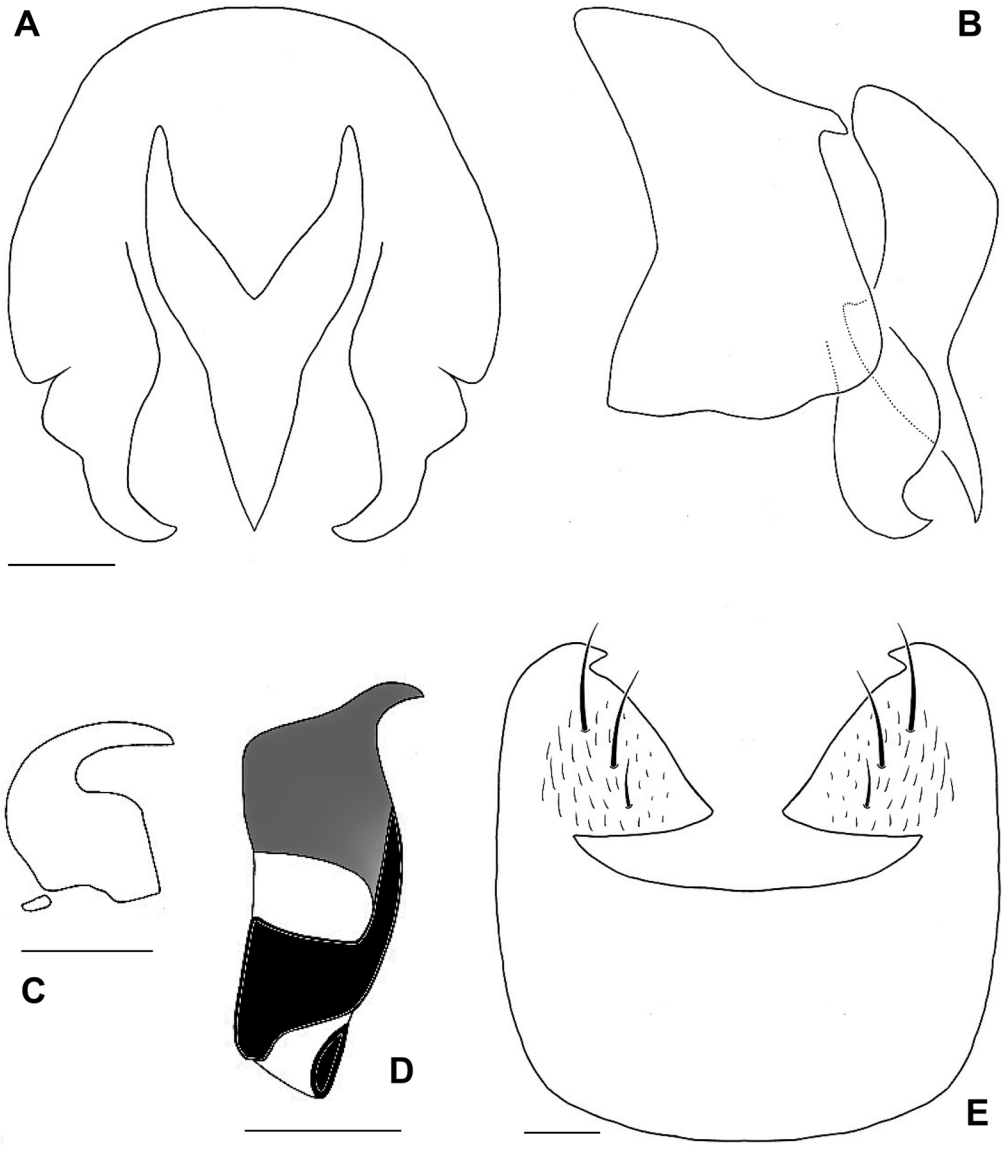

Figure 3. *Solieria variabilis* **sp. nov.**, male terminalia; paratype; **A.** Epandrium, surstylus and syncercus, dorsal view; **B.** Epandrium, surstylus and syncercus, lateral view; **C.** Pregonite; **D.** Aedeagus; **E.** Sternite 5. Scale: 0.05 mm.

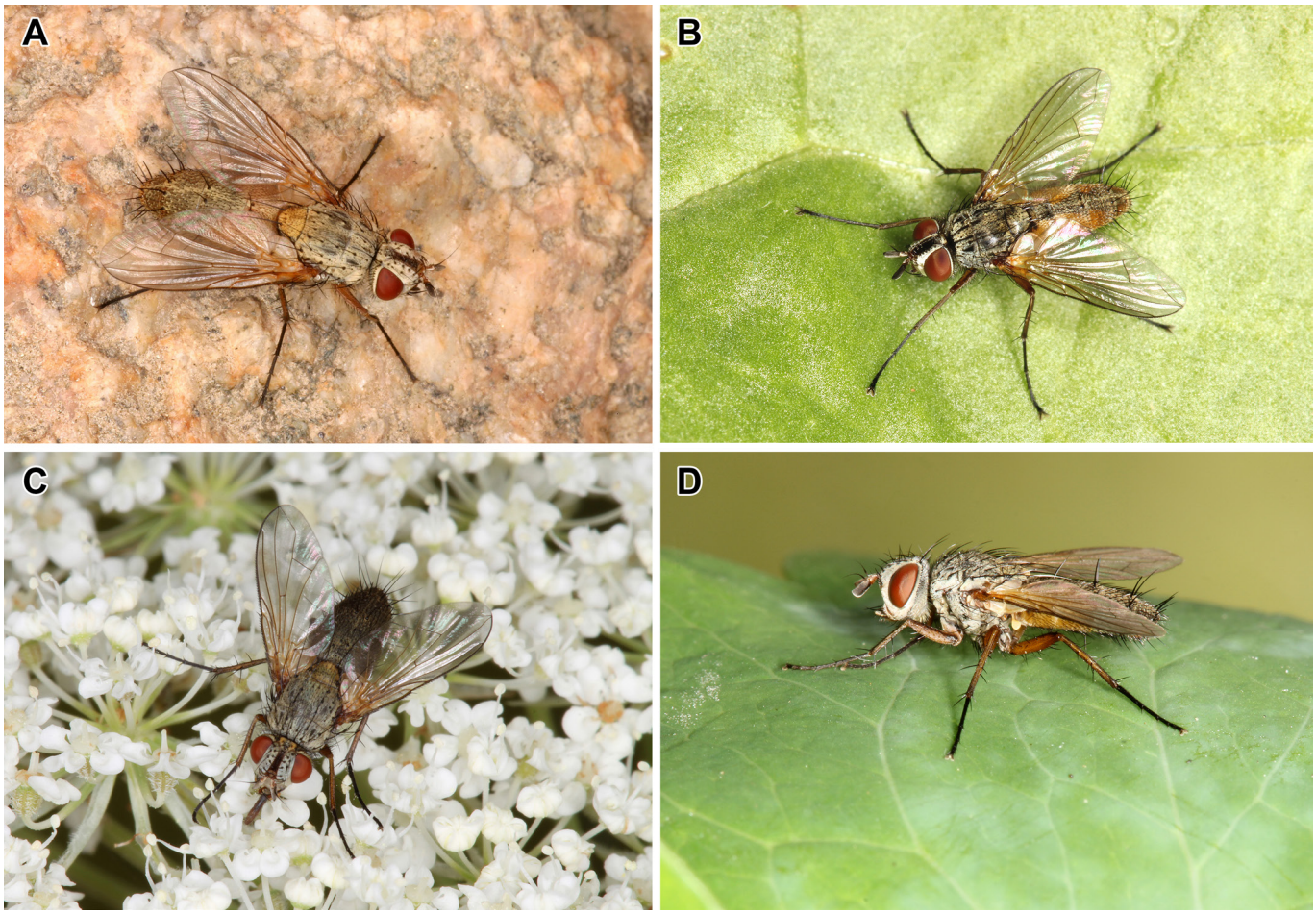

Figure 4. *Solieria* spp. **A.** *S. variabilis* **sp. nov.** female; **B.** *S. fenestrata* (Meigen, 1824), male; **C.** *S. pacifica* (Meigen, 1824), female; **D.** *S. pacifica*, male.

Remarks. We studied the catalogue of O'Hara & Wood (2004) and the descriptions of the species with Nearctic distributions (Bigot, 1889; Coquillett, 1895, 1897, 1910; Townsend, 1908; Reinhard, 1967) and found no species identical with *Solieria variabilis* **sp. nov.**. The males of *Solieria variabilis* **sp. nov.** have a body length of 6.8–8.8 mm and are larger on average than those of other Palaearctic species. Males of *S. borealis*, *S. pacifica* and *S. vacua* differ from males of *Solieria variabilis* **sp. nov.** by their fronto-orbital plate with proclinate and latero-reclinate orbital setae. The new species resembles *S. aureola*, *S. fenestrata, S. inanis*, *S. munda* and *S. murina* in the lack of such orbital setae (Figs 2C–D). The frons of *S. variabilis* **sp. nov.** at its narrowest point in the male is 0.84–0.98 times as wide as an eye in dorsal view (Fig. 2D) and therefore is much wider than in males of *S. aureola*, *S. inanis, S. munda* and *S. murina* with frons 0.3–0.6 times as wide as an eye. *Solieria variabilis* **sp. nov.** is most similar to *S. fenestrata* in morphological characters and structure of the male terminalia (Fig. 5A). Since the two species *S. fenestrata* and *S. pacifica* have also been found in the Middle East (Table 1), their differences to *S. variabilis* **sp. nov.** is described here in more detail. The frons of *S. variabilis* **sp. nov.** in male at its narrowest point is 0.84–0.98 times as wide as an eye in dorsal view and therefore wider than in males of *S. fenestrata* with frons 0.6–0.8 times as wide as an eye. Also the coloration of abdomen is different. Abdominal tergites 2–4 in *S. fenestrata* are yellowish-orange with dorsal longitudinal black vitta (Fig. 4B) while in *S. variabilis* they are entirely black or black with yellowish-orange dorsolateral portions of syntergite 1+2 and tergite 3. The males of *S. variabilis* **sp. nov.** are easy to distinguish from males of *S. pacifica*. The latter has wider frons with proclinate and latero-reclinate orbital setae (Fig. 4D), short fore claw, and different male terminalia (Fig. 5B), but the colouration of abdomen is similar (Figs 2A, 4D).

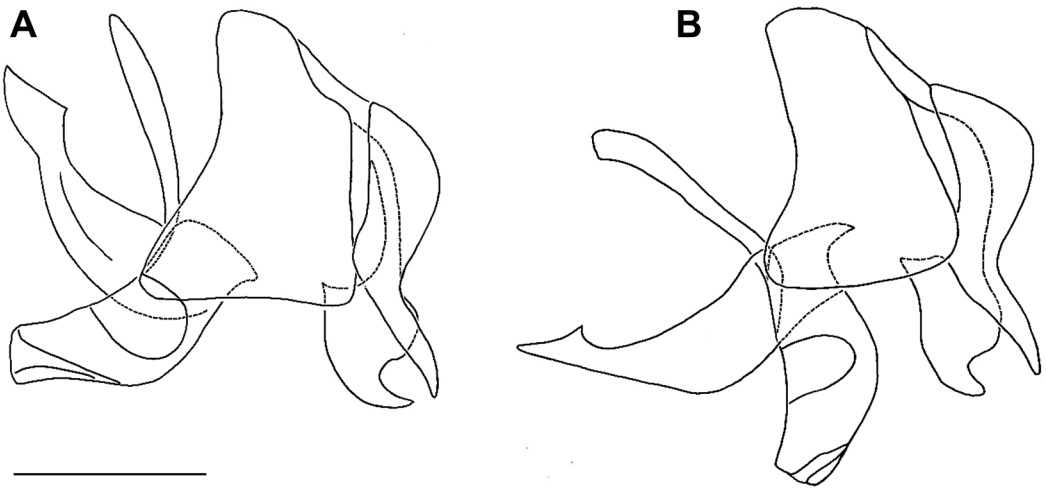

Figure 5. *Solieria* male Terminalia, lateral view; **A.** *S. fenestrata* (Meigen, 1824); **B.** *S. pacifica* (Meigen, 1824). Scale: 0.1 mm.

DISCUSSION

There are nine *Solieria* species in the Palaearctic region and five in the Nearctic region. The newly described *Solieria variabilis* **sp. nov.** is the third species of the genus known from the Middle East beside the previously reported *S. pacifica* and *S. fenestrata* whose presence is also reported from Transcaucasia. The genus has not yet been recorded from North Africa in the Palaearctic Region (Herting & Dely-Draskovits, 1993) or the Afrotropical Region (O'Hara & Cerretti, 2016). The species *S. fenestrata*, *S. pacifica*, and *S. inanis* are the most common species of the genus in Europe, recorded from various parts across the continent and found also in Asia, while *S. aureola* Mesnil, 1973, *S. munda* Richter, 1975, and *S. murina* Richter, 1980 are endemic to the East Palaearctic region (Table 1) (O'Hara et al., 2020).

The species *Solieria variabilis* **sp. nov.** has been found so far only at altitudes between about 1,500 and 3,200 meters above sea level. It occurs in mountain steppes in both the Zagros and Alborz mountains. The adults visit flowers and have been observed on *Euphorbia heteradenia* (Euphorbiaceae), *Mentha longifolia* (Lamiaceae) and *Rhabdosciadium aucheri* (Apiaceae). Although the hosts of *Solieria* species are poorly known, the lepidopteran family Tortricidae in addition to a doubtful report of Nymphalidae are the only reported hosts for this genus. Based on the host catalogue of Tschorsnig (2017), the species *S. pacifica* parasitizes *Celypha rurestrana* (Duponchel, 1843) and *Celypha striana* (Denis & Schiffermüller, 1775) (Tortricidae) besides the highly likely misidentified *Aglais urticae* (Linnaeus, 1758) (Nymphalidae). One other tortricid, either *Pelochrista medullana* (Staudinger, 1880) or *Agapeta zoegana* (Linnaeus, 1767) (Tortricidae) is a host of *S. vacua* (Tschorsnig, 2017).

Table 1. Overview of the known distribution of *Solieria* species in the world (O'Hara et al., 2020).

Species	Distribution
S. aureola Mesnil, 1973	East Palaearctic: Japan, Russian Far East
S. borealis Ringdahl, 1947	North Palaearctic: Sweden, Siberia
S. boreotis (Reinhard, 1967)	Nearctic: Canada, USA (Alaska)
S. eucerata (Bigot, 1889)	Nearctic: USA
S. fenestrata (Meigen, 1824)	Palaearctic: Europe, Transcaucasia, Siberia
S. flava (Townsend, 1908)	Nearctic: USA
S. inanis (Fallén, 1810)	Palaearctic: Europe, Japan
S. munda Richter, 1975	East Palaearctic: Eastern Siberia, Mongolia, China
S. murina Richter, 1980	East Palaearctic: Eastern Siberia
S. pacifica (Meigen, 1824)	Palaearctic: Europe, Transcaucasia, Siberia, China
S. pallida (Coquillett, 1897)	Nearctic: USA
S. piperi (Coquillett, 1897)	Nearctic: Canada, USA
S. vacua (Rondani, 1861)	West Palaearctic: Europe
S. variabilis Gilasian & Ziegler, **sp. nov.**	West Palaearctic: Iran

AUTHOR'S CONTRIBUTION

The authors confirm their contribution to the paper as follows: E. Gilasian and J. Ziegler: conceptualization, methodology, investigation, draft preparation, final review and edit, visualization. The authors read and approved the final version of the manuscript.

FUNDING

This research received no specific grant from any funding agencies.

AVAILABILITY OF DATA AND MATERIAL

The specimens listed in this study are deposited in in the Hayk Mirzayans Insect Museum (HMIM), Insect Taxonomy Research Department, Iranian Research Institute of Plant Protection, Tehran, Iran and in the Museum of Natural History Berlin (ZMHB), Leibniz Institute for Research on Evolution and Biodiversity, Berlin, Germany and also in the private collection of Joachim Ziegler (CZB), Bernau, Germany and are available from the curator, upon request.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study only included arthropod material, and all required ethical guidelines for the treatment and use of animals were strictly adhered to in accordance with international, national, and institutional regulations. No human participants were involved in any studies conducted by the authors for this article.

CONSENT FOR PUBLICATION

Not applicable.

CONFLICT OF INTERESTS

The authors declare that there is no conflict of interest regarding the publication of this paper.

ACKNOWLEDGMENTS

Our special thanks go to the Iranian Research Institute of Plant Protection for funding this research. We are also indebted to M. Parchami-Araghi (CNC, Ottawa) for checking the English of the manuscript. The second author is grateful to the Deutsche Forschungsgemeinschaft (DFG) [German Research Foundation] for two grants (446 IRN-18/2/04 & FR 2453/1-1) which made possible his fieldwork in Iran from 2004 to 2008, and he thanks Gerald Parolly (Berlin, Germany) for identifying the flowering plants that were visited by *Solieria* specimens, and the Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany (SDEI) for the opportunity to use the library and a multifocus photo station. Our sincere thanks to Dr James O'Hara (Canadian National Collection of Insects, Ottawa, Canada) and an anonymous reviewer for their constructive comments and recommendations, which have enhanced the quality of this manuscript.

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توصیف یک گونه جدید از جنس *Solieria* Robineau-Desvoidy (Diptera: Tachinidae) از ایران

ابراهیم گیلاسیان[1*]، یواخیم زیگلر[2]

۱ بخش تحقیقات رده بندی حشرات، موسسه تحقیقات گیاهپزشکی کشور، سازمان تحقیقات، آموزش و ترویج کشاورزی (AREEO)، تهران، ایران.
۲ موزه تاریخ طبیعی، موسسه تحقیقات تکامل و تنوع زیستی لایبنیز، ۱۰۱۱۵ برلین، آلمان.

* پست الکترونیک نویسنده مسئول مکـاتبه: *gilasian@iripp.ir*

| **تاریخ دریـافت:** ۰۳ مهر ۱۴۰۳ | **تاریخ پذیرش:** ۱۱ آبان ۱۴۰۳ | **تاریخ انتشار:** ۱۲ دی ۱۴۰۳ |

چکیـده: طی بررسی تاکسونومیک جنس *Solieria* Robineau-Desvoidy, 1849 در ایران، گونهٔ جدید *S. variabilis* **sp. nov.** برای دنیای علم جمع‌آوری و توصیف گردید. این گونه به واسطه فقدان موهای دیسکال (discal setae) روی ترژیت بندهای شکم، عدم وجود موهای proclinate orbital setae و latero-reclinate orbital setae در نرها، عرض پیشانی و رنگ و پوشش گردآلود بندهای شکم از سایر گونه‌های این جنس تفکیک می‌شود. صفات شکل‌شناسی این گونه با گونه‌های نزدیک به آن *S. fenestrata* (Meigen, 1824) و *S. pacifica* (Meigen, 1824) مقایسه گردید و تصویرهای حشره کامل، سر و اندام جنسی ارایه شد.

واژگـان کلیدی: فون، Leskiini، انگل‌واره، گزارش جدید، Tachininae، رده‌بندی