

Checklist of gall midges (Diptera: Cecidomyiidae) of Turkey

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Abstract. This list includes 118 species belonging to 53 genera of Cecidomyiidae recorded in Turkey in the period from 1903 up to the present (2015). Three species belong to the subfamily Porricondylinae and 115 species to the subfamily Cecidomyiinae. The level of knowledge of gall midges in Turkey may be evaluated as medium. Based on species numbers known in adjacent countries and in Europe, about 300 species of Cecidomyiidae may occur in Turkey.

Key words. Catalogue, Diptera, Cecidomyiidae, Porricondylinae, Cecidomyiinae, Turkey, Palaearctic region.

INTRODUCTION

The present checklist of gall midges of Turkey summarizes species found in Turkey in the period from 1903 until the present (2015). Trotter (1903) was the first who collected galls in Turkey in the course of his journey through the Balkan Peninsula and Turkey. He discovered in Turkey galls of 16 gall midge species. About thirty Turkish researchers and several European researchers contributed to the knowledge of gall midges of Turkey in the course of the twentieth century. Skuhrová (1986) recorded 35 species of gall midges known from Turkey up to that time. A review of 71 species of the family Cecidomyiidae together with the history of research, zoogeographical analysis of gall midge fauna and references is given in the paper of Skuhrová et al. (2005).

Since that time three new species have been discovered and described – *Lasioptera oleicola* Skuhrová, 2011, *Janetiella potentillogemmae* Skuhrová, 2011 and *Celticecis caucasicae* Gagné, 2013 (Doğanlar et al. 2011, Skuhrová et al. 2011, Gagné & Doğanlar 2013), two species – *Cystiphora sonchi* (Vallot, 1827) and *Dasineura gleditchiae* (Osten Sacken, 1866) – have been added as newly recorded members of the Turkish fauna (Bayram et al. 2005) and the identity of one species (*Lasioptera* sp. on tomato) is being investigated. Skuhrová & Skuhrový (2016a) in the course of investigations at 36 localities in south-western Turkey enriched the fauna of gall midges by another 37 species.

The family Cecidomyiidae, including 6,203 species in 736 genera in the world, is divided into six subfamilies (Gagné & Jaschhof 2014): Catotrichinae, Lestremiinae, Micromyinae, Winternertiinae, Porricondylinae and Cecidomyiinae. The first five subfamilies include fungivorous species and the last subfamily, the Cecidomyiinae, comprises mainly gall-causing species and smaller numbers of mycophagous and zoophagous species (Skuhrová et al. 1984, Skuhrová 2006, Skuhrová & Skuhrový 2010).

At present 118 species of the family Cecidomyiidae are known to occur in Turkey. Three species belong to the subfamily Porricondylinae and 115 species to the subfamily Cecidomyiinae. If we compare the species numbers of gall midges known in Turkey with species numbers known in adjacent countries, the fauna of Bulgaria with 240 species (Skuhrová et al. 1991) and of Greece with 235 species (Skuhrová & Skuhrový 2016b) are species richer, the fauna of Georgia with

123 species (Skuhrová et al. 2013) and Armenia with 96 species (Mirumjan 2011) are nearly comparable and the fauna of Iran (Skuhrová et al. 2014) is poorer in number of known species than the fauna of gall midges of Turkey. The level of knowledge of gall midges in Turkey may therefore be evaluated as medium. Based on species numbers known from countries in Europe, about 300 species of Cecidomyiidae may actually be known to occur in Turkey.

CHECKLIST

Porricondyliinae

Asynapta furcifer Barnes, 1932
Asynapta strobi (Kieffer, 1920)
Camptomyia pinicola Mamaev, 1961

Cecidomyiinae

Aphidoletes aphidimyza (Rondani, 1847)
Apiomyia bergenstammi (Wachtl, 1882)
Arnoldiola tympanifex (Kieffer, 1909)
Arthrocnodax coryligallarum (Targioni-Tozzetti, 1887)
Arthrocnodax vitis Rübsaamen, 1895
Asphondylia anatolica Skuhrová et Cam, 1998
Asphondylia calycotomae Kieffer, 1912
Asphondylia capparis Rübsaamen, 1893
Asphondylia coronillae (Vallot, 1829)
Asphondylia gennadii (Marchal, 1904)
Asphondylia massalongoi Rübsaamen, 1893
Asphondylia scrophulariae Schiner, 1856
Asphondylia stefanii Kieffer, 1898
Asphondylia verbasci (Vallot, 1827)
Bayeriella thymicola (Kieffer, 1888)
Brachineura squamigera (Winnertz, 1853)
Braueriella phillyreae F. Löw, 1877)
Celticecis caucasicae Gagné, 2013
Clinodiplosis botularia (Winnertz, 1853)
Clinodiplosis cilicrus (Kieffer, 1889)
Contarinia baeri (Prell, 1931)
Contarinia citri Barnes, 1944
Contarinia coryli (Kaltenbach, 1859)
Contarinia craccae (Loew, 1850)
Contarinia nasturtii (Kieffer, 1888)
Contarinia populi (Rübsaamen, 1917)
Contarinia pruniflorum Coutin et Rambier, 1955
Contarinia pyrivora (Riley, 1886)
Contarinia quercicola (Rübsaamen, 1899)
Contarinia subulifex Kieffer, 1897
Contarinia tragopogonis Kieffer, 1909
Cystiphora sonchi (Vallot, 1827)
Dasineura affinis (Kieffer, 1886)
Dasineura bayeri Rübsaamen, 1914
Dasineura crataegi (Winnertz, 1853)
Dasineura ericaescopariae (Dufour, 1837)
Dasineura gleditchiae (Osten Sacken, 1866)
Dasineura oleae (Angelini, 1831)
Dasineura papaveris (Winnertz, 1853)
Dasineura plicatrix (Loew, 1850)
Dasineura pteridis (Müller, 1871)
Dasineura pyri (Bouché, 1847)

Dasineura rosae Bremi, 1847)
Dasineura rufescens (Stefani, 1896)
Dasineura tubularis (Kieffer, 1909)
Dasineura turionum (Kieffer et Trotter, 1904)
Dasineura viciae (Kieffer, 1888)
Dicrodiplosis pseudococci (Felt, 1914)
Dryomyia circinans (Giraud, 1861)
Feltiella acarisuga (Vallot, 1827)
Gephyraulax diplotaxis (Solinas, 1982)
Harmandiola cavernosa Rübsaamen, 1899)
Harmandiola globuli Rübsaamen, 1889)
Hartigiola annulipes (Hartig, 1839)
Iteomyia caprae (Winnertz, 1853)
Jaapiella chondrillae Skuhrová, 2005
Jaapiella hypochoeridis Sylvé, 1998
Janetia cerris (Kollar, 1850)
Janetia homocera (F. Löw, 1877)
Janetia nervicola (Kieffer, 1909)
Janetia szepligetii Kieffer, 1896
Janetiella lemeei (Kieffer, 1904)
Janetiella onosmae Skuhrová, 2011
Janetiella potentillogemmae Skuhrová, 2011
Kochiomyia kochiae (Kieffer, 1909)
Lasioptera berlesiana Paoli, 1907
Lasioptera carophila F. Löw, 1874
Lasioptera eryngii (Vallot, 1829)
Lasioptera oleicola Skuhrová, 2011
Lasioptera populnea Wachtl, 1883
Lasioptera rubi (Schrank, 1803)
Lasioptera turcica Möhn, 1968
Lestodiplosis polypori (Loew, 1850)
Macrodiplosis pustularis (Bremi, 1847)
Macrodiplosis roboris (Hardy, 1854)
Macrolabis heraclei (Kaltenbach, 1862)
Mayetiola destructor (Say, 1817)
Mayetiola hordei Kieffer, 1909
Mikiola fagi (Hartig, 1839)
Mikiola orientalis Kieffer, 1908
Mikomya coryli (Kieffer, 1901)
Monarthropalpus flavus (Schrank, 1776)
Mycodiplosis melamporae (Rübsaamen, 1889)
Myricomyia mediterranea (F. Löw, 1885)
Odinadiplosis amygdali (Anagnostopoulos, 1929)
Oligotrophus juniperinus (Linné, 1758)
Oligotrophus panteli Kieffer, 1898
Oligotrophus valerii (Tavares, 1904)
Ozirhincus anthemidis (Rübsaamen, 1915)
Ozirhincus longicollis Rondani, 1840

Ozirhincus millefolii (Wachtl, 1884)
Phlomidomyia pustularis Skuhřavá, 2011
Phyllodiplosis cocciferae (Tavares, 1902)
Physemocercis hartigi (Liebel, 1892)
Piranea spartii Janezic, 1990
Probruggmanniella phillyreae (Tavares, 1907)
Rabdophaga heterobia (Loew, 1850)
Rabdophaga rosaria (Loew, 1850)
Rabdophaga saliciperda (Dufour, 1841)
Rabdophaga salicis (Schränk, 1803)
Rabdophaga terminalis Loew, 1850)
Resseliella oleisuga (Targioni-Tozzetti, 1886)
Resseliella piceae Seitner, 1906
Resseliella theobaldi (Barnes, 1927)

Rhopalomyia artemisiae (Bouché, 1834)
Rhopalomyia baccarum (Wachtl, 1883)
Rhopalomyia saissanica Fedotova, 1999
Taxomyia taxi (Inchbald, 1861)
Vitisiella oenophila (Haimhoffen, 1875)
Wachliella ericina (F. Löw, 1885)
Zygiobia carpini (F. Löw, 1874)

Species identified to the genus level

Contarinia sp. (*Quercus ilex*)
Lasioptera sp. on tomato (*Solanum lycopersicum*)
Thecodiplosis sp. (*Pinus brutia*)
Trotteria sp. ex galls of *Asphondylia scrophulariae* Schiner, 1856

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