P O L I S H J O U R N A L O F E N T O M O L O G Y
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Fruit flies (Diptera: Tephritidae) on the Polish Baltic Coast

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ABSTRACT. The paper contains faunistic information on 53 species of Tephritidae recorded on the Polish Baltic Coast. Species characteristic of this region are associated with brackish meadows (*Campiglossa plantaginis*), wet meadows (*Tephritis angustipennis* and *Campiglossa argyrocephala*), and sandy grassland (*Chaetorellia acrolophi*). The last-mentioned species is recorded in the Polish fauna for the first time.

KEY WORDS: Diptera, Tephritidae, *Chaetorellia acrolophi*, new records, Baltic Coast, Poland.

INTRODUCTION

The oldest data relating to the Tephritidae of the Baltic Coast come from the turn of the 19th and 20th centuries and are included in the papers by BRISCHKE (1889, 1890), CZWALINA (1893), RIEDEL (1899, 1901) and ENDERLEIN (1908). Together, those authors published information on 31 fruit fly species. Next, SCHROEDER (1912) published a huge checklist of the Diptera of Pomerania, which contained 20 species of Tephritidae collected on the Baltic Coast. Then SZULCZEWSKI (1930) mentioned one earlier described species, and KARL (1936) published a checklist of 18 fruit fly species, only five of which seem to be new in this region.

The papers by NOWAKOWSKI (1954), SZADZIEWSKI (1983) and KLASA & PALACZYK (2006) contain only fragmentary information about the Tephritidae of the Baltic Coast. The first paper deals with mining insects of Wolin Island, the second one with the Diptera of

saline habitats in Poland, and the last one summarizesd what we know about the Tephritidae of the Polish National Parks (Table 1). Altogether, the papers published before 1945 contain original data on 41 fruit fly species collected on the Baltic Coast, whereas those issued after World War II describe 17.

Table 1. Faunistic investigations into the Tephritidae of the Baltic Coast.

	Author	**Number of species (including those new to the fauna of the Baltic Coast)**
1.	BRISCHKE (1889)	1 (1)
2.	BRISCHKE (1890)	11 (11)
3.	CZWALINA (1893)	23 (12)
4.	RIEDEL (1899)	2 (2)
5.	RIEDEL (1901)	3 (3)
6.	ENDERLEIN (1908)	11 (2)
7.	SCHROEDER 1912	20 (6)
8.	SZULCZEWSKI (1930)	1 (0)
9.	KARL (1936)	18 (5)
10.	NOWAKOWSKI (1954)	4 (0)
11.	SZADZIEWSKI (1983)	1 (1)
12.	KLASA & PALACZYK (2006)	12 (2)
	Total	**45**

MATERIAL AND METHODS

The paper refers mainly to the fruit flies collected in the years 1996-2007 by B. Soszyński, during his research on Syrphidae, and by E. Kaczorowska, who investigated the Diptera of saline habitats on the Polish Baltic Coast.

In addition, the materials collected by R. Szadziewski, R. Dobosz, M. Soszyński, P. Dominiak, P. Dudzik and W. Żyła, were also taken into consideration.

Literature data were reviewed and collections were checked. This study also covered specimens of Tephritidae collected by Schroeder at the beginning of the 20th century, and by staff of the Museum and Institute of Zoology of the Polish Academy of Sciences in Warsaw (mostly by R. Bielawski) in the mid-20th century. At present, the latter collection is deposited in the Museum and Institute of Zoology at Łomna (near Warsaw) (in the text: IZW). In addition, a small number of fruit flies collected by R. Dobosz and M. Bunalski,

housed in the Upper Silesian Museum in Bytom (MB), were investigated.

During the present research, Diptera were collected on cliffs, on sandy beaches and in coastal brackish areas. The sandy beaches were represented by study areas at Darłowo, Dębki, Jastarnia, Jurata, Stegna, Krynica Morska, Sobieszewo and Gdańsk. In these localities flies were caught in the white dune zone, supporting plants belonging to the *Elymo-Ammophiletum* association, in the grey dune zone with planted violet willows *Salix daphnoides* VILL. and Japanese roses *Rosa rugosa* THUMB., and also in crowberry pineforest *Empetro nigri-Pinetum*.

Diptera were also collected on "living" and "dead" cliffs. In the first type, undercutting by waves causes periodic soil slips of varying intensity; these study areas were located at Jastrzębia Góra, Władysławowo and Gdynia. The mechanical processes (soil movements) on "dead" cliffs, i.e. not subject to abrasion, are much slower and less varied; such cliffs were represented by those located on Puck Bay.

Plants growing on cliffs depend on the extent of abrasion and the type of soil. All cliffs are covered in a unique mosaic of pioneer associations, such as the initial sward with coltsfoot *Tussilago farfara* L., sward with *Anthyllis vulneraria* L., scrub and forest (common sea buckthorn *Hippophaë rhamnoides* L.), a community of goat willow *Salix caprea* L. and aspen *Populus tremula* L., a community of goat willow and rowan *Sorbus aucuparia* L., and fertile lowland beech forest. Species not normally associated with coastal habitats, such as red clover *Trifolium pratense* L., *Anthyllis vulneraria* L. and meadow vetchling *Lathyrus pratensis* L., are also present.

Coastal brackish areas were another type of habitat in which material was collected. The study area of this type at Gdańsk-Górki Wschodnie was represented by brackish meadows covered by *Aster tripolium* L., *Triglochin maritimum* L., *Glaux maritima* L., *Atriplex prostrata* BOUCHER ex DC., *Spergularia salina* J. PRESL & C. PRESL., *Leymus arenarius* (L.) HOCHST. and *Solanum dulcamara* L., making up the *Puccinellio-Spergularietum salinae* plant association. One end of the stone causeway on which flies were also caught is covered with *Rosa rugosa* THUNB.

The study area near Mechelinki consisted of salt meadows and pastures with vegetation from the *Juncetum gerardi* association and semihalophilous bulrushes *Scirpetum maritimi*.

The coastal brackish area near Puck was represented by brackish meadows and pastures with *Juncetum gerardi* and thickets of common reed *Phragmites australis* (CAV.) TRIN. ex STUED., and occasional *Rosa rugosa* bushes.

Material was also collected on swampy brackish meadows in the Beka and Słone Łąki reserves near Władysławowo.

All the fruit flies were collected with a standard net in selected types of sea shore habitats.

Historical data refer to the western part of the Baltic Coast (Świnoujście –

Czarnogłowy), Darłowo, Ustka and the vicinity of Gdańsk. The present data refer mainly to the eastern part of this region (from Białogóra to Krynica Morska) and the Słowiński National Park (Fig. 1).

Abbreviations: AK – A. Klasa; BS – B. Soszyński; EK – E. Kaczorowska; IZW – Museum and Institute of Zoology, PAS, Warsaw; MB – Upper Silesian Museum, Bytom.

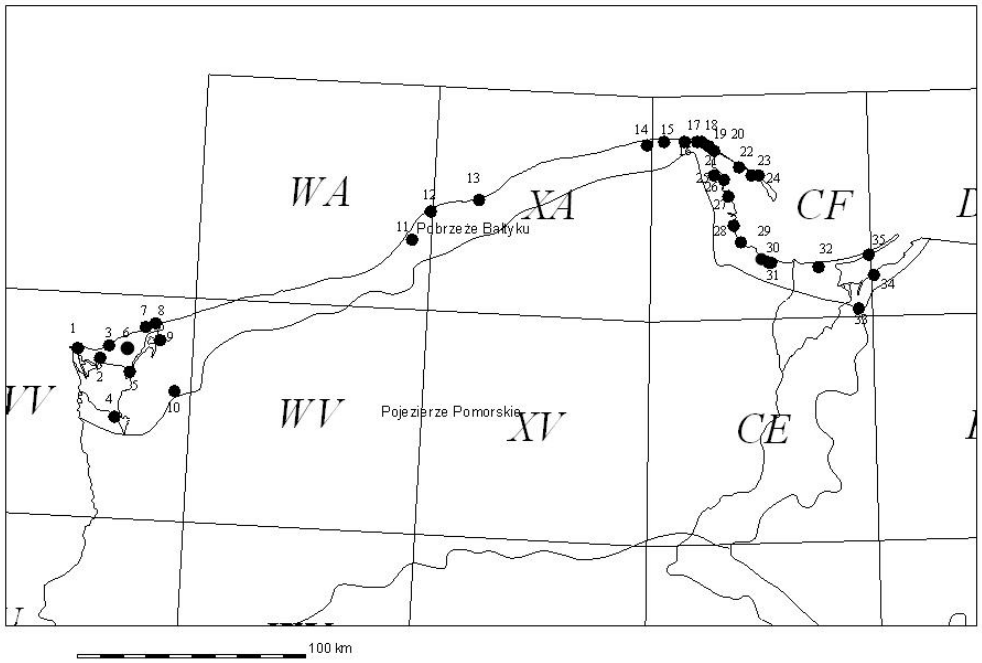


Fig. 1. Distribution of the Tephritidae of the Baltic Coast.
1 – Świnoujście, 2 – Wicko, 3 – Międzyzdroje, 4 – Trzebież, 5 – Wolin, 6 – Kołczewo, 7 – Międzywodzie, 8 – Dziwnów, 9 – Kamień Pomorski, 10 – Czarnogłowy, 11 – Darłowo, 12 – Jarosławiec, 13 – Ustka, 14 – Białogóra, 15 – Piaśnickie Łąki res., 16 – Dębki, 17 – Karwia, 18 – Jastrzębia Góra, 19 – Rozewie res., 20 – Chłapowo, 21 – Władysławowo, 22 – Kuźnica, 23 – Jastarnia, 24 – Jurata, 25 – Puck, 26 – Osłonino, 27 – Mechelinki, 28 – Gdynia, 29 – Jelitkowo, 30 – Gdańsk-Górki Wschodnie, 31 – Sobieszewo, 32 – Stegna, 33 – Ujście Nogatu res., 34 – Kadyny, 35 – Krynica Morska.

Alphabetical index of study areas with their UTM square (10x10 km) code

Białogóra near Wejherowo – XA97
Bielawskie Błota – CF27
Chłapowo-Miodna Góra, Rudnik res. – CF37
Czarnogłowy (= Zarnglaff) – VV95
Darłowo – WA93
Dębki – CF18

Dziwnów (= Divenow) – VV88
Gdańsk-Brzeźno – CF43
Gdańsk-Górki Wschodnie – CF52
Gdańsk-Jelitkowo – CF43
Gdańsk-Sobieszewo – CF62
Gdańsk-Stogi – CF52
Gdynia-Orłowo – CF44
Gdynia-Redłowo – CF44
Gdynia-Wzgórze Św. Maksymiliana – CF44
Jarosławiec, Łącko – WA94
Jastarnia – CF46
Jastrzębia Góra – CF27
Jurata – CF56
Kadyny – DF01
Kamień Pomorski (= Cammin) – VV88
Karwia – CF27
Kołczewo on Wolin Island – VV78
Krynica Morska – CF92
Kuźnica – CF46
Łącko near Jarosławiec – WA94
Mechelinki – CF35
Międzywodzie (= Heidebrink) – VV78
Międzyzdroje – VV67
Orzechowo (= Freichow) – XA25
Osłonino near Puck – CF36
Puck – CF36
Piaśnickie Łąki res. – CF17
Rozewie res. – CF27
Rudnik res., near Chłapowo – CF37
Słone Łąki res., near Władysławowo – CF37
Ujście Nogatu res., near Elbląg – CF81
Sopot – CF43
Stegna – CF72
Świnoujście (= Swinemünde) – VV57
Trzebież (= Ziegenort) – VV64
Ustka (= Stolpmünde) – XA25
Wąwóz Chłapowski – CF37
Wicko – VV67
Władysławowo, Beka res. – CF37
Wolin (= Wollin) – VV76
Wyspa Wolin (= I. Wollin) – VV76

RESULTS

During the present study, 748 specimens of Tephritidae collected on the Baltic Coast, including almost 80 specimens deposited in the museums in Łomna and Bytom, were identified.

FAUNISTIC REVIEW OF SPECIES

1. *Rhagoletis alternata* (FALLÉN, 1814)

References

Trypeta continua MG., *Trypeta alternata* FALL: Gdańsk area (BRISCHKE 1890); *Zonosema alternatum* FALL.: (CZWALINA 1893); *Zonosema alternata* FALL.: Darłowo (Rügenwalde) (SCHROEDER 1912); *Rhagoletis alternata* FLL. Darłowo (Rügenwalde) (KARL 1936); Rowy (KLASA & PALACZYK 2006).

Material examined

Jastarnia 11.07.1996 1♀, leg. BS; Gdynia-Wzgórze Św. Maksymiliana 28.07.2001 1♀, cliff, leg. EK; Rudnik res. near Chłapowo 3.07.2003 1♂, 3♀♀, leg. BS; Gdynia-Wzgórze Św. Maksymiliana, 15.07.2004 1♂, cliff, leg. EK; Gdańsk-Brzeźno 19.06.2004 2♂♂, sand dune, leg. EK.

2. *Rhagoletis cerasi* (LINNAEUS, 1758)

Reference

Rhagoletis cerasi L.: Darłowo (Rügenwalde) (KARL 1936).

3. *Rhagoletis meigenii* (LOEW, 1844)

Reference

Spilographa meigeni LW.: Gdańsk area (BRISCHKE 1890); Oliwa (CZWALINA 1893).

Material examined

Gdynia-Orłowo 12.07.2005 1♀, cliff, leg. EK.

4. *Myoleja lucida* (FALLÉN, 1826)

References

Acidia lucida FALL.: Stegna (Steegen) (CZWALINA 1893); Darłowo (Rügenwalde) (SCHROEDER 1912); *Myolia lucida* FALL.: Darłowo (Rügenwalde) (KARL 1936).

5. *Acidia cognata* (WIEDEMANN, 1817)

References

Acidia cognata WIEDM.: Gdańsk area (BRISCHKE 1890); Oliwa (CZWALINA 1893); Darłowo (Rügenwalde) (SCHROEDER 1912, KARL 1936); Wolin, Dziwnów, Wrzosowo, Lubiewo, Kołczewo (NOWAKOWSKI 1954); *Acidia cognata* MEIG.: between Puck and Rozgard (zwischen Putzig und Seefeld); between Rozgard and Rzucewo (zwischen Seefeld und Rutzau) (ENDERLEIN 1908).

Material examined

Dębki 4.07.1996, 1♂, forest, leg. BS; Puck 28.06.2001 1♂, coastal brackish area, leg. EK; Gdynia-Wzgórze Św. Maksymiliana 18.06.2002 1♀, cliff, leg. EK.

6. *Euleia heraclei* (LINNAEUS, 1758)

References

Trypeta centaureae FBR.: Gdańsk area (BRISCHKE 1890); *Acidia heraclei* L.: Międzywodzie (Heidebrink), Darłowo (Rügenwalde) (SCHROEDER 1912); *Philophylla heraclei* L.: Międzywodzie (Heidebrink), Darłowo (Rügenwalde) (KARL 1936), Dziwnów (NOWAKOWSKI 1954).

Material examined

Międzywodzie July 1906 1♀, leg. G. Schroeder (IZW).

7. *Philophylla caesio* (HARRIS, 1776)

References

Acidia lichnidis FBR: Gdańsk area (BRISCHKE 1890); Stegna (CZWALINA 1893); *Acidia caesio* HARR.: Darłowo (Rügenwalde) (SCHROEDER 1912); *Myolia caesio* HARR.: Darłowo (Rügenwalde) (KARL 1936).

Material examined

Rudnik res. near Chłapowo 3.07.2003 1♂, leg. BS; Gdańsk-Górki Wschodnie

15.09.2003 1♀, coastal brackish area, leg. EK; Ujście Nogatu res. 18-26.07.20071♀, leg. M. Soszyński.

8. *Stemonocera cornuta* (SCOPOLI, 1772)

References

Spilographa abrotani MG.: Darłowo (Rügenwalde) (RIEDEL 1899); *Stemonocera abrotani* MEIG.: Darłowo (Rügenwalde) (SCHROEDER 1912); *Vidalia cornuta* SCOP.: Darłowo (Rügenwalde) (KARL 1936).

9. *Trypeta artemisiae* (FABRICIUS, 1794)

References

Trypeta artemisiae (F.): between Lubkowo and Kartoszyno (zwischen Lübkau und Kartoschin) near Karwia (bei Karwen); between Puck and Rozgard (zwischen Putzig und Seefeld) (ENDERLEIN 1908); Wiecko, Międzyzdroje, Trzciągowo, Lubin, Kołczewo, Dziwnów, Lubiewo (NOWAKOWSKI 1954).

Material examined

Władysławowo 27.07.1998, 1♀, leg. BS.

10. *Trypeta zoe* MEIGEN, 1826

References

Spilographa zoë MG.: Oliwa (CZWALINA 1893); between Lubkowo and Kartoszyno (zwischen Lübkau und Kartoschin) (ENDERLEIN 1908); *Trypeta zoë* MEIG.: Lubiewo, Dziwna, Wolin (NOWAKOWSKI 1954); Gdańsk area (NOWAKOWSKI 1954 after BRISCHKE).

11. *Plioreocepta poeciloptera* (SCHRANK, 1776)

References

Platyparea poeciloptera SCHRK.: Gdańsk (Danzig) (CZWALINA 1893); Darłowo (Rügenwalde) (SCHROEDER 1912).

12. *Dithryca guttularis* (MEIGEN, 1826)

References

Carphotricha guttularis (MEIG.): Stegna (CZWALINA 1893); between Żarnowiec and Lubkowo (zwischen Zarnowitz und Lübkau) (ENDERLEIN 1908).

13. *Urophora affinis* (FRAUENFELD, 1857)

Reference

Trypeta affinis: Gdańsk area (BRISCHKE 1890).

Material examined

Wicko (in Wolin National Park) 4.12.2006 35♂♂, 40♀♀ bred from *Centaurea stoebe*, emergence of imagines: 22.02-25.03.2007, leg. P. Dudzik.

14. *Urophora aprica* (FALLÉN, 1820)

References

Trypeta aprica FALL.: Gdańsk area (BRISCHKE 1890); *Urophora aprica* FALL.: CZWALINA 1893.

15. *Urophora cardui* LINNAEUS, 1758)

References

Urophora cardui L.: Gdańsk area (BRISCHKE 1890, CZWALINA 1893); *Tephritis cardui* L.: Witomino-Chwarzno (SZULCZEWSKI 1930).

Material examined

Władysławowo 21.06.1997 1♂; 17.06.2002 3♂♂, 3♀♀, brackish meadows, leg. BS; Wąwóz Chłapowski near Władysławowo 26.05.2003 4♂♂, 5♀♀, bred from a gall on *Cirsum arvense*, leg. AK; Słone Łąki res. near Władysławowo 27.05.2003 6♂♂, 3♀♀, bred from a gall on *Cirsum arvense*, leg. AK; Rudnik res. 16.07.2005 1♂, leg. BS; Rozewie res. 15.06.2002, 1♂, leg. BS; 24.05.2003 2♂♂, 2♀♀, bred from a gall on *Cirsum arvense*, emergence of imagines: 6-25.06.2003, leg. AK, AP; Bielawskie Błota res. 25.05.2003 3♂♂, 3♀♀, bred from a gall on *Cirsum arvense*, emergence of imagines: 6-25.06.2003, leg. AK; Puck 28.06.2001 1♀, coastal brackish area, leg. EK; Kuźnica 27.05.2003 1♂, 2♀♀, bred from a gall on *Cirsum arvense*, leg. AK; Łącko near Jarosławiec 26.07.2005 numerous galls on *Cirsium arvense*, pers. comm. W. Żyła; Kadyny near Elbląg 18.06.2006 2♂♂, leg. P. Dominiak.

16. *Urophora quadrifasciata* (MEIGEN, 1826)

Material examined

Słone Łąki res. near Władysławowo 7.08.2009 1♂, 2♀♀, leg. BS.

Common in Poland and known from many regions of the country. However, the species is new to the fauna of the Baltic Coast.

Larvae develop in the flower heads of *Centaurea* spp.

17. *Urophora solstitialis* (LINNAEUS, 1758)

Material examined

Mechelinki 21.07.2006 1♀, cliff, leg. EK.

Species new to the fauna of the Baltic Coast. In Poland known from the Pomeranian Lakeland (RÜBSAAMEN 1901), Wielkopolska-Kujawy and Mazovian Lowlands (SZNABL 1881), and the Podlasie, Kraków-Częstochowa (KLASA & PALACZYK 2006) and Lublin Uplands (WINIARSKA 1987).

Larvae develop in galls in the flower heads of *Carduus acanthoides* L.

18. *Urophora stylata* (FABRICIUS, 1775)

References

Urophora stylata (F.): Stegna (CZWALINA 1893); near Puck (bei Putzig) (ENDERLEIN 1908); Dębina near Rowy (KLASA & PALACZYK 2006).

Material examined

Czarnogłowy 19.06.1910 1♀, leg. E. Schmidt (IZW); Ustka 5.07.1933 1♀, leg. O. Karl (IZW).

19. *Ensina sonchi* (LINNAEUS, 1758)

References

Trypeta obsoleta WIEDM.(?): Gdańsk area (BRISCHKE 1890, CZWALINA 1893).

Material examined

Gdańsk-Górki Wschodnie 6.06.2002 1♂; 21.08.2004, coastal brackish area, leg. EK; Gdynia-Wzgórze Św. Maksymiliana 2.08.2002 1♀, cliff, leg. EK.

20. *Noeeta pupillata* (FALLÉN, 1814)

References

Carphotricha pupillata FALL.: Oliwa (CZWALINA 1893); near Karwia (bei Karwen) (ENDERLEIN 1908); Darłowo (Rügenwalde) (SCHROEDER 1912); *Noeeta pupillata* (FALL.): Słowiński National Park: Wydma Czołpińska, Mały Łoczek at Gardno Lake, Rowy (KLASA & PALACZYK 2006).

Material examined

Ustka 27.07.1912 1♂ and 3.07.1913 1♂, leg. O. Karl (IZW); Jarosławiec 31.07.1955 1♂, leg. R. Bielawski (IZW); Krynica Morska 5.08.1958 1♀, leg. R. Bielawski (IZW); Władysławowo 31.07.1998 2♀♀, leg. BS; 6.06.1993 1♀, leg. R. Dobosz (MB); 3.07.2001 1♀, leg. EK; Międzyzdroje: 4. and 7.08.2003 2♀♀, cliff, leg. EK; 8.08.2003 1♂, 1♀, leg. EK; Puck 3.07.2004 1♂, coastal brackish area, leg. EK; Stegna 10.08.2004 3♀♀, sand dune, leg. EK; Gdańsk-Jelitkowo 1.08.2005 1♀, sand dune, leg. EK; Dębki 2.08.2005 1♂, 5♀♀, sand dune, leg. EK.

21. *Campiglossa absinthii* (FABRICIUS, 1805)

References

Tephritis elongatula LW.: Darłowo (Rügenwalde) (RIEDEL 1901); *Tephritis absynthii* (F.): Karwia (Karwen), near Ostrowo (part of Władysławowo) and Rozewie (bei Ostrau und Rixhöft) (ENDERLEIN 1908); *Oxyna absinthii* F.: Darłowo (Rügenwalde), Międzywodzie (Heidebrink) (SCHROEDER 1912); *Oxyna elongatula* LW.: Dziwnów (Divenow), Darłowo (Rügenwalde) (SCHROEDER 1912); *Paroxyna absinthii*: Darłowo (Rügenwalde), Międzywodzie (Heidebrink), Ustka (Stolpmünde) (KARL 1936).

Material examined

Międzywodzie July 1906 2♂♂, leg. E SCHMIDT (IZW); Dziwnów 25.06.1911 1♂, leg.

E. SCHMIDT (IZW); Gdynia-Wzgórze Św. Maksymiliana 18.06.2001 1♀, cliff, leg. EK; Władysławowo 5.06.2003 1♂, 3♀♀, sand dune, leg. EK; Darłowo 2.08.2004 1♂, sand dune, leg. EK; Puck 21.06.2005 1♂, coastal brackish area, leg. EK.

22. *Campiglossa argyrocephala* (LOEW, 1844)

Reference

Paroxyna argyrocephala LW.: Ustka (Stolpmünde) (KARL 1936).

Material examined

Ustka 7.08.1916 1♂, 1♀, leg. O. Karl (IZW).

23. *Campiglossa loewiana* (HENDEL, 1827)

References

Paroxyna loewiana HD.: Ustka (Stolpmünde) (KARL 1936); *Campiglossa loewiana* HD: Dębina and Poddąbie near Rowy (KLASA & PALACZYK 2006).

Material examined

Władysławowo 3.07.2001 7♂♂, 1♀; 4.07.2001 1♂, 3♀♀; 3.09.2002 1♀, cliff, leg. EK; Rozewie res. 16-18.07.2005 9♂♂, 14♀♀, leg. BS; Dębki 2.08.2005 10♂♂, 5♀♀, sand dune, leg. EK.

24. *Campiglossa misella* (LOEW, 1869)

Material examined

Władysławowo 3.09.2002 1♀, cliff, leg. EK; Gdańsk-Sobieszewo 5.09.2004 1♂; 17.10.2004 1♀, sand dune, leg. EK; Gdynia-Wzgórze Św. Maksymiliana 7.07.2004 1♀, cliff, leg. EK; Darłowo 1.08.2004 3♀♀, leg. EK; Jastarnia 22.07.2004 1♂, sand dune, leg. EK; Mechelinki 27.05.2006 3♀♀, coastal brackish area, leg. EK.

Species new to the fauna of the Baltic Coast. In Poland known from Podlasie, the Kraków-Wieluń Upland and the Pieniny Mts. (KLASA & PALACZYK 2006) but is surely more widely distributed.

Larvae develop in the flower heads of *Artemisia absinthium* L. and *A. campestris* L.

25. *Campiglossa plantaginis* (HALIDAY, 1833)

Reference

Paroxyna plantaginis: Gdańsk-Górki Wschodnie, Zatoka Pucka (SZADZIEWSKI 1983).

Material examined

Władysławowo 16.07.1996 2♂♂; 4.07.1997 5♂♂, 1♀; 1.09.1997 3♂♂, 6♀♀; 30.07.1999 2♂♂, 1♀, leg. BS; Gdańsk-Górki Wschodnie 9.07.2000 12♂♂, 8♀♀; 16.07.2002 31♂♂, 11♀♀; 4.07.2002 14♂♂, 5♀♀; 24.06.2003 6♂♂, 5♀♀; 9.07.2003 8♂♂, 1♀; 28.07.2003 13♂♂, 13♀♀; 5.08.2003 10♂♂, 10♀♀; 18.08.2003 1♂, 3♀♀; 7.07.2005

1♂, 3♀♀; 12.07.2005 21♂♂, 9♀♀; 19.07.2006 3♂♂, coastal brackish area, leg. EK; Jastarnia 22.07.2004 1♂, leg. EK.

? *Campiglossa producta* (LOEW, 1844)

References

Oxyna tessellata LW.: Dziwnów (Divenow) (SCHROEDER 1912); *Paroxyna tesselata* LW: Dziwnów (Divenow) (KARL 1936).

The information about the occurrence of *Paroxyna tesselata* in Dziwnów (SCHROEDER 1912, KARL 1936) is probably incorrect. One specimen of *Campiglossa punctella* (FALLÉN, 1814), collected by SCHMIDT in Dziwnów on 25.06.1911, was erroneously identified as *Oxyna tesselata* (det. G. Schroeder). One cannot rule out the possibility that the species given in that work was based on that material, especially that its location agrees well with time of the catch (in June).

26. *Campiglossa punctella* (FALLÉN, 1814)

Material examined

Dziwnów: 25.06.1911 1♀, leg. E Schmidt (as *Oxyna tesselata* det. G. Schroeder, IZW); 25.06.1922 1♀, leg. E. SCHMIDT (IZW); Władysławowo: 31.07.1998 1♂, 1♀; 17.07.1997 3♂♂, 2♀♀, sand dune, leg. BS; 27.05.2003 1♂, leg. AK; Wąwóz Chłapowski near Władysławowo 26.05.2003 1♂, leg. AK; Rozewie res. 16.072005 1♀, leg. BS.

Species new to the fauna of the Baltic Coast. In Poland known from the Pomeranian Lakeland (KARL 1936), Masurian Lakeland (KLASA & PALACZYK 2006) and the Kraków-Wieluń Upland (KLASA 2004) but is surely more widely distributed.

The larvae develop in the flower heads of *Artemisia campestris* L.

27. *Dioxyna bidentis* (ROBINAEAU-DESVOIDY, 1830)

References

Dioxyna bidentis (ROB.-DESV.): Rowy, Dębina and Poddąbie near Rowy, Słowiński National Park: Mały Łoczek near Rowy, Wydma Czołpińska (KLASA & PALACZYK 2006).

Material examined

Trzebież: 19.06.1910 1♂, 1♀, leg. O. Karl; 10.08.1921 1♂, 1♀; leg. G. Enderlein (IZW); Ustka 8.071919 1♂, leg. O. Karl (IZW); Dziwnów 25.06.1911 2♀♀, leg. G. Schroeder (IZW); Władysławowo: 1.09.1997 3♂♂, 6♀♀; 2.06.1997 1♂, 2♀♀; 18.07.2001 1♀; 17.08.2002 2♂♂, 2♀♀; 4.07.2001 1♂; 5.06.2003 2♂♂, 1♀, sand dune, leg. EK; 3.09.2002 5♂♂, 5♀♀, cliff, leg. EK; 25.06.2002 6♀♀, cliff, leg. EK; Bielawskie Błota res. 3.09.1997 3♂♂, 2♀♀, leg. BS; Jastrzębia Góra 15.06.2002 1♀, cliff, leg. EK; 22.05.2003 1♀, leg. EK; Gdańsk-Sobieszewo 3.10.2004 1♀, sand dune, leg. EK; 28.06.2004 1♀, leg. EK; Puck

25.09.2003 2♂♂, 1♀, 3.07.2004 4♂♂, 2♀♀, coastal brackish area, leg. EK; Gdańsk-Górki Wschodnie 15.09.2003 1♂; 14.06.2004 1♂; 23.06.2004 1♂, coastal brackish area, leg. EK; Słone Łąki res. near Władysławowo: 27.05.2003 1♂, leg. AK; 5.06.2003 3♂♂, 2♀♀, leg. BS; 13.09.2007 1♂, 1♀, leg. BS; Kuźnica 27.05.2003 2♀♀, leg. AK; Wąwóz Chłapowski near Władysławowo 26.05.2003 2♂♂, 2♀♀, leg. AK; Darłowo 1.08.2004 1♀, sand dune, leg. EK; Rozewie res. 16.07.2005 1♂, leg. BS.

28. *Oxyna flavipennis* (LOEW, 1844)

Material examined

Jastrzębia Góra 8.08.1998 1♀, leg. BS; Gdańsk-Sobieszewo 19.09.2004 1♂, sand dune, leg. EK; Gdańsk-Górki Wschodnie 12.07.2005 2♂♂, coastal brackish area, leg. EK; Ujście Nogatu res. 18.-26.07.2007 1♀, leg. M. Soszyński.

Species new to the fauna of the Baltic Coast. In Poland known from the Tatra Mts (LOEW 1871).

The larvae develop in galls on *Achillea millefolium* L.

29. *Oxyna parietina* (LINNAEUS, 1758)

Material examined

Gdańsk-Górki Wschodnie 26.05.1989 1♀, leg. R. Szadziewski; Gdynia-Wzgórze Św. Maksymiliana 16.08.2001 1♀, 18.06.2001 2♀♀, cliff, leg. EK; Mechelinki 4.06.2006 1♀, coastal brackish area, leg. EK; Gdynia-Orłowo 9.06.2005 1♂, 1♀, leg. EK.

Species new to the fauna of the Baltic Coast. Common in Poland and has been recorded in many regions of the country.

The larvae develop in the stems of *Artemisia vulgaris* L.

30. *Actinoptera discoidea* (FALLÉN, 1814)

References

Urellia gnaphalii LW.: Darłowo (Rügenwalde) (SCHROEDER 1912); *Actinoptera discoidea* FLL: Darłowo (Rügenwalde) (KARL 1936); Słowiński National Park: Mały Łoczek near Rowy (KLASA & PALACZYK 2006).

Material examined

Gdańsk-Stogi 18.08.2006 1♀, sand dune, leg. EK.

31. *Sphenella marginata* (FALLÉN, 1814)

References

Tephritis marginata MG.: Darłowo (Rügenwalde) (RIEDEL 1901); *Sphenella marginata* FALL.: Darłowo (Rügenwalde) (SCHROEDER 1912).

Material examined

Ustka 16.07.1912 1♂; 8.07.1915 1♂, 1♀; 20.07.1915 1♂, leg. O. Karl (IZW); Wolin 10.08.1916 1♂, leg. E. Hanau (IZW); Wąwóz Chłapowski near Władysławowo 26.05.2003 6♂♂, 5♀♀, leg. AK; Słone Łąki res. near Władysławowo 5.06.2003 1♂, leg. BS; Bielawskie Błota res. 27.05.2003 6♂♂, 2♀♀, leg. AK; Kuźnica 27.05.2003 1♂, leg. AK; Rozewie res. 16.07.2005 1♂, leg. BS.

32. *Acanthiophilus helianthi* (ROSSI, 1790)

Material examined

Słone Łąki res. near Władysławowo 16.07.2001 1♀, leg. BS.

Species new to the fauna of the Baltic Coast. In Poland known from the Kraków-Wieluń Upland (KLASA 2004, KLASA & PALACZYK 2006), and the Eastern Beskid (NOWICKI 1873, KLASA 2002, KLASA & PALACZYK 2006), Bieszczady and Pieniny Mts (KLASA 2002, KLASA & PALACZYK 2006).

The larvae develop in the flower heads of many species of Cardueae-Centaureinae.

33. *Trupanea amoena* (FRAUENFELD, 1857)

References

Thephritis (sic!) *amoena* FRAUENF.: Darłowo (Rügenwalde) (RIEDEL 1901); *Urellia amoena* FRFLD.: Darłowo (Rügenwalde) (SCHROEDER 1912); *Trupanea amoena* FRFLD.: Darłowo (Rügenwalde) (KARL 1936).

34. *Trupanea stellata* (FUESSLY, 1775)

References

Trupanea stellata FUESSLY: Ustka (Stolpmünde) (KARL 1936); Słowiński National Park: Mały Łoczek near Rowy, Wydma Czołpińska (KLASA & PALACZYK 2006).

Material examined

Ustka 21.07.1915 4♀♀ and 25.07.1915 1♀, leg. O. Karl (IZW); Władysławowo 31.07.1998 1♀, sand dune, leg. BS; 25.06.2002 2♂♂, cliff, leg. EK; Dębki 2.08.2005 1♀, sand dune, leg. EK.

35. *Acinia corniculata* (ZETTERSTEDT, 1819)

Reference

Oxyphora corniculata FALL.: Stegna (CZWALINA 1893).

Material examined

Orzechowo 18.08.1942 1♀, leg. O Karl (IZW).

36. *Heringina guttata* (FALLÉN, 1814)

References

Tephritis guttata FALL.: Oliwa (CZWALINA 1893), Darłowo (Rügenwalde) (SCHROEDER 1912); *Euaresta guttata* FALL.: Darłowo (Rügenwalde), Ustka (Stolpmünde) (KARL 1936); *Heringina guttata* (FLL.): Słowiński National Park: Mały Łoczek near Rowy (KLASA & PALACZYK 2006).

Material examined

Ustka 3.07.1912 1♂, 1♀; 13.07.1912 1♂; 2.07.1914 1♂, leg. O. Karl.

37. *Tephritis angustipennis* (LOEW, 1844)

Reference

Tephritis angustipennis (LW.): Rowy, by the Gardno-Łebsko channel (near Lake Dołgie Wielkie) (KLASA & PALACZYK 2006).

–. *Tephritis arnicae* (LINNAEUS, 1758)

References

Tephritis arnicae L.: Darłowo (Rügenwalde) (SCHROEDER 1912, KARL 1936).

Most likely, this species was erroneously given by SCHROEDER (1912) and KARL (1936) based on specimens collected by RIEDEL, since neither collection of these researchers (currently stored in MiIZ, PAS) contains any evidence of specimens from this study area. Instead, there are two specimens from Szklarska Poręba. Host plants of *T. arnicae* are *Doronicum austriacum* JACQ. and *Arnica montana* L. The first of these does not occur in the Darłowo area (its northernmost locality lies in the Świętokrzyskie Mts.) and the other has only two isolated localities along the coast. *Tephritis arnicae* is known only from the Polish mountains (Sudety, Tatra, Bieszczady Mts).

38. *Tephritis bardanae* (SCHRANK, 1803)

References

Trypeta bardanae SCHRK.: Gdańsk area (BRISCHKE 1890); *Tephritis bardanae* SCHR.: Oliwa (CZWALINA 1893).

Material examined

Gdynia-Orłowo 28.08.1999 1♀, cliff, leg. EK; Gdynia-Redłowo 3.07.2000 1♂, 1♀, cliff, leg. EK; Gdynia-Wzgórze Św. Maksymiliana 20.06.2000 2♂♂, cliff, leg. EK; Krynica Morska 26.08.2004 1♀, sand dune, leg. EK; Gdańsk-Górki Wschodnie 29.07.2004 1♂, coastal brackish area, leg. EK; Świnoujście 19.07.2007 1♂, 1♀, bred from *Arctium minus* (HILL) BERNH., emergence of imagines: 2.09.2007, leg R. Dobosz.

39. *Tephritis cometa* (LOEW, 1840)

References

Urellia cometa LW.: Darłowo (Rügenwalde) (SCHROEDER 1912); *Tephritis cometa* LW.: Darłowo

(Rügenwalde) (KARL 1936).

Material examined

Władysławowo: 2.06.1999 2♂♂, 1♀; 17.06.2002 2♂♂, 2♀♀, brackish meadows; Beka res. 8.07. 1997 1♀, leg. AK; Kołczewo 18.07.2000 1♀, bred from *Cirsium arvense*, emergence of imago: 1.08.2001, leg. R. Dobosz; Puck 21.06.2005 1♂, 21.06.2006 1♀; coastal brackish area, leg. EK.

40. *Tephritis crepidis* HENDEL, 1927

Material examined

Bielawskie Błota res. 3.09.1997 1♂, leg. BS.

Species new to the fauna of the Baltic Coast. To date, it has been known from southern Poland.

The larvae develop in the flower heads of *Crepis biennis* L.

41. *Tephritis dilacerata* (LOEW, 1846)

Material examined

Osłonino near Puck 10.09.1957 1♀, leg. R. Bielawski (IZW); Władysławowo 17.06.2002 1♀, leg. BS.

Species new to the the fauna of the Baltic Coast. Known from the Wielkopolska-Kujawy Lowland (LOEW 1846), Podlasie (FRYDLEWICZ-CIESIELSKA 1961, KLASA & PALACZYK 2006), the Kraków-Wieluń Upland (KLASA 2002, 2004, KLASA & PALACZYK 2006), the Eastern Sudety Mts (RIEDEL 1930) and the Tatra Mts (LOEW 1871).

The larvae develop in the flower heads of *Sonchus arvensis* L.

42. *Tephritis hyoscyami* (LINNAEUS, 1758)

References

Tephritis hyoscyami L.: Stegna (CZWALINA 1893); Dębina k. Rowów (KLASA & PALACZYK 2006).

Material examined

Gdynia-Wzgórze Św. Maksymiliana: 7.07.2000 1♀; 20.06.2000 6♂♂, 3♀♀; 18.08.2000 1♂; 16.08.2001 1♀; 18.06.2002 2♀♀; 11.06.2003 1♀; 7.06.2005 1♂, 1♀; 11.06.2006 1♀, cliff, leg. EK; Puck 22.08.2003 2♂♂, coastal brackish area, leg. EK; Bielawskie Błota res. 27.05.2003 4♂♂, leg. AK; Wąwóz Chłapowski 25.05.2003 1♀, leg. AK; Międzyzdroje 6.08.2003 1♂, cliff, leg. EK; Gdańsk-Górki Wschodnie 29.07.2004 1♂, coastal brackish area, leg. EK; Gdańsk-Sobieszewo 19.09.2004 1♂, sand dune, leg. EK; 21.08.2004 2♂♂, sand dune, leg. EK; Jurata 8.07.2004 1♂, beach, leg. EK; Mechelinki 4.06.2006 1♂, coastal brackish area, leg. EK.

43. *Tephritis leontodontis* (DEGEER, 1776)

References

Tephritis leontodontis DEG.: Wierzchucińskie Błota (Wierschutziner Moores), near Puck (bei Putzig), to the south of Werblinia (südlich von Werblin), near Rozewie (bei Rixhöft) (ENDERLEIN 1908); Wydma Czołpińska (KLASA & PALACZYK 2006).

Material examined

Świnoujście 13.09.1907 1♂, leg. G. Enderlein (IZW); Bielawskie Błota 23.09.1955 1♂, leg. R. Bielawski (IZW); Karwia 25.08.1958 1♀, leg. R. Bielawski (IZW); Białogóra near Wejherowo 4-15.04.1991 1♂, leg. M. Bunalski (MB); Rozewie res. 16 and 18.07.2005 1♂, 1♀, leg. BS.

44. *Tephritis nigricauda* (LOEW, 1856)

Reference

Tephritis nigricauda (LW.): Oliwa (CZWALINA 1893).

45. *Tephritis ruralis* (LOEW, 1844)

References

Trypeta ruralis LW.: Gdańsk area (BRISCHKE 1890, CZWALINA 1893).

Material examined

Sopot 3.05.2003 1♀, sand dune, leg. EK; Wąwóz Chłapowski near Władysławowo 26.05.2003 1♂, 1♀, leg. AK; Bielawskie Błota res. 27.05.2003 10♂♂, 2♀♀, leg. AK.

46. *Chaetorellia acrolophi* WHITE & MARQUART, 1989

Material examined

Wicko (in Wolin National Park) 4.12.2006 1♀, bred from *Centaurea stoebe*, emergence of imago: 18.02.2007, leg. P. Dudzik.

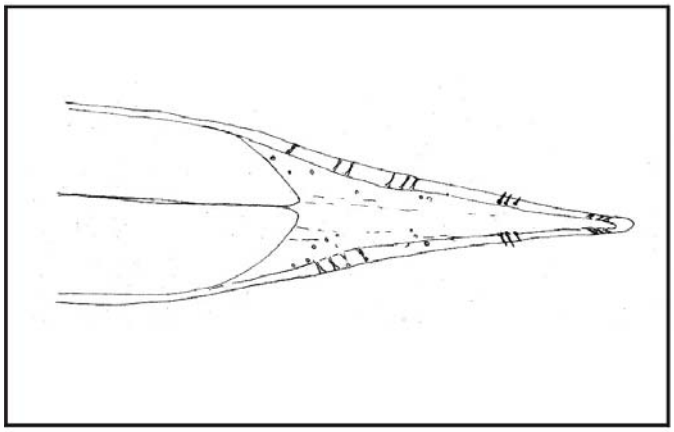
The larvae develop in the flower heads of *Centaurea stoebe* L.

It is recognized as European and has been recorded in southern Europe and in the Pannonian region (MERZ 1994). Reported for the first time from Poland.

Diagnosis

Female. Head, thorax and legs yellow (Figs. 2, 3) Thorax with 4 pairs of black spots at the base of dorsocentral setae (2 pairs), presutural supra-alar setae (1 pair) and prescutellar acrostichal setae (1 pair). Length with ovipositor – 5.0 mm, length of ovipositor – 1.4 mm – it is shorter than the combined length of the last four abdominal segments (Fig. 4). Wing with four yellow-brown crossbands. The subbasal and discal crossbands, and preapical and apical crossbands join at the front margin of the wing. Length 3.6 mm.

a **b**



c

Fig. 2-4. Female of *Chaetorellia acrolophi*: a – side view, b – dorsal view, c – tip of aculeus.

47. *Chaetostomella cylindrica* (ROBINEAU-DESVOIDY, 1830)

References

Trypeta onotrophes LW.: Darłowo (Rügenwalde) (RIEDEL 1899); *Trypeta cylindrica* ROB. DESV. = *onotrophes* LW.: Darłowo (Rügenwalde) (SCHROEDER 1912).

Material examined

Międzywodzie July 1906 1♀, leg. G. Schroeder; Wolin Island 16.07.1917 1♀ and 17.07.1917 2♂♂, leg. E. Hanau (IZW); Białogóra 10.08.1998 1♂, 1♀; Władysławowo 2.06.1999 3♂♂, leg. BS; Kołczewo 18.07.2000 1♂, leg. E. Dobosz; Słone Łąki res. near Władysławowo 5.06.2003 1♂, 2♀♀, leg. BS; Chłapowo-Miodna Góra 18.07.2005 1♀, leg.

BS; Rozewie res. 16.07.2005 1♂, leg. BS; Piaśnickie Łąki res. 25.-30.07.2006 2♂♂, leg. M. Soszyński.

48. *Terellia ceratocera* (HENDEL, 1913)

References

Ceriocera cornuta FBR.: Oliwa, Stegna (CZWALINA 1893); between Puck and Rozgard (zwischen Putzig und Seefeld); between Rozgard and Rzucewo (zwischen Seefeld und Rutzau) (ENDERLEIN 1908); *Trypeta cornuta* F.: near Lubkowo (bei Lübkau) ENDERLEIN 1908.

Material examined

Kamień Pomorski 5.07.1917 3♂♂, leg. P. Noack (IZW); Władysławowo 8.08.1960 1♀, leg. R. Bielawski (IZW).

49. *Terellia colon* (MEIGEN, 1826)

References

Orellia colon MEIG.: Darłowo (Rügenwalde) (KARL 1936); *Terellia colon* (MG.): Smołdzino (KLASA & PALACZYK 2006).

Material examined

Władysławowo: 8.08.1960 1♂, leg. B. Pisarski (IZW); 18.06.1993 2♂♂, 2♀♀ and 21.06.1993 1♂, 1♀, leg. R. Dobosz (MB).

50. *Terellia ruficauda* (FABRICIUS, 1794)

References

Trypeta ruficauda FBR.: Stegna (CZWALINA 1893); near Puck (bei Putzig) (ENDERLEIN 1908); *Trypeta florescentiae* L. = *ruficauda* F.: Międzywodzie (Heidebrink) (SCHROEDER 1912); *Orellia ruficauda* FBR.: Międzywodzie (Heidebrink) (KARL 1936).

Material examined

Międzywodzie July 1906 1♂, leg. G. Schroeder (IZW); Wolin Island 15.07.1917 1♀, leg. E Hanau (IZW); Władysławowo: 21.06.1993 1♂, leg. R. Dobosz; Słone Łąki res. 18.07.2001 1♀, leg. BS; Piaśnickie Łąki res. 25.-30.07.2006 1♂, leg. M. Soszyński.

51. *Terellia tussilaginis* (FABRICIUS, 1775)

References

Trypeta tussilaginis F.: Darłowo (Rügenwalde) (SCHROEDER 1912); *Orellia tussilaginis* FBR.: Darłowo (Rügenwalde) (KARL 1936).

Material examined

Ujście Nogatu res. 18.-26.07.2007 1♀, leg. M. Soszyński.

52. *Terellia winthemi* (MEIGEN, 1830)

Reference

Trypeta winthemi MG.: Stegna (CZWALINA 1893).

53. *Xyphosia miliaria* (SCHRANK, 1781)

References

Trypeta arnicae: Stegna (Steegen) (BRISCHKE 1889); *Oxyphora miliaria* SCHR.: Oliwa (CZWALINA 1893); *Oxyphora trimaculata* (GEOFFR.) (= *miliaria* SCHR.): between Żarnowiec and Dębki (zwischen Zarnowitz und Dembec), near Ostrowo (part of Władysławowo) (bei Ostrau); between Puck and Rozgard (zwischen Putzig und Seefeld) (ENDERLEIN 1908); *Oxyphora flava* GEOFFR.: Darłowo (Rügenwalde), Międzywodzie (Heidebrink) (SCHROEDER 1912).

Material examined

Międzywodzie July 1906 13♂♂, 8♀♀, leg. G. Schroeder (IZW); (without dates) 2♂♂, 1♀, leg. G. Schroeder (IZW); Władysławowo: 16.07.1996 1♂, 1♀, 21.06.1997 1♂, brackish meadows, 2.06.1999 1♀, 17.06.2002 1♂, 1♀, leg. BS; Władysławowo: Słone Łąki res. 16.07.2001 1♂, 1♀, leg. BS; Dębki 15.07.1997 1♀, leg BS; Jastarnia 13.07.1997 1♀, leg. BS; Gdynia-Wzgórze Św. Maksymiliana: 20.06.2000 1♂; 7.07.2000 1♂; 16.08.2001 1♀; 4.07.2002 1♂; 30.06.2003 1♂; 11.07.2004 2♂♂, cliff, leg. EK; Gdynia-Redłowo 3.07.2000 1♀, leg. EK.

Characteristics of the Tephritidae of the Baltic Coast

45 species of fruit flies from this region are listed in the literature, but two of them (*Campiglossa producta* and *Tephritis arnicae*) were found to be incorrectly identified and have been removed from the list of species. The former species is given on the basis of a poorly-labelled specimen, whereas the latter was not found in the collection, which prevented its verification. Because of the specific habitat requirements of *Tephritis arnicae*, it is unlikely that it has ever occurred in this region and is excluded from further consideration (explanation in the text). By 1945 there were 42 species of Tephritidae from the Baltic Coast, and two more – *Campiglossa punctella* and *Dioxyna bidentis* – were found in the collections of KARL and SCHROEDER; both are fairly common in this region. Only 14 species were found in the IZ collection at Łomna from pre-war data. In the post-war literature, there are 16 known species, with a further 25 revealed by research. The numbers of species were similar in the periods compared (42 up to 1945, and 41 after 1945), but only 30 are common to both study periods (Table 2). Researchers at the beginning of the 20th century did not record 11 species that are now collected, and conversely, 12 species known from the beginning of the century are not collected today. The simplest explanation for this is that those authors investigated different environments and other parts of the Baltic Coast. Fruit flies show a strict preference for their host plants, which means that they are found locally, and in addition, have relatively short flight periods. Earlier researchers did not investigate salt meadows (no *Campiglossa plantaginis*) and ignored specific sandy

grassland species (e.g. *C. misella*). Nowadays, however, there is a lack of forest species (e.g. *Rhagoletis cerasi*, *Myoleja lucida*, *Stemonocera cornuta*), and the fruit flies of saline environments and sandy grasslands are very abundantly represented in collections. Thus, the studies carried out in the two periods are complementary. A total of 53 species of Tephritidae were found on the Baltic Coast (Table 2), which represents more than half of the species previously reported from Poland. A characteristic feature of the Tephritidae of this region is the presence of species associated with two types of communities: sandy grasslands and wet meadows. Sandy grassland species are represented by *Actinoptera discoidea* (monophagous species of *Helichrysum arenarium* (L.) MOENCH), *Tephritis ruralis* (monophagous species of *Hieracium pilosella* L.), *Campiglossa punctella* (*Artemisia campestris*), *Urophora affinis* and *Chaetorellia acrolophi* (both monophagous on *Centaurea stoebe*). On the dunes *Heringina guttata* (probably developing in *Hieracium sabaudum* L.) was found and *Tephritis angustipennis* and *Campiglossa argyrocephala* (both monophagous species of *Achillea ptarmica* L.) were collected on wet meadows. A peculiarity of this area is *Campiglossa plantaginis*, rare in Poland and feeding only on *Aster tripolium* on the salt meadows. It is an inland halobiont, known only from the Baltic Coast, Ciechocinek and the Warsaw area (SZNABL 1881, SZADZIEWSKI 1983) and Inowrocław-Mątwy (SZADZIEWSKI 1983). It has been placed on the "Red list of endangered and threatened animals in Poland" in the category VU (Vulnerable). In the study area, it was numerous at only two sites – Wladyslawowo and Gdańsk-Górki Wschodnie. The biggest threat to the species is drainage and the destruction of salt meadows, which leads to the disappearance of its host plant, which is restricted to this biotope. In Europe, *C. plantaginis* occurs on the Atlantic coast (France, Belgium, the Netherlands, Britain, Denmark, Norway), Baltic Sea (Germany, Sweden and Finland), and in inland saline biotopes in Austria and Hungary (MERZ 1994), and in Ukraine.

Table 2. Tephritidae fruit flies of the Baltic Coast.

No	Species	Source of information
1	**2**	**3**
1.	*Rhagoletis alternata*	BRISCHKE 1890, CZWALINA 1893, SCHROEDER 1912, KARL 1936, KLASA & PALACZYK 2006, specimens in collection
2.	*Rhagoletis cerasi*	KARL 1936
3.	*Rhagoletis meigenii*	BRISCHKE 1890, CZWALINA 1893, specimen in collection
4.	*Myoleja lucida*	CZWALINA 1893, SCHROEDER 1912, KARL 1936
5.	*Acidia cognata*	BRISCHKE 1890, CZWALINA 1893, ENDERLEIN 1908, SCHROEDER 1912, KARL 1936, NOWAKOWSKI 1954, specimens in collection

1	2	3
6.	*Euleia heraclei*	BRISCHKE 1890, SCHROEDER 1912, KARL 1936, NOWAKOWSKI 1954, specimen in collection
7.	*Philophylla caesio*	BRISCHKE 1890, CZWALINA 1893, SCHROEDER 1912, KARL 1936, specimens in collection
8.	*Stemonocera cornuta*	RIEDEL 1899, SCHROEDER 1912, KARL 1936
9.	*Trypeta artemisiae*	ENDERLEIN 1908, NOWAKOWSKI 1954, specimen in collection
10.	*Trypeta zoe*	CZWALINA 1893, ENDERLEIN 1908, NOWAKOWSKI 1954
11.	*Plioreocepta poeciloptera*	CZWALINA 1893, SCHROEDER 1912
12.	*Dithryca guttularis*	CZWALINA 1893, ENDERLEIN 1908
13.	*Urophora affinis*	BRISCHKE 1890, specimens in collection
14.	*Urophora aprica*	BRISCHKE 1890, CZWALINA 1893
15.	*Urophora cardui*	BRISCHKE 1890, CZWALINA 1893, SZULCZEWSKI 1930, specimens in collection
16.	*Urophora quadrifasciata*	specimens in collection
17.	*Urophora solstitialis*	specimen in collection
18.	*Urophora stylata*	CZWALINA 1893, ENDERLEIN 1908, KLASA & PALACZYK 2006, specimens in collection
19.	*Ensina sonchi*	BRISCHKE 1890, CZWALINA 1893, specimens in collection
20.	*Noeeta pupillata*	CZWALINA 1893, ENDERLEIN 1908, SCHROEDER 1912, KLASA & PALACZYK 2006, specimens in collection
21.	*Campiglossa absinthii*	RIEDEL 1901, ENDERLEIN 1908, SCHROEDER 1912, KARL 1936, specimens in collection
22.	*Campiglossa argyrocephala*	KARL 1936; specimen in collection
23.	*Campiglossa loewiana*	KARL 1936, KLASA & PALACZYK 2006, specimens in collection
24.	*Campiglossa misella*	specimens in collection
25.	*Campiglossa plantaginis*	SZADZIEWSKI 1983, specimens in collection
26.	*Campiglossa producta*	SCHROEDER 1912, KARL 1936; erroneous identification
27.	*Campiglossa punctella*	specimens in collection
28.	*Dioxyna bidentis*	KLASA & PALACZYK 2006, specimens in collection
29.	*Oxyna flavipennis*	specimens in collection
30.	*Oxyna parietina*	specimens in collection
31.	*Actinoptera discoidea*	SCHROEDER 1912, KARL 1936, KLASA & PALACZYK 2006, specimen in collection
32.	*Sphenella marginata*	RIEDEL 1901, SCHROEDER 1912, specimens in collection
33.	*Acanthiophilus helianthi*	specimen in collection
34.	*Trupanea amoena*	RIEDEL 1901, SCHROEDER 1912, KARL 1936

1	2	3
35.	*Trupanea stellata*	KARL 1936, KLASA & PALACZYK 2006, specimens in collection
36.	*Acinia corniculata*	CZWALINA 1893, specimen in collection
37.	*Heringina guttata*	CZWALINA 1893, SCHROEDER 1912, KARL 1936, KLASA & PALACZYK 2006, specimens in collection
38.	*Tephritis angustipennis*	KLASA & PALACZYK 2006
39.	*Tephritis arnicae*	SCHROEDER 1912, KARL 1936, doubful data
40.	*Tephritis bardanae*	BRISCHKE 1890, CZWALINA 1893, specimens in collection
41.	*Tephritis cometa*	SCHROEDER 1912, KARL 1936, specimens in collection
42.	*Tephritis crepidis*	specimen in collection
43.	*Tephritis dilacerata*	specimens in collection
44.	*Tephritis hyoscyami*	CZWALINA 1893, KLASA & PALACZYK 2006, specimens in collection
45.	*Tephritis leontodontis*	ENDERLEIN 1908, KLASA & PALACZYK 2006, specimens in collection
46.	*Tephritis nigricauda*	CZWALINA 1893
47.	*Tephritis ruralis*	BRISCHKE 1890, CZWALINA 1893, specimens in collection
48.	*Chaetorellia acrolophi*	specimen in collection
49.	*Chaetostomella cylindrica*	RIEDEL 1899, SCHROEDER 1912, specimens in collection
50.	*Terellia ceratocera*	CZWALINA 1893, ENDERLEIN 1908, specimens in collection
51.	*Terellia colon*	KARL 1936, KLASA & PALACZYK 2006, specimens in collection
52.	*Terellia ruficauda*	CZWALINA 1893, ENDERLEIN 1908, SCHROEDER 1912, KARL 1936, specimens in collection
53.	*Terellia tussilaginis*	SCHROEDER 1912, KARL 1936, specimen in collection
54.	*Terellia winthemi*	CZWALINA 1893
55.	*Xyphosia miliaria*	BRISCHKE 1889, CZWALINA 1893, ENDERLEIN 1908, SCHROEDER 1912, specimens in collection

Among the fruit fly fauna of the Baltic Coast, thermophilous species are represented by *Rhagoletis meigenii*, *Terellia ceratocera* and *T. colon* (the latter two are monophagous species of *Centaurea scabiosa* L.). A large group of the Tephritidae of this region are species associated with ruderal vegetation, often encountered on the edges of landfill sites. They are *Trypeta artemisiae*, *Urophora cardui*, *Urophora stylata*, *Oxyna parietina*, *Tephritis bardanae*, *Tephritis cometa*, *Tephritis hyoscyami*, *Terellia ruficauda*, *Terellia tussilaginis* and *Xyphosia miliaria*. These species are also found in drained wet meadows, together with common weeds like *Cirsium arvense*, *C. vulgare*, *Artemisia vulgaris*, *Arctium* sp.

A single specimen of a species new to the Polish fauna – *Chaetorellia acrolophi* –

feeds in a few hundred flower heads of *Centaurea stoebe*, along with more than 70 specimens of *Urophora affinis*. The rarity of the new species may be due to interspecific competition among fruit flies on the same host plant, but the location of the study area on Wolin, near the northern edge of its geographical range (this species does not occur in Scandinavia or Great Britain) could also be a contributory factor.

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