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ADDITIONS TO THE KNOWLEDGE OF THE APHID FAUNA IN THE VENETO REGION
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Barbagallo S., Massimino Cocuzza G.E. – Additions to the knowledge of the aphid fauna in the Veneto region, north eastern Italy (Hemiptera Aphidoidea)

An updated checklist of aphids detected in Veneto region (NE Italian peninsula) is reported. This list follows a previous one published in 1994, where 130 aphid species were checked for the same regional area. At present, our available data refer, as a whole, to the presence of 332 species, distributed into 106 genera. Six of the species reported are new records for the Italian aphid fauna. For each of the listed taxa short informative notes are given on their previous records (if any) in current literature and/or their collecting data (i.e. host plant species, localities and dates for each of the available samples). In addition, and whenever useful, more extensive faunistic information is given on a few of the most relevant species listed. Short accounts are added, at the end, on the regional biogeographical pattern of the listed aphid species as a whole.

KEY WORDS: Aphids survey, biodiversity, Veneto region, Italy.

INTRODUCTION

A first list of the aphid fauna of the north eastern Italian territory (Triveneto regional areas) was published more than twenty years ago (BARBAGALLO & PATTI, 1994). Here only 130 species of aphids were reported for the Veneto region, in spite of it covering a land area of 18.368 km² and showing a great abundance of both ecological habitats and floristic biodiversity (3295 vascular plant taxa, as listed in CONTI *et al.*, 2005). Consequently, additional field collections during more recent years easily increased the number of aphid taxa so far detected in the region. Furthermore, the search for older literature on the topic revealed an additional number of local aphid records, mainly on galligenous species, which were previously overlooked by us. Here we mention papers by some late Italian cecidologists, such as MASSALONGO C. or C.B. (1893, 1904, 1906a, 1906b), MASSALONGO O. (1891, 1896), TROTTER (1903, 1906), TROTTER & CECONI (1900-1917), COBAU (1910, 1912, 1915), who recorded several aphid species for the Veneto region. More recently published general books in the field of applied entomology, occasionally issued about the relevant regional area (SERVADEI *et al.*, 1972; PELLIZZARI SCALTRITI, 1988; MASUTTI & ZANGHERI, 2001; BATTISTI *et al.*, 2013; POLLINI, 2013), give some species records or provide evidence about their regional distribution in Italy. In addition, we directly requested information from several entomologist colleagues, who kindly supplied us with useful information and data for the checking the occurrence of particular aphid species in the region, as acknowledged for each of the taxa involved.

Altogether, we gathered a large amount of faunistic data (either as informative records and/or from our direct field

collection) on about 200 additional species to the previous local checklist. This has enabled us to provide in the present paper a comprehensive list of 332 updated taxa for the Veneto region.

MATERIALS AND METHOD

Field collected aphid samples were temporarily stored in 70% ethyl alcohol. In order to be identified, samples were clarified and specimens mounted on permanent microscope slides (using Canada balsam as medium), following the currently used methodology for this group of soft-bodied hemipteran insects (BLACKMAN & EASTOP, 2000). In a few cases, which involve more common and easily identifiable field species, data were registered without the relevant sample collection. The samples were collected or registered in field from 1995 onward, as quoted for each of the species here listed. Additional samples occasionally come from gifts kindly given to us by local colleagues and scientists. Collected samples and their slides are stored in the collection of the senior co-author (S.B.). The regional map here reported (Fig. 1) shows all the collecting sites of our samples, including those already listed in the previous paper by BARBAGALLO & PATTI (1994).

Host plants were mostly identified using the Italian flora books by PIGNATTI (1982), as well as the illustrated alpine flora books by AESCHIMANN *et al.*, (2005). Plant binomial nomenclature was updated, whenever necessary, following the Italian Vascular Flora checklist (Conti *et al.*, 2005).

Taxa known to us to date for the regional area are here reported, including their bibliographic records (if any) for each of the species listed. Field collection data are limited



Fig. 1 – Aphid collecting sites in Veneto region; the list is inclusive of localities reported in Barbagallo & Patti, 1994.

1. Auronzo di Cadore, Misurina Lake; 2. Vigo di Cadore; 3. Cortina d'Ampezzo; 4. San Vito di Cadore; 5. Agordo; 6. Gosaldo, loc. Tiser; 7. Sospirolo; 8. Farra d'Alpago; 9. Farra d'Alpago, S. Croce Lake; 10. Farra d'Alpago, loc. Pian del Cansiglio; 11. Farra d'Alpago, Alpine Botanical Garden; 12. Sedico; 13. Cesiomaggiore; 14. Pedavena; 15. Pedavena, loc. Croce d'Aune; 16. Fregona; 17. Fonte, loc. Onè; 18. San Zenone degli Ezzelini; 19. Riese Pio X, loc. Vallà; 20. Treviso; 21. Solagna, Monte Grappa; 22. Solagna; 23. Romano d'Ezzelino; 24. Valstagna; 25. Foza; 26. Asiago; 27. Lastebasse; 28. Arcugnano; 29. Erbezzo, loc. Piano la Sega; 30. Erbezzo, loc. Passo delle Fittanze; 31. Dolcè, loc. Ceraino; 32. Lonigo; 33. Cavaion, loc. Sega; 34. Verona; 35. Villafranca di Verona; 36. Oppeano; 37. Legnago; 38. Castelbaldo; 39. Arquà Petrarca; 40. Pernumia; 41. Cinto Euganeo, loc. Faedo; 42. Galzignano Terme; 43. Torreglia; 44. Torreglia, loc. Luvigliano; 45. Rovolon; 46. Abano Terme; 47. Legnaro; 48. Saonara; 49. Padua; 50. Curtarolo; 51. San Martino dei Lupari, loc. Campagnalta; 52. S. Stino di Livenza; 53. Caorle; 54. Venice, loc. Punta Sabbioni; 55. Venice; 56. Marano, loc. Mira; 57. Stra; 58. Chioggia, loc. Valli; 59. Porto Viro, loc. Cà Giustinian; 60. Rovigo, loc. Sarzano.

to samples we collected from 1995 onwards (earlier data having been reported in the above-mentioned checklist by Barbagallo & Patti, 1994), except for a few samples gifted by other collectors.

RESULTS

In total, 332 aphid species or subspecies have now been recorded for the Veneto region, north-eastern Italy. Taxa are

here listed following the currently most used systematic arrangements for the Aphidoidea into families and subfamilies (REMAUDIÈRE & REMAUDIÈRE, 1997). Inside each group, genera follow the sequence used for the Italian checklist (BARBAGALLO *et al.*, 1995), while species are alphabetically listed according to their genera. Species names are mostly updated following BLACKMAN & EASTOP (2006) and FAVRET (2016). All taxa reported can be summarized as follows: Adelgidae, 6 genera and 8 species; Phylloxeridae, 2 genera and 2 species; Aphididae, 98 genera

and 322 species. The latter family is subdivided into: Eriosomatinae, 12 genera and 22 species; Mindarinae, 1 gen. and 1 sp.; Phloeomyzinae 1 gen. and 1 sp.; Anoeciinae, 1 gen. and 1 sp.; Thelaxinae, 1 gen. and 2 spp.; Phyl-laphidinae, 1 gen. and 1 sp.; Calaphidinae, 16 gen. and 32 spp.; Saltusaphidinae, 2 gen. and 3 spp.; Drepanosiphinae, 1 gen. and 4 spp.; Chaitophorinae, 3 gen. and 17 spp.; Lachninae, 6 gen. and 31 spp.; Pterocommatinae, 1 gen. and 3 spp.; Aphidinae Aphidini, 6 gen. and 74 spp.; Aphidinae Macrosiphini, 46 gen. and 130 spp.

For every species listed the main collecting data are given (host plants, localities and sampling dates), followed by bibliographic references. A few of the taxa reported are new records for the Italian aphid fauna.

LIST OF APHID SPECIES¹

Family *Adelgidae*

Eopineus strobis (Hartig, 1839)

Ref.: BATTISTI *et al.*, 2013 (and pers. comm.)

**Pineus cembrae* (Cholodkovsky, 1888)

Ref.: COVASSI & BINAZZI, 1981

Pineus pini (Goeze, 1778)

Ref.: BATTISTI *et al.*, 2013; POLLINI, 2013

**Dreyfusia piceae* (Ratzeburg, 1844)

Ref.: COVASSI & BINAZZI, 1981; BINAZZI & COVASSI, 1988 and 1991; COVASSI & BINAZZI, 1993; POLLINI, 2013

**Adelges laricis* Vallot, 1836

Ref.: MASSALONGO C.B., 1893 (as *Chermes strobilobus* Kaltentbach); MASSALONGO O., 1896 (as *A. strobilobius*); COBAU, 1912 (as *A. strobilobius*); COVASSI & BINAZZI, 1981; BATTISTI *et al.*, 2013; POLLINI, 2013

Gilletteella coweni (Gillette, 1907)

Ref.: BATTISTI A. (pers. comm.)

**Sacchiphantes abietis* (Linnaeus, 1758)

Ref.: MASSALONGO C.B., 1893 (as *Chermes abietis* L., *partim*); MASSALONGO O., 1891 (as *Adelges abietis*); COBAU, 1910 (as *Adelges abietis*); COVASSI & BINAZZI, 1981; PELLIZZARI SCALTRITI, 1988; MASUTTI & ZANGHERI, 2001; BATTISTI *et al.*, 2013; POLLINI, 2013

**Sacchiphantes viridis* (Ratzeburg, 1843)

Larix decidua, San Vito di Cadore - BL, 19.IX.13
Ref.: COVASSI & BINAZZI, 1981; PELLIZZARI SCALTRITI, 1988; MASUTTI & ZANGHERI, 2001; BATTISTI *et al.*, 2013; POLLINI, 2013

Family *Phylloxeridae*

**Phylloxera quercus* Boyer de Fonscolombe, 1834

Ref.: MASSALONGO O., 1891 (as *Phylloxera coccinea* Kaltentbach - misid.); BARBAGALLO & BINAZZI, 1991; ROBERTI, 1993; BATTISTI *et al.*, 2013; POLLINI, 2013

**Daktulosphaira vitifoliae* (Fitch, 1855) (= *Viteus vitifoliae* Fitch)

Vitis vinifera, Cesiomaggiore – BL, Canzoi Valley, 18.IX.13; *Vitis* sp., Chioggia - VE, loc. Valli, 22.VI.16
Ref.: STRAPAZZON & GIROLAMI, 1983; PELLIZZARI SCALTRITI, 1988; ROBERTI, 1993; BARBAGALLO & PATTI, 1994; MASUTTI & ZANGHERI, 2001; POLLINI, 2013

Family *Aphididae*

a. *Eriosomatinae*

**Eriosoma lanigerum* (Hausmann, 1802)

Ref.: MASSALONGO O., 1891 (as *Schizoneura lanigera* Hartig); MASSALONGO C.B., 1893 (as *S. lanigera*); PELLIZZARI SCALTRITI, 1988; POLLINI, 2013

**Eriosoma (Schizoneura) lanuginosum* (Hartig, 1839)

Ulmus minor, Torreglia - PD, 22.VI.16 (empty gall)
Ref.: MASSALONGO O., 1891; MASSALONGO C.B., 1893; COBAU, 1910; PELLIZZARI SCALTRITI, 1988; MASUTTI & ZANGHERI, 2001; POLLINI, 2013

**Eriosoma (Schizoneura) ulmi* (Linnaeus, 1758)

Ref.: MASSALONGO C.B., 1893; MASSALONGO O., 1896; COBAU, 1910, 1915

**Colopha compressa* (Koch, 1856)

Ref.: BARBAGALLO & PATTI, 1994

**Kaltenbachiella pallida* (Haliday, 1838)

Ref.: MASSALONGO C.B., 1893 (as *Tetraneura alba* Ratzenburg); MASSALONGO O., 1896 (as *P. pallidus*); COBAU, 1915 (as *Pemphigus pallidus*); POLLINI, 2013

**Tetraneura caerulescens* (Passerini, 1856)

Ulmus minor, Riese Pio X - TV, loc. Vallà, 23.VI.16 (empty galls);
Ref.: MASSALONGO C.B., 1893 (as *Tetraneura rubra* Lichtenstein); MASSALONGO O., 1896 (as *T. rubra*); TROTTER & CECCONI, 1900-1917 (sheet n° 44 - as *T. rubra*); COBAU, 1910 (as *T. rubra*); PELLIZZARI SCALTRITI, 1988

**Tetraneura ulmi* (Linnaeus, 1758)

Ulmus minor, Torreglia - PD, 22.VI.16 (empty galls); Riese Pio X - TV, loc. Vallà, 23.VI.16 (empty galls)
Ref.: MASSALONGO C.B., 1893; MASSALONGO O., 1896; COBAU, 1915; PANIZZA DALLA MONTÀ, 1968 (*partim*); BARBAGALLO *et al.*, 1987; PELLIZZARI SCALTRITI, 1988; POLLINI, 2013

Tetraneura (Tetraneurella) nigriabdominalis Sasaki, 1899 (= *akinire* Sasaki)

Ulmus minor, Farra d'Alpago - BL, 17.IX.13; Torreglia - PD, 22.VI.16 (empty galls); Riese Pio X - TV, loc. Vallà, 23.VI.16; Fonte - TV, loc. Onè, 23.VI.16 (empty galls)
Ref.: PANIZZA DALLA MONTÀ, 1968 (as *T. ulmi, partim*-misid.); PELLIZZARI SCALTRITI, 1988 (as *T. akinire*); POLLINI, 2013

¹ Notes:

Legend and abbreviations used:

*refers to species included in the previous checklist by Barbagallo & Patti, 1994;

– Bold faced names refer to new aphid records for Italy

– Administrative provinces abbreviations: BL = Belluno; PD = Padua; RV = Rovigo; TV = Treviso; VE = Venice; VR = Verona; VI = Vicenza.

- Patchiella reaumuri* (Kaltenbach, 1843)
Tilia x vulgaris, Pedavena - BL, 18.IX.13; Legnaro - PD, *sine data* (G. Pellizzari, pers. comm.)
- **Prociphilus fraxini* (Fabricius, 1777)
Ref.: MASSALONGO C.B., 1893 (as *Pemphigus nidificus* Löw); MASSALONGO O., 1896 (as *P. nidificus*); BATTISTI *et al.*, 2013
- **Thecabius affinis* (Kaltenbach, 1843)
Populus nigra ssp. *pyramidalis*, Porto Viro - RO, loc. Ca' Giustinian, 22.VI.16
Ref.: TROTTER & CECCONI, 1900-1917 (sheet n° 344 - as *Pemphigus* sp.); COBAU, 1910 (as *Pemphigus affinis*); BARBAGALLO & PATTI, 1994
- **Pemphigus bursarius* (Linnaeus, 1758)
Populus nigra, Sedico - BL, loc. La Stanga, 18.IX.13; *P. nigra* ssp. *pyramidalis*, San Martino di Lupari - PD, loc. Campagnalta, 23.VI.16
Ref.: MASSALONGO O., 1891; MASSALONGO C.B., 1893; PELLIZZARI SCALTRITI, 1988; POLLINI, 2013
- **Pemphigus immunis* Buckton, 1896
Populus nigra, Sedico - BL, loc. La Stanga, 18.IX.13; *P. nigra* ssp. *pyramidalis*, San Martino di Lupari - PD, loc. Campagnalta, 23.VI.16
Ref.: MASSALONGO C.B., 1893 (as *P. bursarius*, *partim-misid.*); COBAU, 1910 (as *P. bursarius*); PELLIZZARI SCALTRITI, 1988
- **Pemphigus populinigrae* (Schrank, 1801)
Ref.: MASSALONGO C.B., 1893 (as *P. marsupialis* Koch, *misid.* - see BARBAGALLO & MASSIMINO COCUZZA, 2014); MASSALONGO O., 1896 (as *P. marsupialis* Courchet - *misid.*); TROTTER & CECCONI, 1900-1917 (sheet n° 343 - as *P. marsupialis* Courchet - *misid.*); MASSALONGO C., 1906b (as *P. filaginis* Boyer); COBAU, 1910 (as *P. marsupialis* Courchet, *misid.*)
- **Pemphigus spyrothecae* Passerini, 1856
Populus nigra ssp. *pyramidalis*, Porto Viro - RO, loc. Ca' Giustinian, 22.VI.16; San Martino di Lupari - PD, loc. Campagnalta, 23.VI.16
Ref.: MASSALONGO O., 1891; MASSALONGO C.B., 1893; COBAU, 1910; PELLIZZARI SCALTRITI, 1988
- **Pemphigus (Pemphiginus) populi* Courchet, 1879
Ref.: MASSALONGO C.B., 1893; MASSALONGO O., 1896
- **Pemphigus (Pemphiginus) vesicarius* Passerini, 1861
Ref.: MASSALONGO C.B., 1893; MASSALONGO O., 1896
- Aloephagus myersi* Essig 1950
Aloe ferox, Padua, 16.VI.2015 (G. Pellizzari *leg.*); *A. mitrifomis* and *A. vera*, Padua ..-VIII.16 (G. Pellizzari *leg.*)
- **Baizongia pistaciae* (Linnaeus, 1767)
Pistacia terebinthus, Arquà Petrarca - PD, 22.VI.16
Ref.: MASSALONGO O., 1891 (as *Tetraneura cornicularia* Passerini); MASSALONGO C.B., 1893 (as *T. cornicularia*)
- Geoica utricularia* (Passerini, 1856)
Pistacia terebinthus, Padua (Botanical garden), *sine data* (G. Pellizzari pers. comm.)
Ref.: MASSALONGO O., 1896 (as *Tetraneura utricularia*); PELLIZZARI SCALTRITI, 1988 (pers. comm.)
- **Forda formicaria* von Heyden, 1837
Pistacia terebinthus, Arquà Petrarca - PD, 22.VI.16; Padua (Botanical garden), *sine data* and Arcugnano - VI, Berici Hills, 15.VIII.85 (G. Pellizzari pers. comm.)
Ref.: MASSALONGO O., 1891 (as *Tetraneura semilunaria* Passerini); MASSALONGO C.B., 1893 (as *T. semilunaria*); TROTTER & CECCONI, 1900-1917 (sheet n° 19 - as *T. semilunaria*); BARBAGALLO & PATTI, 1994; BARBAGALLO *et al.*, 1987; PELLIZZARI SCALTRITI, 1988 (pers. comm.)
- **Forda marginata* Koch, 1857
Pistacia terebinthus, Arquà Petrarca - PD, 22.VI.16;
Ref.: MASSALONGO O., 1891 (as *Pemphigus follicularius* Passerini); MASSALONGO C.B., 1893 (as *P. follicularius*); TROTTER & CECCONI, 1900-1917 (sheet n° 18 - as *Tetraneura follicularia*)
- b. Mindarinae**
- **Mindarus abietinus* Koch, 1857
Ref.: COVASSI & BINAZZI, 1993; MASUTTI & ZANGHERI, 2001; BATTISTI *et al.*, 2013 (and pers. comm.); POLLINI, 2013;
- c. Phloeomyzinae**
- **Phloeomyzus passerinii* (Signoret, 1875)
Ref.: VIDOTTI, 1960; MASUTTI, 1982; MASUTTI & ZANGHERI, 2001; BATTISTI *et al.*, 2013
- d. Anoeciinae**
- **Anoecia corni* (Fabricius, 1775)
Cornus sanguinea, Pedavena - BL, loc. Croce d'Aune and Sospirolo - BL, Mis Lake, 18.IX.13; vagrant alate, San Vito di Cadore - BL, 19.IX.13
Ref. BARBAGALLO & PATTI, 1994
- e. Thelaxinae**
- Thelaxes dryophila* (Schrank, 1801)
Quercus robur, Farra d'Alpago - BL, 17.IX.13
- Thelaxes suberi* (Del Guercio, 1911)
Quercus ilex, Padua, 21.VI.16; *Q. pubescens*, Cinto Euganeo - PD, loc. Faedo, 22.VI.16
- f. Phyllaphidinae**
- **Phyllaphis fagi* (Linnaeus, 1767)
Fagus sylvatica, Pedavena - BL, loc. Croce d'Aune, 18.IX.13; San Zenone degli Ezzelini - TV, 23.VI.16
Ref.: MASSALONGO O., 1896; COBAU, 1912; BARBAGALLO & PATTI, 1994; MASUTTI & ZANGHERI, 2001; BATTISTI *et al.*, 2013; POLLINI, 2013
- g. Calaphidinae**
- Symydobius oblongus* (von Heyden, 1837)
Betula pendula, Farra d'Alpago - BL, 17.IX.13; Cortina d'Ampezzo - BL, 19.IX.13

- **Euceraphis betulae* (Koch, 1855)
Betula pendula, Farra d'Alpago - BL, 17.IX. 13
Ref.: BARBAGALLO & PATTI, 1994
- **Callipterinella calliptera* (Hartig, 1841)
Ref.: BARBAGALLO & PATTI, 1994
- Betulaphis quadrituberculata* (Kaltenbach, 1843)
Betula pendula, Farra d'Alpago - BL, 17.IX. 13
- Monaphis antennata* (Kaltenbach, 1843)
Betula pendula, Farra d'Alpago - BL, 17.IX. 13; Padua, 24.VI.16
- **Boernerina depressa* Bramstedt, 1940
Ref. BARBAGALLO *et al.*, 1987; BARBAGALLO & PATTI, 1994
- Panaphis juglandis* (Goeze, 1778)
Juglans regia, Farra d'Alpago - BL, 17.IX. 13
Ref: POLLINI, 2013
- Chromaphis juglandicola* (Kaltenbach, 1843)
Juglans regia, Farra d'Alpago - BL, 17.IX. 13
Ref: MASSALONGO O., 1891 (as *Callipterus juglandicola* Koch); POLLINI, 2013
- Myzocallis boernerii* Stroyan, 1957
Quercus cerris, Cinto Euganeo - PD, loc. Faedo, 22.VI.16
- Myzocallis carpini* (Koch, 1855)
Carpinus betulus, Pedavena - BL, 18.IX.13; Padua (Botanical Garden), 21.VI.16
- **Myzocallis castanicola* Baker, 1917
Castanea sativa, Galzigliano Terme - PD, 22.VI.16
Ref.: BARBAGALLO & PATTI, 1994; POLLINI, 2013
- Myzocallis coryli* (Goeze, 1778)
Corylus avellana, Fregona - TV, 17.IX.13; Fonte - TV, loc. Onè, 23.VI.16;
Ref: MASSALONGO O, 1891
- Myzocallis (Lineomyzocallis) walshii* (Monell, 1879)
Quercus rubra, Farra d'Alpago - BL, 17.IX. 13
- Tuberculatus querceus* (Kaltenbach, 1843)
Quercus robur, Farra d'Alpago - BL, 17.IX.13
- **Tuberculatus (Tuberculoides) annulatus* (Hartig, 1841)
Quercus robur, Farra d'Alpago - BL, 17.IX.13
Ref.: BARBAGALLO & PATTI, 1994; POLLINI, 2013
- Tuberculatus (Tuberculoides) eggleri* Börner, 1950
Quercus pubescens, Fregona - TV, 17.IX.13
- Tuberculatus (Tuberculoides) neglectus* (Krzywicz, 1966)
Quercus petraea, Solagna - VI, 23.VI.16
- Tinocallis kahawaluokalani* (Kirkaldy, 1907)
Lagerstroemia indica, Pedavena - BL, 18.IX.13; Padua (Botanical Garden), 21.VI.16
- **Tinocallis platani* (Kaltenbach, 1843)
Ref.: PATTI & BARBAGALLO, 1994
- Tinocallis saltans* (Nevsky, 1929)
Ulmus glabra, Erbezzo - VR, loc. Piano La Sega, 13.IX.04
- Tinocallis takachihoensis* Higuchi, 1972
Ulmus minor, Torreglia - PD, 22.VI.16; Curtarolo - PD, 23.VI.16; Fonte - TV, loc. Onè, 23.VI.16
- Eucallipterus tiliae* (Linnaeus, 1758)
Tilia platyphyllos, Padua (Botanical Garden), 21.VI.16;
Tilia x vulgaris, Pedavena - BL, 18.IX.13
Ref.: MASSALONGO O., 1896 (as *Pterocallis tiliae* Passerini)
- Takecallis arundinariae* (Essig, 1917)
Phyllostachys bambusoides, Cesiomaggiore - BL, 18.IX.13; Torreglia - PD, 22.VI.16; *Ph. mitis*, Padua (Botanical Garden), May 2007 (G. Pellizzari, pers. comm.); *Ph. nigra*, Padua (Botanical Garden), 21.VI.16
- Takecallis taiwana* (Takahashi, 1926)
Phyllostachys mitis, Padua (Botanical Garden), May 2007 (G. Pellizzari, pers. comm.); *Ph. nigra*, Torreglia - PD, 22.VI.16
- Pterocallis alni* (DeGeer, 1773)
Alnus glutinosa, Sospirolo - BL, 18.IX.13
Ref.: MASSALONGO O., 1893
- Pterocallis ostryae* Börner, 1949
Ostrya carpinifolia, Sospirolo - BL, Mis Lake, 18.IX;
Romano D'Ezzelino - VI, 23.VI.16
- Appendiseta robiniae* (Gillette, 1907)
Robinia pseudacacia, Fregona - TV, 17.IX.13; Torreglia - PD, loc. Luvigliano, 22.VI.16
- Therioaphis brachytricha* Hille Ris Lambers & van den Bosch, 1964
Lotus corniculatus, Farra d'Alpago - BL, S. Croce Lake, 17.IX.13; Torreglia - PD, 22.VI.16
- Therioaphis luteola* (Börner, 1949)
Trifolium pratense, San Vito di Cadore - BL, 19.IX.13
- Therioaphis ononidis* (Kaltenbach, 1846)
Ononis spinosa, Arquà Petrarca - PD, 22.VI.16
- Therioaphis riehmi* (Börner, 1949)
Melilotus alba, Fregona - TV, 17.IX.13; Farra d'Alpago - BL, S. Croce Lake, 17.IX.13;
- Therioaphis trifolii* (Monell, 1882)
Medicago sativa, Pedavena - BL, loc. Croce d'Aune, 18.IX.13; *Trifolium pratense* and *T. repens*, Farra d'Alpago - BL, S. Croce Lake, 17.IX.13; Valstagna - VI, 23.VI.16
Ref.: POLLINI, 2013
- h. *Saltusaphidinae***
- Allaphis verrucosa* (Gillette, 1917)
Carex fusca and *C. rostrata*, Auronzo di Cadore - BL, Misurina Lake, 19.IX.13
- Subsaltusaphis ornata* (Theobald, 1927)
Carex sp., Solagna - VI, Mt. Grappa, 23.VI.16

Subsaltusaphis rossneri (Börner, 1940)
Carex fusca and *C. rostrata*, Auronzo di Cadore - BL,
Misurina Lake, 19.IX.13

i. *Drepanosiphinae*

Drepanosiphum acerinum (Walker, 1848)
Acer pseudoplatanus, Farra d'Alpago - BL, Pian del
Cansiglio, 17.IX.13

**Drepanosiphum aceris* Koch, 1855
Ref.: HILLE RIS LAMBERS, 1966b

Drepanosiphum dixonii Hille Ris Lambers, 1971
Acer campestre, Torreglia - PD, loc. Luvigliano,
22.VI.16

**Drepanosiphum platanoidis* (Schrank, 1801)
Acer platanoides, Asiago - VI, 23.VI.16; *A. pseu-*
doplatanus, Farra d'Alpago - BL, Pian del Cansiglio,
17.IX.13;

j. *Chaitophorinae*

Peryphyllus acericola (Walker, 1848)
Acer pseudoplatanus, Romano D'Ezzelino - VI, loc. S.
Giacomo Fellette, 23.VI.16

Periphyllus aceris (Linnaeus, 1761)
Ref. MASSALONGO O., 1891 (as *Chaitophorus aceris*
Koch)

**Periphyllus hirticornis* (Walker, 1848)
Acer platanoides and *A. pseudoplatanus*, Asiago - VI,
23.VI.16
Ref.: BARBAGALLO & PATTI, 1994

Periphyllus lyropictus (Kessler, 1886)
Acer platanoides, Pedavena - BL, 18.IX.13; Abano
Terme - PD, 22.VI.16
Ref.: POLLINI, 2013

Periphyllus testudinaceus (Ferne, 1852)
Acer campestre, Farra d'Alpago - BL, 17.IX.13; *A.*
platanoides and *A. pseudoplatanus*, Asiago - VI,
23.VI.16

**Periphyllus venetianus* Hille Ris Lambers, 1966
Acer campestre, Torreglia - PD, loc. Luvigliano,
22.VI.16
Ref.: HILLE RIS LAMBERS, 1966b

Chaitophorus capreae (Mosley, 1841)
Salix caprea, Pedavena - BL, loc. Croce d'Aune,
18.IX.13
Ref.: MASSALONGO O., 1896 (as *Siphocoryne capreae*
Passerini)

**Chaitophorus leucomelas* Koch, 1854
Populus nigra ssp. *pyramidalis*, Porto Viro - RO, loc.
Cà Giustinian, 22.VI.16
Ref.: MASSALONGO O., 1891 (as *C. populi* Koch,
partim); COBAU, 1912; POLLINI, 2013

**Chaitophorus niger* Mordvilko 1929
Salix alba, Curtarolo - PD, Brenta River, 23.VI.16
Ref.: BARBAGALLO & PATTI, 1994

**Chaitophorus populeti* (Panzer, 1801)
Populus alba, Curtarolo - PD, Brenta River, 23.VI.16
Ref.: BARBAGALLO & PATTI, 1994; POLLINI, 2013

**Chaitophorus populialbae* (Boyer de Fonscolombe,
1841)
Populus alba, Curtarolo - PD, Brenta River, 23.VI.16
Ref.: HILLE RIS LAMBERS, 1934 (as *C. albus* Mordvilko)

Chaitophorus salicti (Schrank, 1801)
Salix appendiculata, Solagna - VI, Mt. Grappa,
23.VI.16; *S. eleagnos*, Sedico - BL, 18.IX.13;

Chaitophorus tremulae Koch, 1854
Ref.: MASSALONGO O., 1891 (as *Chaitophorus populi*
Koch, *partim* - misid.)

Chaitophorus vitellinae (Schrank, 1801)
Ref.: MASSALONGO O., 1891

**Sipha glyceriae* (Kaltenbach, 1843)
Glyceria plicata, Farra d'Alpago - BL, Pian del
Cansiglio, 17.IX.13
Ref.: ROBERTI, 1993

Sipha (Rungisia) elegans Del Guercio, 1905
Unidentified Poaceae, Erbezzo - VR, loc. Piano La
Sega, 13.IX.04; *Elymus repens*, Pedavena - BL, Croce
d'Aune, 17.IX.13

Sipha (Rungisia) maydis Passerini, 1860
Cynodon dactylon, Riese Pio X - TV, loc. Vallà,
23.VI.16; *Dactylis glomerata*, Cesiomaggiore - BL,
18.IX.13
Ref.: POLLINI, 2013

k. *Lachninae*

Eulachnus agilis (Kaltenbach, 1843)
Pinus sylvestris, San Vito di Cadore - BL, 19.IX.13

**Eulachnus alticola* Börner, 1940
Ref.: BINAZZI, 1989; BINAZZI & COVASSI, 1994

**Eulachnus cembrae* Börner, 1950
Ref.: BINAZZI, 1978

**Eulachnus intermedius* Binazzi, 1989
Ref.: BARBAGALLO & PATTI, 1994; BINAZZI & COVASSI,
1994

Eulachnus rileyi (Williams, 1911)
Pinus mugo, Cortina d'Ampezzo - BL, 19.IX.13; *P.*
sylvestris, San Vito di Cadore - BL, 19.IX.13; Cortina
d'Ampezzo - BL, 19.IX.13; Auronzo di Cadore - BL,
Misurina Lake, 19.IX.13

**Eulachnus tauricus* Bozhko, 1957
Ref.: HILLE RIS LAMBERS, 1966b (as *E. rileyi* spp.
tauricus)

**Schizolachnus obscurus* Börner, 1940
Pinus nigra, Pedavena - BL, loc. Croce d'Aune,
18.IX.13
Ref.: BARBAGALLO & PATTI, 1994 (as *S. pineti* F. on
Pinus nigra)

- Schizolachnus pineti* (Fabricius, 1781)
Pinus sylvestris, San Vito di Cadore - BL, 19.IX.13
- **Cedrobium laportei* Remaudière, 1954
Ref.: COVASSI, 1971; BATTISTI *et al.*, 2013
- Cinara carnica* Binazzi, 1995
Ref.: BINAZZI, 1978
- **Cinara cedri* Mimeur, 1936
Cedrus atlantica, Padua, 22.VI.16
Ref.: BINAZZI, 1978
- **Cinara cembrae* (Seitner, 1936)
Ref.: BINAZZI, 1978
- **Cinara confinis* (Koch, 1856)
Ref.: BINAZZI, 1978
- Cinara covassii* Binazzi, 1991
Ref.: BINAZZI & COVASSI, 1994
- **Cinara cuneomaculata* (Del Guercio, 1909)
Larix decidua, San Vito di Cadore - BL, 19.IX.13;
Cortina d'Ampezzo - BL, 19.IX.13
Ref.: BINAZZI, 1978
- **Cinara laricis* (Hartig, 1839)
Larix decidua, San Vito di Cadore - BL, 19.IX.13
Ref.: BARBAGALLO & PATTI, 1994; BINAZZI, 1978
- **Cinara montanica* (Börner, 1939)
Ref.: BINAZZI & DE SILVA, 1993
Cinara neubergi (Arnhart, 1930)
Pinus sylvestris, San Vito di Cadore - BL, 19.IX.13 (two
immat.)
- **Cinara pectinatae* (Nördlinger, 1880)
Ref.: BINAZZI, 1978; COVASSI & BINAZZI, 1993
- **Cinara piceae* (Panzer, 1801)
Ref.: MASUTTI, 1968; BINAZZI, 1978; CARNIEL &
MASUTTI, 1980; BARBAGALLO & PATTI, 1994
- **Cinara piceicola* (Cholodkovsky, 1896)
Picea abies, Pedavena - BL, 18.IX.13
Ref.: BINAZZI, 1978 (as *C. stroyani* Pašek); CARNIEL &
MASUTTI, 1980 (as *C. stroyani*)
- **Cinara pilicornis* (Harti, 1841)
Picea abies, San Vito di Cadore - BL, 19.IX.13
Ref.: BINAZZI, 1978
- **Cinara pinea* (Mordvilko, 1895)
Pinus sylvestris, Cortina d'Ampezzo - BL, 19.IX.13
- Cinara pini* (Linnaeus, 1758)
Pinus mugo, Cortina d'Ampezzo - BL, 19.IX.13 (one
immat.)
- **Cinara pruinosa* (Hartig, 1841)
Ref.: BINAZZI, 1978
- **Cinara (Cupressobium) cupressi* (Buckton, 1881)
Ref.: BINAZZI, 1978; COVASSI & BINAZZI, 1980
- **Cinara (Cupressobium) juniperi* (DeGeer, 1773)
Juniperus communis, Solagna - VI, Mt. Grappa,
23.VI.16; *J. nana*, Auronzo di Cadore - BL, Misurina
Lake, 19.IX.13;
Ref.: MASSALONGO O., 1896 (as *Lachnus juniperi*
Kaltenbach); BINAZZI, 1978
- **Cinara (Cupressobium) tujafilina* (Del Guercio, 1909)
Ref.: BARBAGALLO & PATTI, 1994
- Tuberolachnus salignus* (Gmelin, 1790)
Salix alba, Farra d'Alpago - BL, S. Croce Lake,
17.IX.13; *S. caprea*, Cesiomaggiore - BL, Canzoi
Valley, 18.IX.13
Ref.: Minelli, 1974 (as *Lachnus salignus*)
- Lachnus ilicophilus* (Del Guercio, 1909)
Quercus ilex, Padua, 24.VI.16
- Lachnus roboris* (Linnaeus, 1758)
Quercus pubescens, Fregona - TV, 17.IX.13; Cinto
Euganeo - PD, loc. Faedo, 22.VI.16
Ref.: MASSALONGO O., 1896 (as *Pterochlorus longipes*
Passerini); BATTISTI *et al.*, 2013
- l. Pterocommatinae**
- **Pterocomma konoi* Hori, 1939
Ref.: BARBAGALLO & PATTI, 1994
- **Pterocomma populeum* (Kaltenbach, 1843)
Ref.: MASSALONGO O., 1891 (as *Cladobium populea*
Koch); BARBAGALLO & PATTI, 1994; POLLINI, 2013
- **Pterocomma rufipes* (Hartig, 1841)
Ref.: BARBAGALLO *et al.*, 1987; BARBAGALLO & PATTI,
1994
- m. Aphidinae Aphidini**
- Hyalopterus pruni* (Geoffroy, 1762)
Phragmites australis, Pedavena - BL, 18.IX.13; vagrant
alate, Porto Viro - RO, loc. Cà Giustinian, 22.VI.16
Ref.: Massalongo O., 1891; Cobau, 1912; Masutti &
Zangheri, 2001; Pollini, 2013
- **Rhopalosiphum maidis* (Fitch, 1856)
Unid. Poaceae, San Vito di Cadore - BL, 19.IX.13;
Sorghum halepense, Fregona - TV, 17.IX.13; *Zea mays*,
Torreglia - PD, 22.VI.16; San Martino di Lupari - PD,
loc. Campagnalta, 23.VI.16; vagrant alates (on
Calendula officinalis), Padua (Botanical Garden),
25.VII.83 (G. Pellizzari pers. comm.)
Ref.: BARBAGALLO *et al.*, 1987; BARBAGALLO & PATTI,
1994
- **Rhopalosiphum nymphaeae* (Linnaeus, 1761)
Sparganium erectum, Farra d'Alpago - BL, Pian del
Cansiglio, 17.IX.13
Ref.: HILLE RIS LAMBERS, 1934
- **Rhopalosiphum oxyacanthae* (Schrank, 1801) (=insertum
Walker)
Ref.: BARBAGALLO & PATTI, 1994 (as *R. insertum*)
- Rhopalosiphum padi* (Linnaeus, 1758)
Zea mays, San Stino di Livenza - VE, 10.VI.80 (M.G.

- Paoletti leg.); Unid. Poaceae, Erbezzo - VR, loc. Piano la Sega, 13.IX.04; Rovigo, loc. Sarzano, 22.VI.16; *Setaria viridis*, Pedavena - BL, 18.IX.13
Ref.: MASUTTI & ZANGHERI, 2001
- **Schizaphis graminum* (Rondani, 1852)
Ref.: MARTELLI, 1950
- Schizaphis (Paraschizaphis) caricis* (Schouteden, 1906)
Carex sp., Pedavena - BL, loc. Croce d'Aune, 18.9.13
- Schizaphis (Paraschizaphis) scirpi* (Passerini, 1874)
Typha angustifolia, Abano Terme - PD, 22.VI.16
- Melanaphis donacis* (Passerini, 1862)
Arundo donax, Pedavena - BL, 18.IX.13; Arquà Petrarca - PD, 22.VI.16
- Melanaphis pyraria* (Passerini, 1861)
Pyrus communis, Erbezzo - VR, loc. Piano la Sega, 13.IX.04; *P. pyraeaster*, Padua (Botanical Garden), 21.VI.16
Ref.: MASSALONGO O., 1891 (as *Myzus pyrarius*); COBAU, 1912 (as *Myzus mali* F. on *Pyrus communis* - misid.); POLLINI, 2013
- **Aphis affinis* Del Guercio, 1911
Mentha aquatica, Farra d'Alpago - BL, S. Croce Lake, 17.IX.13; *Mentha* sp., Padua (Botanical Garden), 24.VI.82 (G. Pellizzari, pers. comm.);
Ref.: COBAU, 1910 (as *Aphis capsellae* Kaltentbach on *Mentha longifolia* - misid.); BARBAGALLO & PATTI, 1994
- Aphis althaeae* Nevsky, 1929 (=davletshinae Hille Ris Lambers, 1966)**
Althaea officinalis, Rovigo, loc. Sarzano, 22.VI.16
Ref.: TROTTER, 1903 (recorded as ?*Aphis urticaria* Kaltentbach on *Althaea officinalis*; it may be probably attributed to *A. althaeae*)
- **Aphis chloris* Koch, 1854
Hypericum androsaemum, Padua (Botanical Garden), 21.VI.16; *H. perforatum*, Padua (Botanical Garden), 18.VI.85 (G. Pellizzari, pers. comm.);
Ref.: BARBAGALLO & PATTI, 1994; PELLIZZARI SCALTRITI, 1990
- Aphis cirsiioleracei* (Börner, 1932)**
Ref.: Trotter & Cecconi, 1900-1917 (sheet n° 392 - pseudogalls, as "Aphididae" on *Cirsium oleraceum*); Trotter, 1906 (recorded as "Aphididae", but the description of leaf deformations is in keeping with the description of the postulated species); Cobau, 1910 (as unident. "Aphididae" on deformed leaves of *Cirsium oleraceum*)
- Aphis confusa* Walker, 1849
Knautia arvensis, San Vito di Cadore - BL, 19.IX.13; *K. drymeia*, Solagna - VI, Mt. Grappa, 23.VI.16
- Aphis coronillae* Ferrari, 1872
Trifolium repens, Farra d'Alpago - BL, S. Croce Lake, 17.IX.13
- Aphis craccae* Linnaeus, 1758
Vicia sp., Erbezzo - VR, loc. Piano la Sega, 13.IX.04; Pedavena - BL, loc. Croce d'Aune, 18.IX.13
- **Aphis craccivora* Koch, 1854
Capsella bursapastoris, Padua, 21.VI.16; *Emerus majus*, Cinto Euganeo - PD, loc. Faedo, 22.VI.16; *Lotus corniculatus*, Pedavena - BL, loc. Croce d'Aune, 18.IX.13; *Robinia pseudoacacia*, Torreglia - PD, loc. Luvigliano, 22.VI.16
Ref.: HILLE RIS LAMBERS, 1934 (as *Doralis medicaginis* Koch); BARBAGALLO & PATTI, 1994; POLLINI, 2013
- Aphis cytisorum* Hartig, 1841
Spartium junceum, Padua, (Botanical Garden), 21.VI.16
Ref.: POLLINI, 2013
- Aphis cytisorum* ssp. *sarothamni* Franssen, 1928
Cytisus scoparius, Pedavena - BL, 18.IX.13
- Aphis epilobiaris* Theobald, 1927
Epilobium hirsutum, Pedavena - BL, 18.IX.13; Abano Terme - PD, 22.VI.16
- Aphis epilobii* Kaltentbach, 1843
Epilobium montanum, Pedavena - BL, loc. Croce d'Aune, 18.IX.13
- Aphis euonymi* (Fabricius, 1775)
Ref.: MASSALONGO O., 1896; COBAU, 1912;
- Aphis eupatorii* Passerini, 1863
Eupatorium cannabinum, Fregona - TV, 17.IX.13
- Aphis euphorbiae* Kaltentbach, 1843
Ref.: MASSALONGO O., 1891
- **Aphis fabae* Scopoli, 1763
Epilobium angustifolium, Pedavena - BL, loc. Croce d'Aune, 18.IX.13; *Heracleum spondylium*, Fregona - TV, 17.IX.13; *Impatiens glandulifera*, Farra d'Alpago - BL, Tece Stream, 17.IX.13; *Myrrhys odorata*, Galzigliano Terme - PD, 22.VI.16; *Peucedanum austriacum*, Sospirolo - BL, Mis Lake, 18.IX.13; *Plantago lanceolata*, Farra d'Alpago - BL, 17.IX.13; Pedavena - BL, loc. Croce d'Aune, 18.IX.13; Padua (Botanical Garden), 21.VI.16; *Rumex crispus*, Pedavena - BL, loc. Croce d'Aune, 18.IX.13; *R. obtusifolius*, Torreglia - PD, 22.VI.16; *Tanacetum parthenium*, *Sium sisarum* and *Galium tinctorum*, Padua (Botanical Garden), 21.VI.16; unid. Apiaceae, Cavaion Veronese - VR, loc. Sega di Cavaion, 9.VI.12 (G. Nardi leg.); *Valeriana officinalis*, Valstagna - VI, 23.VI.16
Ref.: MASSALONGO O., 1891 (as *A. papaveris*); COBAU, 1912 (as *A. rumicis* L. on *Amaranthus*); ROBERTI, 1993; BARBAGALLO & PATTI, 1994; MASUTTI & ZANGHERI, 2001; POLLINI, 2013
- Aphis fabae* ssp. *cirsiiacanthoidis* Scopoli, 1763
Cirsium arvense, San Vito di Cadore - BL, 19.IX.13
Ref.: Massalongo C., 1906a (as *Aphis serratulae* L., sic); Cobau, 1912 (as "Aphididae" on *Carduus defloratus*)
- Aphis fabae* ssp. *mordvilkoii* Börner & Janich, 1922
Arctium lappa, Romano d'Ezzelino - VI, loc. S. Giacomo Fellette, 23.VI.16
- **Aphis farinosa* Gmelin, 1790
Salix alba, Valstagna - VI, 23.VI.16
Ref.: HILLE RIS LAMBERS, 1934 (as *Doralis saliceti* Koch)

- Aphis frangulae* Kaltenbach, 1845
Rhamnus cathartica, Padua (Botanical Garden), 21.VI.16; *Galeopsis tetrahit*, Romano d'Ezzelino, loc. S. Giacomo Fellette, 23.VI.16
 Ref.: COBAU, 1910 (as *A. origani* on *Satureja nepeta* - misid.)
- Aphis galiiscabri* Schrank, 1801
Galium mollugo, Pedavena - BL, loc. Croce d'Aune, 18.IX.13
- Aphis gentianae* (Börner, 1940)
Blackstonia perfoliata, Venice, loc. Punta Sabbioni, 12.VII.69 (V.F. Eastop leg. - courtesy of The Natural History Museum, London)
 Ref.: BARBAGALLO & MASSIMINO COCUZZA, 2014
- **Aphis gossypii* Glover, 1877
Mentha x piperita, Venice, 30.V.12; *Bignonia radicans*, Venice, 1.VI.12; *Hibiscus schizopetalus*, Padua (Botanical Garden), 5.X.16 (G. Pellizzari leg.)
 Ref.: ROBERTI, 1993; BARBAGALLO & PATTI, 1994; POLLINI, 2013;
- Aphis hederæ* Kaltenbach, 1843
Hedera helix, Farra d'Alpago. 17.IX.13; Romano d'Ezzelino - VI, 23.VI.16; Foza - VI, 23.VI.16
 Ref. MASSALONGO O., 1891, 1893; POLLINI, 2013
- Aphis idaei* van der Goot, 1912
Rubus idaeus, Sospirolo - BL, Mis Lake, 18.IX.16; Solagna - VI, Mt. Grappa, 23.VI.16
- **Aphis intybi* Koch, 1855
Cichorium intybus, Fregona - TV, 17.IX.13
 Ref.: BARBAGALLO & PATTI, 1994
- Aphis jacobaeae* Schrank, 1801
Senecio inaequidens, Foza - VI, 23.VI.16
- Aphis lambersi* (Börner, 1940)
Daucus carota, Sospirolo - BL, Mis Lake, 18.IX.13
- **Aphis loti* Kaltenbach, 1862
Lotus corniculatus, Torreglia - PD, 22.VI.16
 Ref.: HILLE RIS LAMBERS, 1934
- Aphis mamonthovae* Davletshina, 1964
Verbena officinalis, Gosaldo - BL, loc. Tiser, 18.IX.13
 Ref.: COBAU, 1910 (probably this species recorded as an unidentified green "Aphididae" on flower stems of *Verbena officinalis*)
- **Aphis nasturtii* Kaltenbach, 1843
Rhamnus catharticus, Padua (Botanical Garden), 21.VI.16; Unident. host plant, Pedavena - BL, loc. Croce d'Aune, 18.IX.13;
 Ref.: BARBAGALLO & PATTI, 1994
- Aphis nerii* Boyer de Fonscolombe, 1841
Nerium oleander, Padua, 22.VI.16
 Ref.: MASSALONGO O., 1891
- Aphis newtoni* Theobald, 1927
Iris pseudacorus, Riese Pio X - TV, loc. Vallà, 23.VI.16
- Aphis oenotherae* Oestlund, 1887
Oenothera biennis, Pedavena - BL, 18.IX.13; Curtarolo - PD, Brenta River, 23.VI.16
- Aphis parietariae* Theobald, 1922
Parietaria judaica, Torreglia - PD, loc. Luvigliano, 22.VI.16; *P. officinalis*, Auronzo di Cadore - BL, 19.IX.13;
- Aphis passeriniana* (Del Guercio, 1900)
Salvia officinalis, Cesiomaggiore - BL, 18.IX.13
- Aphis picridis* (Börner, 1950)
Picris hieracioides, Erbezzo - VR, loc. Passo Fittanze della Sega, 13.IX.04; Farra d'Alpago - BL, S. Croce Lake, 17.IX.13; Sedico - BL, 18.IX.13
- Aphis plantaginis* Goeze, 1778
Plantago media, Erbezzo - VR, loc. Passo Fittanze della Sega, 13.IX.04
- Aphis polygonata* Nevsky, 1929 (= *avicularis* Hille Ris Lambers)
Polygonum aviculare, Pedavena - BL, 18.IX.13
- **Aphis pomi* DeGeer, 1773
Cotoneaster sp. (cult.), Pedavena - BL, 18.IX.13
 Ref.: MASSALONGO O., 1891 (as *Aphis mali* F.); MASSALONGO C., 1906a (as *Aphis mali* F.); COBAU, 1012; MARTELLI, 1939; ROBERTI, 1993; BARBAGALLO & PATTI, 1994; MASUTTI & ZANGHERI, 2001; POLLINI, 2013
- Aphis praeterita* Walker, 1849
Epilobium hirsutum, Pedavena - BL, 18.IX.13; Abano Terme - PD, 22.VI.16
Aphis punicae Passerini, 1863
Punica granatum, Cinto Euganeo - PD, loc. Faedo, 22.VI.16
- **Aphis roepkei* (Hille Ris Lambers, 1931)
 Ref.: BARBAGALLO & PATTI, 1994
- Aphis ruborum* (Börner, 1932)
Rubus ulmifolius, Erbezzo - VR, loc. Piano la Sega, 13.IX.04; Pedavena - BL, 18.IX.13
- **Aphis rumicis* Linnaeus, 1758
Rumex conglomeratus, Padua, 21.VI.16
 Ref.: MASSALONGO C., 1906b; COBAU, 1910; 1912; 1915; HILLE RIS LAMBERS, 1934 (as *Doralis rumicis*); BARBAGALLO & PATTI, 1994;
- Aphis salicariae* Koch, 1855
Epilobium angustifolium, Pedavena - BL, loc. Croce d'Aune, 18.IX.13
- Aphis salviae* Walker, 1852
Salvia pratensis, Arquà Petrarca - PD, 22.VI.16
- Aphis sambuci* Linnaeus, 1758
Sambucus nigra, Dolcè - VR, loc. Ceraino, 12.V.11 (G. Nardi leg.); Torreglia - PD, loc. Luvigliano, 22.VI.16; Fonte - TV, loc. Onè, 23.VI.16
 Ref.: MASSALONGO, 1891
- Aphis sanguisorbae* Schrank, 1801
Sanguisorba officinalis, Farra d'Alpago - BL, Pian del Cansiglio, 17.IX.13

- **Aphis solanella* Theobald, 1914
Solanum nigrum, Torreglia - PD, loc. Luvigliano, 22.VI.16
 Ref.: MASSALONGO C., 1906b (as *A. rumicis* L. - misid.); COBAU, 1910 (as *Aphis rumicis*, partim, on *Solanum nigrum* - misid.); BARBAGALLO & PATTI, 1994; POLLINI, 2013
- **Aphis spiraecola* Patch, 1914
Rhamnus utilis, Padua (Botanical Garden), 21.VI.16;
Carissa macrocarpa, Padua (Botanical Garden), 5.X.16 (G. Pellizzari leg.)
 Ref.: BARBAGALLO & PATTI, 1994
- Aphis subnitida* (Börner, 1940)**
Pimpinella saxifraga, Erbezzo - VR, loc. Piano la Sega, 13.IX.04
- Aphis taraxicola* (Börner, 1940)
Taraxacum officinale, Auronzo di Cadore - BL, 19.IX.13; San Martino di Lupari - PD, loc. Campagnalta, 23.VI.16; Romano D'Ezzelino - VI, 23.VI.16
- **Aphis thalictri* Koch, 1854
 Ref.: BARBAGALLO *et al.*, 1987; BARBAGALLO & PATTI, 1994
- Aphis thermophila* Börner, 1950
Helianthemum oelandicum, Solagna - VI, Mt. Grappa, 23.VI.16
 Quoted as subspecies of *A. helianthemum* Ferrari by Blackman & Eastop, 2006
- Aphis tormentillae* Passerini, 1879
Potentilla reptans, Solagna - VI, Mt. Grappa, 23.VI.16
- **Aphis tripolii* Laing, 1920
 Ref.: HILLE RIS LAMBERS, 1934 (as *Doralis tripolii*)
- Aphis umbrella* (Börner, 1950)
Malva sylvestris, Galzignano Terme - PD, 22.VI.16
 Ref.: MASSALONGO C., 1906a (as *A. malvae* Koch); COBAU, 1910 (as *Aphis urticae* F. su *Malva sylvestris* - misid.); COBAU, 1912 (as *Aphis malvae*)
- **Aphis urticae* Gmelin, 1790
Urtica dioica, Galzignano Terme - PD, 22.VI.16
 Ref.: MASSALONGO O., 1896 (as *Aphis urticae* F.); CARNIEL & MASUTTI, 1980; BARBAGALLO *et al.*, 1987; BARBAGALLO & PATTI, 1994
- Aphis verbasci* Schrank, 1801
Buddleia davidii, Valstagna - VI, 23.VI.16; *Verbascum phlomoides*, Pedavena - BL, loc. Croce d'Aune, 18.IX.13
- Aphis viburni* Scopoli, 1763
 Ref.: COBAU, 1912
- Aphis vitalbae* Ferrari, 1872
Clematis vitalba, Pedavena - BL, loc. Croce d'Aune, 18.IX.13
- Protaphis terricola* Rondani, 1847
Picris hieracioides, Erbezzo - VR, loc. Passo Fittanze della Sega, 13.IX.04
- **Brachyunguis tamaricis* (Lichtenstein, 1885)
Tamarix gallica, Porto Viro - RO, loc. Ca' Giustinian, 22.VI.16
 Ref.: HILLE RIS LAMBERS, 1934 (as *Doralis tamaricis*)
- n. Aphidinae *Macrosiphini***
- **Cryptosiphum artemisiae* Buckton, 1879
Artemisia vulgaris, Padua, *sine data* (G. Pellizzari, pers. comm.)
 Ref.: MASSALONGO C.B., 1893 (as *Aphis gallarum*); MASSALONGO O., 1896 (as *A. gallarum* Kaltentbach); TROTTER & CECCONI, 1900-1917 (sheet n° 213 - *Cryptosiphum gallarum*); COBAU, 1910;
- Ceruraphis eriophori* (Walker, 1848)
Viburnum lantana, Cesiomaggiore - BL, 18.IX.13
- Nearctaphis bakeri* (Cowen, 1895)
Trifolium pratense, Torreglia - PD, 22.VI.16; Galzignano Terme - PD, 22.VI.16
- Anuraphis catonii* Hille Ris Lambers 1935
Pimpinella saxifraga, Erbezzo -VR, loc. Piano la Sega, 13.IX.04
- Anuraphis farfarae* (Koch, 1854)
Petasites paradoxus, Cortina d'Ampezzo - BL, 19.IX.13; *Tussilago farfara* Erbezzo - VR, loc. Passo Fittanze della Sega, 13. IX.04
 Ref.: POLLINI, 2013
- Anuraphis pyrilaseri* Shaposhnikov 1950
Laserpitium siler, San Vito di Cadore - BL, 19.IX.13
- Anuraphis subterranea* (Walker, 1852)
Heracleum sphondylium, Gosaldo - BL, loc. Tiser, 18.IX.13
- Dysaphis apiifolia* (Theobald, 1923)
Peucedanum verticillare, Erbezzo - VR, loc. Piano la Sega, 13.IX.04
 Ref.: ROBERTI, 1993; BARBAGALLO *et al.*, 1987
- Dysaphis brancoi* (Börner, 1950)
Malus domestica, Verona, 26.V.96 (M. Ciampolini leg.)
 Ref.: CIAMPOLINI *et al.*, 1997
- **Dysaphis crataegi* (Kaltentbach, 1843)
Heracleum sphondylium, Fregona - TV, 17.IX.13; Pedavena - BL, loc. Croce d'Aune, 18.IX.13
 Ref.: MASSALONGO C.B., 1893 (as *Aphis crataegi*); MASSALONGO O., 1896 (as *A. crataegi*); TROTTER & CECCONI, 1900-1917 (sheet n° 60 - as *Aphis crataegi*); PELLIZZARI SCALTRITI, 1988; POLLINI, 2013
- Dysaphis devecta* (Walker, 1849)
Malus domestica, Agordo - BL, 18.IX.13 (empty galls)
- Dysaphis lappae* (Koch, 1854)
Arctium lappa, Romano d'Ezzelino - VI, loc. S. Giacomo Fellette, 23.VI.16
- **Dysaphis radicola* (Mordvilko, 1897)
Rumex crispus, Pedavena - BL, loc. Croce d'Aune, 18.IX.13
 Ref.: BARBAGALLO & PATTI, 1994

- Dysaphis tulipae* (Boyer de Fonscolombe, 1841)
Iris germanica, Auronzo di Cadore - BL, 19. XI.13;
Cinto Euganeo - PD, loc. Faedo, 22.VI.16
Dysaphis (Pomaphis) ariae Börner, 1950
Ref.: COBAU, 1915 (as unid. "Aphididae", probably to
be attributed to the postulated species)
- **Dysaphis (Pomaphis) plantaginea* (Passerini, 1860)
Malus domestica, Agordo - BL, 18.IX.13
Ref.: HILLE RIS LAMBERS, 1934; MARTELLI, 1939;
BARBAGALLO & PATTI, 1994; MASUTTI & ZANGHERI,
2001; POLLINI, 2013
- Dysaphis (Pomaphis) pyri* (Boyer de Fonscolombe, 1841)
Ref.: COBAU, 1910 (as *Myzus oxyacanthae* Koch on
Pirus communis - misid.); POLLINI, 2013
- **Dysaphis (Pomaphis) sorbi* (Kaltenbach, 1843)
Sorbus aucuparia, Cortina d'Ampezzo - BL, 19.IX.13
Ref.: CARNIEL & MASUTTI, 1980
- **Brachycaudus helichrysi* (Kaltenbach, 1843)
Erigeron canadensis, Torreglia - PD, loc. Luvigliano,
22.VI.16; *Senecio vulgaris*, Padua, 22.VI.16
Ref.: COBAU, 1910, 1912 (as *Aphis myosotidis* Koch on
Erigeron canadensis and *E. annuum*, misid.); HILLE RIS
LAMBERS, 1934; ROBERTI, 1993; POLLINI, 2013
- Brachycaudus (Acaudus) klugkisti* (Börner, 1942)²
Silena dioica, Solagna - VI, Mt. Grappa, 23.VI.16; Foza
- VI, 23.VI.16
- **Brachycaudus (Acaudus) lychnidis* (Linnaeus, 1758)
Silene latifolia ssp. *alba*, Farra d'Alpago - BL, S. Croce
Lake, 17.IX.13; Pedavena - BL, loc. Croce d'Aune,
18.IX.13; Torreglia - PD, loc. Luvigliano, 22.VI.16
Ref.: MASSALONGO O., 1896 (as *Myzus lychnidis*
Passerini); BURGER, 1975
- Brachycaudus (Acaudus) populi* (Del Guercio, 1911)
Silene vulgaris, Pedavena - BL, loc. Croce d'Aune,
18.IX.13
- **Brachycaudus (Appelia) prunicola* (Kaltenbach, 1843)
Prunus spinosa, Pedavena - PD, loc. Croce d'Aune,
18.IX.13
Ref.: MASSALONGO C.B., 1893 (as *Aphis prunicola*);
MASSALONGO O., 1896 (as *A. prunicola*)
- Brachycaudus (Appelia) schwartzi* (Börner, 1931)
Prunus persica, Cesiomaggiore - BL, Canzoi Valley, 18.
XI.13
Ref.: MASSALONGO O., 1891 (as *A. persicae* Boyer de
Fonscolombe); COBAU, 1910 (as *A. persicae*); ROBERTI,
1993; MASUTTI & ZANGHERI, 2001; POLLINI, 2013
- Brachycaudus (Appelia) tragopogonis* (Kaltenbach, 1843)
Tragopogon pratense Torreglia - PD, 22.VI.16
- **Brachycaudus (Nevskyaphis) cardui* (Linnaeus, 1758) (= *lateralis* Walker)
Cirsium eriophorum, Fregona - TV, Mt. Pizzoc,
17.IX.13; *Senecio erucifolium*, Padua (Botanical
Garden), 21.IX.16; *S. vulgaris*, Cortina d'Ampezzo -
BL, 19.IX.13
Ref.: MASSALONGO O., 1891 (as *Aphis cardui*); HILLE
RIS LAMBERS, 1934; BARBAGALLO & PATTI, 1994
- Brachycaudus (Nevskyaphis) lucifugus* F.P. Müller, 1955
Plantago lanceolata, Erbezzo - VR, loc. Passo Fittanze
della Sega, 13.IX.04
- Brachycaudus (Nevskyaphis) mordvilkoii* Hille Ris
Lambers, 1931
Echium vulgare, Erbezzo - VR, loc. Passo Fittanze della
Sega, 13.IX.04
- **Brachycaudus (Nevskyaphis) persicae* (Passerini, 1860)
Ref.: MARTELLI, 1939; MASUTTI & ZANGHERI, 2001;
POLLINI, 2013
- Brachycaudus (Thuleaphis) rumexicolens* (Patch, 1917)
Rumex crispus, Pedavena - BL, loc. Croce d'Aune,
18.IX.13
- **Brachycolus cerastii* (Kaltenbach, 1846)
Ref.: MASSALONGO C.B., 1893 (as *Aphis cerastii*);
MASSALONGO O., 1896 (as *A. cerastii*)
- **Brachycolus cucubali* (Passerini, 1863)
Silene vulgaris, San Vito di Cadore - BL, 19.IX.13
Ref.: MASSALONGO C.B., 1893 (as *A. cucubali*);
MASSALONGO O., 1896 (as *A. cucubali*); COBAU, 1912
and 1915 (as *Aphis cucubali*);
- Aspidaphis adjuvans* (Walker, 1848)
Polygonum aviculare, Pedavena - BL, 18.IX.13
- **Hayhurstia atriplicis* (Linnaeus, 1761)
Chenopodium album, Pedavena - BL, loc. Croce
d'Aune, 18.IX.13
Ref.: MASSALONGO C.B., 1893 and 1906a (as *A.*
atriplicis); TROTTER & CECONI, 1900-1917 (sheet n°
106 - as *A. atriplicis*); COBAU, 1910 (as *Aphis*
atriplicis); POLLINI, 2013
- **Brevicoryne brassicae* (Linnaeus, 1758)
Diplotaxis tenuifolia, Gosaldo - BL, loc. Tiser, 18.IX.13
Ref.: MASSALONGO O., 1891 (as *Aphis brassicae*);
BARBAGALLO & PATTI, 1994; MASUTTI & ZANGHERI,
2001; POLLINI, 2013
- Semiaphis dauci* (Fabricius, 1775)
Daucus carota, Fregona - TV, 17.IX.13; Torreglia - PD,
22.VI.16
- Semiaphis pimpinellae* (Kaltenbach, 1843)
Pimpinella major, Sospirolo - BL, Mis Lake, 18.VI.13
- **Hyadaphis foeniculi* (Passerini, 1860)
Lonicera xylosteum, Pedavena - BL, loc. Croce d'Aune,
18.IX.13; *Selinum carvifolia*, Sospirolo - BL, Mis Lake,
18.IX.13; unid. Apiaceae, San Vito di Cadore, - BL,
19.IX.13
Ref.: MASSALONGO C.B., 1893 (as *Rhopalosiphum*
xylostei Schrank) and 1904 (as *Siphocoryne xylostei*
Schrank); MASSALONGO O., 1896 (as *S. xylostei*
Passerini)
- Staegeriella necopinata* (Börner, 1939)
Galium sp., San Vito di Cadore - BL, 19.IX.13

² *Brachycaudus* subdivision into subgenera follows COEUR
D'ACIER *et al.*, 2008.

- Hyalopteroidea humilis* (Walker, 1852)
Brachypodium sylvaticum, Pedavena - BL, 18.IX.13
- Coloradoa achilleae* Hille Ris Lambers 1939
Achillea millefolium, Farra d'Alpago - BL, Pian del Cansiglio, 17.IX.13; Fregona - TV, loc. La Crosetta, 17.IX.13
- Coloradoa tanacetina* (Walker, 1850)
Tanacetum vulgare, Pedavena - BL, loc. Croce d'Aune, 18.IX.13
- Myzaphis rosarum* (Kaltenbach, 1843)
Potentilla x fruticosa (cult.), Cortina d'Ampezzo - BL, 19.IX.13
- Chaetosiphon (Pentatrachopus) fragaefolii* (Cockerell, 1901)
Ref.: POLLINI, 2013
- Chaetosiphon (Pentatrachopus) tetraerhodum* (Walker, 1849)
Rosa canina, Farra d'Alpago - BL, Pian del Cansiglio, 17.IX.13
- Elatobium abietinum* (Walker, 1849)
Picea abies, Farra d'Alpago - BL, Pian del Cansiglio, 17.IX.13
Ref.: MASUTTI & ZANGHERI, 2001; BATTISTI *et al.*, 2013;
- Liosomaphis berberidis* (Kaltenbach, 1843)
Berberis vulgaris, Cortina d'Ampezzo - BL, 19.IX.13; Solagna - VI, Mt. Grappa, 23.VI.16
- Cavariella aegopodii* (Scopoli, 1763)
Unid. Apiaceae, San Vito di Cadore - BL, 19.IX.13; *Pimpinella major*, Auronzo di Cadore - BL, Misurina Lake, 19.IX.13
Ref.: POLLINI, 2013
- Cavariella pastinacae* (Linnaeus, 1758)
Heracleum sphondylium, Auronzo di Cadore - BL, Misurina Lake, 19.IX.13
- Cavariella theobaldi* (Gillette & Bragg, 1918)
Heracleum sphondylium, Auronzo di Cadore - BL, Misurina Lake, 19.IX.13
- Ovatus crataegarius* (Walker, 1850)
Crataegus monogyna, Torreglia - PD, loc. Luvigliano, 22.VI.16
Ref.: COBAU, 1912 (as *Aphis crataegi* Buckton)
- Ovatus mentharius* (van der Goot, 1913)
Mentha longifolia, Cesiomaggiore - BL, 18.IX.13
- Phorodon humuli* (Schrank, 1801)
Humulus lupulus, Cesiomaggiore - BL, 18.IX.13; Fonte - TV, loc. Onè, 23.VI.16
Ref.: COBAU, 1912
- Rhopalomyzus (Judenkoa) loniceriae* (Siebold, 1839)
Ref.: TROTTER, 1906 (as *Symphocoryne loniceriae*); COBAU, 1912 (as *S. loniceriae*)
- Neotoxoptera formosana* (Takahashi, 1921)
Allium schoenoprasum, Oppeano - VR, 20.IX.2000 and 10.XI.2000 (M. Ciampolini *leg.*)
Ref.: BARBAGALLO & CIAMPOLINI, 2000
- Neotoxoptera oliveri* (Essig, 1935)
Artemisia vulgaris (root collar), Saonara - PD, 26.X.12 (G. Pellizzari *leg.*)
- **Myzus cerasi* (Fabricius, 1775)
Galium mollugo, Pedavena - PD, loc. Croce d'Aune, 18.IX.13; *Galium* sp., San Vito di Cadore - BL, 19.IX.13; Cortina d'Ampezzo - BL, 19.IX.13; *Odontites rubra*, Farra d'Alpago - BL, S. Croce Lake, 17.IX.13; *Prunus avium*, Cortina d'Ampezzo - BL, 19.IX.13;
Ref.: MASSALONGO O., 1891; COBAU, 1910; MARTELLI, 1939
- **Myzus lythri* (Schrank, 1801)
Lythrum salicaria, Curtarolo - PD, Brenta River, 23.VI.16
Ref.: MASSALONGO C.B., 1893 (as *Aphis mahaleb* Koch); MASSALONGO O., 1896 (as *A. mahaleb*); TROTTER & CECONI, 1900-1917 (sheet n° 123 - as *Myzus mahaleb*); COBAU, 1910 (as *Myzus mahaleb*)
- Myzus ornatus* Laing, 1932
Unid. host plant, Caorle - Ve, 2.IV.80 (M.G. Paoletti *leg.*); *Aurinia saxatilis*, Foza - VI, 23.VI.16; *Echium italicum*, Romano d'Ezzelino - VI, loc. S. Giacomo Fellette, 23.VI.16
- Myzus varians* Davidson, 1912
Clematis vitalba, Pedavena - BL, 18.IX.13
Ref.: MASUTTI & ZANGHERI, 2001
- Myzus (Nectarosiphon) antirrhinii* (Macchiati, 1883)
Anthriscum majus, Foza - VI, 23.VI.16
- Myzus (Nectarosiphon) ligustri* (Mosley, 1841)
Ref.: MASSALONGO C., 1904 (as *Rhopalosiphum ligustri* Kaltenbach); COBAU, 1912 (as *R. ligustri*)
- **Myzus (Nectarosiphon) persicae* (Sulzer, 1776)
Juanulloa mexicana, Padua (Botanical Garden), 5.X.16 (G. Pellizzari *leg.*)
Ref.: MASSALONGO O., 1891 (as *Rhopalosiphum persicae* Passerini - sic); MARTELLI, 1939; BARBAGALLO *et al.*, 1987; BARBAGALLO & PATTI, 1994; MASUTTI & ZANGHERI, 2001; POLLINI, 2013
- **Myzus (Sciomyzus) ascalonicus* Doncaster, 1946
Ref.: BARBAGALLO & PATTI, 1994
- Tuberocephalus (Trichosiphoniella) tianmushanensis* Zhang 1980
Prunus subhirtella, Padua (Botanical Garden), 5.VI.12 and 10.V.13 (G. Pellizzari *leg.*)
Ref.: PELLIZZARI & FRIGIMELICA, 2014
- Cryptomyzus galeopsidis* (Kaltenbach, 1843)
Galeopsis tetrahit, Farra d'Alpago - BL, Pian del Cansiglio, 17.IX.13; Cesiomaggiore - BL, Canzoi Valley, 18.IX.13; Romano d'Ezzelino - VI, loc. S. Giacomo Fellette, 23.VI.16
- **Cryptomyzus ribis* (Linnaeus, 1758)
Ribis nigrum, Padua (Botanical Garden), 21.VI.16
Ref.: MASSALONGO O., 1891 (as *Myzus ribis* Passerini); MASSALONGO C.B., 1893 (as *M. ribis*); POLLINI, 2013

- Capitophorus bulgaricus* Tashev, 1964
Cirsium eriophorum, Fregona - TV, Mt. Pizzoc, 17.IX.13
- Capitophorus elaeagni* (Del Guercio, 1894)
Cirsium arvense, San Vito di Cadore - BL, 19.IX.13
- Capitophorus hippophaes* (Walker, 1852)
Persicaria lapathifolia, Sospirolo - BL, 18.IX.13
- Capitophorus similis* van der Goot, 1915
Tussilago farfara, Fregona - TV, Mt. Pizzoc, 17.IX.13
- **Pleotrichophorus glandulosus* (Kaltenbach, 1846)
Artemisia vulgaris, Erbezzo - VR, loc. Piano la Sega, 13.IX.04; Farra d'Alpago - BL, S. Croce Lake, 17.IX.13
- Nasonovia compositellae* ssp. *nigra* (Hille Ris Lambers, 1931)
Hieracium sp., Solagna - VI, Mt. Grappa, 23.VI.16
Ref.: COBAU, 1912 and 1915 (as *Macrosiphum hieracii* Kaltenbach)
- Nasonovia ribisnigri* (Mosley, 1841)
Euphrasia rostkoviana ssp. *campestris*, San Vito di Cadore - BL, 19.IX.13; *Picris hieracioides*, Farra d'Alpago - BL, S. Croce Lake, 17.IX.13
- **Hyperomyzus lactucae* (Linnaeus, 1758)
Sonchus asper and *S. oleraceus*, Rovigo, loc. Sarzano, 22.VI.16; *S. oleraceus*, Fregona - TV, 17.IX.13
Ref.: MASSALONGO O., 1891 (as *Rhopalosiphum lactucae* Passerini, sic); BARBAGALLO & PATTI, 1994
- Hyperomyzus (Hyperomyzella) rhinanthi* (Schouteden, 1903)
Rhinanthus alectorolophus, Solagna - VI, Mt. Grappa, 23.VI.16
- Hyperomyzus (Neonasonovia) picridis* (Börner & Blunck, 1916)
Picris hieracioides, Sedico - BL, 18.IX.13
- Hyperomyzus (Neonasonovia) zirnitsi* ssp. *boernerii* Prevost, 1959**
Euphrasia rostkoviana ssp. *campestris*, San Vito di Cadore - BL, 19.IX.13
- **Aulacorthum solani* (Kaltenbach, 1843)
Galium sp., Cortina d'Ampezzo - BL, 19.IX.13; *Geranium sylvaticum*, Auronzo di Cadore - BL, Misurina Lake, 19.IX.13; *Prunus subhirtella* cv. *pendula*, Padua (Botanical Garden), 5.VI.12 (Pellizzari leg.);
Ref.: BARBAGALLO & PATTI, 1994
- Microlophium carnosum* (Buckton, 1876)
Urtica dioica, Pedavena - BL, loc. Croce d'Aune, 18.IX.13; Galzigliano Terme, 22.VI.16
Ref.: POLLINI, 2013
- Acyrtosiphon caraganae* (Cholodkovsky, 1907)
Emerus majus, Cinto Euganeo - PD, loc. Faedo, 22.VI.16
- **Acyrtosiphon cyparissiae* (Koch, 1855)
Euphorbia cyparissias, Solagna - VI, Mt. Grappa, 23.VI.16
Ref.: BARBAGALLO & PATTI, 1994
- Acyrtosiphon lactucae* (Passerini, 1860)
Lactuca saligna, Fregona - TV, 17.IX.13
- Acyrtosiphon malvae* (Mosley, 1841)
Geranium sylvaticum, Auronzo di Cadore - BL, Misurina Lake, 19.IX.13
Ref.: MASSALONGO O., 1891 (as *Siphonophora malvae* Passerini)
- **Acyrtosiphon pisum* (Harris, 1776)
Lotus corniculatus and *Medicago sativa*, Pedavena - BL, loc. Croce d'Aune, 18.IX.13; *Trifolium pratense*, San Vito di Cadore - BL, 19.IX.13; *Vicia cracca*, Farra d'Alpago - BL, 17.IX.13
Ref.: HILLE RIS LAMBERS, 1934 (as *A. onobrychis* Boyer de Fonscolombe); BARBAGALLO & PATTI, 1994;
- **Metopolophium alpinum* Hille Ris Lambers, 1966
Ref.: BARBAGALLO & PATTI, 1994
- **Metopolophium dirhodum* (Walker, 1849)
Ref.: HILLE RIS LAMBERS, 1934; BARBAGALLO *et al.*, 1987; BARBAGALLO & PATTI, 1994
- **Metopolophium festucae* (Theobald, 1917)
Ref.: BARBAGALLO *et al.*, 1987; BARBAGALLO & PATTI, 1994
- Delphinobium lycoctoni* (Börner, 1950)
Aconitum napellus, Auronzo di Cadore - BL, Misurina Lake, 19.IX.13
- Impatiens asiaticum* Nevsky, 1929**
Impatiens glandulifera, Farra d'Alpago - BL, Tece Stream, 17.IX.13
- **Sitobion avenae* (Fabricius, 1775)
Zea mays, San Stino di Livenza - VE, 10.VI.80 (M.G. Paoletti leg.); Unid. Poaceae, Torreglia - PD, 22.VI.16
Ref.: MASSALONGO O., 1891 (as *Siphonophora cerealis* Koch and *Aphis avenae* F.); BARBAGALLO & PATTI, 1994;
- **Sitobion fragariae* (Walker, 1848)
Ref.: BARBAGALLO & PATTI, 1994
- **Macrosiphum euphorbiae* (Thomas, 1878)
Ref.: BARBAGALLO *et al.*, 1987; ROBERTI, 1993; BARBAGALLO & PATTI, 1994; MASUTTI & ZANGHERI, 2001; POLLINI, 2013
- Macrosiphum knautiae* Holman, 1972**
Knautia drymeia, Cesiomaggiore - BL, Canzoi Valley, 18.IX.13
- **Macrosiphum rosae* (Linnaeus, 1758)
Knautia longifolia and *Rosa canina* (group), Auronzo di Cadore - BL, Misurina Lake, 19.IX.13; *Rosa* sp. (cv.), Pedavena - BL, 18.IX.13
Ref.: MASSALONGO O., 1891 (as *Siphonophora rosae* Koch, sic); HILLE RIS LAMBERS, 1934; ROBERTI, 1993; BARBAGALLO & PATTI, 1994; MASUTTI & ZANGHERI, 2001
- **Staticobium limonii* (Contarini, 1847)
Ref.: CONTARINI, 1847; HILLE RIS LAMBERS, 1934 and 1939; BARBAGALLO & PATTI, 1994
- Microsiphon millefolii* Wahlgren, 1940
Achillea collina, Solagna - VI, Mt. Grappa, 23.VI.16

- Uroleucon chondrillae* (Nevsky, 1929)
Chondrilla juncea, Arquà Petrarca - PD, 22.VI.16
- **Uroleucon cichorii* (Koch, 1855)
Cichorium intybus, San Vito di Cadore - BL, 19.IX.13;
Torreglia - PD, 22.VI.16; Fregona - TV, 17.IX.13
Ref.: BARBAGALLO & PATTI, 1994; POLLINI, 2013
- Uroleucon grossum* (Hille Ris Lambers, 1939)
Crepis sp., Solagna - VI, Mt. Grappa, 23.VI.16
- Uroleucon hypochoeridis* (Fabricius, 1779)
Hypochoeris radicata, Fregona - TV, 17.IX.13; Sedico - BL, loc. La Stanga, 18.IX.13
- Uroleucon inulicola* (Hille Ris Lambers, 1939)
Inula spiraeifolia, Padua (Botanical Garden), 21.VI.16
- Uroleucon leontodontis* (Hille Ris Lambers, 1939)
Leontodon helveticus, San Vito di Cadore - BL, 19.IX.13;
Farra d'Alpago - BL, 17.IX.13; Sedico - BL, loc. La Stanga, 18.IX.13
- Uroleucon murale* (Buckton, 1876)
Lactuca muralis, Pedavena - BL, loc. Croce d'Aune, 18.IX.13
- Uroleucon picridis* (Fabricius, 1775)
Picris hieracioides, Sedico - BL, 18.IX.13
- **Uroleucon pilosellae* (Börner, 1933)
Ref.: BARBAGALLO *et al.*, 1987; BARBAGALLO & PATTI, 1994
- Uroleucon sonchi* (Linnaeus, 1767)
Sonchus asper and *S. oleraceus*, Rovigo, loc. Sarzano, 22.VI.16; Padua, 22.VI.16; Fregona - TV, 17.IX.13;
Ref.: MASSALONGO O., 1896 (as *Siphonophora sonchi* Passerini); POLLINI, 2013
- **Uroleucon tanacetii* (Linnaeus, 1758)
Ref.: HILLE RIS LAMBERS, 1934 (as *Dactynotus tanaceticola* Walker)
- Uroleucon (Uromelan) aeneum* (Hille Ris Lambers, 1939)
Carduus defloratus, Auronzo di Cadore - BL, 19.IX.13;
C. personata, Erbezzo - VR, loc. Passo Fittanze della Sega, 13.IX.04;
- Uroleucon (Uromelan) campanulae* (Kaltenbach, 1843)
Campanula sp., San Vito di Cadore - BL, 19.IX.13
- Uroleucon (Uromelan) jaceae* (Linnaeus, 1758)
Centaurea jacea, Padua (Botanical Garden), 21.VI.16; *C. nigrescens*, Farra d'Alpago - BL, Pian del Cansiglio, 17.IX.13; Cortina d'Ampezzo - BL, 19.IX.13; Solagna - VI, Mt. Grappa, 23.VI.16
Ref.: POLLINI, 2013
- Uroleucon (Uromelan) rapunculoidis* (Börner, 1939)
Campanula rapunculoides, Erbezzo - VR, loc. Piano la Sega, 13.IX.04
- Uroleucon (Uromelan) solidaginis* (Fabricius, 1779)
Solidago gigantea, Curtarolo - PD, 23.VI.16; *S. virgaurea*, Foza - VI, 23.VI.16
Ref.: MASSALONGO O., 1896 (as *Siphonophora solidaginis* Koch)
- **Uroleucon (Uromelan) taraxaci* (Kaltenbach, 1843)
Ref.: BARBAGALLO & PATTI, 1994
- Macrosiphoniella absinthii* (Linnaeus, 1758)
Artemisia absinthium, Erbezzo - VR, loc. Piano la Sega, 13.IX.04; *A. vulgaris*, Curtarolo - PD, 23.VI.16
Ref.: POLLINI, 2103
- **Macrosiphoniella artemisiae* (Boyer de Fonscolombe, 1841)
Artemisia vulgaris, Erbezzo - VR, loc. Piano la Sega, 13.IX.04; Porto Viro - RO, loc. Cà Giustinian, 22.VI.16
Ref.: BARBAGALLO & PATTI, 1994
- Macrosiphoniella atra* (Ferrari, 1872)
Artemisia alba, Arquà Petrarca - PD, 22.VI.16
- Macrosiphoniella helichrysi* Remaudière, 1952
Helichrysum italicum, Arquà Petrarca - PD, 22.VI.16
- **Macrosiphoniella millefolii* (DeGeer, 1773)
Achillea collina, Porto Viro - RO, loc. Cà Giustinian, 22.VI.16; *A. millefolium*, Farra d'Alpago - BL, Pian del Cansiglio, 17.IX.13;
Ref.: MASSALONGO O., 1896 (as *Siphonophora millefolii* Koch); BARBAGALLO & PATTI, 1994
- Macrosiphoniella oblonga* (Mordvilko, 1901)
Artemisia vulgaris, Cinto Euganeo - PD, loc. Faedo, 22.VI.16
- Macrosiphoniella sanborni* (Gillette, 1908)
Chrysanthemum indicum (cult.), Pedavena - BL, 18.IX.13
- Macrosiphoniella subterranea* (Koch, 1855)
Leucanthemum vulgare, Farra d'Alpago - BL, S. Croce Lake, 17.IX.13
- **Macrosiphoniella tanacetaria* (Kaltenbach, 1843)
Tanacetum borealis, Padua (Botanical Garden), 23.V.80 (G. Pellizzari, pers. comm.); *T. vulgare*, Pedavena - BL, loc. Croce d'Aune, 18.IX.13
Ref.: BARBAGALLO & PATTI, 1994
- Macrosiphoniella tapuskae* (Hottes & Frison, 1931)
Achillea millefolium, Solagna - VI, Mt. Grappa, 23.VI.16
- Macrosiphoniella usquertensis* Hille Ris Lambers, 1935
Achillea millefolium, Farra d'Alpago - BL, Pian del Cansiglio, 17.IX.13
- **Macrosiphoniella (Asterobium) asteris* (Walker, 1849)
Ref.: HILLE RIS LAMBERS, 1934
- Illinoia liriiodendri* Monell, 1879
Liriiodendrum tulipifera, Padua (Botanical Garden), 21.VI.16
- Amphorophora idaei* (Börner, 1939)
Rubus idaeus, Cortina d'Ampezzo - BL, 19.IX.13
- Wahlgreniella nervata* (Gillette, 1908)
Rosa sp. (cult.), Pedavena - BL, 18.IX.13
- Megoura viciae* Buckton, 1876
Lathyrus latifolius, Torreglia - PD, loc. Luvigliano, 22.VI.16; *L. sylvestris*, Farra d'Alpago - BL, S. Croce Lake, 17.IX.13;

ADDITIONAL NOTES ON MOST REMARKABLE SPECIES CHECKED

Additional remarks are here given on a small group of species which we estimate to be of major local faunistic interest, as they are new aphid records for Italy or because they are uncommon and therefore hardly recorded in Italian aphidological literature.

***Aloephagus myersi* Essig.** Prof. G. Pellizzari (University of Padua) kindly gave us the gift of two samples of this aphid, both collected on different *Aloe* species (see data in the checklist); the latter are grown on her sheltered balcony in Padua, where recurrent infestations have been occurring annually since 2009. The aphid was until then recorded in Italy for the two southern regions of Campania and Sicily only (MICIÉLI DE BIASE, 1988; BARBAGALLO *et al.*, 1995; PATTI & BARBAGALLO, 1997). Therefore, its detection for Veneto region is the most northern record for the Italian peninsula. *A. myersi* usually lives anholocyclically in warmer climates and needs protected habitats (greenhouses or other sheltered places) to survive the winter period in colder ones. Not rarely is it noxious to the infested host plants (commonly Liliaceae of genera *Aloe*, *Gasteria* and other allied ones), on which heavy and myrmecophilous colonies develop at leaf bases of their apical shoots. The taxon is believed to be native of the Mediterranean-Afrotropical biogeographical region (as other Fordini are), where it is widely distributed and was accidentally introduced into North America, Japan and Australia with its ornamental host plants. It is strongly suspected that the aphid can also develop a heteroecious life cycle somewhere in Africa, using *Pistacia aethiopica* as primary host plant, as noted by BLACKMAN & EASTOP (2006). HILLE RIS LAMBERS (1956) discussed the relationships of *Aloephagus* to allied aphid genera, while Essig (1950, 1952) and Roberti (1996) provided good illustrations of the morphology of parthenogenetic morphs.

***Aphis cirsioleracei* (Börner).** This small aphid, reported as holocyclic and monoecious on *Cirsium oleraceum* and *C. pannonicum* (see Börner, 1952, as *Cerosipha*), has not yet been collected by us in Italy. Nevertheless, it was reported by TROTTER (1906) and COBAU (1910) as an unidentified 'Aphididae' on deformed leaves of *C. oleraceum*. The two cecidologists collected their samples at Vittorio Veneto – TV, along the Meschio River and at Oliero – VI and Solagna – VI (Brenta Valley), respectively. Both authors, although they did not identify the aphid species, reported a short and efficient description of leaf deformations on *C. oleraceum* which helped us to recognize them as pseudogalls produced by *A. cirsioleracei*. Furthermore, the leaf samples collected by Trotter are available as *exiccata* in the gall collection series of TROTTER & CECONI (1900-1917), of which sheet n. 392 contains two leaves of *C. oleraceum* damaged by *A. cirsioleracei* (as seen by the senior coauthor in the herbarium collection of Botanical Garden, University of Turin). *A. cirsioleracei* is recorded from several countries in Europe (BLACKMAN & EASTOP, 2006).

***Aphis althaeae* Nevsky.** A small sample (two apterae and a few immature ones) of this aphid was collected by us in the area of Venice lagoon on its most typical host plant, *Althaea officinalis*. The aphid is a pale green or yellowish-green rather small species, which colonizes and deforms tender apical parts (leaves and flower stems) of its host

plants (usually Malvaceae of the genera *Althaea*, *Alcea* and *Malva*). This aphid is recorded here for the first time in Italy, in spite of its main host plant, *A. officinalis*, being distributed in all Italian regions from north to south of the peninsula and isles (though limited to peculiar and rather humid habitats; see PIGNATTI, 1982). The aphid is usually monoecious and holocyclic (perhaps anholocyclic in warmer climates). It is widespread in several countries of the Euro-Asiatic biogeographical region (BLACKMAN & EASTOP, 2006). HILLE RIS LAMBERS (1966a) proposed the new name *A. davletshinae*, because the name *A. althaeae* was already taken by *A. althaea* Harris (= *nomen dubium*); nevertheless, the validity of Nevsky's name was discussed by GARCÍA *et al.*, 2004.

For an extensive description of apterous and alate viviparous females see Nieto Nafria *et al.* (2005).

***Aphis subnitida* (Börner).** Another yet unrecorded *Aphis* species for Italy, collected on the basal part (root collar and leaf bases) of *Pimpinella saxifraga* (Apiaceae). It is a holocyclic-monoecious aphid, black greenish in color and infesting different species of the genus *Pimpinella* in several W European countries eastwards to Siberia. Morphological details are given by HEIE (1986) and Nieto NAFRÍA *et al.* (2005). A typical feature of this species is the presence of a number of secondary rhinaria on III-V antennal joints both in alate and apterous viviparous morphs, as quoted by Börner (1940) in his short original description (as *Doralis subnitida*).

***Neotoxoptera formosana* (Takahashi).** This anholocyclic and mainly tropical and subtropical aphid species was detected for the first time in Italy in Veneto region (at Oppeano, near Verona), where it heavily infested chive cultivations (*Allium schoenoprasum*) in a quite extensive greenhouse, with consequential plant loss (BARBAGALLO & CIAMPOLINI, 2000). The aphid then disappeared and no further infestations, as far as we know, were detected in the same area or elsewhere in Italy. This quite peculiar behavior is apparently usual for this aphid species when occasionally introduced into habitats (countries) not suitable to allow its definitive colonization. Therefore, the same aphid has been recorded for detection (frequently on sets of stored *Allium* bulbs) in different countries in Europe (Finland, France, United Kingdom, Germany, The Netherlands), then not followed by its establishment in the places (BLACKMAN & EASTOP, 2000; Piron, 2010). Host plant range of *N. formosana* is restricted to genus *Allium*, including cultivated and wild species. Strictly allied in morphology are *N. violae* (Pergande) and *N. oliveri* (Essig) - for separation and further information see Carver (1980), Patti & Barbagallo (1999) and BLACKMAN & EASTOP (2006).

***Tuberocephalus (Trichosiphoniella) tianmushanensis* Zhang.** This interesting aphid of Asiatic origin was recently recorded for Italy (Veneto region) by PELLIZZARI & FRIGIMELICA (2014). These coauthors detected it at the Botanical Garden, University of Padua, and afterwards in a few plant nurseries, on ornamental plants of *Prunus subhirtella* cv. *pendula*. They gave accounts on the aphid synonymy, taxonomy and behavior, and made attempts to detect its secondary host plant and life cycle in Italy. *T. tianmushanensis* is widespread in East Asia (Japan, China, Korea) where it is known as a heteroecious aphid, having *Prunus* spp. (mostly of cherry group) as primary host, on which marginal leaf galls are produced. As secondary host plants *Artemisia* spp. (including *A. vulgaris*) are reported;

here the aphid sets up its colonies on the basal parts of plants (collar roots and runners). For further information on this aphid group see REMAUDIÈRE & SORIN (1993) and Sorin (1993).

***Hyperomyzus (Neonasonovia) zirnitsi ssp. boernerii* Prevost.** This taxon belongs to a small group of three strictly allied species of *Hyperomyzus* subgen. *Neonasonovia*, of which *H. zirnitsi* Hille Ris Lambers s. str. is a heteroecious species, alternating between *Ribes*, as primary host, and *Euphrasia*; conversely, its subspecies *boernerii* Prevost and *H. thorsteinni* Stroyan (originally described as a subsp. of *H. boernerii*: see STROYAN, 1960, 1972) are monoecious on *Euphrasia*. Indeed, *H. boernerii* was described by PREVOST (1959) as a full species on the basis of its parthenogenetic (apterous and one intermediate alate female) and amphigonic morphs (oviparous female and alate male) from material collected in Austria and Switzerland. The presence of the latter morphs on *Euphrasia* evidenced that the aphid was clearly monoecious holoecyclic on the same host plant. Thereafter, the taxon was quoted as a synonym of *H. zirnitsi* both in the Survey (EASTOP & HILLE RIS LAMBERS, 1976) and the Catalogue (REMAUDIÈRE & REMAUDIÈRE, 1997). Nevertheless, Heikinheimo (1990), while he described the alate viviparous of *H. boernerii* collected in Finland, proposed to re-establish it as a valid taxon at the rank of subspecies at least. For the separation of the two subspecies, see the key to *Euphrasia* infesting aphid species in BLACKMAN & EASTOP (2006). Our small sample (a few apterous viviparous and immature specimens) of *H. zirnitsi ssp. boernerii* from Veneto region was collected on *E. rostkoviana* in mixed colonies with *Nasonovia ribisnigri* (Mosley), living on the same host plant.

***Impatiatinum asiaticum* Nevsky.** Heavy colonies of this aphid were collected on flower stems of *Impatiens glandulifera* in Veneto region, along the banks of a stream where big bushes of this host plant were growing. *I. asiaticum* is of Central Asiatic origin and appeared in Western Europe at the beginning of the '70s as quoted by HOLMAN (1971) who collected the aphid on *I. parviflora* in the former Czechoslovakia. He described all aphid morphs and compared their morphology to that of the very similar *I. balsamines* (Kaltenbach), native of W Europe where it lives on *Impatiens noli-tangere*. *I. asiaticum* was recorded for the first time in Italy by BARBAGALLO *et al.*, (2009) in a footnote and jointly with other new aphid records for Italy, but without giving collecting data. The aphid was seen indeed by the senior author in two or three other regions in Italy on *I. parviflora*, where it is likely distributed around all the northern side areas. The distribution of *I. asiaticum* in W Europe covers at present several countries (HEIE, 1994; BLACKMAN & EASTOP, 2006).

***Macrosiphum knautiae* Holman.** This taxon belongs to the group of *M. rosae* (Linnaeus), which is inclusive of *M. silvaticum* Meier and *M. weberi* Börner, all living on Dipsacaceae (the former species alternating with *Rosa* spp. as primary host). Our only sample available to date of *M. knautiae* from Veneto region is of two apterous viviparous females and a few nymphs, collected on a tender shoot of *Knautia drymeia*, its most typical host plant species. The taxonomy of the group is quite interesting. HOLMAN (1972) gives morphological details of all *M. knautiae* morphs, comparing two different populations: one from the Czech Republic (Moravia) living on *K. drymeia* and a second one

from Switzerland collected on *K. sylvatica*. He discussed the morphological relationships of all species-groups [among which he also included *M. funestum* (Macchiatii) and *M. albertinae* Hille Ris Lambers], pointing out that the two *M. knautiae* populations examined could represent distinct subspecies. Thereafter, MEIER (1985) while investigating on the Swiss population of *M. knautiae*, regarded it as a separate taxon, which he named as *M. silvaticum*. In more recent years, RAKAUSKAS (2003), comparatively analyzing the two taxa, *M. knautiae* and *M. silvaticum*, came to the conclusion that the latter species should be considered as a synonym of the former species. BLACKMAN & EASTOP (2006) maintain the previous taxonomic status and give a key to separate the *Macrosiphum* species group living on *Knautia*.

CHOROLOGICAL REMARKS

The chorological pattern of the above-listed species shows a large prevalence of species with a wide biogeographical distribution, such as Cosmopolitan (including sub-cosmopolitan) distributed taxa (21.4%), Holarctic (31.3%) and Palaearctic species (19.9%). Against this large number of widely-distributed representatives are those species with a more restricted European distribution (24.4%) and a very small group of taxa (about 3%) which can be attributed to a Mediterranean-like geonomy. This general pattern of geographic distribution, if compared to that of the corresponding categories of the Italian aphid fauna as a whole (BARBAGALLO *et al.*, 2009), shows a lower percentage of European and Mediterranean distributed species (27.4%, against 34.7% for Italy) compared to the more widely distributed species (i.e. Cosmopolitan, Holarctic and Palaearctic taxa, which amounts to 72.6% for Veneto region and 61.4% for Italy, respectively). Therefore, it can be argued that further faunist research on aphid fauna in Veneto region should improve the aphid list of additional European distributed species, perhaps linked to more peculiar ecological habitats.

CONCLUSION

The aphid fauna of Veneto administrative region (NE Italy) is so far represented by 332 species, as results both from numerous records from bibliographic references and field collecting data. This amount of aphid taxa is undoubtedly rather small if compared to that of other previously investigated administrative regions of Italy (i.e. Lombardy, Emilia Romagna, Sicily), where more than four hundred species were detected. As a consequence, it can be expected that further faunistic research for this region should easily improve the local aphid fauna biodiversity, due to its extent and the richness of its ecological habitats.

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RIASSUNTO

Viene riportata una checklist degli afidi della regione Veneto, dove i dati sinora disponibili evidenziano la presenza complessiva di 332 specie. Queste sono ripartite per gruppi sistematici ed evidenziano, per ciascun taxon, i riferimenti bibliografici regionali a nostra conoscenza, nonché i dati dei nostri riscontri di campo. L'elenco riportato fa seguito a una precedente lista (BARBAGALLO & PATTI, 1994) nella quale, per la stessa regione, era stata evidenziata la presenza di 130 specie. Il presente lavoro rappresenta pertanto un contributo integrativo e di aggiornamento bibliografico sull'afidofauna della regione in oggetto. Per alcune specie di maggiore rilevanza locale, fra le quali sei di nuova segnalazione per l'Italia, vengono date notizie integrative di contenuto tassonomico e/o bioecologico. Si aggiungono infine brevi considerazioni biogeografiche, comparando i dati regionali con quelli più generali dell'afidofauna italiana nel suo insieme.

BIBLIOGRAPHIC REFERENCES

- AESCHIMANN D., LAUBER K., MOSER D.M., THEURILLAT J.P., 2005 – *Flora Alpina*. Vol. 1-3, Zanichelli Ed., Bologna, vol. 1: 1159 pgs., vol. 2: 1188 pgs., vol. 3 (Indexes): 323 pgs.
- BARBAGALLO S., BINAZZI A., 1991 – *Gli afidi delle querce in Italia*. - Atti Conv. Problem. Fitopat. gen. *Quercus* in Italia, Firenze, 19-20 nov. 1990, Stamperia Granducale, Firenze: 142-160.
- BARBAGALLO S., BINAZZI A., BOLCHI SERINI G., MARTELLI M., PATTI I., 1995 – *Homoptera Sternorrhyncha*. In: Minelli A., Ruffo S. & La Posta S. (eds.) Checklist delle specie della fauna italiana, 43. Calderini, Bologna: 57 pp.
- BARBAGALLO S., BINAZZI A., CAVALIERI V., LA PERGOLA A., LIMONTA L., 2009 – *Biodiversity and chorological outlines for Italian aphid fauna*. - Redia, XCII: 129-133.
- BARBAGALLO S., CIAMPOLINI M., 2000 – *Rinvenimento in Italia dell'afide della cipolla, Neotoxoptera formosana (Takahashi)*. - Boll. Zool. Agr. Bachic., Ser. II, 32: 245-258.
- BARBAGALLO S., MASSIMINO COCUZZA G.E., 2014 – *A survey of the aphid fauna in the Italian regions of Latium and Campania*. - Redia, XCVII: 19-47.
- BARBAGALLO S., MASUTTI L., PATTI I., 1987 - *Note faunistiche e biogeografiche sugli afidi delle Alpi sud-orientali*. - Biogeographia, 13: 641-660.
- BARBAGALLO S., PATTI I., 1994 – *Appunti faunistici sugli afidi (Homoptera Aphidoidea) dell'Italia nord orientale*. - Boll. Zool. agr. Bachic., Ser. II, 26 (1): 59-114.
- BATTISTI A., DE BATTISTI R., FACCOLI M., MASUTTI L., PAOLUCCI P., STERGULC F., 2013 – *Lineamenti di Zoologia forestale*. - Padova University Press, Padova, 442 pp.
- BINAZZI A., 1978 – *Contributi alla conoscenza degli Afidi delle Conifere. Le specie dei generi Cinara Curt., Schizolachnus Mordv., Cedrobium Remaud. ed Eulachnus D. Gu. presenti in Italia (Homoptera Aphidoidea Lachnidae)*. - Redia, LXI: 291-400.
- BINAZZI A., 1989 – *Contributi alla conoscenza degli Afidi delle Conifere – X. Una nuova specie di Eulachnus del pino mugo e chiave per gli Eulachninae noti di tale conifera (Homoptera Aphidoidea Lachnidae)*. - Redia, LXXII: 169-193.
- BINAZZI A., 1995 – *Contribution to the knowledge of the conifer aphid fauna - XXI. A new species of the Cinara pinea group from Italy, C. carnica n. sp. living on Pinus mugo (Aphididae Lachninae)*. - Redia, LXXVIII: 1-11.
- BINAZZI A., COVASSI M., 1988 – *Le specie del genere Dreyfusia in Italia. Nota preliminare (Homoptera Adelgidae)*. - Atti XV Congr. Naz. Ital. Ent. L'Aquila, 13-18 giugno 1988: 267-273. Ed. S.P.G. Communication S.r.l., Roma, 1114 pgs.
- BINAZZI A., COVASSI M., 1991 – *Contributi alla conoscenza degli Afidi delle Conifere – XII. Il genere Dreyfusia Börner in Italia con la descrizione di una specie nuova (Homoptera Adelgidae)*. - Redia, LXXIV: 233-299+6 pls.
- BINAZZI A., COVASSI M., 1994 – *Contributi alla conoscenza degli Afidi delle Conifere – XIX. Annotazioni preliminari sugli Afidoidei del pino mugo in Italia (Homoptera Aphidoidea)*. - Redia, LXXVII: 189-199.
- BINAZZI A., DE SILVA J., 1993 – *Contribution to the knowledge of the conifer aphid fauna – XVI. On the identity of Cinara montanica (Börner) with notes on Cinara pini (Linnaeus) (Homoptera Aphidoidea Lachnidae)*. - Redia, LXXVI: 83-110.
- BLACKMAN R.L., EASTOP V.F., 2000 – *Aphids on the World's Crops. An identification and information guide*. Second edn., John Wiley & Sons, Chichester (UK), 466 pp.
- BLACKMAN R.L., EASTOP V.F., 2006 – *Aphids on the World's Herbaceous Plants and Shrubs*, 2 Voll., John Wiley & Sons, Chichester (UK) and The Natural History Museum, London, 1439 pgs. - An updated version available at www.aphidsonworldsplants.info (accessed December 2016).
- BÖRNER C., 1940 – *Neue Blattläuse aus Mitteleuropa*. Arisobruck, Naumburg (Saale), 4 pgs.
- BÖRNER C., 1952 – *Europe Centralis Aphides*. - Mitt. Thüring. Bot. Ges., 3: 1-488.
- BURGER H.C., 1975 – *Key to European species of Brachycaudus subgenus Acaudus (Homoptera Aphidoidea), with redescrptions and a note on B. persicae*. - Tijdschr. Ent., 118 (5): 99-116.
- CARNIEL A., MASUTTI L., 1980 – *Osservazioni sull'attività di raccolta di Formica pratensis Retzius e Formica lugubris Zetterstedt nelle foreste del Cansiglio (Prealpi Carniche)*. Gortania - Atti Museo Friulano Storia Naturale, 2: 181-194.
- CARVER M., 1980 – *Neotoxoptera Theobald and Pterocallis Passerini (Homoptera: Aphididae) in Australia*. - J. Aust. Ent. Soc., 19: 139-142.
- CIAMPOLINI M., GOLINELLI E., CAPELLA A. 1997 – *Gli afidi delle galle rosse del melo*. - L'informatore Agrario, 12: 89-90.
- COBAU R., 1910 – *Cecidi della Valle del Brenta*. - Atti Soc. It. Sci. Nat. Milano, XLIX: 355-406.
- COBAU R., 1912 – *Altri cecidi della Valle del Brenta*. - Atti Soc. It. Sci. Nat. Milano, LI: 31-67.

- COBAU R., 1915 – *Cecidi della Valle del Brenta. Terzo manipolo* - Atti Soc. It. Sci. Nat. Milano, LIV: 36-51.
- COEUR D'ACIER A., COCUZZA G., JOUSSELIN E., CAVALIERI V., BARBAGALLO S., 2008 – *Molecular phylogeny and systematic in the genus Brachycaudus (Homoptera: Aphididae): insights from a combined analysis of nuclear and mitochondrial genes*. – Zoologica Scripta, 37: 175-193.
- CONTARINI N.B., 1847 – *Notizie sulla fauna terrestre e particolarmente sulla ornitologia del Veneto Estuario con cenni sul passaggio degli uccelli e sulla caccia*. In "Venezia e le sue lagune", L. R. Priv. Stabilim. Antonelli, Venezia, 2: 157-261.
- CONTI F., ABBATE G., ALESSANDRINI A., BLASI C. (Eds.), 2005 – *An annotated checklist of the Italian vascular flora*. - Palombi & Partner S.r.l., Rome, 420 pgs.
- COVASSI M., 1971 – *Osservazioni preliminari sulla presenza in Italia di un afide nocivo ai Cedri: Cedrobium laportei Remaud. (Homoptera Aphidoidea Lachnidae)*. – Redia, LII: 641-652.
- COVASSI M., BINAZZI A., 1980 – *Gli insetti coinvolti nel deperimento del cipresso in Italia: aspetti generali, cenni bio-ecologici, prospettive di lotta contro le specie più comuni e dannose*. - Agricoltura delle Venezie, 34 (12): 586-595.
- COVASSI M., BINAZZI A., 1981 – *Contributi alla conoscenza degli Afidi delle Conifere. IV. Note su alcune specie di Adelgidi reperite in Italia (Homoptera Adelgidae)*. - Redia LXIV: 303-330 + 2 pls.
- COVASSI M., BINAZZI A., 1993 – *Principali insetti fitomizi dell'Abete bianco in Italia: aspetti faunistico-ecologici e importanza forestale*: 99-123. In: Atti Conv. "Le nuove avversità delle abetine in Italia." Vallombrosa (FI), 25-26 giu. 1992, Tip. Tiposervice, Firenze, 463 pgs.
- EASTOP V.F., HILLE RIS LAMBERS D., 1976 – *Survey of the World's Aphids*. W. Junk, The Hague, 573 pgs.
- ESSIG E.O., 1950 – *A new genus and species of Aphididae on Aloe (Homoptera)*. - Pan-Pac. Entom., XXVI (1): 22-24.
- ESSIG E.O., 1952 – *The Aloe aphid, Aloephagus myersi Essig (Homoptera)*. - Pan-Pac. Entom., XXVIII (2): 117-118.
- FAVRET C., 2017 – *Aphid Species File* (version 5.0, December 2016). <http://Aphid.SpeciesFile.org> (accessed December 2016).
- GARCÍA PRIETO F., PEREZ HIDALGO N., MIER DURANTE M.P., NIETO NAFRIA J.M., 2004 – *Update checklist of Iberian-Balearic Aphidini (Hemiptera: Aphididae)*. - Graellsia, 60: 197-214.
- HEIE O.E., 1986 – *The Aphidoidea (Hemiptera) of Fennoscandia and Denmark. III*. – Fauna Entom. Scandinavica, Vol. 28. E.J. Brill/Scandinavian Sci. Press Ltd, Leiden-Copenhagen, 314 pgs.
- HEIE O.E., 1994 – *The Aphidoidea (Hemiptera) of Fennoscandia and Denmark. V*. - Fauna Entom. Scandinavica, Vol. 28. E.J. Brill Ed., Leiden-New York, 239 pp.
- HEIKINHEIMO O., 1990 – *Aphid species and morphs new to the fauna of Finland (Homoptera, Aphididae, Macrosiphini)*. – Ent. Fennica, 1: 67-98.
- HILLE RIS LAMBERS D., 1934 – *Note sur les Aphides de Venise*. - Atti Museo Civ. Storia Nat. Trieste, XII: 144-146.
- HILLE RIS LAMBERS D., 1939 – *Contributions to a monograph of the Aphididae of Europe – II. The genera Dactynotus Rafinesque, 1818; Staticobium Mordvilko, 1912; Macrosiphum Passerini, 1860; Masonaphis nov. gen.; Phalaris Leach, 1826*. - Temminckia, IV: 1-134+VI pls.
- HILLE RIS LAMBERS D., 1956 – *On some Eritrean Aphids with descriptions of a new genus and new species (Hom. Aphididae)*. - Boll. Lab. Zool. Gen. Agr. Portici, XXXIII: 169-186.
- HILLE RIS LAMBERS D., 1966a – *Some synonyms in Aphididae (Homoptera)*. - Ent. Berich., 26: 124-126.
- HILLE RIS LAMBERS D., 1966b – *New and little known members of the aphid fauna of Italy (Homoptera, Aphididae)*. - Boll. Zool. agr. Bachic., Ser. II, 8 (1966-1967): 1-32.
- HOLMAN J., 1971 – *Taxonomy and ecology of Impatientinum asiaticum Nevsky, an aphid species recently introduced to Europe (Homoptera, Aphididae)*. - Acta Ent. Bohemoslov., 68: 153-166.
- HOLMAN J., 1972 – *Description of Macrosiphum knautiae sp. n. with notes on the taxonomy of the Macrosiphum rosae group (Homoptera, Aphididae)*. - Acta Ent. Bohemoslov., 69: 175-185.
- MARTELLI M., 1939 – *Studi sugli Afidi italiani – I. Osservazioni intorno agli Afidi raccolti sulle piante fruttifere in Emilia e nelle zone finitime durante il 1938*. - Boll. Ist. Ent. Univ. Bologna, 11: 67-87.
- MARTELLI M., 1950 – *Contributi alla conoscenza dell'entomofauna del granturco (Zea mays L.) – II. Aphidoidea*. - Redia, XXXV: 257-380.
- MASSALONGO C.B., 1893 – *Le galle nella flora italica (entomocecidii)*. - Mem. Accad. Agric., Arti & Comm. Verona, Ser. III, 69: 229-525 + 40 pls.
- MASSALONGO C., 1904 – *Nuovi zoocecidii della flora veronese. III serie*. - Marcellia, III: 114-122.
- MASSALONGO C., 1906a – *Nuovi zoocecidii della flora veronese. III serie*. - Marcellia, IV: 26-32.
- MASSALONGO C., 1906b – *Nuovi zoocecidii della flora veronese. IV serie*. - Marcellia, V: 152-158.
- MASSALONGO O., 1891 – *Prospetto ragionato degli insetti della provincia di Verona*. - Mem. Acc. Agric. Arti & Comm. Verona, ser. III, LXVII: 1-388.
- MASSALONGO O., 1896 – *Nuova contribuzione alla fauna entomologica del Veronese*. - Mem. Accad. Agric., Arti & Comm. Verona, Ser. III, 72: 1-211 + 6 pls.
- MASUTTI L., 1968 – *Insetti e nevi stagionali. Riflessioni su reperti relativi alle Alpi Carniche e Giulie*. - Boll. Ist. Entom. Univ. Bologna, 34 (1969): 75-94.
- MASUTTI L., 1982 – *Gli insetti dei pioppi euroamericani e le piante ospiti originarie*. - Arboricoltura da legno, XXV (5): 2-8.
- MASUTTI L., ZANGHERI S., 2001 – *Entomologia generale e applicata*. - CEDAM ed., Padua, XVIII + 978 pgs + XXXII colour pls.
- MEIER W., 1985 – *Aphid species from east and west with some additions to the aphid fauna of Switzerland and with the description of a new species*. Additions to the aphid fauna of Switzerland III - Mitt. Schweiz. Ent. Ges., 58: 133-146.
- MICIELI DE BIASE L., 1988 – *L'Aloephagus myersi Essig (Homoptera – Aphidoidea) nuova specie per l'Italia su piante dei generi Aloe e Gasteria*. - Informatore Fitopatologico, 3/1988: 76-77.
- MINELLI A., 1974 – *Studio preiminare della fauna di Treviso con riflessioni sulla fauna degli ambienti urbani*. - Atti Istituto Veneto Sci., Lett., Arti, CXXXII (1973-74): 115-156.
- NIETO NAFRIA J.M., MIER DURANTE M.P., GARCÍA PRIETO F., PEREZ HIDALGO N., 2005 – *Hemiptera Aphididae III. Fauna Iberica*, Vol. 28. - Museo Nac. Ciencias Nat. Consejo Sup. Inv. Cientif., Madrid, 362 pp.

- PANIZZA DALLA MONTÀ L., 1968 – Reperti sull'olociclo della *Tetraneura ulmi* L. - Redia, 51: 21-38.
- PATTI I., BARBAGALLO S., 1997 – *Recenti acquisizioni faunistiche sugli Afidi della Sicilia*. - Boll. Lab. Ent. Agr. Portici, LIII: 29-84.
- PATTI I., BARBAGALLO S., 1999 – *Annotazioni integrative sugli afidi della Sicilia*. - Redia, LXXXII: 49-82.
- PELLIZZARI SCALTRITI G., 1988 – Guida al riconoscimento delle più comuni galle della flora italiana. - Patron Ed., Bologna, 181 pgs.
- PELLIZZARI SCALTRITI G., 1990 – *Gli insetti delle piante officinali. III nota. Rassegna dei principali fitofagi dell'Hypericum perforatum L. in Italia con osservazioni sulla loro biologia*. - Redia, LXXXIII: 115-135.
- PELLIZZARI G., FRIGIMELICA G., 2014 – *First record and establishment of Tuberocephalus (Trichosiphoniella) tianmushanensis Zang (Homoptera Aphididae) on ornamental cherry trees in Italy*. - J. Entom. Acar. Res., 46: 24-26 (an online publ. Review).
- PIGNATTI S., 1982 – *Flora d'Italia*. - Ed. Calderini, Bologna, vol. 1, 790 pgs.; vol. 2, 732 pgs.; vol. 3, 780 pgs.
- PIRON P.G.M., 2010 – *Appearance of Neotoxoptera formosana (Homoptera: Aphididae) in the Netherlands*. - Ent. Berich., 70 (1): 10-12.
- POLLINI A., 2013 – *Entomologia applicata*. 2nd edition – Edagricole, Bologna, XV + 1848 pgs.
- PREVOST C.A., 1959 – *Hyperomyzus boernerii sp.n. (Homoptera: Aphididae)*. - The Entomologist, 92: 137-143.
- RAKAUSKAS R., 2003 – *Macrosiphum on Knautia in Europe: biology, morphology and systematics, including new synonymy (Homoptera, Aphididae)*. - Mitt. Mus. Nat. Kd. Berl., Dtsch. Entomol. Z., 50 (2): 182-190.
- REMAUDIÈRE G., REMAUDIÈRE M., 1997 – *Catalogue des Aphididae du Monde*. INRA, Paris, 473 pgs.
- REMAUDIÈRE G., SORIN M., 1993 – *Two new aphids of the genus Tuberocephalus Shinji (Homoptera, Aphididae)*. - Japan. J. Ent., 61 (4): 683-690.
- ROBERTI D., 1993 – *Gli Afidi d'Italia (Homoptera-Aphidoidea)*. - Entomologica, Bari, XXV-XXVI (1990-91): 3-387.
- ROBERTI D., 1996 – *Aggiunte alla monografia: Gli afidi d'Italia*. - Entomologica, Bari, XXX: 207-249.
- SERVADEI A., ZANGHERI S., MASUTTI L., 1972 – *Entomologia generale e applicata*. - CEDAM Ed., Padua, XVI + 733 pgs.
- SORIN M., 1993 – *The life cycle of Japanese species of Tuberocephalus*. In: Kindlemann P., Dixon A.F. (Eds.), *Critical issues in aphid biology*. - Proc. 4th Int. Symp. on Aphids, České Budejovice: 123-126.
- STRAPAZZON A., GIROLAMI V., 1983 – *Infestazioni fogliari di Vitis vitifoliae (Fitch) con completamento dell'olociclo su Vitis vinifera (L.) innestate*. - Redia, LXVI: 179-194.
- STROYAN H.L.G., 1960 – *Three new subspecies of aphids from Iceland (Hem., Hom.)*. - Ent. Meddel., 29: 250-265.
- STROYAN H.L.G., 1972 – *Additions and amendments to the check list of British aphids (Homoptera: Aphidoidea)*. - Trans. R. Ent. Soc. London, 124 (1): 37-79.
- TROTTER A., 1903 – *Nuovi zooceccidi della flora italiana*. - Marcellia, II: 7-23.
- TROTTER A., 1906 – *Nuovi zooceccidi della flora italiana. Quinta serie*. - Marcellia, V: 111-123.
- TROTTER A., CECCONI G., 1900-1917 – *Cecidotheca Italica o raccolta di galle italiane determinate, preparate e illustrate*. Fascicles I-XXIII (gathered into nine vols.) - Tipografia del Seminario, Padua (Fasc. I-VIII) and Tipografia E. Pergola, Avellino (Fasc. IX-XXIII).
- VIDOTTI G., 1960 – *Osservazioni sulla etologia ed ecologia del Phloeomyzus passerinii Sign. nella zona di Este (Hemipt. Aphid. Aphidinae)*. - Atti Ist. Veneto di Scienze, Lettere, Arti, 118: 203-218.

44 - Blank Page