

ANNOTATED CHECKLIST OF THE GALL MIDGES FROM THE NETHERLANDS,  
BELGIUM AND LUXEMBOURG (DIPTERA: CECIDOMYIIDAE)

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The gall midges are one of the most important groups of gall makers. Emerging larvae produce stimuli and the host plant responds by producing galls, fascinating structures which provide food and shelter for the developing larvae. Most gall inducing midges are host specific: they are only able to induce galls in a few, often related, plant species. A few species have different feeding modes: among them are saprophagous, fungivorous and predaceous species and some are used in biocontrol. We recorded 416 species in the whole area; 366 species are recorded from the Netherlands, 270 species from Belgium and 96 species from Luxembourg.

**INTRODUCTION**

Over more than a century M.W. Beijerinck (1851-1931), J.C.H. de Meijere (1866-1947) and W.M. Docters van Leeuwen (1880-1960) wrote important papers about plant galls in the Netherlands. Dutch checklists of Diptera started with Bennet & van Olivier (1825, with all species placed in *Tipula*). Checklists of cecidomyiids were started by, e.g., Van der Wulp (1859, 18 spp.), Van der Wulp & De Meijere (1898, 63 spp.) and De Meijere (1939), with many supplements (e.g., De Meijere 1946). Joman (1925) published the first Dutch 'Gallenboek', followed by Alta & Docters van Leeuwen (1946), and by Docters van Leeuwen's Gallenboek in 1952, which has been revised three times, the second edition in 1957, supplemented in 1959, by Docters van Leeuwen himself, the third one in 1982 by Wiebes-Rijks et al., and the most recent edition in 2009 by the first author of this checklist. Docters van Leeuwen's plant gall collection of more than 4,500 specimens of approximately 1000 different gall inducers, currently belonging to the collections of Naturalis Biodiversity Center, Leiden, is still a main reference for cecidology in the Netherlands. W. Nijveldt (Instituut voor Plantenziektkundig Onderzoek - IPO, Wageningen) published important contributions about gall midges of economic

importance, in the 8<sup>th</sup> volume in the series by Barnes (1946-1969) and published eleven papers (1957-1999) on gall midges new for the Dutch fauna, and, last but not least, was responsible for the cecidomyiids in the Checklist of the Diptera of the Netherlands by Beuk (2002). Nijveldt's collection of microscope slides, more than 5,600 specimens, 4,300 of Dutch origin, mainly collected by himself, but also by De Meijere and Van der Wulp during the second half of the 19<sup>th</sup>, and first half of the 20<sup>th</sup> century, and also included in the Naturalis collection, is a second main reference used for this paper. Nijveldt & Beuk (2002) listed 345 cecidomyiids.

Most Belgian records date from Lameere (1907) and have been supplemented by Leclercq (1942), Gratia (1958), Lambinon (1958a, 1959, 1976), D'Asembourg & Lambinon (1963), Lebeau & Lambinon (1968), and have finally been listed by Gosseries (1991, 136 species). However, interest in plant galls has recently been stimulated by the association Cercles des Naturalistes de Belgique where several specific initiatives have been organized since 1993 (e.g. Hoffmans 1993, Lambinon & Romain 2009, Lambinon et al. 2012a, Carbonnelle 2013, 2014). Other associations such as Les Naturalistes de Charleroi (e.g. Goossens et al. 2003, Romain 2008, 2009c, Duvivier 2008,

Martin et al. 2010, Rouard 2010, Paquet & Romain 2011), and Les Naturalistes de la Haute-Lesse (Tyteca 2007, Romain & Giot 2008, Lambinon et al. 2007, Romain 2009ab, Romain & Lambinon 2012) among others have also attracted public attention to plant galls during their activities. Recently, a workgroup about plant galls has been launched intending to develop interest, research and knowledge about plant galls in Belgium. Lambinon (1958b) and Lambinon et al. (2001, 2012b) published extensive records for Luxembourg.

The study of plant galls revived in the Netherlands since 2000, partially as activity of a study group of European Invertebrate Survey (EIS Kenniscentrum Insecten en andere ongewervelden) and also by contributions of many enthusiastic amateur and professional biologists to Dutch and Belgian websites. Information on these websites has been added to information from earlier resources like Docters van Leeuwen's collection of plant galls, microscopical slide collections of W. Nijveldt and the first author. Neighbouring territories such as France (Skuhrová et al. 2005), Great Britain (Chandler 1998, and updates), Germany (Skuhrová et al. 2014) and Denmark (Skuhrová et al. 2006b) are well documented and this has stimulated us to bring Belgium, the Netherlands and Luxembourg also up to date.

## INTRODUCTION TO THE LIST

For the Netherlands, the present list is based on Nijveldt & Beuk (2002), supplemented with later publications, data from the collections of W.M. Docters van Leeuwen (DVL), W. Nijveldt (WN) and the first author (JCR) (all deposited at Naturalis) and data from the website waarneming.nl. For Belgium the starting point is Gosseries (1991), supplemented by records from De Clercq & D'Herde (1972), De Meyer (1988), Baetens & De Bruyn (2001), Jacobs (2001), Censier et al. (2012), Gouwy & Rys (2008), Nicolas et al. (2013), and observations from waarneming.be/observations.be (the online databases from Natuurpunt,

Natagora and Stichting Natuurinformatie), and from offh.be, SPW-DGO3-DEMNA, Département d'Etude du Milieu Naturel of the Wallonian region, database. Website records have been incorporated until July 1, 2014. For Luxembourg the list is based on Lambinon et al. (2001, 2012b). When no source is indicated the record is derived from the websources.

Classification and nomenclature in this checklist follows Skuhrová (1986) and Gagné & Jaschhof (2014) for nomenclature and systematics of cecidomyiids; nomenclature and systematics of host plant species is according to The Plant List ([www.theplantlist.org](http://www.theplantlist.org)).

For each species the following headings are described.

### Biology

Descriptions of galls, host records and references are from Buhr (1964/65, revision by Roskam et al. in prep.); hence host records refer to Europe.

### References

HB: Buhr (1964/65, gall numbers are given);  
 H: Houard (1908-13, gall numbers of main records are given);  
 DA: Dauphin & Aniotsbéhère (1997, page numbers);  
 DVL: Docters van Leeuwen (2009, page numbers);  
 RS: Redfern et al. (2011, page numbers);  
 RJK: Koops (2013, page numbers).

### Provinces of Belgium, Luxembourg and the Netherlands (fig. 1)

The Netherlands: **FI** Frisian Isles, **FR** Friesland, **GR** Groningen, **DR** Drenthe, **FL** Flevoland, **OV** Overijssel, **NH** Noord Holland, **ZH** Zuid Holland, **UT** Utrecht, **GE** Gelderland, **NB** Noord Brabant, **ZE** Zeeland, **ZV** Zeeuws-Vlaanderen, **LN** Noord Limburg, **LZ** Zuid Limburg

**Belgium:** **wv** West Vlaanderen (West Flanders), **ov** Oost Vlaanderen (East Flanders), **AN** Antwerp, **LI** Belgian Limburg, **vb** Vlaams (Flemish) Brabant,



Figure 1. Provinces of the Netherlands, Belgium, and Luxembourg; for abbreviations, see text.  
 Figuur 1. Provincies van Nederland, België en Luxemburg; voor afkortingen, zie tekst.

**BR** Brussels, **BW** Brabant Wallon (Walloon Brabant), **HN** Hainaut, **NM** Namur, **LG** Liège, **LX** Belgian Luxembourg

**Luxembourg:** **ARD** Ardenne Luxembourgeoise, **LOR** Lorraine Luxembourgeoise

### Range

The known range is described. Frequency classes are defined by e.g. Skuhrová & Skuhrový (2010) as follows: *very rare*: only 1-2 records; *rare*: 3-6; *moderately frequent*: 7-14; *frequent*: 15-30; *very frequent*: 31-62, and *most frequent*: > 63 records. For this classification all recent and old records presented for the Netherlands, Belgium and Luxembourg are combined. If species are indicated by Skuhrová et al. (2005) as moderately frequent or more abundant and seem to be rarer according to our records, we have indicated them as '*very rarely recorded*' or '*rarely recorded*' instead of '*very rare*' or '*rare*'. Records of species defined as *very frequent* or more abundant are only given by their provinces / districts; less abundant species are given by their full data: province / district, locality, date of observation and observer.

### PHOTOS

Figure 2-109. Selection of galls treated in this paper.  
 Figuur 2-109. Selectie van gallen die in dit artikel behandeld worden.



Fig. 2. *Acericecis campestre* on *Acer campestre*, leaf blister gall / blaarvormige bladgal. Photo / Foto Sébastien Carbonnelle.



Fig. 3. *Ametrodiplosis crassinerva* on *Stachys sylvatica*, flower bud gall / bloemknopgal. Photo / Foto Dik Vonk.



Fig. 4. *Ametrodiplosis duclosii* on *Stellaria uliginosa*, bud gall / knopgal. Photo / Foto Sébastien Carbonnelle.



Fig. 5. *Anisostephus betulinus* on *Betula pubescens*, leaf gall / bladgal. Photo / Foto Hans Roskam.



Fig. 6. *Anthodiplosis rudimentalis* on *Artemisia vulgaris*, swollen capitule / gezwollen hoofdje. Photo / Foto Stéphane Claerebout.



Fig. 7. *Arnoldiola libera* on *Quercus robur*, leaf gall / bladgal. Photo / Foto Jan Willem Wertwijn.



Fig. 8. *Arnoldiola quercus* on *Quercus robur*, distorted shoot / misvormde scheut. Photo / Foto Arnold Grosscurt.



Fig. 9. *Aschistonyx carpinicolus* on *Carpinus betulus*, leaf fold / samengevouwen blad. Photo / Foto Jean-Yves Bagnée.





Fig. 10. *Asphondylia genistae* on *Genista tinctoria*, gall of axillary leaf bud / vergalde bladknop. Photo / Foto Sébastien Carbonnelle.



Fig. 11. *Asphondylia lathyri* on *Lathyrus pratensis*, disfigured pod / misvormde peul. Photo / Foto Sébastien Carbonnelle.



Fig. 12. *Asphondylia melanopus* on *Lotus corniculatus*, disfigured pod / misvormde peul. Photo / Foto Stéphane Claerebout.



Fig. 13. *Asphondylia pilosa* on *Cytisus scoparius*, bud gall / knopgal. Photo / Foto Keith Harris.



Fig. 14. *Asphondylia pruniperda* on *Prunus spinosa*, bud gall / knopgal. Photo / Foto Hans Henrik Bruun.



Fig. 15. *Asphondylia sarothamni* on *Cytisus scoparius*, bud gall / knopgal. Photo / Foto Stéphane Claerebout.



Fig. 16. *Asphondylia verbasci* on *Verbascum phlomoides*, swollen flower / gezwollen bloem. Photo / Foto Dragisa Savić.



Fig. 17. *Bayeriola salicariae* on *Lythrum salicaria*, bud gall / knopgal. Photo / Foto Sébastien Carbonnelle.



Fig. 18. *Contarinia acerpicans* on *Acer pseudoplatanus*, leaf fold / bladplooiing. Photo / Foto Grada Menting.



Fig. 19. *Contarinia aequalis* on *Senecio ovatus*, gall in leaf / bladgal. Photo / Foto Sébastien Carbonnelle.



Fig. 20. *Contarinia anthobia* on *Crataegus monogyna*, swollen flower / gezwollen bloem. Photo / Foto Sébastien Carbonnelle.



Fig. 21. *Contarinia anthophthora* on *Verbascum blattaria*, flower gall / bloemgal. Photo / Foto Arnold Grosscurt.





Fig. 22. *Contarinia asclepiadis* on *Vincetoxicum hirsutinaria*, swollen fruit / gezwollen vrucht. Photo / Foto Stéphane Claerebout.



Fig. 23. *Contarinia carpini* on *Carpinus betulus*, leaf fold / bladplooïing. Photo / Foto Sébastien Carbonnelle.



Fig. 24. *Contarinia chrysanthemi* on *Leucanthemum vulgare*, disfigured capitule / misvormd hoofdje. Photo / Foto Sébastien Carbonnelle.



Fig. 25. *Contarinia coryli* on *Corylus avellana*, distorted catkin / misvormd katje. Photo / Foto Sébastien Carbonnelle.



Fig. 26. *Contarinia fagi* on *Fagus sylvatica*, distorted shoot / misvormde scheut. Photo / Foto Marcela Skuhrová.



Fig. 27. *Contarinia floriperda* on *Sorbus aucuparia*, swollen flower buds / gezwollen bloemknoppen. Photo / Foto Sébastien Carbonnelle.



Fig. 28. *Contarinia galeobdolonis* on *Lamium galeobdolon*, pair of leaves rolled / rolling van bladpaar.  
Photo / Foto Willem Ellis.



Fig. 29. *Contarinia gei* on *Geum urbanum*, swollen leaf vein / gezwollen bladnerf. Photo / Foto Sébastien Carbonnelle.



Fig. 30. *Contarinia hypochoeridis* on *Crepis biennis*, disfigured capitule / misvormd hoofdje. Photo / Foto Sébastien Carbonnelle.



Fig. 31. *Contarinia jacobaeae* on *Jacobaea vulgaris*, swollen capitule / gezwollen hoofdje. Photo / Foto Stéphane Claerebout.



Fig. 32. *Contarinia petioli* on *Populus tremula*, swelling of petiole / gezwollen bladsteel. Photo / Foto Stéphane Claerebout.



Fig. 33. *Contarinia pyrivora* on *Pyrus communis*, swollen fruits / gezwollen vruchten. Photo / Foto B. Dumont.





Fig. 34. *Contarinia quinquenotata* on *Hemerocallis fulva*, disfigured flower buds/ misvormde bloemknoppen. Photo / Foto F. Walraven.



Fig. 35. *Contarinia rubicola* on *Rubus caesius*, larvae in disfigured flowers / larven in misvormde bloemen. Photo / Foto Hans Roskam.



Fig. 36. *Contarinia rumicis* on *Rumex sanguineus*, disfigured fruits / misvormde vruchten. Photo / Foto Stéphane Claerebout.



Fig. 37. *Contarinia schlechtendaliana* on *Sonchus asper*, disfigured capitule / misvormd hoofdje. Photo / Foto Sébastien Carbonnelle.



Fig. 38. *Contarinia scrophulariae* on *Scrophularia nodosa*, flower gall / bloemgal. Photo / Foto Stéphane Claerebout.



Fig. 39. *Contarinia solani* on *Solanum dulcamara*, swollen flower buds / gezwollen bloemknoppen. Photo / Foto Sébastien Carbonnelle.



Fig. 40. *Contarinia sorbi* on *Sorbus aucuparia*, folded leaflets / gevouwen deelblaadjes. Photo / Foto Arnold Grosscurt.



Fig. 41. *Craneiobia corni* on *Cornus sanguinea*, leaf gall / bladgal. Photo / Foto Stéphane Claerebout.



Fig. 42. *Dasineura angelicae* on *Angelica sylvestris*, swollen flowers / gezwollen bloemen. Photo / Foto Sébastien Carbonnelle.



Fig. 43. *Dasineura berberidis* on *Berberis vulgaris*, leaf roll / bladrolling. Photo / Foto Rutger Barendse.



Fig. 44. *Dasineura comosae* on *Hippocrepis comosa*, folded leaflet / gevouwen deelblaadje. Photo / Foto Sébastien Carbonnelle.



Fig. 45. *Dasineura cytisi*, of *Genista sagittalis*, terminal leaflet folded / gevouwen eindstandig deelblaadje. Photo / Foto Sébastien Carbonnelle.



Fig. 46. *Dasineura dioicae* on *Urtica dioica*, swollen leaf margin / gezwollen bladrand. Photo / Foto Hans Jürgen Buhr.



Fig. 47. *Dasineura fraxinea* on *Fraxinus excelsior*, leaf blister gall / blaarvormige bladgal. Photo / Foto M. Storey.



Fig. 48. *Dasineura fructicola* on *Myosotis laxa* subsp. *cespitosa*, galled fruit / vruchtgal. Photo / Foto Sébastien Carbonnelle.



Fig. 49. *Dasineura gleditchiae* on *Gleditsia triacanthos*, pod-like leaflet / peulvormig deelblaadje. Photo / Foto Arnold Grosscurt.



Fig. 50. *Dasineura helianthemi* on *Helianthemum nummularium*, bud-like leaf cluster / knopvormig bladrozet. Photo / Foto Sébastien Carbonnelle.

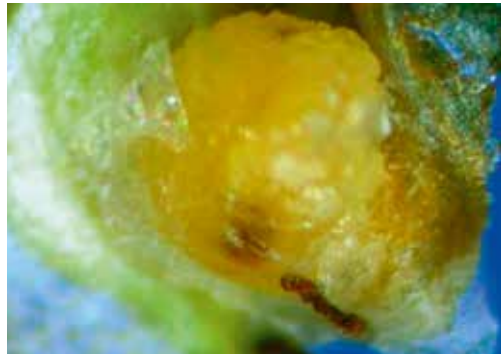


Fig. 51. *Dasineura interbractea* on *Betula pubescens*, inquiline of *Semudobia* sp. / inquiline van *Semudobia* sp. Photo / Foto Hans Roskam.





Fig. 52. *Dasineura kiefferi* on *Hedera helix*, closed flower bud / bloemknopgal. Photo / Foto Sébastien Carbonnelle.



Fig. 53. *Dasineura lathyri* on *Lathyrus pratensis*, swollen leaflets / gezwollen deelblaadjes. Photo / Foto Sébastien Carbonnelle.



Fig. 54. *Dasineura lathyricola* on *Lathyrus pratensis*, swollen stipulae / gezwollen steunblaadjes. Photo / Foto Hans Henrik Bruun.



Fig. 55. *Dasineura lotharingiae* on *Cerastium glomeratum*, swollen flower bud / gezwollen bloemknop. Photo / Foto Peter Meininger.



Fig. 56. *Dasineura lupulinae* on *Medicago lupulina*, swollen stipulae / gezwollen steunblaadjes. Photo / Foto Sébastien Carbonnelle.



Fig. 57. *Dasineura oxyacanthae* on *Crataegus* spec., swollen flower / gezwollen bloem. Photo / Foto Sébastien Carbonnelle.



Fig. 58. *Dasineura pteridis* on *Pteridium aquilinum*, roll of leaf margin / bladrandrolling. Photo / Foto Stéphane Claerebout.



Fig. 59. *Dasineura rubella* on *Acer campestre*, lamina folded upwards / bladplooiing. Photo / Foto Arnold Grosscurt.



Fig. 60. *Dasineura similis* on *Veronica officinalis*, leaf base and petiole swollen / bladbasis en bladsteel gezwollen. Photo / Foto Stéphane Claerebout.



Fig. 61. *Dasineura stelteri* on *Barbarea vulgaris*, larvae in siliqua / larven in hauw. Photo / Foto Sébastien Carbonnelle.



Fig. 62. *Dasineura symphyti* on *Symphytum officinale*, disfigured flowers / misvormde bloemen. Photo / Foto Sébastien Carbonnelle.



Fig. 63. *Dasineura tetensi* on *Ribes uva-crispa*, lamina distorted / misvormde bladschijf. Photo / Foto Stéphane Claerebout.





Fig. 64. *Dasineura tortrix* on *Prunus avium*, lamina distorted / misvormde bladschijf. Photo / Foto Arnold Grosscurt.



Fig. 65. *Dasineura traili* on *Ranunculus repens*, distorted flowers / misvormde bloemen. Photo / Foto Sébastien Carbonnelle.



Fig. 66. *Dasineura tympani* on *Acer campestre*, blister on lamina / blaarvormige gal op bladschijf. Photo / Foto Sébastien Carbonnelle.



Fig. 67. *Dasineura violahirtae* on *Viola hirta*, leaf roll / bladrolling. Photo / Foto Stéphane Claerebout.



Fig. 68. *Diodaulus traili* on *Pimpinella saxifraga*, disfigured flower / misvormde bloem. Photo / Foto Sébastien Carbonnelle.



Fig. 69. *Drisina glutinosa* on *Acer pseudoplatanus*, depression on underside of leaf / inzinking van blad-onderzijde. Photo / Foto Stéphane Claerebout.





Fig. 70. *Geocrypta campanulae* on *Campanula rotundifolia*, bud gall / knopgal. Photo / Foto Stéphane Claerebout.



Fig. 71. *Gephyraulax raphanistri* on *Raphanus raphanistrum*, disfigured flower / misvormde bloem. Photo / Foto Sébastien Carbonnelle.



Fig. 72. *Giraudiella inclusa* on *Phragmites australis*, infested culm / aangetaste halm. Photo / Foto Stéphane Claerebout.



Fig. 73. *Jaapiella bryoniae* on *Bryonia cretica*, shoot stunted / misvormde scheut. Photo / Foto Sébastien Carbonnelle.



Fig. 74. *Jaapiella genisticola* on *Genista tinctoria*, enlarged bud / vergrote knop. Photo / Foto Stéphane Claerebout.



Fig. 75. *Jaapiella loticola* on *Lotus corniculatus*, thickened leaflet / verdikt deelblaadje. Photo / Foto Sébastien Carbonnelle.



Fig. 76. *Jaapiella medicaginis* on *Medicago sativa*, folded leaflet / samengevouwen deelblaadje. Photo / Foto Sébastien Carbonnelle.



Fig. 77. *Jaapiella parvula* on *Bryonia cretica*, disfigured flower / misvormde bloem. Photo / Foto Sébastien Carbonnelle.



Fig. 78. *Jaapiella vacciniorum* on *Vaccinium myrtillus*, roll of leaf margin / bladrandrolling. Photo / Foto Henk-Jan van der Kolk.



Fig. 79. *Janetiella glechomae* on *Glechoma hederacea*, galled fruit / vruchtgal. Photo / Foto Hans Roskam.



Fig. 80. *Lathyromyza schlechtendali* on *Lathyrus linifolius*, roll of leaflet / ingerold deelblaadje. Photo / Foto Sébastien Carbonnelle.



Fig. 81. *Lestodiplosis vorax*, predating larva on *Semudobia* sp. in fruit catkins of birch / *Lestodiplosis vorax*, prederende larve op *Semudobia* sp. In vruchtkatjes van berk. Photo / Foto Hans Roskam.





Fig. 82. *Macrolabis lamii* on *Lamium album*, terminal pair of leaves disfigured / misvormd terminaal bladpaar. Photo / Foto Bart Uitterhaegen.



Fig. 83. *Macrolabis loniceræ* on *Lonicera periclymenum*, thickened leaf roll / verdikte bladrolling. Photo / Foto Jan Scheffers.



Fig. 84. *Macrolabis stellariæ* on *Stellaria media*, thickened outer pair of leaves / verdikt buitenste bladpaar. Photo / Foto Sébastien Carbonnelle.



Fig. 85. *Massalongia ruber* on *Betula pubescens*, swollen main vein / gezwollen hoofdnerv. Photo / Foto Sébastien Carbonnelle.



Fig. 86. *Neomikiella beckiana* on *Inula conyzæ*, lamina distorted / misvormde bladschijf. Photo / Foto M. Chapelle.



Fig. 87. *Neomikiella lychnidis* on *Silene dioica*, bud-like accumulation of disfigured leaves / knopvormig samengetrokken misvormde bladeren. Photo / Foto Luc Knijnsberg.





Fig. 88. *Obolodiplosis robiniae* on *Robinia pseudoacacia*, roll of margin of leaflet / rolling van rand van deelblaadje. Photo / Foto C. van Steden.



Fig. 89. *Oligotrophus juniperinus* on *Juniperus communis*, gall of scale-like leaves / gal gevormd uit schubvormige naalden. Photo / Foto Stéphane Claerebout.



Fig. 90. *Oligotrophus panteli* on *Juniperus communis*, gall of scale-like leaves / gal gevormd uit schubvormige naalden. Photo / Foto Stéphane Claerebout.



Fig. 91. *Oligotrophus schmidti* on *Juniperus communis*, gall of scale-like leaves / gal gevormd uit schubvormige naalden. Photo / Foto Stéphane Claerebout.



Fig. 92. *Parallelodiplosis galliperda*, inquiline under the lenticular leaf galls of the cynipid *Neuroterus quercus-baccarum* on oak/ inquiline onder lensgalletje op eikenblad van de galwesp *Neuroterus baccarum*. Photo / Foto Stéphane Claerebout.



Fig. 93. *Physemocecis hartigi* on *Tilia platyphyllos*, leaf blister / blaarvormige bladgal. Photo / Foto Stéphane Claerebout.



Fig. 94. *Polystepha malpighii* on *Quercus robur*, leaf blister / blaarvormige bladgal. Photo / Foto Hans Roskam.



Fig. 95. *Putoniella pruni* on *Prunus spinosa*, leaf roll / bladrolling. Photo / Foto Stéphane Claerebout.



Fig. 96. *Rabdophaga degeerii* on *Salix purpurea*, spindle-shaped stem gall / spoelvormige takgal. Photo / Foto Ruud van Middelkoop.



Fig. 97. *Rabdophaga exsiccans* on *Salix repens*, stem gall / takgal. Photo / Foto Rutger Barendse.



Fig. 98. *Rabdophaga heterobia* on *Salix triandra*, catkin gall / vergald meeldraadkatje. Photo / Foto Sébastien Carbonnelle.



Fig. 99. *Rabdophaga iteobia*, spindle-shaped leaf gall / spoelvormig bladgal. Photo / Foto Stéphane Claerebout.





Fig. 100. *Rabdophaga jaapi* on *Salix repens*, rosette gall / rozetgal. Photo / Foto Hans Henrik Bruun.



Fig. 101. *Rabdophaga strobilina*, inquiline of *R. rosaria* on *Salix alba* / inquiline van *R. rosaria* op knotwilg. Photo / Foto Hans Roskam.



Fig. 102. *Resseliella betulicola* on *Betula pendula*, disfigured leaf / misvormd blad. Photo / Foto Arnold Grosscurt.



Fig. 103. *Rhopalomyia baccharum* on *Artemisia vulgaris*, berry-like bud gall / besvormige knopgal. Photo / Foto Sébastien Carbonnelle.



Fig. 104. *Rhopalomyia florum* on *Artemisia vulgaris*, swollen fruits / vruchtgal. Photo / Foto Willem Ellis.



Fig. 105. *Rhopalomyia foliorum* on *Artemisia vulgaris*, leaf gall / bladgal. Photo / Foto Sébastien Carbonnelle.





Fig. 106. *Sackenomyia reaumurii* on *Viburnum lantana*, pustule gall on leaf / puistvormige bladgal. Photo / Foto Stéphane Claerebout.



Fig. 107. *Semudobia skuhravae* on *Betula pendula*, galled bracts on rachis of fruit catkin / vergalde bracteën op aarspil van vruchtkatje. Photo / Foto Stéphane Claerebout.



Fig. 108. *Xylodiplosis* cf. *nigritarsis*, egg-laying midges on wood logs of *Quercus rubra* / eileggende muggen op vers gezaagd hout van *Quercus rubra*. Photo / Foto E. Dijkstra.



Fig. 109. *Zeuxidiplosis giardi* on *Hypericum perforatum*, bud-like leaf gall / knopvormige bladgal. Photo / Foto Sébastien Carbonnelle.

## ANNOTATED LIST

### Subfamily Lestremiinae

#### *Anarete candidata* Haliday, 1833

**Biology** Mycetophagous on various hosts.

**References** Jaschhof 1998.

**Netherlands** No records.

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

#### *Anarete lacteipennis* Kieffer, 1906

**Biology** Mycetophagous on various hosts.

**References** Jaschhof 1998.

**Netherlands** No records.

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

*Anaretella defecta* (Winnertz, 1870)

**Biology** Caught in flight, probably mycetophagous.

**References** Jaschhof 1998.

**Netherlands** NB Kaatsheuvel-De Brand, 1990 (Jaschhof 1996).

**Belgium** No records.

**Luxembourg** No records.

**Range** Cosmopolitan, very rarely recorded, probably overlooked.

*Anaretella iola* Pritchard, 1951

**Biology** Caught in flight, probably mycetophagous.

**References** Jaschhof 1998.

**Netherlands** NB Kaatsheuvel-De Brand, 1990 (Jaschhof 1996).

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded, probably overlooked.

*Lestremia cinerea* Macquart, 1826

**Biology** Mycetophagous, decaying plant material, e.g., *Cichorium intybus* cultures.

**References** Nijveldt 1973a, Jaschhof 1998.

**Netherlands** NH Amsterdam-Oude Oosterbegraafplaats, 19.III.1938; Amsterdam, 26.X.1953, WN; ZH Zwammerdam, 1V.1896, J.G. de Man; UT Doorn-Gimborn Arboretum, 22.X.1970; GE Apeldoorn-Loenermark, 17.XII.1963; NB Nuenen-Nieuwe Dijk, 25.VII.1978, 3 × WN; ZE Middelburg, X.1883, J.G. de Man; Walcheren, 19.I.1966, 1.X.1967, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Holarctic, introduced in Chile, Hawaiian Is., New Zealand, moderately frequent.

*Lestremia leucophaea* (Meigen, 1818)

**Biology** Unknown, caught in flight.

**References** Jaschhof 1998.

**Belgium** No location, no date (Gosseries 1991).

**Netherlands** No location, no date (Nijveldt & Beuk 2002).

**Luxembourg** No records.

**Range** Holarctic, very rarely recorded.

Subfamily Micromyinae

*Acoenonia* cf. *europaea* Mamaev, 1964

**Biology** Mycetophagous, swept from *Betula* (Betulaceae), reared from soil under birch.

**References** Gagné & Jaschhof 2014.

**Netherlands** ZH Leiden-Hortus, 15.V.1972; Meijndel, 1/9.VI.1978; both JCR.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded, probably overlooked.

*Aprionus bidentatus* (Kieffer, 1894)

**Biology** Mycetophagous.

**References** Jaschhof 1996.

**Netherlands** NB Kaatsheuvel-De Brand, 1990 (Jaschhof 1996).

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded, probably overlooked.

*Aprionus flavidus* (Winnertz, 1870)

**Biology** Mycetophagous.

**References** Gagné & Jaschhof 2014.

**Netherlands** No location, no date (Nijveldt & Beuk 2002)

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** Europe, very rarely recorded, probably overlooked.

***Bryomyia bergrothi* Kieffer, 1895**

**Biology** Unknown, caught in flight.

**References** Jaschhof 1996.

**Netherlands** NB Kaatsheuvel-De Brand, 1990 (Jaschhof 1996).

**Belgium** No records.

**Luxembourg** No records.

**Range** Palaearctic, very rarely recorded.

***Bryomyia gibbosa* (Felt, 1907)**

**Biology** Unknown, caught in flight.

**References** Jaschhof 1996.

**Netherlands** NB Kaatsheuvel-De Brand, 1990 (Jaschhof 1996).

**Belgium** No records.

**Luxembourg** No records.

**Range** Holarctic, very rarely recorded.

***Bryomyia producta* (Felt, 1908)**

**Biology** Unknown, caught in flight.

**References** Jaschhof 1996.

**Netherlands** NB Kaatsheuvel-De Brand, 1990 (Jaschhof 1996).

**Belgium** No records.

**Luxembourg** No records.

**Range** Holarctic, very rarely recorded.

***Campylomyza flavipes* (Meigen, 1818)**

= *C. edwardsi*

**Biology** Mycetophagous on various hosts.

**References** Gagné & Jaschhof 2014.

**Netherlands** NH Amsterdam, 5.XI.1959; Haarlemmermeer, 6.IX.1967; UT Zeist, 30.X.1936;

GE Tiel-Thedingsweert, 17.I.1961; Wageningen, 21.IV.1957; Wageningen-Hoog, 17.I.1961.

All records WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Holarctic, introduced in S-Africa, New

Zealand, rarely recorded but widespread and probably common.

***Campylomyza serrata* Jaschhof, 1996**

**Biology** Unknown, caught in flight.

**References** Jaschhof 1996.

**Netherlands** NB Kaatsheuvel-De Brand, 1990 (Jaschhof 1996).

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded, probably overlooked.

***Catocha latipes* Haliday, 1833**

**Biology** Mycetophagous on various hosts.

**References** Gagné & Jaschhof 2014.

**Netherlands** NH Haarlem, 27.III.1965; ZH Rotterdam. Both records WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** W-Europe, very rarely recorded but widespread and probably common.

***Micromyza lucorum* Rondani, 1840**

**Biology** Phytosaprophagous on various hosts.

**References** Jaschhof 1996, Gagné & Jaschhof 2014.

**Netherlands** NH Amsterdam, 21.VIII.1939, WN; NB Kaatsheuvel-De Brand, 1990 (Jaschhof 1996).

**Belgium** No records.

**Luxembourg** No records.

**Range** Holarctic, very rarely recorded.

***Monardia atra* (Meigen, 1804)**

**Biology** Adults are abundant in broad-leaved forests.

**References** Jaschhof 1996, Gagné & Jaschhof 2014.



Netherlands NH Hilversum, 5.XI.1903; 13.V.1905; UT Zeist, no date. All records J.C.H. de Meijere.  
Belgium No records.  
Luxembourg No records.  
Range Holarctic, rarely recorded.

### *Monardia stirpium* Kieffer, 1895

= *Pezomyza vanderwulpi*

Biology Mycetophagous on mouldy stumps of rotten pine.  
References De Meijere 1899, Gagné & Jaschhof 2014.  
Netherlands ZH Zwammerdam, IV.1899, J.C.H. de Meijere.  
Belgium No records.  
Luxembourg No records.  
Range Holarctic, Afrotropical, Australasian, Baltic amber, very rarely recorded.

### *Monardia toxicodendri* (Felt, 1907)

Biology Larvae develop on decaying plant material, e.g., *Triticum*.  
References Nijveldt 1985a, Gagné & Jaschhof 2014.  
Netherlands FL Nagele, 24.VII.1983, WN.  
Belgium No records.  
Luxembourg No records.  
Range Europe, very rarely recorded.

### *Mycophila fungicola* Felt, 1911

= *M. barnesi*

Biology Mycetophagous in fruiting body of cultivated *Agaricus bisporus* (Fungi, Agaricaceae).  
References Nijveldt 1985a, Gagné & Jaschhof 2014.  
Netherlands NB Boekel, 27.IX.1982, 5.X.1982; LN Horst, 1982, IX.1983; Ospel, 1.VI.1982; LZ Maas-tricht 7.IX.1983. All WN.  
Belgium No records.  
Luxembourg No records.

Range Holarctic, introduced in Hawaiian Is., Australia, New Zealand; rare, pest species.

### *Mycophila speyeri* (Barnes, 1926)

Biology Mycetophagous in fruiting body of cultivated *Agaricus bisporus* (Fungi, Agaricaceae).  
References De Meijere 1946, De Goffau 1989, Gagné & Jaschhof 2014.  
Netherlands GE Wageningen, 1959; ZE Ierseke, 1.II.1968; LN Grubbenvorst, 17.X.1983. All WN.  
Belgium BW Waterloo, 19.VI.1953, P.J. Bels.  
Luxembourg No records.  
Range Holarctic, rarely recorded. Pest species.

### *Xylopriona atra* (Meigen, 1804)

Biology Mycetophagous on various hosts.  
References Gagné & Jaschhof 2014.  
Netherlands No records.  
Belgium No locality, no date (Gosseries 1991).  
Luxembourg No records.  
Range Palearctic, very rarely recorded.

### Subfamily Winnertziinae

### *Heteropeza pygmaea* Winnertz, 1846

= *Oligarces paradoxus*

Biology Malformation of fruiting bodies in cultures of *Agaricus bisporus* (Fungi, Agaricaceae).  
References De Meijere 1940, Nijveldt 1957.  
Netherlands NH Zaandam, XI.1937; GE Beuningen, 13.V.1968; Wageningen, 24.IX.1956. All WN.  
Belgium No records.  
Luxembourg No records.  
Range W-Palaeartic, N-America; rarely recorded; probably widespread.

***Miastor metraloas* Meinert, 1864**

**Biology** Larvae develop phytosaprophagously, on mycelium under decaying bark of broad-leaved trees, e.g., *Quercus*, *Fagus*, *Betula*, *Tilia*.

**References** Gagné & Jaschhof 2014.

**Netherlands** NH Hilversum, 23.II.1904, 30.V.1904, J.C.H. de Meijere; ZH Loosduinen, VII.1895, J.T. Oudemans; GE Wageningen, 15.IV.1954; ZE Goes, 16.VII.1958, both WN.

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** Holarctic, moderately frequent but probably widespread and abundant.

***Winnertzia curvata* Panellius, 1965**

**Biology** Phytosaprophagous on various hosts.

**References** Gagné & Jaschhof 2014.

**Netherlands** ZH Linschoten, 18.VI.1929, J.C.H. de Meijere.

**Belgium** No records.

**Luxembourg** No records.

**Range** W-Europe, very rarely recorded.

***Winnertzia nigripennis* Kieffer, 1896**

= *W. pinicola*

**Biology** Larvae develop on mycelium under bark of various hosts, e.g., *Pinus*.

**References** Gagné & Jaschhof 2014.

**Netherlands** GE Wageningen, 2.V.1958, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rarely recorded.

***Winnertzia rubricola* Mamaev, 1963**

**Biology** Larvae develop on mycelium under bark of various hosts.

**References** Gagné & Jaschhof 2014.

**Netherlands** GE Wageningen, 18.V.1958, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, Azerbaijan, very rarely recorded.

**Subfamily Porricondylinae**

***Asynapta pectoralis* (Winnertz, 1853)**

**Biology** Mycetophagous on various hosts.

**References** Gagné & Jaschhof 2014.

**Netherlands** No records.

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Asynapta phragmitis* (Giraud, 1863)**

= *Porricondylla phragmitis*

**Biology** Mycetophagous on various hosts.

**References** Gagné & Jaschhof 2014.

**Netherlands** NH Diemen, v.1895, 20/22.v.1896, both J.T. Oudemans; GE Wageningen, 8.XII.1971, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, up to Kazakhstan, rarely recorded.

***Asynapta saliciperda* Felt, 1908**

= *A. populnea*

**Biology** Mycetophagous on various hosts.

**References** Nijveldt 1968, Gagné & Jaschhof 2014.

**Netherlands** GE Wageningen, v.1963, 11.VI.1963, both WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, N-America, very rarely recorded.

*Asynapta strobi* (Kieffer, 1920)

= *Camptomyia strobi*

**Biology** Phytosaprophagous in decaying cones.

**References** Nijveldt 1981, Gagné & Jaschhof 2014.

**Netherlands** DR Grolloo, 2.VIII.1990; UT Neerlangbroek-Leeuwenburgh, 14.III.1968; GE Wageningen-De Dorschkamp, 3.X.1980. All WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Palaearctic, rarely recorded.

*Camptomyia abnormis* Mamaev, 1961

**Biology** Phytosaprophagous on various hosts, e.g., in bark of *Ulmus*.

**References** Gagné & Jaschhof 2014.

**Netherlands** UT Baarn, vi.VII.1936, J.C.H. de Meijere.

**Belgium** No records.

**Luxembourg** No records.

**Range** Holarctic, very rarely recorded.

*Cedrocrypta montana* Kieffer, 1919

**Biology** Phytosaprophagous on various hosts.

**References** Gagné & Jaschhof 2014.

**Netherlands** NH Amsterdam, VI.1888; IX.1892, J.C.H. de Meijere.

**Belgium** No records.

**Luxembourg** No records.

**Range** Holarctic, very rarely recorded.

*Claspettomomyia hamata* (Felt, 1907)

**Biology** Phytosaprophagous on various hosts, e.g., on rotting chicory.

**References** Nijveldt 1973a, Gagné & Jaschhof 2014.

**Netherlands** NH Bloemendaal, 20.V.1921, J.C.H. de Meijere; ZE Walcheren, 19.I.1966; LZ Wittem, 8.VI.1934, G. Kruseman (as *C. formosa*).

**Belgium** No records.

**Luxembourg** No records.

**Range** Holarctic, rarely recorded.

*Coccopsilis marginata* (De Meijere, 1901)

= *Coccopsis marginata*, *Holoneurus marginata*

**Biology** Phytosaprophagous.

**References** Gagné & Jaschhof 2014.

**Netherlands** NH Amsterdam, III.1900; Diemen, VI.1900; both J.C.H. de Meijere.

**Belgium** No records.

**Luxembourg** No records.

**Range** The Netherlands, very rarely recorded.

*Colpodia angustipennis* (Winnertz, 1853)

**Biology** Unknown, caught in flight.

**References** Gagné & Jaschhof 2014.

**Netherlands** No records.

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** Germany, Belgium, very rarely recorded.

**Note** Nomen dubium.

*Colpodia pallidula* Van der Wulp, 1874

**Biology** Unknown, caught in flight.

**References** Gagné & Jaschhof 2014.

**Netherlands** ZH 's Gravenhage, no date, Van der Wulp.

**Belgium** No records.

**Luxembourg** No records.

**Range** The Netherlands, rarely recorded.

**Note** Doubtful species (Nijveldt & Beuk 2002); nomen dubium because the type is lost according to Gagné & Jaschhof (2014); however, the (incomplete) type specimen is present in collection WN.



***Divellepidosis hypoxantha* (Panelius, 1965)**

= *Porricondyla hypoxantha*

**Biology** Mycetophagous, reared from fallen conifer needles.

**References** Nijveldt 1980, Gagné & Jaschhof 2014.

**Netherlands** GE Ede-Hindekamp, 30.XI.1967, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Monepidosis carolinae* (Felt, 1907)**

= *Colpodia carolinae*, *Porricondyla carolinae*

**Biology** Unknown, caught in flight.

**References** Nijveldt 1968, Gagné & Jaschhof 2014.

**Netherlands** GE Putten, 21.V.1959 & 21.V.1961, both WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** N-America, the Netherlands, very rarely recorded.

***Monepidosis pectinata* Mamaev, 1966**

**Biology** Phytosaprophagous.

**References** Nijveldt 1980, Gagné & Jaschhof 2014.

**Netherlands** GE Ede-De Valouwe, 25.XI.1970, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Holarctic, rarely recorded.

***Neocolpodia paradoxa* Mamaev, 1964**

**Biology** Phytosaprophagous, reared from soil sample under pine.

**References** Nijveldt 1980, Gagné & Jaschhof 2014.

**Netherlands** ZH Meijendel, 9.VI.1978, JCR.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Parepidosis arctuata* Mamaev, 1964**

= *P. longinodis*

**Biology** Phytosaprophagous on various hosts.

**References** Gagné & Jaschhof 2014.

**Netherlands** NH Hoofddorp, 6.IX.1969, 1982, both WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, Uzbekistan, very rarely recorded.

***Parepidosis argentifera* (De Meijere, 1906)**

= *Porricondyla argentifera*

**Biology** Phytosaprophagous on fallen decaying leaves of various hosts.

**References** De Meijere 1906, Gagné & Jaschhof 2014.

**Netherlands** NH Hilversum, 21.IV.1904, J.C.H. de Meijere.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Parepidosis venustior* Gagné, 2004**

= *Porricondyla venusta*

**Biology** Phytosaprophagous on various hosts.

**References** Meyer 1999, Gagné & Jaschhof 2014.

**Netherlands** ZH 's Gravenhage, no date, F.M. van der Wulp (identification by S. Panelius).

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Porricondyla hypoxantha* Panelius, 1965**

**Biology** Phytosaprophagous on various hosts, e.g., decaying cones of *Pinus sylvestris*.

**References** Nijveldt 1980, Gagné & Jaschhof 2014.

**Netherlands** GE Apeldoorn-Loenermark, 21.I.1968; Ede-Hindekamp, 27.XI.1966, both WN.

**Belgium** No records.  
**Luxembourg** No records.  
**Range** NW-Europe, rarely recorded.

***Porricondyla nigripennis* (Meigen, 1830)**

**Biology** Phytosaprophagous on various hosts.  
**References** Gagné & Jaschhof 2014.  
**Netherlands** NH Velzen; ZH 's Gravenhage, both no date, F.M. van der Wulp.  
**Belgium** No location, no date (Gosseries 1991).  
**Luxembourg** No records.  
**Range** Holarctic, rarely recorded.

***Porricondyla nitida* Van der Wulp, 1874**

= *Epidosis nitida*

**Biology** Phytosaprophagous on various hosts.  
**References** Meyer 1999.  
**Netherlands** UT Driebergen, no date (June), W. baron Six.  
**Belgium** No records.  
**Luxembourg** No records.  
**Range** NW-Europe, very rarely recorded.  
**Note** Doubtful species (Nijveldt & Beuk 2002); unplaced Cecidomyiidae (Gagné & Jaschhof 2014).

***Porricondyla rufocinerea* Panelius, 1965**

**Biology** Phytosaprophagous on various hosts.  
**References** Gagné & Jaschhof 2014.  
**Netherlands** NH Bloemendaal, 20.v.1920, J.C.H. de Meijere.  
**Belgium** No records.  
**Luxembourg** No records.  
**Range** NW-Europe, rarely recorded.

***Porricondyla rufescens* Panelius, 1965**

**Biology** Phytosaprophagous, on dying culm of various grasses, e.g., *Deschampsia flexuosa*.  
**References** Nijveldt 1973a, Gagné & Jaschhof 2014.  
**Netherlands** GE Wageningen-Hoog, 4.I.1968, WN; ZE Middelburg, IX.1883, J.G. de Man.  
**Belgium** No records.  
**Luxembourg** No records.  
**Range** Palaearctic, rarely recorded.

**Subfamily Cecidomyiinae**

***Acericecis campestre* Harris, 2004 (fig. 2)**

New for Belgium

**Biology** Host *Acer campestre* (Sapindaceae).  
Raised pimple 1-2 mm high on upper side corresponding with depression below.  
**References** RS: p22, Harris 2004.  
**Netherlands** No records.  
**Belgium** HN Virelles, 31.v.2014, S. Carbonnelle; NM Jemelle, 3.viii.2013, J.-Y. Baugnée; Dailly, 31.v.2014; Vierves-sur-Viroin, 2.vi.2014; Petigny, 19.vi.2014; 3 × S. Carbonnelle.  
**Luxembourg** No records.  
**Range** Europe, very rarely recorded.  
**Note** May be contaminated with *Dasineura tympani* and *Drisina glutinosa*.

***Ametrodiplosis crassinerva* (Kieffer, 1901) (fig. 3)**

**Biology** Host *Stachys sylvatica* (Lamiaceae).  
Flower buds ± swollen, unopened; not a true gall causer.  
**References** HB: 6833, H: 4859, DA: p258, DVL: p276, RS: p317, Alta & Docters van Leeuwen 1946.  
**Netherlands** NH Haarlem-Schalkwijk, 10. vii.2013, D. Vonk; ZH Leiden, 20.vi.1918, DVL.  
**Belgium** No records.  
**Luxembourg** No records.  
**Range** Europe, very rare.

***Ametrodiplosis duclosii* (Tavares, 1930)  
(fig. 4)**

New for Belgium

**Biology** Host *Stellaria graminea*, *uliginosa* (= *alsine*) (Caryophyllaceae). Side buds, sometimes also terminal buds, transformed into an elongate-oval or acuminate egg-shaped capsule-like gall.

**References** HB: 6853, DA: p153.

**Netherlands** No records.

**Belgium** HN Baileux, 9.VIII.2013, leg. S. Carbonnelle, det. K.M. Harris.

**Luxembourg** No records.

**Range** Belgium, France, Germany, very rare.

***Ametrodiplosis thalictricola*  
(Rübsaamen, 1895)**

New for Belgium

**Biology** Host *Thalictrum* spp. (Ranunculaceae). Fruit swollen, globular or acuminate egg-shaped, seeds absent; wall succulent.

**References** HB: 7018, H: 244I sq., DA: 160, DVL: 283, RS: 326, RJK: 60.

**Netherlands** 19 records: FR, FL, OV, NH, ZH, UT, GE.

**Belgium** OV Ghent-Bourgoyen, 2.VII.2011, anon.

**Luxembourg** No records.

**Range** Europe, frequent.

***Anabremia viciae* Kieffer, 1913**

New for Belgium

**Biology** Host *Vicia sepium*, *cracca* (Fabaceae). Swollen flower buds.

**References** HB: 7553, H: 3694, DA: p210, DVL: 302, RS: p352.

**Netherlands** OV Weerribben-Venebosch, 3.VII.2012; Weerribben-Woldlakebos, 4.VII.2012, both J. van Harten.

**Belgium** No location, no date (Gosseries 1991); LI Teugelenbeemd, 7.VI.2010, R. Barendse.

**Luxembourg** No records.

**Range** Euro-Siberian, rare.

**Note** Species recorded as *A. longiventris* from the Netherlands from *Vicia* by De Meijere (1939).

***Anisostephus betulinus* (Kieffer, 1889)  
(fig. 5)**

**Biology** Host *Betula pendula*, *pubescens*. Leaf gall in parenchyma; rotund, weakly protruding on both leaf surfaces, about 3-4 mm wide. Often several per leaf.

**References** HB: 1081, H: 1076, sq., DA: p136, DVL: p97, RS: p57, RJK: p13.

**Netherlands** 16 records: FI, FR, GR, NH, ZH, UT, GE, NB.

**Belgium** No location, no date (Gosseries 1991); OV Bosberg-Moerbekebos, 13.VI.2014, B. Uitterhaegen; Kleit-Maldegemveld, 4.VI.2011, H. de Blauwe; Merendree/Vinderhoute-Kalevallei, 17.XI.2013, anon.; LI Lommel-Sahara, 12.VI.2010, R. Barendse; HN Hensies, 5.VII.2013, J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Euro-Siberian, frequent.

***Anthodiplosis rudimentalis* (Kieffer, 1901)  
(fig. 6)**

New for Belgium

**Biology** Host *Artemisia vulgaris* (Asteraceae). Capitules ± globularly swollen; one large central gall.

**References** HB: 781, H: 5818, DA: p290, DVL: p93.

**Netherlands** NH Amsterdam-Nieuwendam, Baanakkerspark, 21.IX.2008; Amsterdam-Nieuwendam, 15.VIII.2011; Castricum, 3.X.2011, 3 × W.N. Ellis; ZH over 50 records in 2008-2013, all B. van As; GE Culemborg-Beusichemse Waard, 1.IX.2008, JCR; Wageningen-Wageningse Bovenpolder, 29.IX.2012, E. Slootweg; Zelhem-IJzevoorde, 21.IX.2011; LZ Houthem-St.Gerlach, De Dellen, 15.IX.2012, both W.N. Ellis.

**Belgium** BW Court-Saint-Etienne, 13.VIII.2013, J.-Y. Baugnée; NM Couvin, 14.viii.2013, S. Claerebout; Jemelle, 27.IX.2013; Villiers-sur-Lesse, 29.VIII.2013; LG Liège, 15.IX.2013, 3 × J.-Y. Baugnée.



LX Hotton, 21.IX.2013, J.-L. Giot & M.-T. Romain.  
**Luxembourg** ARD Rodershausen (Lambinon et al. 2012b).  
**Range** Europe, frequent.

***Aphidoletes aphidimyza* (Rondani, 1847)**  
= *Phaenobremia aphidivora*

**Biology** Predator on *Aphis frangulae*, *A. urticata*, *A. fabae*, *A. pomi*, *Brevicoryne brassicae*, *Cavariella pastinacae*, *Chaitophorus beuthani*, *C. populeti*, *Hyalopterus pruni*, *Myzus persicae*, *Pentatrichopus fragae-folii*, *Periphyllus acericola* and others.

**References** Nijveldt 1953b, 1955, 1963.  
**Netherlands** 20 records: NH, ZH, UT, GE, NB, all WN.  
**Belgium** No location, no date (Gosseries 1991, Nicolas et al. 2013).

**Luxembourg** No records.  
**Range** Holarctic, secondarily cosmopolitan, frequent.  
**Note** Commercially marketed agent for aphid biocontrol.

***Aphidoletes urticaria* (Kieffer, 1895)**  
= *Phaenobremia urticariae*

**Biology** Host *Urtica dioica* (Urticaceae). Predator on *Aphis urticaria*, *A. fabae*, *A. pomi*, *A. urticata*, *Acyrtosiphon pisum*, *Chaitophorus populeti*.

**References** Nijveldt 1952b, 1955.  
**Netherlands** NH Amsterdam, 19/30.VI.1950, 18.VII.1951; UT Rhenen-Grebbeberg, 19.VI.1968; Lienden-Schuilenburg, 28.X.1971; Oosterbeek-I.T.B.O.N., 23.VI.1961; Wageningen-Sanoer, all WN.

**Belgium** No records.  
**Luxembourg** No records.  
**Range** Holarctic, rare.

***Arnoldiola libera* (Kieffer, 1909) (fig. 7)**  
New for Belgium

**Biology** Host *Quercus petraea*, *robur* (Fagaceae). Underside of leaf with round flat depressions.  
**References** HB: 5516, H: 1310, DA: p121, DVL: p226, RS: p247, Nijveldt 1981.

**Netherlands** NH Haarlem-Indische buurt, 20.IX.2009, D. Vonk; Heerhugowaard, 5.XI.2011, J. de Koning; ZH Leidschendam-Leidschendammerhout, 15.IX.2010; Voorschoten-Noord Hofland, 26.VIII.2011; Voorschoten-Rosenburgh, 5.IX.2011, 3 × K. Brussee; UT Leersum, 24.VI.1938, DVL.

**Belgium** wv St Kruis-centre, 18.V.2010, J. Devos; AN Beeltjes, 28.IX.2013, S. Hermans; LI Gerhoeven-De Rammelaars, 14.VI.2013, C. van Steenwinkel.  
**Luxembourg** No records.  
**Range** Europe, moderately frequent.

***Arnoldiola quercus* (Binnie, 1899) (fig. 8)**  
New for Belgium

**Biology** Host *Quercus petraea*, *robur* (Fagaceae). Buds on extended and ± stunted shoots. Young leaves clustered almost artichoke-like; not true galls.

**References** HB: 5404, DA: p119, DVL: p217, RS: p243, Nijveldt 1959, Gouwy & Rys 2008.  
**Netherlands** ov Zwolle-Westerveldse Bos, 5.I.2014, G. Reitsma; ZH Alblasserbos-Hondenbos, 20.V.2012, A. Stip; GE Roozendaal, 26.VI.1958; NB Zundert, 28.VIII.1978; LN Horst, 27.VI.1958; 3 × WN.

**Belgium** ov Lovendegem, 25.IV/4.V.2007, 31.V/6.VI.2007, leg. J. Gouwy, det. M. Skuhravá.  
**Luxembourg** No records.  
**Range** Europe, rare; probably an inquiline of *Contarinia quercina*.

***Aschistonyx carpinicolus* Rübsaamen, 1917**  
(fig. 9)

New for Belgium

**Biology** Host *Carpinus betulus* (Betulaceae).

Lamina between two side veins with a somewhat thickened, pod-like leaf fold.

**References** HB: 1547, DVL: p106, Docters van Leeuwen 1951.

**Netherlands** LN Mook-Plasmolen, 09.VII.1943, DVL.

**Belgium** OV Oudenaarde-Bos t'Ename, 13.IX.2010; P. Blondé; AN Puurs-Heide, 14.VI.2014, R. Segers; VB Averbode, 15.IX.2013, S. Hermans; LG Cout-huin, 1.VIII.2012, J.-Y. Baugnée.

**Luxembourg** LOR Wormeldange-Kockeberg (Lambinon et al. 2012b).

**Range** Europe, rare.

***Asphondylia baudysi* Vimmer, 1937**

**Biology** Host *Coronilla minima*, *Securigera varia*. (Fabaceae). Pod with rotund to egg-shaped swelling. Inner wall with mycelium.

**References** HB: 2015, H: 3674, 3676, DA: p207. **Netherlands** No location, no date (Nijveldt & Beuk 2002).

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Asphondylia ervi* Rübsaamen, 1896**

New for Belgium?

**Biology** Host *Vicia hirsuta*, *sylvatica*, *tetrasperma*, etc. (Fabaceae). Pod locally distinctly swollen. Inner wall of gall with mycelium.

**References** HB: 756I, H: 3750, DA: p210, DVL: p302, RS: p352.

**Netherlands** UT Amersfoort, 24.VI.1933, DVL.

**Belgium** LI Boorseme, 4.IX.2009, R. Barendse (doubtful).

**Luxembourg** No records.

**Range** Euro-Siberian, very rare.

***Asphondylia fusca* (Meigen, 1830)**

**Biology** Unknown, caught in flight.

**References** Gosseries 1991, Gagné & Jaschhof 2014.

**Netherlands** No records.

**Belgium** LG Liège, no date. Original description Meigen (1830) 'Von Prof. Gäde aus der Lütticher Gegend' (From Prof. Gäde, region of Liège).

**Luxembourg** No records.

**Range** Described from Belgium, the only record of this species.

***Asphondylia genistae* (H. Loew, 1850)**  
(fig. 10)

New for Belgium

**Biology** Host *Genista germanica*, *hirsuta*, *tinctoria* (Fabaceae). Axillary leaf bud transformed into a glabrous gall, about 7 mm long, 4 mm thick, with large central chamber. Second generation in locally swollen fruits.

**References** HB: 2952, H: 3345, DA: p194.

**Netherlands** No records.

**Belgium** NM Olloy-sur-Viroin, 30.VI.2014, S. Carbonnelle; LG Baelen, 30.V.2013, J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, very rare.

***Asphondylia lathyri* Rübsaamen, 1914**  
(fig. 11)

New for Belgium

**Biology** Host *Lathyrus pratensis* (Fabaceae).

Local, oval or ± spindle-shaped swellings of pod, inside covered with a dense mycelium.

**References** HB: 3732, DA: p212, RS: p150.

**Netherlands** No records.

**Belgium** HN Chimay, 14.VII.2014, S. Carbonnelle.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Asphondylia melanopus* Kieffer, 1890**  
(fig. 12)

New for Belgium

**Biology** Host *Lotus corniculatus*, *L. glaber*, *L. tenuis*, *L. uliginosus* (Fabaceae). Fruit locally swollen, usually basally. Inner wall covered with fungus.

**References** HB: 3983, H: 3613 sq., DA: p205, DVL: p169, RS: 159, Docters van Leeuwen 1948.

**Netherlands** FI Schiermonnikoog, 31.VII.1947, DVL; ZH Vlaardingen-Churchillsingel, 14. VII.2003, B. van As.

**Belgium** AN Olmen-Asbeek, 6.VIII.2009, R. Barendse; HN Baileux, 9.VIII.2013; Virelles, 22.VI.2014, both S. Carbonnelle; NM Agimont, 2.VIII.2013 (Carbonnelle 2014); Aublain, 30.VI.2014, S. Carbonnelle; Nismes, 1.VIII.2013; Oignies-en-Thiérache, 31.VII.2013 (both: Carbonnelle 2014); Cerfontaine, 27.VII.2013, S. Claerebout; Jemelle, 3.VIII.2013; St. Servais, 18.VII.2012; LG Canal de l'Ourthe, no date, 3 × J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, rarely recorded, potential pest.

***Asphondylia ononidis* F. Löw, 1873**

New for Belgium

**Biology** Host *Ononis spinosa* incl. subsp. *procurrans* (Fabaceae). Pod swollen; inner wall with mycelium.

**References** HB: 4469, H: 3495, DA: p199, DVL: p180, RS: p176, Docters van Leeuwen 1953.

**Netherlands** NB Woensdrecht, 22.VIII.1958; LZ Bemelen, 7.IX.1952 & 9.IX.1956; St. Pietersberg, 3.IX.1955; Sittard, 20.VII.1933, all DVL.

**Belgium** NM Saint-Servais, 2010, J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, up to N-Africa, rarely recorded.

***Asphondylia pilosa* Kieffer, 1898 (fig. 13)**

New for Belgium, the Netherlands.

**Biology** Host *Cytisus scoparius* (Fabaceae). Lateral

buds disfigured, usually pubescent. Inner wall with mycelium.

**References** HB: 6269, H: 3418, DA: p196, DVL: p123, RS: p98.

**Netherlands** OV Hessem-Hessumsche Veld, 9.IV.2014, H. Soepenbergh.

**Belgium** AN Balen-Holven, 24.V.2009, R. Barendse; Visbeekvallei-Bersegem-Binnenhei, 23.VI.2011;

Visbeekvallei-Molenheide, 27.IV.2013; LI Hamont, 31.VIII.2011, 3 × anon.

**Luxembourg** No records.

**Range** Europe, rare.

***Asphondylia pruniperda* Rondani, 1867**  
(fig. 14)

= *Ischnonyx prunorum*

**Biology** Host *Prunus spinosa*, also *P. cerasifera*, etc. (Rosaceae). Bud transformed into a long, acute, rotund or egg-shaped gall, surrounded at base by several scales. Inner wall lined with mycelium.

**References** HB: 5223, H: 3283 sq., DA: p192, DVL: p203, RS: p222, Alta & Docters van Leeuwen 1946.

**Netherlands** ZE Goes 1947 1949 1950, WN; Kapelle, 14.IX.1954, DVL; Kapelle, VIII.1955, WN.

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** Europe, rarely recorded, potential pest.

***Asphondylia sarothamni* (H. Loew, 1850)**  
(fig. 15)

= *A. mayeri*

**Biology** Host *Cytisus scoparius*. Lateral vegetative bud disfigured, glabrous. Gall acuminate egg-shaped, ± short stalked, succulent, one-chambered; tip often oblique. Inner wall with mycelium.

**References** HB: 6270, H: 3422 sq., DA: p197, DVL: p123, RS: p98, RJK: p18, Skuhrová 1986, 1987,

Lebeau & Lambinon 1968, Lambinon et al. 2001.

**Netherlands** 121 records, all provinces, DR, FL, ZH, ZV excepted.

**Belgium** 55 records, all provinces, OV, VB excepted.



**Luxembourg** **LOR**: 1 record (Lambinon et al. 2001).

**Range** Europe, Subatlantic, most frequent.

*Asphondylia verbasci* (Vallot, 1827) (fig. 16)

**Biology** Host *Verbascum* many species (Scrophulariaceae). Flowers conspicuously swollen, unopened, ovaries often strongly swollen. Inner wall lined with mycelium.

**References** **HB**: 7424, **H**: 4995 sq., 7315, **DA**: p263, **DVL**: p298, Skuhravá 1986, 1987.

**Netherlands** **GE** Eibergen, 25.VIII.1936, **DVL**.

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** Europe, mainly (W-) mediterranean, very rarely recorded.

*Atrichosema aceris* Kieffer, 1904

**Biology** Host *Acer campestre* (Sapindaceae). Slender spindle-shaped, one-sided thickenings, often on upper part of leaf, also in the middle of the petiole, rarely on the base of the midrib

**References** **HB**: 26, **H**: 4030, **DA**: p224, **RS**: p20.

**Netherlands** **LZ** Epen, 17.VI.1946; Heerlen, 12.IX.1932; Maastricht, x.1956; St. Pietersberg, 31.VIII.1955; Sibbe, 7.IX.1953; Slenaken, 7.VI.1952, all **DVL**.

**Belgium** No records.

**Luxembourg** **LOR** Oberanven-Aarnescht (Lambinon et al. 2001).

**Range** Europe, moderately frequent.

*Bayeriola salicariae* (Kieffer, 1888) (fig. 17)

New for Belgium

**Biology** Host *Lythrum salicaria* (Lythraceae).

Lateral buds or tips of vegetative shoots disfigured.

**References** **HB**: 4059, **H**: 4325, **DA**: p233, **DVL**: p170, **RS**: 163, Nijveldt 1959, Harris & Wurzell 2007.

**Netherlands** **FR** Sneekermeer-De Potten, 9.I.2011, H. Talsma; **UT** Amerongen, 4.IX.1942, **DVL**;

**GE** Heumen, 26.IX.1936 & 25.IX.1941, both **DVL**; Ooijpolder-Groenlanden noord, 31.VIII.2007, B. te Linde; **NB** Biesbosch, x.1951; **LZ** St. Pietersberg, 23.VIII.1953 & 9.VI.1955, 3 × **DVL**.

**Belgium** 13 records: **OV**, **AN**, **HN**, **NM**.

**Luxembourg** No records.

**Range** Europe, frequent.

*Bayeriola thymicola* (Kieffer, 1888)

**Biology** Host *Thymus*, many species (Lamiaceae). Shoot consisting of shortened and broadened leaves.

**References** **HB**: 7076, **H**: 4921 sq., 7292 sq., **DA**: p260, **DVL**: p284, **RS**: p327.

**Netherlands** **NH** Vogelenzang, 2.VII.1933; Zandvoort, 31.VIII.1933; **ZH** Katwijk, 31.VIII.1922, all **DVL**.

**Belgium** **NM** Nismes, 10.VII.2009, anon.; Nismes, 2.VIII.2012 (Lambinon et al. 2012a); **LG** Filot, 12.VI.1941; Pailhe, VI.1943; **LX** Izier, VIII.1943, 3 × F. Darimont (Gratia 1958).

**Luxembourg** No records.

**Range** Europe up to N-Africa, rarely recorded.

*Blastomyia origani* (Tavares, 1901)

New for Belgium

**Biology** Host *Origanum compactum*, *O. virens*, *O. vulgare* (Lamiaceae). Shoot tip or lateral buds transformed into oval tufts of leaves, up to 15 mm long and 10 mm broad, greenish, compact. Leaves broadened, thickened, arched, on upper side often with long white hairs.

**References** **HB**: 4482, **H**: 4900, 4903, **DA**: p259, **RS**: p177.

**Netherlands** No records.

**Belgium** **HN** Havré, 21.VIII.2013, P. Dupriez; **NM** Agimont, no date, G. Minet.

**Luxembourg** No records.

**Range** From southern Switzerland throughout S-, W-Europe, Great Britain, etc. (sub-mediterranean), very rare.

***Brachyneura squamigera* (Winnertz, 1853)**

**Biology** Phytophagous in decaying plant material, e.g., fruits of *Sorbus*, and flower heads of *Trifolium*.

**References** Nijveldt 1985a, Gagné & Jaschhof 2014.

**Netherlands** UT De Bilt-Oostbroek, 23.VIII.1979, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Brachyneurina peniophorae* Harris, 1979**

**Biology** Host: the fungus *Peniophora cineria* (Aphylliphorales). Malformation of gills.

**References** DA: p57, DVL: p70, RS: (1<sup>st</sup> ed.) p333, Harris & Evans 1979.

**Netherlands** No location, no date (DVL).

**Belgium** No records.

**Luxembourg** No records.

**Range** Great Britain, the Netherlands, very rarely recorded.

***Cecidomyia harrisi* Nijveldt, 1987**

**Biology** Larvae develop in resin lumps on shoots of *Pinus sylvestris* (Pinaceae).

**References** Nijveldt 1987a.

**Netherlands** GE Ede, 26.X.1980, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** The Netherlands, the only record of this species.

***Cecidomyia magna* (Möhn, 1955)**

= *Stechelodiplosis magna*

**Biology** Larvae develop in old resin lumps of *Picea* spp. (Pinaceae).

**References** Nijveldt 1985a, 1987a.

**Netherlands** GE Wageningen, 29.XI.1984,

10.XII.1984, 14.XII.1984, all WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rarely recorded.

***Cecidomyia pini* (De Geer, 1776)**

**Biology** Larvae develop in resin lumps on shoots of *Pinus pinaster* (= *maritima*), *P. sylvestris* (Pinaceae).

**References** Nijveldt 1987a.

**Netherlands** NH Bussum, 17.V.1910; Hilversum, v.1903, both J.C.H. de Meijere; UT Rhenen-Remmerden, 4.XII.1969, 20.XI.1980; GE Amersfoort-Loenermark, 16.IX.1969; Apeldoorn-Woeste Hoeve, 13.XI.1963; Bennekom, 24.III.1972; Ede, III.1972, 26.X.1980, 15.X.1984; Ermelo-Leuvenum, x.1980; Wageningen, 21.XII.1960, 6.XII.1984; LN Grubbenvorst, 13.VIII.1980, x.1980, all records from UT, GE and LN by WN.

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** NW-, C-Europe, frequently recorded (according to M. Skuhrová (in litt.)), presently very rare.

***Cecidomyia sarae* Nijveldt, 1987**

**Biology** Larvae develop in resin lumps on shoots caused by the tortricid *Retinia resinella* on *Pinus sylvestris* (Pinaceae).

**References** Nijveldt 1987a.

**Netherlands** GE Wageningen, 1960; Ede, 26.X.1980, both WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** The Netherlands, very rarely recorded.

***Clinodiplosis cilicrus* (Kieffer, 1889) s.l.**

**Biology** Phytosaprophagous species; larvae develop in decaying material of various plant species.

**References** Nijveldt 1960, Roskam 1979,

Skuhrová 1973, Gouwy & Rys 2008.

**Netherlands** 34 records: NH, ZH, UT, GE, NB.  
**Belgium** ov Lovendegem, 25.IV/4.V.2007;  
Maldegem, 22.V/31.V.2007; leg. J. Gouwy, det.  
M. Skuhrová; HN Virelles, 26.IX.2013, leg. S. Car-  
bonnelle, det. M. Skuhrová.

**Luxembourg** No records.

**Range** Euro-Siberian, widespread and very  
frequent.

**Note** A large number of species have been  
described in *Clinodiplosis*. Many are synonymized  
with *C. cilicrus* (Skuhrová 1973), the status of  
many others is doubtful, hence indicated here as  
*C. cilicrus* (Kieffer, 1889) s.l. Nijveldt & Beuk  
(2002) listed *C. cilicrus* (Kieffer, 1889) and *C.*  
*invocata* (Winnertz, 1853). Gosseries (1991) listed  
*C. cilicrus* (Kieffer, 1889) and *C. botularia*  
(Winnertz, 1853).

***Coniophora autumnalis* (Mamaev, 1961)**  
= *Procytiphora autumnalis*

**Biology** Host *Ulmus minor* (Ulmaceae). Larvae  
develop in young seeds.

**References** Nijveldt 1973a, Gagné & Jaschhof  
2014.

**Netherlands** ZH Leiden, IV.1990, JCR; UT Baarn,  
26.III.1968; 3.IV.1970, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** The Netherlands, rarely recorded.

***Coniophora graminicola* Nijveldt, 1959**

**Biology** Host *Phalaris arundinacea* (Poaceae).  
Larvae develop in young seeds.

**References** Nijveldt 1959.

**Netherlands** ZE Kapelle, 13.VI.1956, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** The Netherlands, very rarely recorded.  
This is the only record of this species.

***Contarinia acerplicans* (Kieffer, 1889)**  
(fig. 18)

**Biology** Host *Acer campestre*, *A. monspessulanum*,  
*A. opalus*, *A. pseudoplatanus*, *A. saccharinum*, etc.  
(Sapindaceae). Lamina with weakly thickened  
folding, which is glabrous on the outside and is  
situated between two only slightly changed veins.  
Opening at the underside. Cavity covered with  
white hairs. Sometimes combined with, or exclu-  
sively, a downward roll of the leaf margin.

**References** HB: 35, H: 3982 sq., DA: p223, RS: p21.

**Netherlands** ZE Oostkapelle-Westhove, 24.  
IV.2014, G. Menting; no location, no date  
(Nijveldt & Beuk 2002).

**Belgium** 14 records: OV, BW, HN, NM, LG.

**Luxembourg** LOR Bonnevoie; Stéckelter Muer  
(both: Lambinon et al. 2012b).

**Range** Europe, frequent.

**Note** May be contaminated with *Contarinia*  
*irregularis*.

***Contarinia acetosellae* (Rübsaamen, 1891)**

**Biology** Host *Rumex acetosa*, *acetosella* (Polygo-  
naceae). Flower bud gall.

**References** HB: 5980, H: 2129 sq., DA: p145, DVL:  
p245, RS: p280.

**Netherlands** UT Leersum, 17.VIII.1933, DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rare. Immigrant in N-America  
(Gagné & Jaschhof 2014).

***Contarinia aequalis* Kieffer, 1898 (fig. 19)**

**Biology** Host *Senecio* s.l., several species (Astera-  
ceae). Leaf bud galls, situated terminally on main  
and lateral shoots.

**References** HB: 6457, H: 5850 sq., DA: p291, DVL:  
p267, RS: p307.

**Netherlands** LZ Eckelrade, 1.VIII.1949; Heerlen,  
12.IX.1932; Mechelen, 19.VI.1946, all DVL.

**Belgium** NM Oignies-en-Thiérache, 12.VII.2010,



J. Devalez; Oignies-en-Thiérache, 31.VII.2013 (Carbonnelle 2013); Olloy-sur-Viroin, 2.VIII.2012 (Lambinon et al. 2012a); Petigny, 21.VIII.2013, S. Carbonnelle; LG Colonster, 25.VII.1942 (Leclercq 1942); Elsenborn, 30.VI.2012, anon.; Renory, 17.VII.1943 (Gratia 1958); LX Grapfontaine, 24.IX.2013, S. Carbonnelle; Libin, 7.VIII.2012, J. Mortelmans & D. Dekeukeleire.

**Luxembourg** No records.

**Range** Euro-Siberian, moderately frequent.

### *Contarinia anthobia* (F. Löw, 1877) (fig. 20)

New for Belgium

**Biology** Host *Crataegus monogyna*, *laevigata* (Rosaceae). Outer parts of flower buds, especially basally, slightly swollen, not opening.

**References** HB: 2102, H: 2941, DA: p184, DVL: p119, RS: p93, Nijveldt 1987b.

**Netherlands** ZH Meijndel, 19.VI.1986, JCR; Oostvoorne dunes, 18.VI.2013, B. van As; UT Amerongen-Amerongse Bovenpolder, 17.V.2014, J. van Harten; Zeist, v.1933/IV.1934, E. Jansen; GE Wageningen, 13.V.2011, E. Dijkstra.

**Belgium** OV Oudenaarde-Bos t'Ename, 29.IV.2011, P. Blondé; HN Bernissart, 13.V.2014; Vaulx-lez-Tournai, 4.V.2014; Virelles, 9.V.2014; Warchin, 3.V.2014; Roly, 20.V.2014, 5 × S. Carbonnelle.

**Luxembourg** No records.

**Range** Europe, rarely recorded but probably widespread and common.

**Note** Larvae should be examined. They are glossy, cream-coloured and have large posterior papilla which allow them to jump. Compare with *Dasineura oxyacanthae*.

### *Contarinia anthophthora* (F. Löw, 1880) (fig. 21)

**Biology** Host *Verbascum*, several species (Scrophulariaceae). Flowers small and unopened; corolla weakly thickened; stamens and ovaries ± aborted.

**References** HB: 7427, H: 5015, DA: p263, DVL: p297-98.

**Netherlands** DR Assen, VI.2008, J. Bijkerk; FL Dronten, 10.VIII.2010, 14.VIII.2010, A. Grosscurt; OV Eesveen, VI.2005, J. Bijkerk; NH Amstelveen-Thijssepark, 8.VII.2013, W.N. Ellis; GE Duffelt, Millingerwaard, 13.VII.2013, H.J. van der Kolk, W. van der Ham & J. Roos; ZH Berkheide-Vlaggenduin, 17.VII.2013, H.J. van der Kolk; Leiden, IX.2013, JCR.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rarely recorded.

### *Contarinia asclepiadis* (Giraud, 1863) (fig. 22)

**Biology** Host *Vincetoxicum birundinaria* (= *Cynanchum vincetoxicum*) (Asclepiadaceae). Fruit slightly swollen; often hardly changed, sometimes ± wrinkled and discoloured.

**References** HB: 2205, H: 4709, DA: p251, DVL: p303. **Netherlands** No location, no date (Nijveldt & Beuk 2002).

**Belgium** NM Han-sur-Lesse, 18.VIII.2007; Nismes, 2.VIII.2012 (Lambinon et al. 2007, 2012a); Han-sur-Lesse, no date, J.-Y. Baugnée; Nismes, 1.VIII.2013 (Carbonnelle 2013).

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

### *Contarinia baeri* (Prell, 1931)

**Biology** Host *Pinus sylvestris*, etc. (Pinaceae). Already full grown needles, which are constricted at base and bend like walking sticks, dropping already in autumn. Not a true gall former.

**References** Nijveldt 1968.

**Netherlands** UT Leusden-Den Treek, 26.VII.1964; GE Ede, 8.V.1966; Lunteren, 15.I.1969; Wageningen, 26.VIII.1953; Wageningen-I.T.B.O.N., 29.VII.1964, all WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Euro-Siberian, rare.

***Contarinia barbichei* (Kieffer, 1890)**

**Biology** Host *Lotus corniculatus*, *L. tenuis*, *L. uliginosus*, etc. (Fabaceae). Gall composed of only two leaves with their stipules usually forming an oblong tuft on ± stunted axial parts.

**References** HB: 3980, H: 3617 sq., 6944-45, DA: p204, DVL: p169, RS: 161.

**Netherlands** FI Terschelling, 28.VI.1938, DVL; FR Buitenpost, 23.VI.2011, T. IJlstra; NH Texel, 26.VII.1951; OV Eze, 2.VIII.1941; UT Leersum, 3.IX.1933; NB Oirschot, 19.VIII.1941; Oisterwijk, 31.VIII.1948, 5 × DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, moderately frequent.

***Contarinia carpini* Kieffer, 1897 (fig. 23)**

New for Belgium

**Biology** Host *Carpinus betulus* (Betulaceae).

Lamina between two side veins with a somewhat thickened, pod-like, ± yellowish or usually red upward fold; on the underside a furrow which opens at maturity.

**References** HB: 1546, H: 1040, DA: p134.

**Netherlands** No records.

**Belgium** BR Auderghem, 5.V.2014; HN Lompret, 19.V.2014; NM Doische, 26.VI.2014; Petigny, 19.VI.2014; Vierves-sur-Viroin, 30.VI.2014; 5 × S. Carbonnelle; LG Chaudfontaine, 14.V.2014, J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, rare.

***Contarinia chrysanthemi* (Kieffer, 1895) (fig. 24)**

New for Belgium

**Biology** Host *Leucanthemum vulgare* (Asteraceae). Capitules slightly swollen; several jumping larvae between the achenes.

**References** HB: 1790, H: 5730, DA: p288, RS: p154.

**Netherlands** No records.

**Belgium** HN Virelles, 16.VI.2014; NM Wavreille, 27.VI.2014; both S. Carbonnelle.

**Luxembourg** No records.

**Range** W-Europe, very rarely recorded.

***Contarinia coryli* (Kaltenbach, 1859) (fig. 25)**

= *C. corylina*

**Biology** Host *Corylus avellana*, *maxima* (Betulaceae). Catkins locally or completely pear- or barrel-shaped swollen.

**References** HB: 2042, H: 1052 sq., DA: p135, DVL: p117, RS: p89.

**Netherlands** 40 records: all provinces, FI excepted.

**Belgium** 25 records: WV, OV, AN, VB, BR, NM.

**Luxembourg** No records.

**Range** Euro-Siberian, up to China, most frequent.

**Note** Easily contaminated with the gall mite *Phyllocoptura coryli*.

***Contarinia craccae* H. Loew, 1850**

**Biology** Host *Vicia*, several species (Fabaceae).

Flowers distinctly swollen; calyx enlarged, corolla leaves broadened and thickened; anthers and style atrophied.

**References** HB: 7556, H: 3693 sq., 6967 sq., DA: p210, RS: p352, RJK: p66.

**Netherlands** OV Zwolle-Engelse Werk, 15.VII.2012, M. van Tweel; GE Winterswijk-Woold, 15.VII.2013, J. Sterk; LZ Roerdalen, 1.VII.2012, P. Fleurbaaij; Vaals-Zevenwegenbos, 14.VII.2009, F. Grotenhuis.

**Belgium** AN Dessel/Mol-’t Goor, 8.VII.2009, R. Barendse; VB Wijgmaalbroek, 25.VII.2013, T. Vandenberghe; BR Anderlecht, 13.VII.2013; P. Hauteclair; HN Virelles, 27.VII.2012, P. van Sanden; Virelles, 25.VI.2014; NM Olloy, 30.VI.2014; Vierves-sur-Viroin, 20.VI.2014; 3 × S. Carbonnelle; LX Durbuy, 16.VII.2013, P. Hauteclair; Ethe, 18.VII.2012, R. Van Heghe.

**Luxembourg** No records.

**Range** Euro-Siberian, moderately frequent.

***Contarinia dipsacearum* Rübssaamen, 1921**

**Biology** Host *Succisa pratense* (Caprifoliaceae). Flowers compact, ± disfigured, unopened.

**References** HB: 6882, DA: p276, DVL: p279.

**Netherlands** ZH Nieuwkoop-Mije, 14.VI.1936 & VI.1948, both DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Contarinia fagi* Rübssaamen, 1921 (fig. 26)**

**Biology** Host *Fagus sylvatica* (Fagaceae). Vegetative buds not opening, or developing into a short, stunted shoot.

**References** HB: 2656, DA: p133, RS: p110, Skuhravá & Roques 2000, De Goffau & Nijveldt 2005, Gouwy & Rys 2008.

**Netherlands** NB Zundert, VIII.2002 (De Goffau & Nijveldt 2005); Zundert, VIII.2009 & V.2011, A. Smits.

**Belgium** OV Lovendegem, 26.VI/6.VII.2007, 14.VIII/22.VIII.2007; Maldegem, 14.VIII.2007.

All leg. J. Gouwy, det. M. Skuhravá.

**Luxembourg** No records.

**Range** Europe, rarely recorded.

**Note** Usually on young plants, which develop a shrubby appearance. Pest of seedlings in forest nurseries.

***Contarinia floriperda* Rübssaamen, 1917 (fig. 27)**

New for Belgium

**Biology** Host *Sorbus aucuparia* (Rosaceae). Flower buds swollen, unopened, yellowish-green.

**References** HB: 6768, DA: p182, DVL: p275, RS: p448, De Meijere 1946.

**Netherlands** UT Leersum, 31.V.1941, DVL.

**Belgium** BR Auderghem, 5.V.2014, S. Carbonnelle.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Contarinia galeobdolonis* Kieffer, 1909 (fig. 28)**

New for the Netherlands

**Biology** Host *Lamium galeobdolon* (Lamiaceae). Shoot tip with erect pairs of leaves with margins rolled inwards and upwards into an elongated gall.

**References** HB: 3615, H: 4847, DA: p257, Skuhravá et al. 2005.

**Netherlands** LZ Ittervoort-Vijverbroek, 7.IV.2012, W.N. Ellis.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rare.

***Contarinia gei* Kieffer, 1909 (fig. 29)**

= *C. geicola*

**Biology** Host *Geum urbanum* (Rosaceae). Leaf veins swollen, with sections of blade between them folded upwards.

**References** HB: 3018, H: 6795, RS: p128.

**Netherlands** No records.

**Belgium** BR Auderghem, 5.V.2014, S. Carbonnelle;

HN Virelles, 23.VI.2012, J. Lambinon & M.-T.

Romain (Romain & Lambinon 2012).

**Luxembourg** No records.

**Range** Euro-Siberian, very rare.

***Contarinia heraclei* (Rübssaamen, 1889)**

**Biology** Host *Heracleum sphondylium* (Apiaceae). Leaf with bulging, ± yellow folds or upward protrusions.

**References** HB: 3175, H: 4513, RS: p134, DVL: p149, Docters van Leeuwen 1959.

**Netherlands** FR Kootsterille, 9.XI.2011, Monnikertille, 26.IX.2010; both T. IJlstra; OV Zutphen-haven, 24.VIII.1958, DVL; ZH Reeuwijk-Polder Oukoop en Negen Viertel, 17.V.2012, J.-J. Spaargaren.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rare.



### *Contarinia hyperici* Barnes, 1952

**Biology** Host *Hypericum perforatum* (Hypericaceae). Flower buds especially swollen at base; from wide base tapering to short acuminate; ± striate and reddened.

**References** HB: 3381, DA: p229, DVL: p155, RS: p139, RJK: p25, Docters van Leeuwen 1957. Netherlands LN Arcen, 6.VI.1953, DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rare.

### *Contarinia hypochoeridis* (Rübsaamen, 1891) (fig. 30)

New for Belgium

**Biology** Host *Hypochaeris*, several species, also on *Crepis* (Asteraceae). Capitules disfigured, with patch of stunted florets.

**References** HB: 3400, H: 6034, DA: p298, DVL: p155, RS: p140, Nijveldt 1973a.

Netherlands NB Zundert-Rijsbergen, 28.VI.1968, WN.

**Belgium** AN Balen-Holven, 29.VIII.2009, R. Barendse; HN Chimay, 7.VI.2014; Virelles, 31.V.2014; NM Aublain, 31.V.2014; Wavreille, 27.VI.2014, 4 × S. Carbonnelle.

**Luxembourg** No records.

**Range** Europe, rarely recorded.

### *Contarinia jacobaeae* (H. Loew, 1850) (fig. 31)

**Biology** Host *Senecio* s.l., (Asteraceae). Capitules not opening, swollen, rotund to broad ovoid, galls also on stems.

**References** HB: 6486/87, H: 5856 sq., DA: p292, DVL: p156, 268, RS: p307.

Netherlands 20 records: FI, GR, DR, OV, NH, ZH, UT, GE, LZ.

**Belgium** NM Couvin, VIII.2013; S. Carbonnelle; Dourbes, 1.VIII.2013 (Carbonnelle 2013); Fagnolle, 11.VIII.2013, S. Claerebout; Sart-en-Fagne,

8.VIII.2010, M.-T. Romain (Paquet & Romain 2011); LG Amay, 1.IX.2008; LX Éprave, 29.VIII.2013; both J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Euro-Siberian, frequent.

### *Contarinia lonicerarum* (F. Löw, 1877)

**Biology** Host *Lonicera* spp. (Caprifoliaceae). Often only slightly stunted shoot tip with some completely or only basally stunted, thickened, ± discoloured erect leaves.

**References** HB: 3959, H: 5367, DA: p274, DVL: p264 (erroneously as *C. loniceræ*), RJK: p57, Alta & Docters van Leeuwen 1946.

Netherlands UT Leersum, 22.VI.1943, DVL; GE Bennekom-Bennekomse Bos, 27.VI.2012, M. Courbois; Wageningen, 14.VI.1978, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rarely recorded.

**Note** Often synonymized with *C. sambuci*.

### *Contarinia loti* (De Geer, 1776)

**Biology** Host *Lotus corniculatus*, also on *L. angustissimus*, *L. arenarius*, *L. tenuis*, *L. pedunculatus*, etc. (Fabaceae). Flower buds swollen; calyx and corolla swollen, stamens basally thickened, ovaries enlarged.

**References** HB: 3981, H: 3614 sq., 6942, DA: p205, DVL: p169, RS: p159, RJK: p28, Lambinon 1959.

Netherlands 57 records, all provinces, FL, ZV excepted.

**Belgium** LI Paal, 26.VIII.2009; Schotsheide-Bergerven/Vossenbergh, 3.VIII.2009, both R. Barendse; NM Matagne-la-Grande, 1.VIII.2012; Nismes, 2.VIII.2012 (both: Lambinon et al. 2012a); Wavreille-Izies, VIII.1943, F. Darimont (Gratia 1958); LX Bomal, 28.VII.1957 (Lambinon 1959); Torgny, 26.VI.2010, M.-T. Romain.

**Luxembourg** ARD Derenbach-Wiltz (Lambinon et al. 2012b).

**Range** Europe, most frequent.

***Contarinia medicaginis* Kieffer, 1895**

New for Belgium

**Biology** Host *Medicago sativa* incl. subsp. *varia* (= *media*), also on *M. arabica*, etc. (Fabaceae). Flower buds more or less swollen; corolla unopened, its parts ± coalesced.

**References** HB: 4208, H: 3514 sq., DA: p200, DVL: p175-176, RS: p168, Skuhrová 1986, Darvas et al. 2000.

**Netherlands** 15 records: OV, NH, ZH, GE, NB, ZE, LZ.

**Belgium** wv Kortrijk, 18.VII.2012; ov Waarmaarde-Ruien/Schelde, 24.IX.2011; both D. Derdeyn; AN Meerhout, 9.VIII.2010; LI Lanaken, 16.VIII.2010, both R. Barendse; HN Virelles, 18.VIII.2013; NM Aublain, 8.VIII.2013; both S. Carboneille; Pontdrome, 15.VIII.2008, J.-Y. Baugnée; LX Lomprenz, 17.IX.2007, M.-T. Romain & J. Leurquin.

**Luxembourg** No records.

**Range** Euro-Siberian, very frequent.

***Contarinia molluginis* (Rübsaamen, 1889)**

**Biology** Host *Galium mollugo* (Rubiaceae). Large loose tuft of leaves. Outer leaves little changed, ± discoloured at base and thickened, the inner ones progressively reducing and covering one another.

**References** HB: 2918, H: 5212, DA: p270, RS: p123. **Netherlands** No records.

**Belgium** NM Matagne-la-Grande, 1.VIII.2012 (Lambinon et al. 2012a).

**Luxembourg** No records.

**Range** Europe, very rare.

***Contarinia nasturtii* (Kieffer, 1888)**

= *C. torquens*

**Biology** Host various Brassicaceae. Tips of flowering main and side shoots strongly stunted; leaves as well as flower buds densely clustered.

**References** e.g., HB: 1174, DA: p164 sq., DVL: p100-101, RS: p59, De Meijere 1906, Skuhrová 1986, Darvas et al. 2000.

**Netherlands** 55 records: FI, FR, OV, NH, ZH, UT, GE, NB, ZE, LN, LZ.

**Belgium** ov Molenmeers-Kalkense Meersen, 30.VIII.2010, W. Rommens.

**Luxembourg** No records.

**Range** Europe, as far as Turkey, very frequent, pest species.

***Contarinia nicolayi* (Rübsaamen, 1895)**

**Biology** Host *Heracleum sphondylium* (Apiaceae). Flower buds swollen, not opening. Petals slightly thickened and, like the thickened stamens, bent inwards. Flower peduncle variously shortened, causing the flowers to cluster together.

**References** HB: 3183, H: 4509, DA: p239, DVL: 149, RS: p134.

**Netherlands** NH Bloemendaal-Thijsse's Hof, 2.VIII.2013, D. Vonk; ZH Stolwijk-Polder Bovenkerk, 11.VI.2013, J.-J. Spaargaren; GE Lienden, 30.VIII.1966, WN; LZ Epen, 10.VI.1934 & 17.VI.1946; Nuth, 13.IX.1926; St. Pietersberg, 1.IX.1955, 4 × DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rare.

***Contarinia petioli* (Kieffer, 1898) (fig. 32)**

**Biology** Host *Populus tremula*, rarer *P. canescens*, *P. alba* (Salicaceae). Swelling on petiole of leaf; galls rotund, with short conical tip, which opens at maturity; occasionally with several, causing bending of the lamina.

**References** HB: 5052, H: 493, DA: p95, DVL: p198, RS: p213, RJK: p32.

**Netherlands** 18 records: FL, NH, ZH, GE, NB, LN, LZ.

**Belgium** AN Kessel, 4.VI.2010, R. Vermynen; LI Kerkhoven-Tip, 12.XI.2013, C. Gruwier; Lietenberg, 8.VI.2013, C. Van Steenwinkel; VB Tienen, 31.VII.2011, G. Wynants; HN Hennuyères, 9.VI.2011, J.-Y. Baugnée; NM Aublain, 23.VI.1968 (Lebeau & Lambinon 1968); Dion, 2009, M.-T.

Romain; Matagne-la-Grande, 1.VIII.2012 (Lambinon et al. 2012a); **LX** Durbuy, 8.VI.2014; Libin, 12.VI.2010, both M.-T. Romain.

**Luxembourg** **ARD** Bivisch; **LOR** Bettendorf-Schoofsbüsch; Dudelange-Haardt (all: Lambinon et al. 2001).

**Range** Euro-Siberian, frequent.

### *Contarinia picridis* (Kieffer, 1894)

New for Belgium

**Biology** Host *Picris hieracioides* incl. subsp. *spinulosa* (Asteraceae). Leaves stunted in their development, variously curled, with loose, abnormal pubescence.

**References** **HB**: 4808, **H**: 6060, 7522, **DA**: p299, **DVL**: p189, Docters van Leeuwen 1957, Lambinon 1958a.

**Netherlands** **NH** Noordhollands Duinreservaat-Terrein Heemskerk, 14.VI.2010, R. Slings; **UT** Rhenen-Grebbeberg, 30.VII.1968, **DVL**; **LZ** St. Pietersberg, 26.VI.1952, **WN**.

**Belgium** **wv** Oostende-Havengebied, 7.VI.2014, J. Devos; **AN** Ruisbroek-Kanaalzone, 30.VII.2011, J. Reyniers.

**Luxembourg** No records.

**Range** Europe, rare.

### *Contarinia pilosellae* (Kieffer, 1896)

**Biology** Host *Hieracium* spp., mainly on species of subgenus *Pilosella*, more rarely on species of the subgenus *Hieracium* (= subgenus *Archieracium*) (Asteraceae). Capitules often extensively shortened, usually enlarged on all sides.

**References** **HB**: 3230, **H**: 6150, 6197, **DA**: p304, **DVL**: p152, **RS**: p191.

**Netherlands** No location, no date (Nijveldt & Beuk 2002).

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

### *Contarinia pisi* (H. Loew, 1850)

= *C. picicola*

**Biology** Host *Pisum sativum* (Fabaceae). Shoot tips stunted to varied degree, leaves including disfigured flower buds rosette-like or bushy accumulations, pods are disformed.

**References** **HB**: 4881, **DA**: p212, **DVL**: 191, **RS**: p195, De Meijere 1911, Nijveldt 1953a.

**Netherlands** **FR** Menaldumadeel-Wier, 11.VIII.1953; **NH** Amsterdam, 27.VII.1953; Hoofddorp, 20.VII.1950; **NH** Purmerend, VI.1937; 4 × **WN**; **ZH** Barendrecht, 15.VII.1942, 11/19.VIII.1942; IV.1943; 4 × J.C.H. de Meijere; **UT** Leersum, 9.VII.1937, **DVL**; **GE** Wageningen 3.VII.1909, J.C.H. de Meijere.

**Belgium** No location, no date (Gosseries 1991); see also Skuhřavá M. et al. (2010).

**Luxembourg** No records.

**Range** Euro-Siberian, moderately frequent, pest species.

### *Contarinia polygonati* Rübсааmen, 1921

New for the Netherlands

**Biology** Host *Polygonatum multiflorum* (Asparagaceae). Flower buds swollen, remaining closed.

**References** **HB**: 4959, **H**: 6346, **DA**: p90, comp. **RS**: p313.

**Netherlands** **FR** Bakkeveen-Duinen, 18.V.2013, E. Michels.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

### *Contarinia pruniflorum* Coutin & Rambier, 1955

New for Belgium

**Biology** Host *Prunus domestica*, *P. mahaleb*, *P. spinosa* (Rosaceae). The slightly enlarged corolla remains in bud condition. Receptacle, ovary and base of stamens ± clearly swollen.

**References** **HB**: 5277, **DA**: p192.



Netherlands No records.

Belgium NM St. Servais, 5.IV.2012, J.-Y. Baugnée.

Luxembourg No records.

Range Europe, very rare.

### *Contarinia pulchripes* (Kieffer, 1890)

**Biology** Host *Cytisus scoparius*; also on *Genista pilosa* (Fabaceae). Pod developing almost normally with several weak tubercles, about 2 mm large.

**References** HB: 6278, H: 3409, DA: p198, DVL: 123, RS: p98.

Netherlands UT Amersfoort, 24.VI.1933, DVL.

Belgium No location, no date (Gosseries 1991).

Luxembourg No records.

Range Europe, very rarely recorded.

### *Contarinia pyrivora* (Riley, 1886) (fig. 33)

**Biology** Host *Pyrus communis*, *P. salicifolia* (Rosaceae). Fruits swollen, calabash-like. Often ± buckled, soon black-spotted, inside spongy, later on hollow, then dropping.

**References** HB: 5363, H: 2855, DA: p182, DVL: p209, RS: p228, Skuhravá 1986, Darvas et al. 2000.

Netherlands NH Heemstede, 23.V.1940; Hoorn, 14.VI.1954, both DVL; Heemstede, 16.VI.1950; Hoorn, 6.VI.1951; ZH Maasdam, 6.IV.1949, 3 × WN; ZV, Vogelwaarde, 10.V.2014, L. Calle.

Belgium No location, no date (Gosseries 1991); several locations in wallonian orchards, 2014, B. Dumont (pers. comm. to Sébastien Carbonnelle).

Luxembourg No records.

Range Europe, secondarily Holarctic and cosmopolitan, rare pest species.

### *Contarinia quercina* (Rübsaamen, 1890)

**Biology** Host *Quercus petraea*, *Q. robur*, etc. (Fagaceae). Buds on extended and ± stunted shoots. Young leaves clustered almost ± artichoke-

like. Their laminas, only 10-30 mm long, folded upwards, irregularly twisted and curled. Veins, especially midrib, ± thickened and sometimes haired.

**References** HB: 5403, H: 1207, 1822.

Netherlands No records.

Belgium No location, no date (Gosseries 1991).

Luxembourg No records.

Range Europe, very rarely recorded but probably widespread and common.

### *Contarinia quinquenotata* (F. Löw, 1888) (fig. 34)

**Biology** Host *Hemerocallis fulva* (Xanthorrhoeaceae (ex Liliaceae)). Flower buds ± remaining closed, shortened and swollen. perianth of unequal length, twisted, inner side with bulging thickenings. Reproductive organs etiolated.

**References** HB: 3160, H: 410, DA: p90, DVL: p149, RS: p133, Docters van Leeuwen 1951, Halstead & Harris 1990.

Netherlands ZH Gorinchem, 1.VI.2014, F. Walraven; UT Leersum, 8.VIII.1930, DVL.

Belgium No records.

Luxembourg ARD Derenbach; Gosseldange (both: Lambinon et al. 2012b).

Range Europe, rarely recorded, but probably moderately frequent pest in gardens.

### *Contarinia ribis* Kieffer, 1909

**Biology** Host *Ribes uva-crispa* (Saxifragaceae).

Base of calyx succulent, pale yellow to red; corolla and stamens hard.

**References** HB: 5806, H: 2786, DA: p178, DVL: p237, De Meijere 1911.

Netherlands FR Buitenpost, 30.VI.2014, T. IJlstra; GE Nijmegen-Lent, v.1909, III/IV.1910, J.C.H. de Meijere.

Belgium No records.

Luxembourg No records.

Range Europe, rarely recorded.

***Contarinia rubicola* Kieffer, 1909 (fig. 35)**

New for Belgium

**Biology** Host *Rubus*, many species (Rosaceae). Flowers unopened. The calyx, sometimes appearing enlarged, encloses the other, usually smaller, ± disfigured inner flower organs.

**References** HB: 5919, H: Ru2, 2993, 6775, DA: p185, DVL: p243, RS: 278.

**Netherlands** ov Dalfsen, 27.VII.1954; Ruurlo, 4.IX.1950; Winterswijk-Kotten, 30.VI.1941 & 27.VII.1938, 4 × DVL; Zeeserbosch, 5.IX.1999, W.N. Ellis; NH Texel, 24.VI.1951, DVL; ZH Meijendel-Boerderij, 13.VI.2014, S. Carbonnelle, W.N. Ellis & J.C. Roskam; UT Bilthoven, 15.VII.1930, DVL; GE Eibergen, 24.VIII.1936, DVL; Wageningen-Wageningse Bovenpolder, 4.VI.2012, M. Courbois; NB Oirschot, 10.VIII.1941; Oisterwijk, 2.VIII.1916 & 4.IX.1948, 3 × DVL; Schaijk-Brobbebies, 30.VI.2014, JCR; LZ Sittard, 19.VII.1955, DVL.

**Belgium** NM Frasnes-lez-Couvin, 19.VI.2014, Vierves-sur-Viroin, 14.VI.2014; both S. Carbonnelle.

**Luxembourg** No records.

**Range** Europe, frequent, but often overlooked.

***Contarinia rumicis* (H. Loew, 1850) (fig. 36)**

**Biology** Host *Rumex acetosella*, *R. crispus*, *R. pulcher* (= *divaricatus*), *R. maritimus*, *R. obtusifolius*, *R. palustris*, *R. sanguineus* (Chenopodiaceae).

Flower buds shortly stalked as result of infestation; therefore ± clustered, twice as large as healthy ones; oblong, irregularly bulging, yellowish to reddish. Stamens and ovaries distorted.

**References** HB: 5979, cf. H: 2123, 2128, DA: p145, RS: p280, Harris 2003.

**Netherlands** NH Amsterdam, viii, 1920, Versluys; IJpolder, VIII.1894, J.C.H. de Meijere; ZH Leiden-Bachstraat, 13.VI.2013, S. Carbonnelle.

**Belgium** No location, no date (Gosseries 1991); BR Evere-Moeraske, 22.VI.2013; Neder-over-Hembeek, 22.VII.2013, both B. Hanssens; HN Lompret 15.VI.2014; Vaulx-lez-Tournai, 30.VI.2014; NM Aublain, 15.VI.2014, 3 × S. Car-

bonnelle; Couvin, 21.VII.2013, S. Claerebout; Couvin, 21.VI.2014; Petigny, 19.VI.2014, 2 × S. Carbonnelle.

**Luxembourg** No records.

**Range** Europe, secondarily Holarctic, moderately frequent.

***Contarinia sambuci* (Kaltenbach, 1873)**

**Biology** Host *Sambucus* spp. (Caprifoliaceae). Corolla globular, swollen, slightly leather-like; tube slightly elongated. Flowers unopened.

**References** HB: 6219, H: 5325 sq., DA: p273, DVL: p264.

**Netherlands** No location, no date (Nijveldt & Beuk 2002).

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

**Note** Sometimes synonymized with *C. loniceraeum*.

***Contarinia schlechtendaliana* (Rübsaamen, 1893) (fig. 37)**

New for Belgium

**Biology** Host *Sonchus arvensis*, *asper*, *oleraceus* (Asteraceae). Swollen flower heads.

**References** HB: 6718, RS: p314.

**Netherlands** No records.

**Belgium** HN Vaulx-lez-Tournai, NM Bambois, Mariembourg, all 30.VI.2014, S. Carbonnelle.

**Luxembourg** No records.

**Range** Europe, rare.

***Contarinia scoparii* (Rübsaamen, 1889)**

**Biology** Host *Cytisus grandiflorus*, *scoparius*, *striatus* (= *patens*) (Fabaceae). Galls 2-3 mm large, oval to spindle-shaped; terminally on main and side shoots. Larvae sometimes occurring simultaneously in inconspicuous swellings on petioles and leaf veins.

**References** HB: 6259, H: 3421 sq., DA: p197, DVL: p123, RS: p95.  
**Netherlands** UT Zeist, 27.V.1936, J.C.H. de Meijere;  
**GE** Wageningen, 14.VI.1978, WN.  
**Belgium** No location, no date (Gosseries 1991).  
**Luxembourg** No records.  
**Range** Europe, rarely recorded.

### *Contarinia scrophulariae* Kieffer, 1896 (fig. 38)

**Biology** Host *Scrophularia umbrosa* (= *alata*), *S. nodosa*, etc. (Scrophulariaceae). Flowers swollen, globular, usually unopened. Stamens and pistil enlarged.

**References** HB: 6387, H: 5059 sq., DA: p265, DVL: p265, RS: p304.  
**Netherlands** 34 records: OV, NH, ZH, GE, NB, LZ.  
**Belgium** 19 records: AN, BR, HN, NM, LG, LX.  
**Luxembourg** LOR Gantenbeinsmühle-Huerbaach (Lambinon et al. 2012b).  
**Range** Europe, very frequent.

### *Contarinia scutati* Rübsaamen, 1910

**Biology** Host *Rumex acetosella*, *R. obtusifolius*, *R. scutatus* (Polygonaceae). Fruit or ovary, including flower, disfigured.

**References** HB: 5983, H: 6573, DVL: p245, Docters van Leeuwen 1957.  
**Netherlands** FR Stuttebosch, 26.VI.2013, J. Bijkerk. NH IJpolder, VIII.1894, Versluys; **GE** Duffelt-Millingerwaard, 3.III.2013, V. Sanders; **GE** Wageningen, 15.VIII.1962, WN; **ZE** Veerse Meer-Schotsman Noord, 21.III.2010, P. Meininger; **LZ** Neercanne, 5.IX.1955, DVL.  
**Belgium** No records.  
**Luxembourg** No records.  
**Range** Europe, rarely recorded.

### *Contarinia solani* (Rübsaamen, 1892) (fig. 39)

**Biology** Host *Solanum dulcamara* (Solanaceae). Flower buds strongly swollen, unopened. Galls greenish or ± violet tinged. Stamens and ovaries thickened and ± curved.

**References** HB: 6683, H: 4982, DA: p263, DVL: p272, RS: p312, Docters van Leeuwen 1957.  
**Netherlands** NH Amsterdam, 6.VI.1952, WN; Amsterdam-Lange Bretten, 23.VIII.2013, W.N. Ellis; UT Amerongen, 25.VII.1952; Zaltbommel, 12.VII.1953, both DVL; **GE** Harderwijk, 27.VI.1962, WN; Lobith, 24.VII.1952 & 21.VII.1953, both DVL; Nijmegen-Brakkenstein Park, 4.VIII.2011 and Nijmegen-Heijendaal, 21.V.2012, both O. Calf; Pannerden, 25.VII.1952, DVL; **LZ** Crapoel, 22.VIII.2008; F. Grotenhuis; De Grebbe, 18.VII.1952, DVL.  
**Belgium** HN Lompret 15.VI.2014; Virelles, 31.V.2014; both S. Carbonnelle; NM Agimont, 2.VIII.2013 (Carbonnelle 2013); Vierves-sur-Viroin, 9.VIII.2013, S. Claerebout.  
**Luxembourg** No records.  
**Range** Europe, moderately frequent.

### *Contarinia sorbi* Kieffer, 1896 (fig. 40) New for Belgium

**Biology** Host *Sorbus aucuparia*, *torminalis* (Rosaceae). Leaflets completely or partially folded upwards along the ± curved, hardly thickened midrib, forming almost pod-like galls.

**References** HB: 6745, H: 2909, DA: p182, DVL: p275, RS: p315.  
**Netherlands** FR Buitenpost, 8.V.2012, T. IJlstra; FL Dronten, 21.X.2007, A. Grosscurt; OV Denekamp, 6.VI.1933, DVL; Holten-De Borkveld, 24.IV.2014, J. Ligtenberg; NH Texel, 29.VI.1952, DVL; Texel-Bolkamer Zuid, 24.V.2013, W. Bosgra; ZH Nieuwkoopse Plassen-De Haeck, 15.VI.2013; H.-J. van der Kolk; UT Ankeveen, 19.VII.1903, DVL; Renswoude-Utrechtseweg, 7.V.2013; Zeist-Heidestein, 8.VI.2013; **GE** Ermelo-Watervalweg, 24.V.2014, 3 × H.-J. van der Kolk; **LZ** Epen, 9.VI.1934, DVL.

**Belgium** AN Turnhout-Doolhof Zuid, 27/28. IV.2012, both J. Hendrix & JNM Taxandria; Westerlo-Kwarekken, 21.IV.2014; **VB** Averbode, 3.IX.2013; both S. Hermans; **HN** Virelles, VI.2014, S. Claerebout.

**Luxembourg** No records.

**Range** Europe, frequent.

### *Contarinia steini* (Karsch, 1881)

**Biology** Host *Silene dioica*, *S. latifolia* subsp. *alba*, also on *Saponaria officinalis* (Caryophyllaceae).

Flowers unopened variously swollen conically.

**References** HB: 6238, H: 2307, DA: p156, DVL: p264, RS: p310.

**Netherlands** **FR** Ooststellingwerf, 8.X.2011, J. Bijkerk; **NH** Driehuis, 22.X.2012, W.N. Ellis; **DR** Gasselte, 24.VIII.1938; **OV** Dalfsen, 29.VII.1934; Winterswijk-Kotten, 28.VI.1941; Winterswijk, 24.VIII.1939 & 21.VI.1952; **ZH** Oostvoorne, 31.VIII.1934; **UT** Amerongen, 9.VII.1940; **GE** Eibergen, 21.VIII.1936; Rekken, 21.VIII.1936; **LZ** Epen, 4.IX.1930; Gulpen-Hilleshagen, 18.VI.1946, 11 × DVL.

**Belgium** **wv** St. Laureinsduinen, 10.VIII.2010, P. van Sanden; **wv** Nieuwpoort-IJzermonding, 20.VII.2013; **wv** Oostende-Havengebied, 7.VI.2014, both J. Devos.

**Luxembourg** No records.

**Range** Euro-Siberian, frequent.

### *Contarinia tiliarum* (Kieffer, 1890)

**Biology** Host *Tilia* various spp. (Malvaceae).

Galls on young shoots ± globular to acuminate barrel-shaped, succulent, usually on suckers, especially the buds, which are often ± extensively involved in the gall formation.

**References** HB: 7094, H: 4123 sq., 7069 sq., DA: p227, 228, DVL: p284, RS: p457, RJK: p60, Gratia 1958, Lebeau & Lambinon 1968, Robbins 2000. **Netherlands** 58 records: all provinces, FI, DR, ZV excepted.

**Belgium** 38 records: all provinces.

**Luxembourg** 5 records, ARD, LOR (Lambinon et al. 2001).

**Range** Euro-Siberian, most frequent.

### *Contarinia tremulae* Kieffer, 1909

New for Belgium

**Biology** Host *Populus tremula* (Salicaceae). Leaf rolls glabrous, glossy and not excessively pubescent; sometimes sickle-shaped.

**References** HB: 5126, H: 502, DA: p96, DVL: p198, RS: p391, Nijveldt 1981.

**Netherlands** **FL** Dronten, 21.VI.2010, A. Grosscurt; **NH** Bloemendaal-Thijsse's Hof, 3.VIII.2012, D. Vonk; Kamperduin, 21.V.1936, DVL; **ZH** Vlist, 27.VI.2012, H. Kouwenberg; Voornes Duin, 17.VII.2010, B. van As; **UT** Veenendaal-Kwintelooyen, 13.IX.2012; **GE** Lielvelde-Koolmansdijk, 30.VI.2012; Wageningen-Droevendaalsesteeg, 5.VI.2012; Zelhem-Heidenhoekse Vloed, 11.VIII.2012, 4 × M. Courbois.

**Belgium** **wv** St. Kruis, 25.IX.2012, J. Devos.

**Luxembourg** No records.

**Range** Europe, moderately frequent.

**Note** May be contaminated with *Dasineura populeti*.

### *Contarinia tritici* (Kirby, 1798)

**Biology** Host *Triticum vulgare* (Poaceae). Larvae live gregariously in spikelets; not true galls.

**References** Barnes 1941, Skuhřavá 1986, Darvas et al. 2000.

**Netherlands** **GE** Duiven, 17.IX.1960, WN.

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** Holarctic, very rarely recorded but probably overlooked, pest species.

### *Contarinia valerianae* (Rübsaamen, 1890)

**Biology** Host *Valeriana collina*, *V. officinalis*, *V. sambucifolia* (Valerianaceae). Axial parts of



inflorescence ± stunted. Flowers sometimes densely gathered together, unopened and infertile.

**References** HB: 7395, H: 5425, DA: p276, RS: p346, Nijveldt 1962.

**Netherlands** FI Terschelling- Volkstuintjes Noord, 12.VIII.2011, T. Fijen; UT Langbroek, 9.VI.1961, WN.

**Belgium** NM Olloy-sur-Viroin, 2.VIII.2012 (Lambinon et al. 2012a).

**Luxembourg** No records.

**Range** C-, W-Europe, Great Britain, rare.

### *Contarinia viburnorum* Kieffer, 1913

New for Belgium

**Biology** Host *Viburnum* spp. (Adoxaceae). Flowers swollen, unopened, often partially reddened. Corolla thickened, slightly leathery. Stamens partially aborted. Ovary ± swollen.

**References** HB: 7505, H: 5339 sq., DA: p274.

**Netherlands** No records.

**Belgium** OV Balegem, 13.IV.2014; BR Ixelles, 25.IV.2014 & 5.V.2014, 3 × B. Uitterhaegen; HN Virelles, 19.IV.2014; NM Vierves, 23.V.2012, both S. Carboneille.

**Luxembourg** No records.

**Range** Europe, rarely recorded.

### *Coquillettomyia lobata* (Felt, 1907)

**Biology** Unknown; reared from galls of *Rabdophaga heterobia* on *Salix triandra* (Salicaceae).

**References** Nijveldt 1973a, Gouwy & Rys 2008.

**Netherlands** UT Neerlangbroek, 19.IX.1968, WN.

**Belgium** OV Lovendegem, 14.VIII/22.VIII.2007, leg J. Gouwy, det. M. Skuhrová.

**Luxembourg** No records.

**Range** Holarctic, very rarely recorded.

### *Craneiobia corni* (Giraud, 1863) (fig. 41)

**Biology** Host *Cornus sanguinea*, also subsp. *australis* (= *C. australis*), etc. (Cornaceae). Leaves

on midrib, mainly on lower side veins, usually with several, 3-5 mm broad, often many-chambered galls.

**References** HB: 1992, H: 4543, 4545, DA: p242, DVL: p116, RS: p87, RJK: p16.

**Netherlands** OV Haaksbergen-Buurse, 9.IX.1933, DVL; ZV Vogelwaard, 24.V.2013, L. Calle; LZ Stokhem-Wijlre Akkers, 20.VII.2011, T. Damm; Gerendal, 8.IX.1953; Houthem-St. Gerlach, 17.VIII.1935; Sibbe-St. Jansbos, 10.IX.1953; Valkenburg, x.1933, 4 × DVL.

**Belgium** HN Clipy 24.V.2013; Havré, 20.XI.2013; Saint-Denis, 18.XI.2013, 3 × P. Dupriez; Vaulx-lez-Tournai, 16.X.2009, VII.2010, 31.VIII.2013, 3 × S. Carboneille; Vaulx-lez-Tournai, 28.VIII.2013, M. Lemaire & E. Lorin; NM Furfooz, summers 1952/53 (Gratia 1958); LG Amblève, VIII.1943; Ben-Ahin, x.1943, both F. Darimont (Gratia 1958); Löen, VI.1942 (Leclercq 1942).

**Luxembourg** LOR Ahn-Palmberg; Dudelange-Haardt; Dudelange-Weich; Esch-sur-Alzette/Ellergonn; Grevenmacher-Dreiermillen; Reckange-sur-Mess; Remerschen (all: Lambinon et al. 2001). **Range** W-Europe, sub-mediterranean, frequent.

### *Cupressatia siskiyou* Felt, 1917

= *Janetiella siskiyou*, *Craneiobia lawsoniana*

**Biology** Host *Chamaecyparis lawsoniana* and vars. (Cupressaceae). Developing cones are slightly discoloured and distorted. Inside larvae develop on seeds which are distorted and concave.

**References** DA: p69, DVL: p110, RS: p80, De Meijere 1935, Nijveldt 1984.

**Netherlands** GE Bennekom, 21.II.2013, H.-J. van der Kolk, Putten, 20.VI.1933, IX.1933, IV.1934, VI.1934, J.C.H. de Meijere; Wageningen-Arbo-retum, 23.II.1972, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Nearctic, introduced into Europe, rarely recorded, probably widespread and abundant.

***Cystiphora sanguinea* (Brems, 1847)**

= *C. hieracii*, *C. pilosellae*

**Biology** Host *Hieracium*, subgen. *Archieracium* and subgen. *Pilosella* (Asteraceae). Yellowish-green to intensively reddened pustules, many per leaf, occasionally coalescing, especially common on basal leaves on the underside between epidermis and parenchyma.

**References** HB: 3217/18, H: 6141 sq., 7553, DA: p304, DVL: p151/52, RS: p191.

**Netherlands** 21 records: FR, GR, DR, OV, NH, ZH, UT, GE, LZ.

**Belgium** AN Meerhout, 26.VIII.2013, R. Barendse;

**BR** Brussels-Scheutbos, 1.VI.2011, J. Leveque;

**HN** Deux Acren, 1.VI.2013, anon.

**Luxembourg** ARD Kautenbach, 14/16.IX.2002,

12.V.2003, 3 × W.N. Ellis; Esch-sur-Sûre; Vianden;

**LOR** Ahn-Palmberg; Rumelange (4 × Lambinon et al. 2001, 2012b).

**Range** Europe, frequent.

***Cystiphora sonchi* (Vallot, 1827)**

**Biology** Host *Sonchus* spp. (Asteraceae). Pustules, mostly ± crimson red; sometimes yellowish bordered. On the upperside bladder-shaped arched, underside flat. Larvae visible through the epidermis. Galls mostly many per lamina, on both sides of the midrib, arranged in rows.

**References** HB: 6726, H: 6100 sq., 7531-32, DA: p302, DVL: p274, RS: p313, RJK: p58, Lambinon et al. (2001, 2012a, 2012b).

**Netherlands** 64 records: all provinces, GR, ZV, LZ excepted.

**Belgium** 22 records: WV, OV, VB, BW, NM, LX.

**Luxembourg** ARD 3 records.

**Range** Euro-Siberian, most frequent.

***Cystiphora taraxaci* (Kieffer, 1888)**

**Biology** Host *Taraxacum* spp. (Asteraceae).

Lamina with flat circular blister, usually several in a leaf; rim of gall becomes dark red or purple;

contains larva under a translucent epidermis.

**References** HB: 6950, H: 6090, DA: p301, DVL: p280, RS: p323, RJK: p59, Lambinon et al. 2001.

**Netherlands** 84 records: all provinces, FI, ZV excepted.

**Belgium** 17 records: all provinces, BR, BW, HN excepted.

**Luxembourg** ARD 10 records, LOR 16 records.

**Range** Euro-Siberian, most frequent.

***Dasineura aceris* (Shimer, 1868)**

New for Belgium

**Biology** Host *Acer saccharinum* (Sapindaceae).

Lamina irregularly folded upwards and ± undulately curled; marginally deflected or rolled, often ± reddened.

**References** Gagné & Jaschhof 2014.

**Netherlands** No records.

**Belgium** NM Gembloux, 1.VIII.2013, J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Introduced from N-America. Very rarely recorded.

**Note** May be contaminated with *Dasineura irregularis*.

***Dasineura acrophila* (Winnertz, 1853)**

**Biology** Host *Fraxinus excelsior*, etc. (Oleaceae). Leaflets along midrib folded upwards, pod-like, strongly thickened and hardened. Lamina not developed or only as a narrow rim.

**References** HB: 2805, H: 4643 sq., 7212, DA: p248, DVL: p140, RS: p118, Lambinon 1958.

**Netherlands** 23 records: GR, OV, NH, ZH, UT, GE, NB, LZ.

**Belgium** 23 records: all provinces, BR, BW, LX excepted.

**Luxembourg** LOR Limpertsberg; Luxembourg-Grund; Rumelange; Schifflange (4 × Lambinon et al. 2012b).

**Range** Europe up to N-Africa, very frequent.

### *Dasineura affinis* (Kieffer, 1886)

**Biology** Host *Viola* spp. (Violaceae). Leaves with enlarged stipules clustered in the rosettes or on shoot tips. Laminas often loosely rolled upwards up to midrib, fleshy thickened, brittle.

**References** HB: 7583, H: 4279 sq., DA: p231, DVL: p304, RS: p356, RJK: p66.

**Netherlands** 23 records: FI, DR, OV, NH, ZH, UT, GE, ZE, LZ.

**Belgium** wv Zeekanaal Herdersbrug-Insteekdok, 25.III.2009, H. De Blauwe; ov Brakel-Burreken, 30.VI.2010, R. De Clercq.

**Luxembourg** No records.

**Range** Europe up to N-Africa; frequent, often a harmful pest in cultivation.

### *Dasineura alpestris* (Kieffer, 1909)

= *D. arabis*

**Biology** Host *Arabis albida*, *A. alpina* subsp. *caucasica* (= *alpina*) and relatives, rarer on *A. hirsuta*, *A. stelleri*, etc. (Brassicaceae). Developing shoots already stunted in the rosettes. Leaves not unfolding, shortened, spoon-shaped, with ± thickened veins; clustered; gall more densely pubescent; enclosed by spreading leaves.

**References** HB: 641, H: 2699 sq., DA: p172, DVL: p88, RS: p42.

**Netherlands** NH Amsterdam, 19.XII.1949, WN; Amsterdam, 24.X.1954, DVL; Haarlem, 24.X.1920, J.C.H. de Meijere; ZH Den Haag, x.1933; Delft, I.VIII.1952; Dordrecht, 30.VIII.1940; Oegstgeest, x.1931, 4 × DVL; Leiden, I.VIII.1952; GE Wageningen, 19.IX.1973, both WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, moderately frequent.

### *Dasineura angelicae* Rübssaamen, 1916 (fig. 42)

**Biology** Host *Angelica sylvestris* (Apiaceae). Flower buds slightly swollen, not opening. Calyx, corolla,

ovary distinctly enlarged, these sometimes swollen, hood-like.

**References** HB: 521, H: 4475, DA: p238, DVL: p86, RS: p38, Nijveldt 1968.

**Netherlands** UT Langbroek, 9.IX.1966; Neerlangbroek, 16.IX.1965, 28.VIII.1969; LN Neer, 16.IX.1965, all WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rarely recorded.

### *Dasineura aparines* (Kieffer, 1889)

**Biology** Host *Galium aparine*, *G. spurium* (Rubiaceae). Pineapple-like, large, dense tuft. Shoot axis strongly stunted, spongy swollen. Leaves at base succulent, whitish, abnormally pubescent.

**References** HB: 2923/24, H: 5303, 7379, DA: p270, DVL: p391, RS: p124.

**Netherlands** 61 records: all provinces, FI, DR, FL, ZV excepted.

**Belgium** 29 records: all provinces, WV, VB, BW, LG excepted.

**Luxembourg** No records.

**Range** Europe up to N-Africa, most frequent.

### *Dasineura auritae* Rübssaamen, 1916

**Biology** Host sallows *Salix aurita*, *S. caprea*, *S. cinerea* and hybrids (Salicaceae). Downward leaf rolls, 9-12 mm long, the wall usually conspicuously rugose; solitary or with several coalescing, and with ± twisting of the lamina.

**References** HB: 6137, DA: p102, DVL: p256, RS: p293, Lambinon 1958a, 1959.

**Netherlands** 44 records: all provinces, FI, DR, FL, ZV excepted.

**Belgium** 30 records: all provinces, VB, BW excepted.

**Luxembourg** ARD Heinerscheid; Moulin de Bourscheid; Troisivierges-Basbellain; LOR Steinfort (4 × Lambinon et al. 2001).

**Range** Europe, most frequent.

*Dasineura berberidis* (Kieffer, 1909)

(fig. 43)

New for Belgium

**Biology** Host *Berberis vulgaris* (Berberidaceae).

Leaves on axillary buds, more rarely on shoot tips, rolled upwards, at first densely clustered, later on pushed apart; rolled part wrinkled or with small protuberances, cartilaginous, thickened; discoloured or ± dark red to violet on outside.

**References** HB: 1001, H: 2460, DA: p161, RS: p50. Netherlands No records.

**Belgium** NM Devant-Bouvignes, 10.VII.2010, R. Barendse.

**Luxembourg** No records.

**Range** Europe, very rare.

*Dasineura bergrothiana* (Mik, 1889)

**Biology** Host *Silene nutans* (Caryophyllaceae).

Swollen flower buds, abnormally pubescent.

Calyx strongly thickened.

**References** HB: 6586, H: 2280, 2284, RS: p310, Skuhrová & Skuhrový 2010.

**Netherlands** No location, no date (Beuk & Nijveldt 2002).

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

**Note** Skuhrová & Skuhrový (2010) resurrected the name, formerly synonym of *Jaapiella floriperda* which occurs on *S. vulgaris*; they mentioned the species for the Netherlands.

*Dasineura bistortae* (Kieffer, 1909)

New for Belgium

**Biology** Host *Persicaria bistorta* (Polygonaceae).

Leaf roll the shape of a flat arch, up to 20 mm long, glabrous and glossy, cartilaginous only in the middle, up to 2.5 mm wide, 1.5-2 twists at most.

**References** HB: 4988, H: 2170, DA: p146, RS: p182, Roskam in Docters van Leeuwen 2009.

**Netherlands** GR Reitdiep-Zernickecomplex, 26.VI.2013, J. Bijkerk; OV IJsselmuident-De Koeke, 13.IX.2012; Wilsum-Scherenwelle, 15.IX.2012, both H. van Dodeweerd; UT Leusden-Heiligenbergerbeek, 29.VIII.2011; Leusden-Modderbeek, 1.VII.2014; Wamelsche Uiterwaarden, 30.VIII.2011; GE Drutensche Waarden, 23.VIII.2011, 4 × W. Boschra; Ooijpolder, 7.IX.2013, H. Alberts; NB Werkendam-De Kwellingen, 13.IX.2011, C. van Elzelingen; ZE Middelburg-Binnenstad, 24.IV.2008; Vlissingen-Nollebos oost, 9.VIII.2008, both F. Grotenhuis; LN Overlaat van Linne, 28.VIII.2011 W. Boschra. **Belgium** WV Bruges-Blauwe Toren, 1.VII.2013, H. De Blauwe; OV Ronse-Schavaart, 22.VI.2013; J. Glibert; VB Zemst-Bos van Aa, 28.VIII.2012; NSG Beneden-Dijle; BR Brussels-Scheutbos, 24.VIII.2007, J. Leveque; HN Aulnois, 11.VIII.2013, P. Dupriez; LG Elsenborn, 29.VI.2010, J.-Y. Baugnée; Schwalm-Butenbach, 17.VII.2013, W. Tamsyn; LX Habay-la-Neuve, 15.VI.2013, D. Dekeukeleire; Marais-de-Vance, 18.VI.2012, D. Dekeukeleire & J. Mortelmans.

**Luxembourg** LOR Eischen; Mamer (both: Lambinon et al. 2012b).

**Range** Europe, frequent.

*Dasineura capsulae* Kieffer, 1901

**Biology** Host *Euphorbia* spp. (Euphorbiaceae).

Upper 2-7 leaves connate forming a capsule-like gall, usually oblong, pear- or bottle-shaped; wall striate and hard.

**References** HB: 2604, H: 3880 sq., 7007 sq.,

DA: p217, DVL: p132, Docters van Leeuwen 1957.

**Netherlands** ZH Vlaardingeng-Holypark, 27.IX.2011, B. van As; UT Amerongen, 21.VI.1949; GE Nijmegen-Hatert, 6.VI.1943, both DVL; NB Sleeuwijk-Deltaweg, 16.VI.2012, C. van Elzelingen; ZE Zoutelande, 27.IX.2013, G. Menting.

**Belgium** No records.

**Luxembourg** ARD Dudelage-Frankelach (Lambinon et al. 2001).

**Range** Europe, up to N-Africa, rarely recorded.



***Dasineura cardaminis* (Winnertz, 1853)**

**Biology** Host *Cardamine amara*, *C. pratensis* (Brassicaceae). Flower buds swollen. Calyx ± normal; corolla unopened, thickened at base, greened. Stamens shortened, bent and thickened.

**References** HB: 1424, H: 2665, DA: p171, DVL: p105, RS: p69, Gratia 1958, Lambinon 1960. Netherlands OV Wijchen, 18.v.1946; GE Groesbeek, 8.vl.1937; LZ Gronsveld, 7.vl.1952, 3 × DVL; LZ Valkenburg-Ravensbosch, 17.v.2014, M. Lammer.

**Belgium** 23 records: OV, LI, NM, LG, LX.

**Luxembourg** LOR Berdorf-Grundhof (Lambinon et al. 2001).

**Range** Europe, frequent.

***Dasineura comosae* (Rübsaamen, 1915) (fig. 44)**

**Biology** Host *Hippocrepis comosa*, *H. rupestris* (Fabaceae). All leaflets of young leaves usually form a fleshy swollen, pod-like gall, the margins of the leaflets remaining free. On affected older leaves only some leaflets are infested, with the galls adjacent to ungalled leaflets or are only fleshy and rolled inwards.

**References** H: 3683, Skuhrová et al. 2005.

**Netherlands** No records.

**Belgium** NM Vierves-sur-Viroin, 3.viii.2012 (Carbonnelle 2014); Vierves-sur-Viroin, 20.vl.2014, S. Carbonnelle.

**Luxembourg** No records.

**Range** Europe, very rare.

***Dasineura corylina* (Kieffer, 1913)  
= *D. coryli***

**Biology** Host *Corylus avellana*, *C. maxima* (Betulaceae). Larvae develop as inquiline in galls of *Contarinia coryli*.

**References** HB: 2043, Nijveldt 1985a.

**Netherlands** GE Wageningen, 23.x.1983, 6.xi.1983, 24.x.1984, all WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rarely recorded.

***Dasineura crataegi* (Winnertz, 1853)**

**Biology** Host *Crataegus monogyna*, *C. laevigata*, *C. azarolus*, *C. coccinea*, *C. curvisepala* (Rosaceae). Leaves on distinctly stunted, slightly thickened shoot tip often in many densely tuft-like clusters. Leaf blade sessile, ± inhibited, rugose, occupied by many bolt-shaped or globular green or reddish proliferations.

**References** HB: 2072, H: 2942, DA: p183, DVL: p118, RS: p90, RJK: p17, Gratia 1958, Lambinon 1958a, 1959, Lambinon et al. 2001.

**Netherlands** 142 records: all provinces, FL, ZV excepted.

**Belgium** 109 records: all provinces, LI, VB excepted.

**Luxembourg** ARD 7 records: LOR 27 records.

**Range** Europe, most frequent.

***Dasineura cytisi* (Kieffer, 1909) (fig. 45)**  
New for Belgium

**Biology** Host *Genista sagittalis* (Fabaceae). Tufts consisting of ± necrotic and disfigured leaves, less strongly pubescent and mainly enveloped by a larger leaf.

**References** HB: 2960, H: 3385, DA: p194, Skuhrová et al. 2005.

**Netherlands** No records.

**Belgium** NM Vierves-sur-Viroin, 22.v.2014, S. Carbonnelle.

**Luxembourg** No records.

**Range** Austria, Belgium, France, Germany, Romania, Switzerland, very rare.

***Dasineura dioicae* (Rübsaamen, 1895)**  
(fig. 46)

New for Belgium

**Biology** Host *Urtica dioica* (Urticaceae). Margin of basal part of lamina loosely rolled downwards, slightly thickened. Roll often on both halves of several terminal, ± clustered leaves, especially of the runners.

**References** HB: 7355, H: 2096, DA: p142, DVL: p295, RS: p343.

**Netherlands** 20 records: NH, ZH, GE, NB, ZE, ZV, LN, LZ.

**Belgium** ov Lokeren-Eenbes, 11.VI.2010, R. Windey; Deinze, 4.XI.2013; LI Veewei, 27.VI.2012, both H. Claes; AN Snepkensvijver, 18.V.2014, S. Hermans.

**Luxembourg** No records.

**Range** Europe, frequently recorded.

**Note** Apparently often contaminated with *D. urticae*. *Dasineura dioicae* is rare (M. Skuhravá, in litt.).

***Dasineura dryophila* Rübsaamen, 1917**

New for Belgium

**Biology** Inquiline in *Contarinia quercina* galls on oak (*Quercus* spp.).

**References** HB: 5405, Gouwy & Rys 2008.

**Netherlands** No records.

**Belgium** ov Maldegem, 22-31.V.2007, leg. J. Gouwy, det. M. Skuhravá.

**Luxembourg** No records.

**Range** Belgium, Germany, very rarely recorded.

***Dasineura engstfeldi* (Rübsaamen, 1889)**

**Biology** Host *Filipendula ulmaria*, *F. lobata* (Rosaceae). Bulging folds or swellings of the lamina, usually elongated and bumpy, often coalescing. In cases of strong infestation the lamina is strongly curled at margin with thickened rolls.

**References** HB: 2744, H: 2837, DA: p179, DVL: p138, RS: p115, Harris 2010.

**Netherlands** ov Steenwijk, 4.VIII.1941, DVL; De Wieden, 19.V.2013, E. de Weerd; ZH Gouda, 6.VIII.1940; Woerden, 22.V.1952; UT Amerongen, 4.IX.1942; Ankeveen, 13.VI.1909; GE Groesbeek, 11.VII.1941, 5 × DVL;

Neede-Teesselinkven, 10.V.2012, J.-J. Spaargaren; Opheusden-Tielsestraat, 11.VII.2012, M. Courbois; Wageningen, 30.VI.1937, DVL; LZ Epen-Geuldal, 21.VIII.2008, F. Grotenhuis;

**Belgium** wv Bos van Wijnendale, 21.VIII.2012, J. Devos; ov Destelbergen-Damvallei, 19.V.2013, B. Sercu; Ghent-Bourgoyen, 1.VI.2012, D. Dekeukeleire & B. Sercu; Oudenaarde, Bos t'Ename, 23.V.2010, H. De Brauwer; AN Scheps, 22.VII.2011, F. Bartholomeeuwsen; Westerlo-Grote Netevallei, 29.VII.2012; 5.VIII.2012, both S. Hermans; LI Gelinden, 27.VII.2013, W. Tamsyn; BR Auderghem, 26.VI.1943; LG Ferrières, VII.1943; Sy, VIII.1943; Tilff-Esneux, 25.VIII.1943, X.1953, 4 × F. Darimont (Gratia 1958).

**Luxembourg** No records.

**Range** Euro-Siberian, frequent.

***Dasineura epilobii* (F. Löw, 1889)**

**Biology** Host *Epilobium* (= *Chamerion*) *angustifolium*, rarely *E. hirsutum* (Onagraceae). Flower buds swollen into conical, or acutely barrel-shaped, unopened galls. Upper part of stalks ± swollen, calyx little changed, inner parts stunted and disfigured.

**References** HB: 2482, H: 4345, DA: p234, DVL: p111, RS: p80.

**Netherlands** 21 records: DR, OV, UT, GE, NB, LZ.

**Belgium** wv De Panne-De Westhoek, 1.VIII.2012; vb Malderen-Lippelo, 29.VII.2011, both D. Dekeukeleire; NM Agimont, 2.VIII.2013; Oignies-en-Thiérache, 31.VII.2013 (Carbonnelle 2013);

Vierves-sur-Viroin, 20.VI.2014, S. Carbonnelle; LX Habay-la-Neuve, 22.VIII.2009, Romain (2009c); Torgny, 26.VI.2010, M.-T. Romain.

**Luxembourg** ARD Esch-sur-Sûre; Liefrange; Troisvierges; Troisvierges-Op Knierchen; LOR Steinfort-Schwaarzenhaff (all: Lambinon et al. 2012b).

**Range** Euro-Siberian, frequent.

***Dasineura erigerontis* (Rübsaamen, 1912)**

New for Belgium

**Biology** Host *Erigeron acer* (Asteraceae). Leaves on the shoot tips tuft-like accumulated, at the base ± shell-like broadened, their terminal parts ± stunted.

**References** HB: 2505.

**Netherlands** No records.

**Belgium** NM Saint-Servais-Asty-Moulin, 18.VII.2012, J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Dasineura excavans* (Kieffer, 1909)**

**Biology** Host *Lonicera caerulea*, *L. xylosteum* (Caprifoliaceae). Lamina with many grooves, arched on upperside, 1 mm large surrounded by an about 4-7 mm broad lighter area.

**References** HB: 3952, H: 5376 sq., DA: p274, RS: p158.

**Netherlands** No records.

**Belgium** NM Sart-en-Fagne, 16.V.2010, M.-T. Romain (Paquet & Romain 2011).

**Luxembourg** LOR Dudelage-Haardt; Esch-sur-Alzette Gaalgebierg (both: Lambinon et al. 2012b).

**Range** Europe, very rare.

***Dasineura fastidiosa* Roskam, 1979**

**Biology** Inquiline in galls of *Semudobia* spp. in fruit catkins of birch.

**References** Roskam 1979.

**Netherlands** 16 records, all Meijndel ZH, ranging from June - September over the years 1972-1982, all JCR.

**Belgium** No records.

**Luxembourg** No records.

**Range** Palaearctic, follows distribution of birch seed gall midge *Semudobia*, less frequent than *D. interbracta*, the other inquiline *Dasineura* gall midge on *Semudobia*.

***Dasineura fraxinea* Kieffer, 1907 (fig. 47)**

**Biology** Host *Fraxinus* spp. (Oleaceae). Pustule-shaped flat parenchyma galls, hardly 1 mm high, especially protruding on underside with margin, up to 8 mm wide.

**References** HB: 2808, H: 4647, DA: p248, DVL: p140, RS: p119, Skuhrová 1986, Skuhrová & Roques 2000.

**Netherlands** NH Amsterdam, 27.VI.1903,

J.C.H. de Meijere; NB Oisterwijk, no date, DVL;

ZV Aardenburg-Kruisdijk, 29.VI.2012, L. Calle.

**Belgium** WV Dudzele, 16.VI.2010, H. De Blauw; OV Deinze, 11.V.2011, anon.; Solegem, 9.VI.2013, G. Van Heghe; AN Edegem, 16-11-2013, J. Claesens; Weynincckhove, 24.IX.2000 (Jacobs 2001);

VB Zemst-Bos van Aa, 28.VIII.2012, NSG Beneden-Dijle; BR Brussels-Scheutbos, 2.VIII.2008, J. Leveque; HN Virelles, 8.VI.2014, S. Carbonnelle.

**Luxembourg** ARD Allerborn; Clervaux; Hachiville; Hautbellain; LOR Mondorf-les-Bains (all: Lambinon et al. 2001).

**Range** Europe, moderately frequent, potential pest.

***Dasineura fraxini* (Bremer, 1847)**

**Biology** Host *Fraxinus* spp. (Oleaceae). Bulging pouches on midrib of underside leaflets. Later with distinctly protruding longitudinal slit on upperside, surrounded by a stronger pubescent rim.

**References** HB: 2807, H: 4644, 6233, DA: p248, DVL: p140, RS: p118, RJK: p21, Gratia 1958, Lambinon et al. 2001, 2009.

**Netherlands** 149 records: all provinces, FI, DR, ZV excepted.

**Belgium** 109 records: all provinces.

**Luxembourg** ARD 45 records; LOR 21 records.

**Range** Europe, up to N-Africa, most frequent.

***Dasineura fructicola* (Kieffer, 1909)  
(fig. 48)**

New for Belgium

**Biology** Host *Myosotis laxa* subsp. *caespitosa*, *M. nemorosa*, *M. scorpioides* subsp. *scorpioides* (= *palustris*) (Boraginaceae). Fruits swollen, brown coloured, each with a yellow larva.

**References** HB: 4371, H: 4735, DA: p253.

**Netherlands** No records.

**Belgium** HN Virelles, 2.IX.2010 & 18.VI.2014, leg. S. Carbonnelle, det. M. Skuhravá; Forge-Jean-Petit, 8.VIII.2013; NM Wavreille, 27.VI.2014, both S. Carbonnelle.

**Luxembourg** No records.

**Range** Europe, very rare.

**Note** First records after Kieffer described the species from France in 1909.

***Dasineura galiicola* (F. Löw, 1880)**

**Biology** Host *Galium* spp. (Rubiaceae). Artichoke-like half open gall terminally on main and side shoot, also on generative shoots. Leaves obliquely erect, shortened, broadened at base mussel-like, fleshy or cartilaginous.

**References** HB: 2921, H: 5286 sq., 7383, DA: p270, DVL: p142, RS: p124.

**Netherlands** 29 records: FI, OV, NH, ZH, UT, GE, ZE, LN, LZ.

**Belgium** wv Achterhaven-Weiden, 9.VII.2013, H. De Blauwe; NM Oignies-en-Thiérache, 31.VII.2013 (Carbonnelle 2013); Sclaingneux, 15.VII.2010, anon.; LG Commanster, 20.VI.2014, P. Hauteclair; LX Biron, 28.VII.1957 (Lambinon 1958).

**Luxembourg** No records.

**Range** Euro-Siberian, very frequent.

***Dasineura gentianae* (Kieffer, 1909)**

**Biology** Host *Gentianella amarella*, *G. campestris*, *G. germanica*, *Gentiana pneumonanthe* (Gentianaceae). Flowers slightly disfigured, unopened.

**References** HB:2974, H: 4696, DVL: p145, RS: p126,

De Goffau 1989.

**Netherlands** NH Hilversum-Heidebloem, 17.X.1987, 15.IX.1988, 5.IX.1989, all JCR.

**Belgium** No records.

**Luxembourg** No records.

**Range** Great Britain, the Netherlands, very rare.

***Dasineura gentneri* Pritchard, 1953**

**Biology** Host *Trifolium repens*, rarely *T. hybridum*, *T. pratense* (Fabaceae). Eggs deposited in already developed flowers, development of fruits inhibited.

**References** DVL: p289, Nijveldt 1957, 1963.

**Netherlands** ov Dalfsen, 29.VII.1954, DVL; GE Duffelt-Querdamm, 12.VI.2013, M. van Bergen. DVL; Wageningen, 29.VIII.1956, DVL; ZE Kapelle, 13.VI.1956, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Described from N-America in 1953, also widely distributed in Europe, rarely recorded.

***Dasineura glechomae* (Kieffer, 1889)**

**Biology** Host *Glechoma hederacea*, *G. hirsuta* (Lamiaceae). Terminal pair of leaves is folded together, bulging pouch-like, sometimes reddened.

**References** HB: 3042, H: 4808, DA: p255, RS: p129, DVL: 147.

**Netherlands** 28 records: DR, OV, NH, ZH, GE, ZE, LN, LZ.

**Belgium** wv IJzermonding-Nieuwpoort, 20.VII.2013, J. Devos; Zeekanaal Herdersbrug-Insteedok, 19.VII.2013, H. De Blauwe; AN De Balderij-Verbrande Hoeven, 27.I.2012, F. Bartholomeussen; HN Hautrage, 16.VI.2014; Roisin, 22.IV.2009, both P. Dupriez; NM Aublain, 15.VI.2014, S. Carbonnelle; Grand-Leez, 19.X.2012; Namur, 5.VI.2012, both J.-Y. Baugnée; LG Liège, 28.VI.2012; 16.VII.2012; 14.XI.2012, 3 × J.-Y. Baugnée; Ombret, v.1943 (Gratia 1959); LX Heppenbach, 27.VI.2013, J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, frequent.



*Dasineura gleditchiae* (Osten Sacken, 1866)  
(fig. 49)

New for Belgium

**Biology** Host *Gleditsia triacanthos* (Fabaceae).

Leaflets swollen, folded, pod-like.

**References** DA: p213, DVL: p147, RS: p130, RJK: p24, Van Rossem et al. 1976, Nijveldt 1980.

**Netherlands** FL Dronten, 9.VII.2007, A. Grosscurt; NH Amsterdam-Schellingwoude, 4.VII.1999; Bergen, 1.VII.2001 & 17.VI.2007, 3 × W.N. Ellis; ZH Boskoop, 25.VII.1975, WN; Voorschoten, 18.VII.1983; JCR; B. van As 21 records from 2003 onwards; Wageningen-Haarweg, 30.VI.2013, M. Soes; ZE Middelburg-Binnenstad, 24.VI.2008 & 3.VII.2008, F. Grotenhuis.

**Belgium** AN Westerlo, 14.IX.2013, S. Claerebout; VB Meise, 6.V.2014, S. Carbonnelle, HN Baudour, 21.V.2011; Harmignies, 7.VIII.2013, both P. Dupriez; Tournai, 30.VI.2014; NM Bambois 30.VI.2014; Oignies-en Thiérache, 11.VIII.2013, 3 × S. Carbonnelle;

**Luxembourg** LOR Binnevoie; Esch-sur-Alzette; Luxembourg; Stadtgrund (all: Lambinon et al. 2001).

**Range** Midge introduced along with host into Europe from western and central N-America, frequent.

*Dasineura harrisoni* (Bagnall, 1922)

= *D. jaapiana*

**Biology** Host *Filipendula ulmaria* (Rosaceae). Basal shoots strongly stunted and transformed into a cone-like tough, fleshy gall several cm long, multi-chambered and bearing rotund lumpy proliferations.

**References** HB: 2725, DVL: p137, RS: p133.

**Netherlands** ZV Koewacht, 27.VIII.1937, DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Abundance unknown because of occurrence close to the ground, the galls are hard to find and easily overlooked, probably very rare (Harris 2010).

*Dasineura helianthemi* (Hardy, 1850)  
(fig. 50)

= *Contarinia helianthemi*

**Biology** Host *Helianthemum* spp. (Cistaceae).

Tuft- or bud-like clustering of widened, thickened, often densely haired leaves.

**References** HB: 3109, H: 4269, 4273, 7115, 7120, DA: p231, RS: 132.

**Netherlands** No records.

**Belgium** NM Ave-et-Auffe, 27.V.2011, J.-Y. Baugnée; Nismes, 2.VIII.2012 (Lambinon et al. 2012a), Vervies-sur-Viroin, 5.VII.2012, 3.VIII.2012 (Carbonnelle 2014).

**Luxembourg** No records.

**Range** Europe up to N-Africa, rare.

*Dasineura holosteeae* (Kieffer, 1909)

**Biology** Host *Stellaria holostea* (Caryophyllaceae).

Ovaries are aborted in disfigured capsules which remain small.

**References** HB: 6858, H: 6636, DA: p154, RS: p318.

**Netherlands** OV Winterswijk-Kotten, IV.1939, DVL (not mentioned in 'Gallenboek').

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rare.

*Dasineura hygrophila* (Mik, 1883)

**Biology** Host *Galium palustre*, *G. uliginosum* (Rubiaceae). Almost globular, often reddened galls, up to 4 mm large. The four leaves of the subapical whorl are greatly shortened and broadened, the strongly disfigured, ± succulent, often calyx-like leaves enclose the whitish leaves of the inner whorl.

**References** HB: 2908, H: 5278 sq., DA: p270, DVL: p142, RS: p124, RJK: p23.

**Netherlands** 15 records: FI, DR, ZH, UT, GE, NB, ZE.

**Belgium** AN De Maat, 18.VII.2012, anon.; Scheps, 10.X.2011; LI Heppen, 13.X.2009, both R. Barendse; NM Assenois, 17.IX.2013; Chevetogne,

10.IX.2012; Ciergnon, 25.VII.2007; Finnevaux, 23.VIII.2013; Liernu, 22.X.2013; Ychippe, 17.IX.2012; 24.IX.2012, 7 × J.-Y. Baugnée; Matagne-la-Grande, 2011; Olloy-sur-Viroin, 2011, both S. Carbonnelle; LG Tilff-Colonster, IV.1943, A. Monoyer (Gratia 1959).

**Luxembourg** No records.

**Range** Euro-Siberian, frequent.

### *Dasineura hyperici* (Brems, 1847)

**Biology** Host *Hypericum* spp. (Hypericaceae). Several terminal leaves imbricately clustered, tuft- or bud-like. Gall rotund in outline, leaves erect, keel-shaped, basally ± strongly thickened; apical part often hardly changed.

**References** HB: 3372, H: 4201 sq., DA: p229, DVL: p154, RS: p139.

**Netherlands** 24 records: OV, NH, ZH, UT, GE, NB, LZ.

**Belgium** LI Lommel, 18.VI.2011, anon.; Stiemerbeekvallei, 14.V.2010, J. Lycops; NM Agimont, 2.VIII.2013 (Carbonnelle 2013); Nismes, 2.VIII.2012 (Lambinon et al. 2012a); Viroinval, no date, S. Claerebout; LG Baelen, 30.V.2012, J.-Y. Baugnée; Vyle-et-Tharoul, 8.VI.1943, F. Darimont (Gratia 1958).

**Luxembourg** ARD Heinerscheid (Lambinon et al. 2001).

**Range** Europe, very frequent.

### *Dasineura interbractea* Roskam, 1979 (fig. 51)

**Biology** Inquiline in galls of *Semudobia* spp. in fruit catkins of *Betula* spp. (Betulaceae).

**References** Roskam 1979.

**Netherlands** ZH Leiden-Hortus Botanicus, 16.V.1972, 15.VI.1977; Meijendel, ranging from June to September over the years 1971-1982; Voorschoten-Duivenvoorde, 9.VI.1978. All JCR.

**Belgium** No records.

**Luxembourg** No records.

**Range** Palaearctic, follows distribution of birch seed gall midge *Semudobia*, frequent inquiline.

### *Dasineura irregularis* (Brems, 1847)

= *D. acer crispans*

**Biology** Host *Acer pseudoplatanus*, also on *A. opalus*, *A. saccharinum* (Sapindaceae). Lamina irregularly folded upwards and ± undulately curled; marginally deflected or rolled, often ± reddened.

**References** HB: 36, H: 3984 sq., DA: p21, DVL: p73sq., RS: p21, RJK: p9, Gratia 1958, Lambinon 1958, 2001.

**Netherlands** 75 records: all provinces, FL, OV, ZV excepted.

**Belgium** 47 records: all provinces, BW, LG excepted.

**Luxembourg** ARD 4 records; LOR 5 records.

**Range** Europe, most frequent.

### *Dasineura kiefferi* (Marchal, 1896) (fig. 52)

New for Belgium

**Biology** Host *Hedera helix* (Araliaceae). Flower buds unopened, swollen and disfigured, darkened.

**References** H: 4362, DA: p235, RS: p132.

**Netherlands** No records.

**Belgium** NM Gembloux, 22.X.2010; LG Liège-Terrasses des Minimes, 10.X.2010, both J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, very rare.

### *Dasineura kiefferiana* (Rübsaamen, 1891)

**Biology** Host *Epilobium* (= *Chamerion*) *angustifolium* (Onagraceae). Leaf roll loose, sometimes discoloured yellowish or reddish; weakly thickened, wrinkled outside, tuberculate. About 7-10 mm long or often joined into longer rolls.

**References** HB: 2461, H: 4348, DA: p234, DVL: p110, RS: p8, Lambinon 1958, 1976, Lambinon et al. 2001.

**Netherlands** 24 records: FI, DR, OV, NH, ZH, UT, GE, LN, LZ.

**Belgium** 41 records: all provinces, AN, BW excepted.

**Luxembourg** ARD 6 records.

**Range** Euro-Siberian, most frequent.

*Dasineura lamiicola* (Mik, 1888)

New for Belgium

**Biology** Host *Lamium album*, *L. maculatum* (Lamiaceae). Rounded pea-size gall on shoot tip or on stolon.

**References** RS: p147, Skuhravá et al. 2005.

**Netherlands** No records.

**Belgium** LX Munro, 29.X.2000, W.N. Ellis.

**Luxembourg** No records.

**Range** Europe, very rare.

*Dasineura lathyri* (Kieffer, 1909) (fig. 53)

New for Belgium

**Biology** Host *Lathyrus pratensis*, *sativus* (Fabaceae). Leaflets slightly swollen and folded forming a soft discoloured pod; contain light orange larvae.

**References** HB: 3699A, RS: p151.

**Netherlands** No records.

**Belgium** NM Wavreille, 27.VI.2014, S. Carbonnelle.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

*Dasineura lathyricola* (Rübsaamen, 1890) (fig. 54)

New for Belgium

**Biology** Host *Lathyrus pratensis*, *L. sylvestris*, *L. tuberosus* (Fabaceae). Terminal stipules slightly swollen at bases, sometimes discoloured, shoot beyond these dies; larvae yellowish white when young, later pale orange or light red.

**References** HB: 3699, H: 3763 sq., DA: p211, DVL: p162, RS: p151.

**Netherlands** LZ Epen-Onderste Bos, 11.VI.1934, DVL.

**Belgium** HN Roucourt, 1.V.2014; NM Dailly, 12.VI.2014, both S. Carbonnelle.

**Luxembourg** No records.

**Range** Euro-Siberian, very rarely recorded.

*Dasineura leguminicola* (Lintner, 1879)

= *D. floscolorum*

**Biology** Host *Trifolium pratense*, *T. medium*, less frequently on *T. hybridum*, etc. (Fabaceae).

Flower buds in capitules in which eggs early have early been laid are strongly stunted. Corolla unopened and usually shorter than calyx teeth; like the calyx, distinctly swollen, especially at base. Sex organs atrophied.

**References** HB: 7200, H: 3579 sq., DA: p203, DVL: p289, RS: p336, Nijveldt 1957, 1963.

**Netherlands** GE Arnhem-Het Broek, Kleefschevaard, 30.VI.2013, M. van Bergen; Hemmen, 6.VI.1956, 18.VI.1956, 11.VI.1963, 3 × WN; Nijmegen-Malden, 1.X.1933; Wageningen, 29.VI.1956, both DVL; Wageningen, 12.VI.1956, 7.VIII.1957, both WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, moderately frequent, immigrant in N-America (Gagné & Jaschot 2014).

*Dasineura lithospermi* (H. Loew, 1850)

**Biology** Host *Lithospermum arvense*, *L. officinale*, *L. purpureo-caeruleum* (Boraginaceae). Leaf at base spoon-like broadened, thickened and abnormally haired leaves are bud- to rosette-like, clustered on the tips of main and lateral shoots.

**References** HB: 3898, H: 4741 sq., DA: p253, DVL: p166, RS: p157, Docters van Leeuwen 1949.

**Netherlands** ZH Berkeheide, 19.IV.2014, W. Langbroek; Meijndel, 1.V.2000, JCR; LZ Gronsveld, 6.VI.1947; Slenaken, 7.VI.1952, both DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Euro-Siberian, very rarely recorded.

*Dasineura loewiana* Rübsaamen, 1917

New for Belgium

**Biology** Host *Vicia cracca*, *V. tetrasperma*, also on *V. hirsuta*, *V. tenuifolia*, *V. villosa*, etc. (Fabaceae).

Leaflets folded upwards, pod-like. Wall succulent thickened, ± discoloured, also reddened. Often on strongly stunted, terminal or lateral shoot tips already the youngest leaves become galled.

**References** HB: 7530, DA: p209, DVL: p301, RS: p354.

**Netherlands** UT Houten, 11.VIII.1966, WN; Veenendaal-Kwintelooyen, 5.VI.2012, M. Courbois.

**Belgium** NM Bambois, 30.VI.2014; Roly, 25.VI.2014, both S. Carbonnelle.

**Luxembourg** No records.

**Range** Europe, rarely recorded.

### *Dasineura lotharingiae* (Kieffer, 1888) (fig. 55)

New for Belgium

**Biology** Host *Cerastium arvense*, *C. glomeratum*, *C. fontanum* subsp. *vulgare* (= *holosteoides*) (Caryophyllaceae). Terminal pair of leaves enlarged, thickened, bulging; or globular swollen flower bud.

**References** HB: 1661, 1666, H: 2322 sq., DA: p155, DVL: p109, RS: p78, Harris & Frankum 2012.

**Netherlands** FI Terschelling-Boschplaat, 20.VII.2012, M. Courbois; ZH Dordrecht, 8.VIII.1942; Gouda, 6.VIII.1940; UT Leersum, 20.VI.1933; GE Nijmegen-Neerbosch, 15.X.1939, 4 × DVL; ZE Grevelingen-Slikken van Bommene, 30.VII.2012, G. Menting & P. Meininger.

**Belgium** LX Saint-Hubert, 13.X.2010, J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, rare.

### *Dasineura lupulinae* (Kieffer, 1891) (fig. 56)

**Biology** Host *Medicago falcata*, *M. lupulina*, *M. sativa* incl. subsp. *varia* (Fabaceae). Vegetative buds swollen, onion-like; tough-walled gall usually on lateral buds, soft, rotund or oblong, glabrous, ± pubescent. Stipules strongly enlarged.

**References** HB: 4205, H: 3507, DA: p199, DVL:

p174, RS: p168, Alta & Docters van Leeuwen 1946.

**Netherlands** ZH Zoetermeer, no date; LZ Gerendal, 22.VI.1946, both DVL.

**Belgium** NM Frasnes-lez-Couvin, 28.V.2012, S. Carbonnelle; Gembloux, 31.VII.2012, J.-Y. Baugnée; Matagne-la-Grande, 1.VIII.2012 (Carbonnelle 2014); St. Servais, 18.VII.2012; LX Marloie, 7.VII.2012, both J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, rarely recorded.

### *Dasineura mali* (Kieffer, 1904)

**Biology** Host *Malus* spp. (Rosaceae). Leaves of young shoots with cartilaginous thickening, often on both margins, usually discoloured, often running parallel to midrib, usually resulting in an upward roll.

**References** HB: 4116, H: 2885, 6753, DA: p181, DVL: p172, RS: p166, RJK: p28, Alta & Docters van Leeuwen 1946, Skuhrová 1986, Darvas et al. 2000.

**Netherlands** 21 records: FI, FL, NH, ZH, UT, GE, ZE, ZV, LN.

**Belgium** AN Poederlee, 3.VII.2011, J. Mortelmans; LI Tongeren, 27.V.2010, P. Cox; VB Keerbergen-Kruisheide, 6.VIII.2013, NSG Beneden Dijle; Zoutleeuw-Het Vinne, 17.IV.2014, K. Boux; NM Gembloux, 11.X.2012; Mazy, 5.IX.2013, both J.-Y. Baugnée; Willerzie, 31.VIII.1975 (Lambinon 1976); LX Resteigne, 9.X.2011, J.-Y. Baugnée.

**Luxembourg** ARD Bavigne-Boulaide (Lambinon et al. 2012b).

**Range** Europe, secondarily Holarctic, frequent, may be a pest.

### *Dasineura medicaginis* (Bremi, 1847)

= *D. ignorata*

New for Belgium

**Biology** Host *Medicago sativa* incl. subsp. *varia*, also on *M. falcata*, *M. littoralis* (Fabaceae).

Vegetative buds swollen, onion-like; gall usually



on lateral buds, soft, rotund or oblong, glabrous, ± yellowish, also reddish. Stipules strongly enlarged. Opening at top at maturity.

**References** HB: 4204, H: 3510sq., 6227 sq., DA: p199, DVL: p175, RS: p168, Skuhrová 1986, Darvas et al. 2000.

**Netherlands** GR Midwolda, 27.v.1964, WN; UT Rhenen, 8.vii.1943; GE Bennekom, 26.vi.1956, WN; Apeldoorn-Voorst, 1.ix.1940; Nijmegen-Driel, 6.viii.1940; Nijmegen-Ooij, 10.vii.1938; NB Eck-en-Wiel, 9.viii.1940; LZ Maastricht-St. Pietersberg, 3.ix.1955, 6 × DVL; Maastricht-St. Pietersberg, 3.viii.2012, K. van Bochove, G. Baller & J. van Harten.

**Belgium** LI Veldwezelt, 24.vii.2009, R. Barendse; BW Court St. Etienne, 28.ix.2012; NM Treignes-Saumières, 21.ix.2009; Vivegnis, 18.ix.2011; Ychippe, 17.ix.2012, 4 × J.-Y. Baugnée.

**Luxembourg** LOR Echternach (Lambinon et al. 2001).

**Range** Euro-Siberian, moderately frequent, pest species.

### *Dasineura myosotidis* (Kieffer, 1902)

New for Belgium

**Biology** Host *Myosotis scorpioides* (= *palustris*), *M. laxa* subsp. *caespitosa*, *M. nemorosb*, *M. stricta* (= *micrantha*), *M. discolor* (= *versicolor*) (Boraginaceae). Flower buds swollen, corolla and generative parts ± aborted, flowers unopened.

**References** HB: 4372, H: 4736, DA: p253, DVL: p178, RS: p172, Nijveldt 1952a.

**Netherlands** ZV Axel, 23.viii.1937, DVL.

**Belgium** AN Geel-Selguis, 31.vii.2010, Ecol. Wg Meanderland; Scheps, 20.vi.2010, R. Barendse.

**Luxembourg** No records.

**Range** Europe, rarely recorded.

**Note** May be contaminated with *D. fructicola*.

### *Dasineura napi* (H. Loew, 1850)

= *D. brassicae*

**Biology** Host *Brassica napus*, *B. oleracea*. Larvae

live in swollen and prematurely ripening sterile siliquas.

**References** HB: 1181, H: 2571 sq., DA: p169, DVL: p101, RS: p60, Nijveldt 1973b, Skuhrová 1986, Darvas et al. 2000.

**Netherlands** GR Oostwold, 28.viii.1970; FL Oost-Flevoland, vii.1970; OV Kampen, 16.vi.1950, 3 × WN; NH St. Pancras, 21.vi.1937, DVL; GE Duffelt-Millingerduin, 25.vi.2012, W. Bosgra; Lobith, 24.vii.1952, DVL; Wageningen, 1954, WN; NB Oisterwijk, 1.ix.1948, DVL; ZE Kats-Katspolder, 28.viii.2008, F. Grotenhuis; LZ St. Pietersberg, 6.ix.1955, DVL.

**Belgium** BR Evere, 26.vi.2010, J.-P. Coppée & B. Hanssens; NM Aublain, 15.vi.2014; Couvin, 21.vi.2014, both S. Carbonnelle.

**Luxembourg** LOR Bonnevoie (Lambinon et al. 2012b).

**Range** Europe, moderately frequent, pest species.

### *Dasineura odoratae* Stelter, 1982

New for Belgium, the Netherlands

**Biology** Host *Viola odorata* (Violaceae). Margins often of both leaf halves rolled over up to midrib along almost complete length or on older leaves only rolled upwards in basal half. Gall wall slightly thickened.

**References** DA: p231, DVL: p304, RS: p356, Stelter 1982b.

**Netherlands** ZH Vlaardingen, Holypark; Schiedam-Hoveniersstraat, 6 records 30.i.2004 - 1.iii.2009, B. van As; ZE Middelburg-Ter Hooge, 8 & 29.iii.2008; Vlissingen-Nollebos, 20.i.2008, 1.iii.2009; Ritthem-Rammekenshoek, 1.iii.2008, 5 × F. Grotenhuis.

**Belgium** AN Wommelgem 30.xii.2012; LI St. Martens-Voeren, 29.vii.2009; both R. Barendse; HN Bray, 14.iii.2014, J.-Y. Baugnée; NM Vierves-sur-Viroin, 24.iii.2014, S. Carbonnelle; LG Oreye, 1.ix.2011, J.-Y. Baugnée.

**Luxembourg** LOR Bonnevoie (Lambinon et al. 2012b).

**Range** Europe, moderately frequent.

***Dasineura oxyacanthae* Rübсаamen, 1914 (fig. 57)**

New for Belgium

**Biology** Host *Crataegus laevigata*, *C. monogyna*, also on *C. crus-galli* (Rosaceae). Outer parts of flower buds, especially basally, slightly swollen, not opening.

**References** HB: 2103, DA: p184, DVL: p119/120, RS: p92.

**Netherlands** NH Amsterdam. 11.VI.1936; LZ Epen, 30.V.1936, DVL.

**Belgium** OV Oudenaarde-Bos t'Ename, 29.IV & 1.V.2011, both P. Blondé; HN Virelles, 9.V.2014; Roly, 20.V.2014, both S. Carbonnelle.

**Luxembourg** No records.

**Range** Euro-Siberian, rarely recorded.

**Note** Larvae should be examined: they are dull, red-orange coloured and cannot jump, they lack large posterior papilla on anal segment. Compare with *Contarinia anthobia*.

***Dasineura papaveris* (Winnertz, 1890)**

New for Belgium?

**Biology** Host *Papaver dubium*, *P. rhoeas*, *P. somniferum* (Papaveraceae). Septa of capsules strongly swollen or ± distorted.

**References** HB: 4545, H: 2479 sq., DA: p163, DVL: p181, RS: p179, Nijveldt 1959.

**Netherlands** NB Klundert, 17.VII.1958, WN.

**Belgium** OV Ghent-Zuid, 21.VI.2011, anon.; LI Neerpelt, 17.VII.2013, P. van Sanden (both records are doubtful).

**Luxembourg** No records.

**Range** Europe, rare, potential pest.

**Note** Could be contaminated with cynipid *Aylax* gall.

***Dasineura periclymeni* (Rübсаamen, 1889)**

**Biology** Host *Lonicera periclymenum*, also *L. etrusca*, *L. nigra* (Caprifoliaceae). Soft, succulent, pale-green upwards rolls, mainly on the leaf

margins of one- or both sides on a developing shoot.

**References** HB: 3948, H: 5361 sq., 7397, DA: p274, DVL: p167, RS: p158, De Meijere 1946.

**Netherlands** FI Ameland-Kwekerijbos, 21.VI.2014, T. Kiewiet; Vlieland, 1.VI.2003, JCR; OV Ruurlo, 4.IX.1950; Winterswijk, 27.VI.1941, both DVL; ZH Meijndel, 19/27.VI.1986, JCR; GE Staverden-Leemputten, 22.VI.2011, A. Krediet; ZE Oostkapelle-Oranjezon, 26.VI.2013, R. Geene.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rarely recorded.

***Dasineura phyteumatis* (F. Löw, 1885)**

**Biology** Host *Phyteuma spicata* (Campanulaceae). Corolla strongly swollen, bladder-like, unopened, inside at base with involute hairs. Often on several flowers in an inflorescence.

**References** HB: 4768, H: 5539 sq., 7418, DA: p279, Docters van Leeuwen 1957.

**Netherlands** NB Breda-Ulvenhoutse Bos, VI.1956, DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Dasineura plicatrix* (H. Loew, 1850)**

**Biology** Host *Rubus* spp. (Rosaceae). Leaflets folded upwards along ± thickened main veins, undulately curled and often ± discoloured, especially close to the vein; stunted and sometimes apparently more densely pubescent.

**References** HB: 5907, H: Ru7 sq., 6769, DA: p185, DVL: p276, RS: 426, RJK: p50, Lambinon 1959, 1976, Lambinon et al. 2001, Staudt 2013.

**Netherlands** 64 records: all provinces, GR, FL, ZV excepted.

**Belgium** 78 records: all provinces, BR excepted.

**Luxembourg** ARD 2 records; LOR 6 records.

**Range** Europe, N-Africa, most frequent, potential pest.

*Dasineura populeti* (Rübsaamen, 1889)

**Biology** Host *Populus tremula*, rarely *P. alba*, x *canescens* (Salicaceae). Leaf roll ± distinctly pubescent; predominantly on leaves of suckers.

**References** HB: 5127, H: 503, DA: p96, DVL: p198, RS: p391, Lambinon 1976, Lambinon et al. 2001. Netherlands 44 records: OV, NH, ZH, UT, GE, NB, ZE, LZ.

**Belgium** 30 records: all provinces, OV, LI, BR excepted.

**Luxembourg** ARD 2 records, LOR 5 records.

**Range** Euro-Siberian, most frequent.

*Dasineura potentillae* (Wachtl, 1885)

**Biology** Host *Potentilla argentea*, *P. inclinata* (= *canescens*) (Rosaceae). Flowers unopened, abnormally pubescent. Calyx leaves ± elongated, stalk shortened, resulting in ± hidden flowers.

**References** HB: 5146, H: 3073 sq., DA: p187, RS: p219.

**Netherlands** GE Middelaar, 20.VII.1942, DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** C-, W-, S-Europe, very rarely recorded.

*Dasineura pseudococcus* (Thomas, 1890)

= *Rabdophaga pseudococcus*

**Biology** Host *Salix aurita*, *S. caprea*, *S. cinerea* (Salicaceae). Larvae develop in parenchyma under epidermis. No true gall.

**References** DVL: p255, Nijveldt 1980.

**Netherlands** FI Ameland-Kooiduinen, 30.VI.2013; ZH Leiden-Korte Vliet, 10.VII.2008, both JCR; UT Neerlangbroek, 17.XI.1976, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rarely recorded.

*Dasineura pteridicola* (Kieffer, 1901)

**Biology** Host *Pteridium aquilinum* (Dennstaedtiaceae). Tips of leaflets at margin over a length of about 3-5 mm folded downward. Galls similar to those of *D. pteridis*, but less thickened, discoloured, yellowish-brown after departure of the larvae.

**References** HB: 5291, H: 69, DA: p60, DVL: p72, RS: p226.

**Netherlands** DR Hoogeveen, 23.VIII.1933, DVL; OV Hezingen-Schaboschesch, 14.VI.2014, W. Bosgra; Dalfsen, 29.VII.1954; Ruurlo, 4.IX.1950; Winterswijk, 22.VIII.1939; UT Bilthoven, 6.VII.1930; 4 × DVL; GE Winterswijk-Buskersbos, 31.VII.2013, H.-J. van der Kolk; NB Oirschot, 20.VIII.1940; LN Mook-Plasmolen, 1.VIII.1933; LZ De Grebbe, 18.VII.1952; Epen, 3.IX.1930; Mechelen, 19.VI.1946, 5 × DVL.

**Belgium** NM Viroinval, no date, S. Claerebout; Willerzie, 31.VIII.1975 (Lambinon 1976);

LG Ougrée, 23.VII.2012, J.-Y. Baugnée.

**Luxembourg** ARD Boevange-Béigerhaard (Lambinon et al. 2012b).

**Range** Europe, moderately frequent.

*Dasineura pteridis* (Müller, 1871) (fig. 58)

= *D. filicina*

**Biology** Host *Pteridium aquilinum* (Dennstaedtiaceae). First whitish, then dark brown to black, glossy strongly thickened, narrow downward roll of the leaf margin, up to about 5 mm long.

**References** HB: 5290, H: 68, DA: p60, DVL: p72, RS: p226.

**Netherlands** 28 records: DR, OV, UT, GE, NB, LZ.

**Belgium** WV Assebroek, 23.VIII.2011, J. Devos; AN Scheps, 13.X.2009, both R. Barendse; LI Munsterbos, 24.VIII.2009, anon.; BW Rixensart, 23.VIII.2013, P. Hauteclair; HN Marcinelle, 5.IX.2009, Lambinon & Romain (Romain 2009b); NM Cognelée, 9.VII.2009, J.-Y. Baugnée; Couvin, 5.VII.2013, S. Claerebout; Le Mesnil, 31.VIII.2008; Oignies-en-Thiérache, 30/31.VIII.2008 (both: Lambinon & Romain 2009); Willerzie, 31.VIII.1975 (Lambinon 1976).

**Luxembourg** **ARD** Boevange-Béigerhaard; Gonderange-Ielzert; **LOR** Beaufort; Gaichel (all: Lambinon et al. 2012b).

**Range** Euro-Siberian, very frequent.

### *Dasineura pustulans* (Rübsaamen, 1889)

**Biology** Host *Filipendula* spp. (Rosaceae). On the underside of the slightly disfigured lamina occur 1 mm deep grooves in rotund, pale green spots, yellowish margined up to 5 mm across with corresponding archings on upperside. Often many per lamina, sometimes coalescing.

**References** **HB**: 2741, **H**: 2829 sq., **DA**: p179, **DVL**: p138, **RS**: p115, Lambinon 1958, Lambinon et al. 2001, Harris 2010.

**Netherlands** 64 records: all provinces, **FI**, **DR**, **FL**, **ZV** excepted.

**Belgium** 87 records: all provinces.

**Luxembourg** **ARD** 1 record; **LOR** 4 records.

**Range** Europe, most frequent.

### *Dasineura pyri* (Bouché, 1847)

**Biology** Host *Pyrus* spp. (Rosaceae). Usually both leaf halves, tip excepted, from margin often to midrib incurled upwards. The rolled part arched, thickened. Galls predominantly on terminal leaves of suckers or young trees.

**References** **HB**: 5342, **H**: 2864 sq., **DA**: p181, **DVL**: p207, **RS**: p229, Skuhrová 1986, Darvas et al. 2000.

**Netherlands** 18 records: **NH**, **ZH**, **UT**, **GE**, **ZE**, **ZV**, **LN**, **LZ**.

**Belgium** **OV** St. Gillis-Waas, 20.VI.2010, D. Baert; **AN** Antwerpen-Oude Stad, 17.VII.2013, C. Snyers; **LI** Veevei, 23.VII.2011, R. Barendse; **NM** Villers-sur-Lesse, 8.IX.2007; **LG** Liège, 8.X.2013; Modave, 25.VIII.2013, 3 × J.-Y. Baugnée.

**Luxembourg** **LOR** Redange-sur-Attert (Lambinon et al. 2001).

**Range** Europe, secondarily Holarctic, moderately frequent.

**Note** Occasionally a serious pest, especially on young trees.

### *Dasineura ranunculi* (Brems, 1847)

**Biology** Host *Ranunculus acris*, *R. lanuginosus*, *R. nemorosus*, *R. polyanthemos*, *R. sardous*, sometimes *R. repens*, etc. (Ranunculaceae). Leaf segments or leaflets, also all leaf parts rolled into pouch-shaped galls. Rolled parts cartilaginous thickened; ± pale green or reddish.

**References** **HB**: 5626, **H**: 2423 sq., **DA**: p159, **DVL**: p232, **RS**: p262.

**Netherlands** 20 records: **DR**, **OV**, **NH**, **ZH**, **UT**, **GE**, **NB**, **ZE**, **LZ**.

**Belgium** **OV** St. Martens-Latem, 22.VII.2010, anon.; Oudenaarde-Bos t'Ename, 3.IX.2011, 14.IX.2012, H. De Blauwe, J. Mortelmans & D. Dekeukeleire; **HN** Buvrines, 3.IX.2013, J.-Y. Baugnée; **NM** Aublain, 18.VI.2014, S. Carbonnelle; Mornimont, 15.X.2013; Ychippe, 10.IX.2012, both J.-Y. Baugnée; Wavreille, 27-06-2014, S. Carbonnelle.

**Luxembourg** No records.

**Range** Euro-Siberian, frequent.

### *Dasineura rosae* (Brems, 1847)

= *Wachtliella rosarum*

**Biology** Host *Rosa* spp. (Rosaceae). Halves of leaflets narrow pod-like, folded upwards, up to a narrow marginal border strongly swollen, pouch-like; galls sometimes arched, sickle-like. Wall succulent, thickened, brittle.

**References** **HB**: 5858, **H**: R7 sq., 6809 sq., **DA**: p188, **DVL**: p240, **RS**: 274, **RJK**: p48, Gratia 1958, Lambinon 1959, Lambinon et al. 2001, 2009, Staudt 2013.

**Netherlands** 159 records: all provinces, **FI** excepted.

**Belgium** 103 records: all provinces, **BW** excepted.

**Luxembourg** **ARD** 3 records; **LOR** 38 records.

**Range** Euro-Siberia, most frequent.

### *Dasineura rubella* Kieffer, 1896 (fig. 59)

New for Belgium, the Netherlands.

**Biology** Host *Acer campestre* (Sapindaceae).

Lamina irregularly folded upwards and ±



undulately curled; marginally deflected or rolled.

**References** HB: 37, DA: p223, RS: p21.

**Netherlands** DR Schoonoord-Kibbelveen,

24.V.2013, A. Grosscurt.

**Belgium** NM Dailly, 24.VI.2014; Treignes, 19.VI.2014; Virelles, 16.VI.2014; 3 × S. Carbonnelle; NM Jemelle, 3.VIII.2013; LG Liège, 8.X.2013, both J.-Y. Baugnée.

**Luxembourg** LOR Bonnevoie (Lambinon et al. 2012b).

**Range** Euro-Siberian, rare.

### *Dasineura ruebsaameni* (Kieffer, 1909)

**Biology** Host *Carpinus betulus* (Betulaceae).

Lamina with small, rotund, hardly arched parenchyma galls, up to 4 mm wide.

**References** HB: 1553, H: 1041, DA: p134, DVL: p106, RS: p73, Nijveldt 1981.

**Netherlands** OV (Twente), no date, J. Bijkerk;

LN Mook-Plasmolen, 9.VII.1943, DVL.

**Belgium** VB Louvain, 9.V.1998 (Jacobs 2001);

Malderen-Marselaer, 6.I.2013, R. Segers.

**Luxembourg** ARD Perlé-Holz; LOR Dudelange-Haardt (both: Lambinon et al. 2001, 2012b).

**Range** Europe, rare.

### *Dasineura serotina* (Winnertz, 1853)

**Biology** Host *Hypericum* spp. (Hypericaceae).

Both terminal leaf pairs remain closed together and form a pointed-cylindrical gall, ± bilaterally symmetrical in cross-section, hollow inside.

**References** HB: 3373, H: 4211 sq., 7083-84, DA: p229, DVL: p154, RS: p139, Docters van Leeuwen 1953.

**Netherlands** 31 records: FL, NH, ZH, UT, GE, NB, LZ.

**Belgium** 19 records: WV, OV, LI, HN, NM.

**Luxembourg** No records.

**Range** Europe, very frequent.

### *Dasineura similis* (F. Löw, 1888) (fig. 60)

New for Belgium

**Biology** Host *Veronica scutellata*, also on *V. anagallis-aquatica*, *V. beccabunga*, *V. officinalis*, etc. (Scrophulariaceae). Terminal pair of leaves folded together in an erect, reddened, spindle-shaped gall.

**References** HB: 7436, H: 5093 sq., DA: p265,

DVL: p298, RS: p350, De Meijere 1946.

**Netherlands** ZH Meijendel-Boerderij, 13.VI.2014, S. Carbonnelle, W.N. Ellis & JCR; Krimpen aan den IJssel, 6.VII.2011, J.-J. Spaargaren; GE Zelhem, Heidenhoekse Vloed, 11.VIII.2012, M. Courbois; LN Ottersum, no date, DVL.

**Belgium** AN Scheps, 10.X.2011, R. Barendse; HN Virelles, 25.VI.2014, S. Carbonnelle; NM Doische, 26.VI.2014, both S. Carbonnelle; Liernu, 22.X.2013, J.-Y. Baugnée; Matagne-la-Petite, 22.VIII.2013, S. Claerebout & S. Carbonnelle.

**Luxembourg** No records.

**Range** Europe, rare.

### *Dasineura sisymbrii* (Schrank, 1803)

**Biology** Host *Barbarea*, *Rorippa*, *Sisymbrium* spp. (Brassicaceae). Tip of main and side shoots, also axial buds, transformed into spongy, whitish, apparently coalescing masses; the neighbouring, partially normally developed organs densely clustered, basal parts of petioles or flower buds variously swollen close to the gall. Sometimes the inflorescence galls are overtopped by some atrophied flowers (on *Rorippa*).

**References** HB: 5826, H: 2644 sq., DA: p170, DVL: p238, RS: p270 (on *Rorippa*), RJK: p48, Lambinon et al. 2001.

**Netherlands** 154 records: all provinces, FL, ZV excepted.

**Belgium** 47 records: all provinces, BR, BW, LG excepted.

**Luxembourg** ARD 4 records; LOR 1 record.

**Range** Euro-Siberian, most frequent.

***Dasineura spadicea* Rübsaamen, 1917**

New for Belgium

**Biology** Host *Vicia* spp. (Fabaceae). Leaflets folded upwards, pod-like. Wall succulent thickened. Often on strongly stunted, terminal or lateral shoot tips already the youngest leaves become galled and clustered into conspicuous balls, up to even 30 mm and more.

**References** HB: 7531, ? H: 3731, DA: p209, DVL: p301, RS: p354, RJK: p65.

**Netherlands** NH Amsterdam-Nieuwendam, 12.VIII.2007 & 25.V.2012; Zwanewater, 22.VII.2012; ZH Leiden, 6.VIII.2006; NB Bergen-op-Zoom, 31.VII.2012 & 3.VIII.2012, 6 × W.N. Ellis; ZH Gouda, 6.VIII.1940; UT Leersum, 7.IX.1933; GE Nijkerk, 18.VIII, 1934, 3 × DVL; LZ Nat. Park De Meinweg, 9.VI.2012, M. Courbois.

**Belgium** NM Dailly, 24.VI.2014; Treignes, 19.VI.2014, both S. Carbonnelle.

**Luxembourg** No records.

**Range** Euro-Siberian, moderately frequent.

**Note** May be inquiline in galls of *Dasineura loewiana*.

***Dasineura stelteri* Gagné, 2004 (fig. 61)**

= *D. barbareae* Stelter 1992 non Curtis, 1845

New for Belgium

**Biology** Host *Barbarea vulgaris* (Brassicaceae).

Larvae develop in pods.

**References** Stelter 1992.

**Netherlands** No records.

**Belgium** HN Lomporet, 15.VI.2014; NM Couvin, 21.VI.2014; Roly, 29.VI.2014; Vierves-sur-Viroin, 10.VI.2014, 4 × S. Carbonnelle.

**Luxembourg** No records.

**Range** NW-Europe, rare.

***Dasineura strumosa* (Bremi, 1847)**

= *D. galeobdolon*

**Biology** Host *Lamium galeobdolon* (Lamiaceae).

Terminal scale-like pairs of leaves of buds of

subterranean runners folded together, joined and transformed into a rotund or oblong gall, up to 5 (7) mm large, densely covered with long white felt-like hairs.

**References** HB: 3610, H: 4846, DA: p257, DVL: p160, RS: p147.

**Netherlands** OV Winterswijk-Kotten, 6.VIII.1933 & 28.VI.1940; LN Mook-Plasmolen, 26.IX.1938 & 18.VII.1938, 4 × DVL; LZ Echt-De Doort, 24.IX.2011, M. Courbois.

**Belgium** BR Brussels-Hof Ter Musschen, 13.III.2009, A. Doornaert; Evere, no date, B. Hanssens; BW Bousval, 13.IV.2014, J.-Y. Baugnée; HN Obourg, VII.2011, P. Dupriez; NM Anseremme, 23.XI.2011, G. Minet; Bourseigne-Neuve, 31.VIII.1975 (Lambinon 1976); Felenne; Willerzie, both v.1975 J. Duvigneaud in Lambinon (1976); Dinant, 23.XI.2011; Pondrome, 14.III.2011; Treignes, 21.III.2010, 3 × J.-Y. Baugnée.

**Luxembourg** ARD Kalborn (Lambinon et al. 2001).

**Range** Europe, moderately frequent.

***Dasineura symphyti* (Rübsaamen, 1892)**

(fig. 62)

New for Belgium

**Biology** Host *Symphytum officinale* (Boraginaceae).

Flowers unopened, variously greatly swollen, especially base discoloured. Calyx sometimes with white-felt-like pubescence. Corolla distorted. Stamens and ovaries shortened and thickened.

**References** HB: 6902, H: 4729 (partim), 7243, DA: p253, DVL: p279, RS: p320.

**Netherlands** 47 records: DR, OV, NH, ZH, UT, GE.

**Belgium** OV Oudenaarde-Bos t'Ename, 10.VI.2011, P. Blondé; HN Vaulx-lez-Tournai, 30.VI.2014, S. Carbonnelle.

**Luxembourg** No records.

**Range** Europe, very frequent.

***Dasineura tetensi* (Rübsaamen, 1892)**

(fig. 63)

New for Belgium

**Biology** Host *Ribes nigrum* (Saxifragaceae).

Margins of still unfolded leaves ± funnel-shaped to rolled, screw-like; margins of older leaves over rolled upwards to varied extent, also folded; lamina curled.

**References** HB: 5785, H: 2795, DA: p177, DVL: p236, RS: p268, Skuhravá 1986, Darvas et al. 2000.

**Netherlands** FR Buitenpost, 23.VII.2012, T. IJlstra; NH Hoorn, VII.1950, DVL; Wognum, 15.VII.1950; Zwaag, 23.VI.1949, both WN; ZH Nieuw-Lekkerland, 13.VII.2013, A. Stip; GE Rheden, 10.IX.2012, M. Lammers; ZE Zuid-Beveland, VII.1936, DVL. **Belgium** NM Agimont, 2.VIII.2013 (Carbonnelle 2013).

**Luxembourg** No records.

**Range** Euro-Siberian, rarely recorded, pest species.

***Dasineura tetrahit* (Kieffer, 1909)**

New for Belgium

**Biology** Host *Galeopsis tetrahit*, also on *G. ladanum* (Lamiaceae). Flower buds more or less globular, swollen and discoloured, unopened.

**References** HB: 2840, H: 4831, DA: p261, DVL: p141, RS: p120, Nijveldt 1981.

**Netherlands** OV Dalfsen, 26.VII.1954, DVL.

**Belgium** LG Hombourg, 3.VIII.2013, A. Ova.

**Luxembourg** No records.

**Range** Europe, very rare.

***Dasineura teucrii* (Tavares, 1903)**

= *D. teucricola*

New for Belgium

**Biology** Host *Teucrium chamaedrys* (Lamiaceae).

Vegetative buds on main and side shoots compact. Outside leaves almost normal, arranged artichoke-like.

**References** HB: 6986, H: 4771, DA: p255, RS: p325.

**Netherlands** No records.

**Belgium** NM Yvoir, 26.III.2011, J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, very rare.

***Dasineura thomasiana* (Kieffer, 1888)**

**Biology** Host *Tilia* spp. (Malvaceae). The more or less developed young laminas terminally on stunted shoots remain irregularly crisp and upwardly folded. Venation disfigured, undulate, slightly thickened, sometimes more pubescent.

**References** HB: 7099, H: 4124 sq., 7064, DA: p227, DVL: 285, RS: p332.

**Netherlands** 17 records: FR, FL, NH, ZH, GE, ZE, LN, LZ.

**Belgium** OV St. Martens-Latem, 28.V.2010,

J. Devalez; AN Herselt, 18.V.2013, S. Hermans;

Olmen-Asbeek, 8.VI.2010, R. Barendse; VB Meise, 6.V.2014; HN Vaulx-lez-Tournai, 30.VI.2014;

NM Aublain, 18.VI.2014; Petigny, 19.VI.2014, 4 × S. Carbonnelle; Nismes, 15.V.2003, S. Claerebout; Soulme, no date (Romain & Giot 2008).

**Luxembourg** ARD Wilwerdange-Goedange;

LOR Ettelbrück-Stackels; Hollenfels (all: Lambinon et al. 2001).

**Range** Europe, frequent.

***Dasineura tiliae* (Schrank, 1803)**

= *D. tiliamvolvans*

**Biology** Host *Tilia* spp. (Malvaceae). Leaf margin rolled upwards. Roll compact, succulent-cartilaginous thickening, brittle, wall almost glabrous, ± pubescent.

**References** HB: 7111, H: 4131 sq., 7067, DA: p227, DVL: p286, RS: p460.

**Netherlands** 42 records: all provinces, DR, FL excepted.

**Belgium** 27 records: all provinces, OV, VB excepted.

**Luxembourg** ARD Esch-sur-Sûre; LOR Esch-sur-Alzette (both: Lambinon et al. 2001).

**Range** Euro-Siberian, very frequent.

***Dasineura tortilis* (Bremer, 1847)**

= *D. alni*

**Biology** Host *Alnus* spp. (Betulaceae). Lamina, according to the extent of development at infection time, ± completely upwardly folded. Midrib and basal parts of the side veins ± spongy, thickened.

**References** HB: 348, H: 1127 sq., DA: p138, DVL: p82, 84, RS: p35, RJK: p11, Lambinon 1958.

**Netherlands** 36 records: all provinces, FL, ZE, ZV excepted.

**Belgium** 20 records: all provinces, BR, BW, LX excepted.

**Luxembourg** No records.

**Range** Europe, very frequent, in particular on the top leaves of suckers or coppice.

***Dasineura tortrix* (F. Löw, 1877) (fig. 64)**

**Biology** Host *Prunus spinosa*, also on *P. armeniaca*, *P. avium*, *P. cerasifera*, *P. domestica* incl. subsp. *insititia* and *Cerasus miyoshii* (= *Prunus fruticososa*) (Rosaceae). Leaves bunched together, incurled, uneven, ± rugose and cartilaginous.

**References** HB: 5229, H: 3255 sq., DA: p191, DVL: p204, 206, RS: p225.

**Netherlands** ov Deventer-Wilp, no date, DVL; ZH Berkel, 1949; Naaldwijk, VI.1948, both WN; GE Nunspeet, 30.VII.1936, DVL.

**Belgium** wv Alveringem, 22.VI.2012, H. Tyteca; NM Nismes, 2.VIII.2012 (Lambinon et al. 2012a).

**Luxembourg** No records.

**Range** Europe, rarely recorded, potential pest species.

***Dasineura traili* (Kieffer, 1909) (fig. 65)**

New for Belgium

**Biology** Host *Ranunculus acris*, *R. bulbosus*, *R. polyanthemus*, *R. repens*, *R. sardous* (Ranunculaceae). Flowers closed, sometimes strongly swollen. Corolla thickened, stunted like other parts.

**References** HB: 5664, H: 2420 sq., DA: p159, DVL: p232, RS: p263, Nijveldt 1980.

**Netherlands** FR Nijtsjerksterpolder, 21.VIII.2011, J. Huizenga; ZH Sliedrechtse Biesbosch, 10.IV.2014, J.-J. Spaargaren; GE Hemmen, 31.V.1976; Wageningen, 29.V.1978, both WN; Wageningen-Bovenpolder, 18.IX.2011, A. Krediet;

**Belgium** ov Astene, 16.IX.2012, anon.; AN Beeltjes, 11.VIII.2013, S. Hermans; NM Dailly, 16.V.2014, S. Carbonnelle.

**Luxembourg** No records.

**Range** Europe, moderately frequent.

***Dasineura trifolii* (F. Löw, 1874)**

**Biology** Host *Trifolium* spp. (Fabaceae). Galls bulge-like swollen; their wall conspicuously ± succulent to cartilaginous-like thickened, glabrous or slightly rugose, pale-green or reddened. Gall body on many hosts with ± broad, ungalled margin.

**References** HB: 7178, H: 3564 sq., comp. 6913, 6919, DA: p202, DVL: p289, RS: p334, RJK: p62, Gratia 1958, Nijveldt 1963.

**Netherlands** 28 records: FI, DR, OV, NH, ZH, UT, GE, NB, LZ.

**Belgium** 46 records: all provinces, VB, LX excepted.

**Luxembourg** LOR Remich (Lambinon et al. 2012b).

**Range** Euro-Siberian, secondarily Holarctic, most frequent.

***Dasineura tubicoloides* Gagné, 2004**

= *D. tubicola*

New for Belgium

**Biology** Host *Cytisus scoparius*, *C. eriocarpus*, *C. hirsutus* (= *gallicus*), *C. striatus* (= *patens*, *welwitschi*) (Fabaceae). Bud elongate, tubular, with 2 or 3 points at tip.

**References** HB: 6271, H: 3423 sq., DA: p197, DVL: p123, RS: p97.

**Netherlands** ov Ruurlo, 2.IX.1950, DVL; UT Amersfoort-De Hoef, 31.I.2012; Amersfoort-Soesterkwartier, 17.II.2012, both J. van Harten; Bilthoven, 24.IX.1930; Leersum, 3.IX.1933, both DVL; GE Zevenaar, 7.VI.2012, M. Courbois; NB Oisterwijk, 9.IX.1948, DVL; LZ Nat. Park



De Meinweg, 9.VI.2012, M. Courbois.  
**Belgium** BW Chaumont-Gistoux, 24.III.2011,  
J.-Y. Baugnée.  
**Luxembourg** No records.  
**Range** Europe, Subatlantic, moderately frequent.

***Dasineura tympani* (Kieffer, 1909) (fig. 66)**  
New for Belgium

**Biology** Host *Acer campestre* (Sapindaceae).  
Leaf galls 4-6 (8) mm wide, browned later on. In  
the middle at the underside with small elevation.  
The central larval chamber often situated in a  
locally swollen side vein.

**References** HB: 31, H: 4028, DA: p224, RS: p21,  
Lambinon et al. 2012b.

**Netherlands** No records.

**Belgium** NM Aublain, 18.VI.2014; Dailly,  
18.VI.2014, both S. Carbonnelle; Beuraing,  
2011, M.-T. Romain; Mazy, 11.VI.2010; Namur,  
5.VI.2012, both J.-Y. Baugnée.

**Luxembourg** ARD 2 records; LOR 17 records.

**Range** Europe, frequent.

**Note** Probably in earlier records confused with  
*Drisina glutinosa*.

***Dasineura ulmaria* (Bremi, 1847)**

**Biology** Host *Filipendula ulmaria*, *F. lobata*  
(Rosaceae). Leaf galls hemispherical on upperside,  
protruding on underside, acuminate- conical; wall  
soft; on midrib or main veins; upperside glabrous  
and often reddish, underside yellowish, ± pubes-  
cent, with terminal, pubescence, narrow exit hole,  
one-chambered.

**References** HB: 2737, H: 2830 sq., DA: p179, DVL:  
p137, RS: p114, RJK: p21, Lambinon 1959, 1976,  
Lambinon et al. 2001, Harris 2010.

**Netherlands** 113 records: all provinces, FI, FL, ZV  
excepted.

**Belgium** 218 records: all provinces.

**Luxembourg** ARD 6 records; LOR 6 records.

**Range** Euro-Siberian, most frequent.

***Dasineura ulmicola* (Kieffer, 1909)**

New for the Netherlands

**Biology** Host *Ulmus* spp. (Ulmaceae). Small  
grooves, swollen on top, less than 5 mm long, on  
the leaf underside, surrounded by a discoloured  
area; often several per leaf.

**References** HB: 7336, H: 2055, DA: p139, RS: p341,  
DVL: p309, Roskam in Docters van Leeuwen  
2009.

**Netherlands** ZH Oostvoorne, VII.2009, K.M.  
Harris.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rare.

***Dasineura urticae* (Perris, 1840)**

**Biology** Host *Urtica dioica*, *U. urens* (Urticaceae).  
Irregular rotund to oblong-oval, yellowish-green  
or whitish hollow galls, about 3-7 mm large, rela-  
tively thin-walled, white-succulent, especially at  
basal part of laminae; also on younger stem parts  
as well as on primary and even on secondary axial  
parts of inflorescence; encroaching from there  
onto the flowers. With a narrow, slit-shaped exit  
on upperside.

**References** HB: 7356, H: 2095 sq., DA: p142, DVL:  
p295, RS: p342, RJK: p64, Gratia 1958, Lambinon  
1959, 1976, Lambinon et al. 2001.

**Netherlands** 319 records, all provinces.

**Belgium** 322 records, all provinces.

**Luxembourg** ARD 8 records; LOR 39 records.

**Range** Euro-Siberian, most frequent.

***Dasineura viciae* (Kieffer, 1888)**

**Biology** Host *Vicia sativa*, *V. sepium* and other  
related species (Fabaceae). Leaflets folded upwards,  
pod-like. Wall succulent thickened. Often on  
strongly stunted, terminal or lateral shoot tips  
already the youngest leaves become galled and  
clustered into conspicuous balls.

**References** HB: 7529, comp. H: 3696 sq., 6969  
sq., DA: p209, DVL: p301, RS: p354.

**Netherlands** 49 records: FI, OV, NH, ZH, UT, GE, NB, ZE, LZ.

**Belgium** 34 records: OV, HN, NM, LG, LX.

**Luxembourg** ARD Lellange; Moersdorf-Langsur; Vianden; LOR Colpach-Bas; Larochette (all: Lambinon et al. 2001).

**Range** Euro-Siberian, most frequent.

***Dasineura violae* (F. Löw, 1880)**

New for Belgium

**Biology** Host *Viola arvensis*, *V. tricolor*, also *V. calaminaria*, *V. cornuta*, etc., subspecies and forms (Violaceae). Terminal internodes distinctly shortened. Leaves as well as flower buds densely clustered, tuft-like; transformed into irregular, abnormally pubescent balls. Laminas and stipules rolled upwards, thickened; flower buds often sessile, disfigured; calyx and corolla often enlarged and twisted.

**References** HB: 7581, H: 4293 sq., 7125-26, DA: p231, DVL: p303, RS: p356.

**Netherlands** FI Ameland, 18.VIII.1945; OV

Wijchen, 3.IX.1933; NH Zandvoort, 31.VIII.1933;

ZH The Hague, VIII.1930; Dordrecht, VII.1939;

Oegstgeest, IX.1938; UT Bilthoven, 18.VII.1930 &

15.IX.1932; UT Leersum, 16.IX.1932 & 15.VII.1938,

10 × DVL; GE Hoenderloo-Deelerwoud, 25.VII.2007,

B. te Linde; GE Bennekom, 2.VI.1954; Wageningen,

13.IX.1955, both WN; Nijmegen-Hees, 26.VII.1934;

Nijmegen-Malden, 2.X.1936; ZV Koewacht,

24.VIII.1937; LN Mook-Plasmolen, 3.VIII.1933;

Maasbree, 31.VII.1933; Venray, 30.VII.1933, 6 × DVL.

**Belgium** LI Neeroeteren, 30.IX.2011, R. Barendse;

LG Angleur-Ourthe, 28.VIII.2011; 1.X.2011;

30.VI.2012, 3 × J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, frequent.

***Dasineura violahirtae* Stelter, 1982 (fig. 67)**

New for Belgium

**Biology** Host *Viola hirta* (Violaceae). Margins often of both leaf halves rolled over up to midrib

along almost complete length or on older leaves only rolled upwards in basal half. Gall wall slightly thickened, mainly, occasionally in middle part of roll.

**References** HB: 7592, H: 4279., DA: p231, RS: p356, Stelter 1982b.

**Netherlands** No records.

**Belgium** NM Dourbes, no date; Nismes, 7.VI.2013; both S. Claerebout.

**Luxembourg** No records.

**Range** Europe, very rarely recorded, may be overlooked.

***Didactylomyia longimana* (Felt, 1908)**

**Biology** Unknown, probably mycetophagous.

**References** Nijveldt 1980, Gagné & Jaschhof 2014.

**Netherlands** ZH Duivenvoorde, 10/20.VI.1978, JCR.

**Belgium** No records.

**Luxembourg** No records.

**Range** Cosmopolitan, very rarely recorded.

***Didymomyia tiliacea* (Bremer, 1847)**

= *D. reaumuriana*

**Biology** Host *Tilia* spp. (Malvaceae). Galls dispersed on the lamina, often many per leaf; tough-walled, rotund, up to 8 mm wide and about 4 mm high; on one side arched-conical, on the other side rather bulging disc-shaped; predominantly protruding more on the upperside, rimmed later on. The conical part separates centrally at maturity a cylindrical-conical, longitudinally grooved inner gall.

**References** HB: 7101, H: 4137 sq., 7070 sq., DA: p228, DVL: p285, RS: p329, RJK: p61, Lambinon 1959, 1968, Frankum & Frankum 1999, Lambinon et al. 2001.

**Netherlands** 29 records: ZH, mainly LZ.

**Belgium** 28 records: all provinces, AN, BW excepted.

**Luxembourg** LOR 2 records.

**Range** Euro-Siberian, very frequent.

*Diodaulus linariae* (Winnertz, 1853)

**Biology** Host *Linaria* spp. (Plantaginaceae). The distinctly shortened and broadened, thickened terminal leaves are transformed into an oblong, often bud-like tuft.

**References** HB: 3868, H: 5028 sq., DA: p264, DVL: p165, RS: p156, RJK: p27, Alta & Docters van Leeuwen 1946.

**Netherlands** 32 records: GR, OV, NH, ZH, UT, GE, NB, ZE, LN, LZ.

**Belgium** wv Heist-Achterhaven, 29.IX.2010, anon.; AN Antwerp-St. Odradastraat, 20.VI.2007; Olmen-Asbeek, 7.VIII.2008; Scheps, 29.IX.2009, 3 × R. Barendse; NM St. Servais, 18.VII.2012; LG Angleur-Ourthe, 28.VIII.2011; Hermalle-sous-Huy, 14.VIII.2008; LG Herstal, 30.IX.2012; Liège, 2.VI.2012, 5 × J.-Y. Baugnée; Eysden, VI.1942 (Leclercq 1942); Thier-de-Lanaye, 27.VII.2011, P. Van Sanden; Liège, VI.1942 & VI.1944; Bassenge VII.1947; Wonck, Eben-Emael, VI.1948, 4 × P. Marechal (Gratia 1958).

**Luxembourg** No records.

**Range** Euro-Siberian, very frequent.

*Diodaulus traili* (Kieffer, 1889) (fig. 68)

**Biology** Host *Pimpinella saxifraga*, rarely on *P. major* (Apiaceae). Flowers globular, swollen, unopened.

**References** HB: 4846, H: 4446, DA: p242, DVL: p190, RS: p193.

**Netherlands** OV Doetinchem, 29.VII.1952, DVL; NH Hilversum, 1909/10, J.C.H. de Meijere; GE Nijmegen-Gassel, 18.VIII.1942; LZ Bemelen, 5.IX.1952; Canneberg, 3.IX.1955; Gerendal, 8.IX.1958, 4 × DVL.

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** Europe, moderately frequent.

*Drisina glutinosa* Giard, 1893 (fig. 69)

= *Massalongia aceris*

**Biology** Host *Acer monspessulanum*, *A. opalus*, *A. platanoides*, *A. pseudoplatanus* (Sapindaceae). Depression at underside of leaf, about 1 mm across, surrounded by a circular, 5-7 mm wide, lighter area.

**References** HB: 33, H: 3987 sq., DA: p224, DVL: p74, 75, RS: p22, Lambinon et al. 2001.

**Netherlands** NH Amsterdamse Waterleidingduinen-Eiland van Rolvers, 17.V.2014, A. Piek; Nat. Park Kennemerland, 10.V.2011, W. Bosgra; Texel-Korverskooi, 21.VII.2013, V. Stork; Texel-Oosterend, 20.VII.2013, N.-J. Dek; ZH Oostvoorne-Vogelvlak, 15.V.2014, H.-J. van der Kolk; UT Doorn-Moersbergen, 1.V.2011, W. Bosgra; GE Huissen-Slingebos, 12.VIII.2013, V. de Boer; LZ Eijsden, 17.VIII.2008, F. Grotenhuis; Maastricht, 13.V.2011, W. Bosgra.

**Belgium** 39 records: all provinces, OV, wv, BW excepted.

**Luxembourg** ARD 6 records; LOR 14 records.

**Range** Europe, very frequent.

*Endopsylla agilis* De Meijere, 1907

**Biology** Parasitoid of the psyllid *Baeopelma foersteri* on *Alnus* spp. (Betulaceae).

**References** De Meijere 1906.

**Netherlands** NH Kortenhoef, 1906, J.C.H. de Meijere.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

*Feltiella acarisuga* Vallot, 1827

= *Therodiplosis persicae*, *T. tetranychii*

**Biology** Mite predator, almost exclusively on red spider mites (Acarina: Tetranychidae).

**References** De Meijere 1946, Gagné 1995.

**Netherlands** NH Aalsmeer, v.1935 coll. P.D., Wageningen; Amsterdam, 22.IX.1951; ZH Naaldwijk, 24.VII.1952; 20.VIII.1952, 10.IX.1954; Poeldijk,

19.IX.1951; GE Wageningen, 16.VIII.1954; ZE Goes-Wilhelminadorp, VIII.1959, 7 × WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Holarctic, secondarily cosmopolitan, moderately frequent; commercially marketed agent for biocontrol of tetranychid mites.

***Geocrypta campanulae* (Müller, 1871)**  
(fig. 70)

= *G. trachelii*

**Biology** Host *Campanula cochlearifolia*, *C. rotundifolia* (Campanulaceae). Onion-like galls in axillary buds; often overtopped by short rudiments of laminae; on shoot tip often united into irregularly composed groups, up to 12 mm broad.

**References** HB: 1343, H: 5513 sq., DA: p278, RS: 66.

**Netherlands** No records.

**Belgium** NM Nismes, I.VIII.2013 (Carbonnelle 2013).

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Geocrypta galii* (H. Loew, 1850)**

**Biology** Host *Galium* spp. (Rubiaceae). One-chambered, rotund to oval swellings, about 4-10 mm large, fleshy-succulent to spongy, especially on upper stem parts, also on inflorescences, often above a node; occasionally only overtopped by the final, distorted whorl of leaves. Often with several together and variously joined. At maturity ± star-shaped, rupturing with broad lobes.

Aperture inside pubescent.

**References** HB: 2866, H: 5195 sq., 7345 sq., DA: p271, DVL: p143, RS: p122, RJK: p23, Gratia 1958, Lambinon 1959, Lebeau & Lambinon 1968, Lambinon et al. 2001.

**Netherlands** 50 records: FI, OV, NH, ZH, UT, GE, ZE, LN, LZ.

**Belgium** 37 records: OV, LI, HN, NM, LG, LX.

**Luxembourg** ARD 2 records.

**Range** Euro-Siberian, most frequent.

***Geocrypta heterophylli* (Rübsaamen, 1914)**

New for Belgium

**Biology** Host *Lathyrus heterophyllus*, *L. latifolius*, *L. sylvestris* (= *platyphyllus*) (Fabaceae). Leaflets or stipules often enlarged with fleshy leaf rolls.

**References** HB: 370, H: 3760, 3768, 3774, DA: p211, RS: p151

**Netherlands** No records.

**Belgium** LG Huy, 9.VI.2012, leg. J.-Y. Baugnée, det. M. Skuhrová.

**Luxembourg** No records.

**Range** W-Europe, very rare.

***Gephyraululus raphanistri* (Kieffer, 1886)**  
(fig. 71)

**Biology** Host *Raphanus*, *Brassica* and other Brassicaceae. Flowers unopened, especially strongly swollen at base. Calyx enlarged, corolla and stamens shortened, anthers ± swollen. Stigma reduced, ovaries disfigured and thickened.

**References** HB: 5690, H: 2619 sq., DA: p168, DVL: p233, RS: p265, Nijveldt 1953a.

**Netherlands** 28 records: FI, FR, NH, ZH, GE, NB, ZE, LN, LZ.

**Belgium** No location, no date (Gosseries 1991);

wv Nieuwpoort-IJzermondig, 18.VIII.2010, anon.

**Luxembourg** No records.

**Range** Europe, frequent.

***Giardomyia britannica* Milne, 1960**

**Biology** Larvae presumably mycetophagous on various host plants, e.g., *Trifolium*, *Triticum*.

**References** Nijveldt 1968.

**Netherlands** GE Doornenburg, 29.VII.1966, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rare.

***Giraudiella inclusa* (Frauenfeld, 1862)**

(fig. 72)

= *G. incurvans*

**Biology** Host *Phragmites australis* (= *P. communis*) (Poaceae). Wall of the culm with single or numerous grain-like swellings, oval to spindle-shaped, rarely over 6 mm large, thin- and later tough-walled, unilocular; mostly protruding inside the culm, if heavily infested also protruding externally on the ± turgid culm.

**References** HB: 4737, H: 245, DA: p77, DVL: p186, RS: p183, Nijveldt 1953c.

**Netherlands** 38 records: FI, FR, FL, OV, NH, ZH, UT, GE, NB, ZE.

**Belgium** 10 locations in Baetens & De Bruyn (2001); **OV** Ghent-Bourgoyen, 1.V.2010, J. D’Hae-seleere; **LI** Achel, 13.V.2012, H. Claes; **HN** Virelles, 6.III.2013 & 17.IV.2014; S. Claerebout; Virelles, 30.IX.2013, S. Carboneille; **LG** Bas-Oha, no date, J.-Y. Baugnée.

**Luxembourg** 1 record, **LOR** Bonnevoie (Lambinon et al. 2001).

**Range** Europe, very frequent.

***Haplodiplosis marginata* (von Roser, 1840)**

= *H. equestris*

**Biology** Host various Poaceae; mainly on *Avena*, *Hordeum*, *Secale*, *Triticum* and also on some wild Poaceae. Leaf sheath above the upper, more rarely the penultimate internode weakly inflated; culm with several oblong saddle-shaped depressions.

**References** HB: 7254, H: 333, 347, DA: p83, RS: p205, Van Rossem et al. 1959, Nijveldt 1960, 1967, Nijveldt & Hulshoff 1968, Censier et al. 2012, Skuhrová 1986, Darvas et al. 2000.

**Netherlands** **GR** Slochteren, 10.III.1960; **GE** Dui-ven, 9.VI.1960, both **WN**; Ubbergen, VII.1959, Pelkmans; Wageningen, 9.VI.1960, **WM**.

**Belgium** No location, no date (De Clerq & D’Herde 1972); ‘Flemish polders’, no date (Censier et al. 2012).

**Luxembourg** No records.

**Range** Europe, recently rarely recorded, locally often harmful pest species.

**Note** In the Netherlands first recorded in Ke-kerdom in 1958 (Nijveldt 1960), later an outbreak 1959-1964 (Nijveldt & Hulshoff 1968). In Belgium *H. marginata* was first recorded in 1963 and already in 1964 an outbreak appeared and since that time it occurs sporadically and locally. In 2011 severe damage was observed in the Flemish polders (Censier et al. 2012).

***Harmandiola cavernosa* (Rübsaamen, 1899)**

= *Harmandia cavernosa*

**Biology** Host *Populus tremula*, also on *P. alba*, x *canescens* (Salicaceae). Galls thick-walled, oblong-rotund; usually up to about 5 mm across, single-chambered; only a third of its dimension protruding on the upper side; usually situated next to a vein. Exit hole parallel to the vein; on the upper side ± lip-like surrounded by a circular wall.

**References** HB: 5108, H: 483 sq., 6354, DA: p96, DVL: p199, RS: p389, Lambinon 1976, Lambinon et al. 2001.

**Netherlands** **GR** De Haar-Haasterbos, 24.XII.2012, J.H. de Regt; **OV** Doetinchem-De Slangenburgh, 19.VI.1932, DVL; **GE** Barneveld-Landgoed De Schaffelaar, 29.VI.2012; **LN** De Hamert-Nieuwe Heerenven, 18.VII.2012, both J. van Harten; **LZ** Epen, 5.IX.1930; Vaals, VI.1942, both DVL.

**Belgium** 25 records: **HN**, **NM**, **LX**.

**Luxembourg** **ARD** 4 records; **LOR** 4 records.

**Range** Euro-Siberian, very frequent.

***Harmandiola globuli* (Rübsaamen, 1889)**

= *Harmandia globuli*

**Biology** Host *Populus tremula*, also on *P. alba*, x *canescens* (Salicaceae). Base of galls only slightly narrowed, not constricted, rotund, up to 2.5 (3) mm across, thin-walled, single-chambered. Exit hole at underside. slit-shaped, surrounded by a wall. Often several per lamina.

**References** HB: 5112, H: 505 sq., 6353, DA: p96,



DVL: p199, RS: p390, RJK: p33, Leclercq 1942, Gratia 1958, Lebeau & Lambinon 1968, Lambinon et al. 2001, Staudt 2013.

**Netherlands** 31 records: GR, DR, OV, NH, ZH, UT, GE, NB, LN, LZ.

**Belgium** 32 records: AN, LI, HN, NM, LG, LX.

**Luxembourg** ARD 3 records; LOR 8 records.

**Range** Euro-Siberian, most frequent.

### *Harmandiola pustulans* (Kieffer, 1909)

New for Belgium

**Biology** Host *Populus tremula* (Salicaceae). Thin-walled leaf galls, nodular or flat bladder-like, rotund, up to  $\pm$  3 mm across, surrounded by a narrow,  $\pm$  acute wall; often next to a main vein. Large cavity with an oval inner gall in the centre, orientated perpendicular to the lamina.

**References** HB: 5104, comp. H: 513, DA: p96, RS: p390.

**Netherlands** No records.

**Belgium** NM Ermeton-sur-Meuse, 17.V.2014, M-T. Romain.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

### *Harmandiola tremulae* (Winnertz, 1853)

= *Harmandia loewi*

**Biology** Host *Populus tremula*, also on *P. alba*, x *canescens* (Salicaceae). Galls about (3) 4-5 (6) mm across; globular, with distinctly narrowed base; thick-walled, single-chambered. Exit hole at underside surrounded by a narrow rim.

**References** HB: 5113, H: 506 sq., DA: p96, DVL: p199, RS: p390, RJK: p33, Leclercq 1942, Gratia 1958, Lambinon et al. 2001.

**Netherlands** 41 records: DR, OV, ZH, UT, GE, NB, ZE, LN, LZ.

**Belgium** 52 records: all provinces, WV, BR, BW excepted.

**Luxembourg** ARD 4 records; LOR 8 records.

**Range** Euro-Siberian, most frequent.

### *Hartigiola annulipes* (Hartig, 1839)

= *Oligotrophus fagineus*

**Biology** Host *Fagus sylvatica* (Fagaceae). Gall slender, obtuse-cylindrical or barrel-shaped, leathery-woody, up to 3 (4) mm long, densely covered with brownish hairs.

**References** HB: 2666, H: 1153-54, DA: p133, DVL: p134, RS: p112, RJK: p21, Leclercq 1942, Gratia 1958, Lambinon et al. 2001, Staudt 2013. **Netherlands** 449 records: all provinces, FI, ZE excepted.

**Belgium** 170 records: all provinces.

**Luxembourg** ARD 5 records; LOR 26 records.

**Range** Europe, most frequent.

### *Horidiplosis ficifolii* Harris, 2003

**Biology** Host *Ficus benjamina*, *F. microcarpa* (Moraceae). Small decolourised leaf galls, mature galls become thick and brown.

**References** Harris & de Goffau 2003.

**Netherlands** ZH Honselersdijk, 27.III.2002, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Native to tropical China, Taiwan; in Denmark, Italy, the Netherlands on cultivated *Ficus*; very rarely recorded.

### *Hybolasioptera fasciata* (Kieffer, 1904)

= *H. cerealis*

**Biology** Host *Secale* spp. *Agropyron*, *Agrostis*, *Avenella*, *Calamagrostis*, *Deschampsia*, *Holcus*, *Triticum* (Poaceae). Culm above the first, more rarely the second node, with one or two expanded, black-walled, oblong, slight depressions.

**References** HB: 6406, H: 341, DA: p83, DVL: p125, RS: p205, Nijveldt 1968.

**Netherlands** UT Rhenen, Grebbeberg, 17.I.1968, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

### *Hygrodiplosis vaccinii* (Kieffer, 1897)

**Biology** Host *Vaccinium uliginosum* (Ericaceae).

Leather-like thickened, yellowish or reddened downward roll.

**References** HB: 7374, H: 4568, DA: p244, RS: 346, De Meijere 1939.

**Netherlands** No location, no date (Nijveldt & Beuk 2002).

**Belgium** No records.

**Luxembourg** No records.

**Range** Holarctic, arctic-alpine species, very rare.

### *Iteomyia capreae* (Winnertz, 1853)

**Biology** Host predominantly on *Salix caprea* and other sallows and several nordic-alpine willows (Salicaceae). Outgrowths of leaf with tough, woody wall. Galls rotund, 1.5-2 mm or more across, ± equally protruding on both leaf sides; one-chambered; the underside with narrow, round exit hole. Usually many on leaves and often coalescing.

**References** HB: 6108, H: S61 sq., 6370 sq., DA: p102, 104, DVL: p256, RS: p295, 296, RJK: p54, Leclercq 1942, Gratia 1958, Lambinon 1959, Lambinon et al. 2001, Staudt 2013.

**Netherlands** 140 records: all provinces.

**Belgium** 112 records: all provinces, BW excepted.

**Luxembourg** ARD 12 records; LOR 36 records.

**Range** Euro-Siberian, most frequent.

### *Iteomyia major* (Kieffer, 1889)

**Biology** Host predominantly on sallows like *Salix aurita*, *S. caprea*, *S. cinerea*, *S. myrsinifolia*, also on *S. glauca*, *S. lanata*, *S. phylicifolia*, etc., rarer on *S. calodendron*, *S. silesiaca*, sparsely on narrow-leaved and glabrous willows, such as *S. elaeagnos*, *S. pentandra*, *S. purpurea*, etc., and on their forms and hybrids (Salicaceae). Separate galls rotund (1.5) 2-4 (5) mm across; with tough, woody wall; on both sides of the lamina, usually more prominent on the underside, there with small, rotund, central exit hole. Usually several

galls coalesce into irregularly margined clusters. Often on midrib, or the major lateral veins.

**References** HB: 6165, H: S47 sq., DA: p101, DVL: p254, RS: p436, RJK: p55, Leclercq 1942, Gratia 1958, Lambinon 1976, Chandler 1998, Lambinon et al. 2001.

**Netherlands** 141 records: all provinces, FL excepted.

**Belgium** 75 records: all provinces, BR excepted.

**Luxembourg** ARD 1 record; LOR 3 records.

**Range** Europe, most frequent.

### *Jaapiella bryoniae* (Bouché, 1847) (fig. 73)

**Biology** Host *Bryonia cretica* subsp. *dioica* (Cucurbitaceae). Shoot tip stunted. Leaves especially thickened at base, rolled upwards, clustered into a ± dense and expanded rosette, conspicuously haired.

**References** HB: 1223, H: 5476 sq., DA: p277, DVL: p101, RS: p60.

**Netherlands** NH Amsterdam, 15.VIII.1951, WN; UT Rhenen, 3.IX.1952; GE Elten, 24.VII.1952; Nijmegen, 26.VII.1934; ZE Domburg, 26.VI.1954; LZ Bemelen, 3.IX.1952; Rijckholt, 30.VI.2007, W.N. Ellis; St. Pietersberg, 1.IX.1955; Sibbe, 10.IX.1953, 7 × DVL; Valkenburg, VIII.1930, J.C.H. de Meijere.

**Belgium** No location, no date (Gosseries 1991);

wv Houtsaegherduinen, 11.VII.2011, H. Tyteca; Oostende-Halvemaandijk, 7.VI.2014, J. Devos; De Westhoek, 22.VI.2013, S. Claerebout;

HN Grand-Reng, 12.VI.2012 J.-Y. Baugnée; Ghlin, 30.VIII.2013; Hornu, 31.VIII.2013; Quevy-le-Petit, 25.VIII.2012; Péronnes-les-Binche, 3.IX.2013; Wasmes, 20.X.2012, 5 × P. Dupriez; NM Gembloux, 18.VIII.2009; LG Liège, 25.VII.2012, both J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, frequent.

***Jaapiella cirsiicola* Rübsaamen, 1916**

New for Belgium

**Biology** Host *Cirsium crispus* (Asteraceae). Stunted, deformed capitules; no true gall.

**References** HB: 1470, DA: p294, DVL: p114, RS: p84, Nijveldt 1962.

**Netherlands** FL Dronten, 11.VIII.2010, A. Grosscurt; ZH Nieuwkoop-Mije, 21.VI.1936, DVL; UT Langbroek, 5.VII.1960; GE Rhenen-Grebbeberg, 30.VII.1968, both WN.

**Belgium** HN Kain, 31.V.2014, J.-Y. Baugnée; Vaulx-lez-Tournai, 30.VI.2014, NM Olloy-sur-Viroin, 30.VI.2014, both S. Carbonnelle.

**Luxembourg** No records.

**Range** Euro-Siberian, rarely recorded.

***Jaapiella clethrophila* Rübsaamen, 1917**

**Biology** Yellow larvae, with head and abdominal parts reddish, live as inquilines in galls of *Dasineura tortilis* on the leaves of *Alnus glutinosa*.

**References** HB: 349, DA: p138, DVL: p82.

**Netherlands** FI Ameland-Roosduinen, 27.VI.2014, T. Kiewiet; ZH Nieuwkoop-De Haeck, 15.VI.2013; UT Veenendaal-Kwintelooyen, 6.VI.2013, both H.-J. van der Kolk.

**Belgium** OV Oudenaarde-Bos t'Ename, 15.V.2011, P. Blondé; NM Houx, 30.VI.1957; LX Barvaux, 28.VII.1957 (Lambinon 1958).

**Luxembourg** No records.

**Range** C-, W-Europe, rare. May be contaminated with *Dasineura tortilis*, which larvae are first yellow, then orange-red coloured.

***Jaapiella compositarum* (Kieffer, 1888)**

= *Dasineura compositarum*

New for Belgium

**Biology** Host *Cirsium vulgare* (Asteraceae).

Florets disfigured and discoloured; pistil thickened and lengthened, extending well above the florets.

**References** HB: 1872, DA: p295, Nijveldt & Beuk 2002.

**Netherlands** GE Rhenen-Grebbeberg, 30.VII.1968, WN.

**Belgium** HN Virelles, 5.V.2014, S. Carbonnelle.

**Luxembourg** No records.

**Range** Europe, very rarely recorded, probably often overlooked.

***Jaapiella floriperda* (F. Löw, 1888)**

New for Belgium

**Biology** Host *Silene vulgaris* (= *cucubalus*) (Caryophyllaceae). Calyx conspicuously swollen, largely unopened. Also the other flower parts enlarged and exceptionally ± leafy.

**References** HB: 6581, DA: p151, RS: p310, Nijveldt & Beuk 2002.

**Netherlands** No records.

**Belgium** NM Merlemont, 10.VI.2014, O. Roberfroid; LG Angleur, 28.VIII.2011, J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, very rare.

***Jaapiella genisticola* (F. Löw, 1877) (fig. 74)**

**Biology** Host *Genista* spp., especially common on *G. tinctoria* (Fabaceae). Buds enlarged, transformed into an egg-shaped to oblong-oval tuft; with external white pubescence, at first bud-like, then apically spreading.

**References** HB: 2953, H: 3369 sq., DA: p193, DVL: p145, RS: p126.

**Netherlands** 19 records: DR, OV, UT, GE, LN, LZ.

**Belgium** LI Schulensbroek, 12.I.2014, M. Rutten; NM Dourbes, 21.VI.2014, S. Claerebout; Froidlieu, VI.2009, M.-T. Romain; Nismes, 7.VI.2013, S. Claerebout; Rochefort, 30.V.2014, K. Van Acker; NM Sclaigneaux, 24.V.2014, M. Lemaire & E. Lorin; LG Baelen, 30.V.2012, J.-Y. Baugnée; Ferrière, IX.1943; Filot, VI.1943; Vieuxville, VI.1943, 3 × F. Darimont (Gratia 1958); LX Arlon, 28.VIII.2007 J.-Y. Baugnée; Izier, VIII.1943, F. Darimont (Gratia 1958); Torgny, 29.V.2009, 27.VII.2010; 10.VII.2011, 3 × P. Van Sanden.

**Luxembourg** **ARD** Hoscheid; Kautenbach (Lambinon et al. 2001); **LOR** Remerschen-Kiesweihergebiet, 25.VII.2012 (Staudt 2013).  
**Range** Euro-Siberian, frequent.

### *Jaapiella bedickei* Rübsaamen, 1921

**Biology** Host *Pimpinella saxifraga* (Apiaceae). Leaf sheath especially close to umbel inflated, bulging and swollen, succulent, often lacking lamina, enclosing the etiolated side shoot, sometimes inducing a cone-shaped acuminate gall.

**References** HB: 4828, DVL: p189, RS: p192, Alta & Docters van Leeuwen 1946.

**Netherlands** **ov** Doetinchem, 23.VII.1952; **GE** Lobith, 23.VII.1952; Velp, 8.VIII.1942, all DVL.  
**Belgium** **LG** Plombières, 4.IX.2010 (Lambinon et al. 2010).

**Luxembourg** No records.

**Range** Europe, rarely recorded.

### *Jaapiella jaapiana* (Rübsaamen, 1917)

**Biology** Host *Medicago lupulina* (Fabaceae). Pod-like folded leaflets, surface glabrous. Gall chamber narrow slit-shaped.

**References** HB: 4196, H: 3509 sq., DA: p200, DVL: p174, RS: p167.

**Netherlands** **ZH** Hoogvliet-Parken, 2.IX.2012, B. van As; **GE** Apeldoorn-Voorst, 1.IX.1940; **ZV** Terneuzen, 21.VIII.1937, both DVL; **LZ** Maastricht-St. Pietersberg, 4.VIII.2012, J.W. de Jong.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rare.

### *Jaapiella loticola* (Rübsaamen, 1889) (fig. 75)

**Biology** Host *Lotus corniculatus*, *L. parviflorus*, *L. tenuis*, *L. uliginosus*, etc. (Fabaceae). Completely stunted, ± atrophied shoot tips are enclosed by

also slightly stunted and thickened leaf and its stipules; making a ± oval gall.

**References** HB: 3979, H: 3626 sq., DA: p204, DVL: p168, RS: 161.

**Netherlands** **FI** Vlieland, 29.V.2003, JCR; Schiermonnikoog, 31.VII.1947; **ov** Denekamp, 3.VI.1933; **ZH** Hook of Holland-Nieuwlandse Polder, VIII.1933, 3 × DVL; Meijendel, 27.VI.1986, JCR; **NB** 's-Hertogenbosch-Moerputten, 16.VIII.2012, W. Bosgra; **LZ** Epen, 9.VI.1934, DVL.  
**Belgium** **VB** Meise, 6.V.2014, **NM** Frasnes-lez-Couvin, 19.VI.2014; Treignes, 19.VI.2014; Vierves-sur-Viroin, 20.VI.2014, 4 × S. Carbonnelle; Bioul, 9.VIII.2013; Saint-Servais-Asty-Moulin, 18.VII.2012; Sombreffe, 7.IX.2012, 3 × J.-Y. Baugnée; Nismes, 2.VIII.2012 (Lambinon et al. 2012a).  
**Luxembourg** No records.

**Range** Euro-Siberian, moderately frequent.

### *Jaapiella medicaginis* (Rübsaamen, 1912) (fig. 76)

= *Fabomyia medicaginis*

**Biology** Host *Medicago sativa* incl. subsp. *sativa* (= *M. media*), also on *M. doliata*, *M. falcata*, *M. lupulina* (Fabaceae). Gall tightly folded, surface glabrous, discoloured yellowish to reddish. Gall chamber narrow slit-shaped, leaflets slightly enlarged, often undulate.

**References** HB: 4197, H: 3518, DA: p200, DVL: p175, RS: p167.

**Netherlands** **ZV** Terneuzen, 23.VII.1937; **LZ** Gerendal, 22.VI.1946, both DVL.

**Belgium** **ov** Oudenaarde-Bos t'Ename, 16.IX.2011, P. Blondé; **BW** Court St. Etienne, 28.IX.2012; **NM** Leignon; Ychippe, 10&17.IX.2012, 4 × J.-Y. Baugnée; Vierves-sur-Viroin, 22.VIII.2013, S. Carbonnelle & S. Claerebout; **LG** Liège Montagne-Saint-Pierre, 5.VI.1966 (Lambinon 1966).

**Luxembourg** No records.

**Range** Euro-Siberian, rare, potential pest species.

***Jaapiella parvula* (Liebel, 1889) (fig. 77)**

New for Belgium

**Biology** Host *Bryonia cretica* subsp. *dioica* (Cucurbitaceae). Flower buds weakly swollen, unopened.

**References** HB: 1222, H: 5475, DA: p277, DVL: p101, RS: p60, Docters van Leeuwen 1953.

**Netherlands** NH Amsterdam, 11.VII.1952, WN; Vogelenzang, 5.VII.1952, DVL.

**Belgium** LG Liège, 25.VII.2012, J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, rarely recorded.

***Jaapiella picridis* (Rübsaamen, 1912)**

**Biology** Host *Picris hieracioides* (Asteraceae).

Tip of the main or lateral shoot also the axillary bud deformed into rotund or oblong, galls up to 15 mm long, consisting of several strongly pubescent, short imbricately covering leaves. May be (also) inquiline in galls of *Contarinia picridis*.

**References** HB: 4802, Nijveldt 1985a.

**Netherlands** UT Rhenen, 30.VII.1968, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Jaapiella schmidti* (Rübsaamen, 1912)**

New for Belgium

**Biology** Host *Plantago lanceolata*, *P. major*, *P. media* (Plantaginaceae). Fruit slightly swollen, ± conical, tip acuminate, shorter than healthy fruits.

**References** HB: 4910, DA: p269, DVL: p192, RS: p196, De Meijere 1946.

**Netherlands** FI Ameland, 30.VIII.1935; Terschelling, 22.VIII.1945, both DVL; FR Buitenpost, 3.VI.2013, T. IJlstra, 3.VI.2013; FL Almere-Haven, 24.VI.2012, R. Hof; GE Nijmegen-Malden, 1.XI.1945, DVL; NB Beers-De Haan, 18.VI.2014, K. Gort; Boxmeer-Spronk, 21.V.2012, J. Albers; ZE Vlissingen-Nollebos, F. Grotenhuis, 12.X.2007; ZV Terneuzen-Zeedijk, 14.VI.2013; G. Menting &

P. Meininger; LZ Wahlwiller-Kruisberg, 19.V.2014, M. & W. Langbroek.

**Belgium** WV Houtem, 9.VI.2013, H. Tyteca; OV Merendree-Durmen, 15.VI.2013, J. Mees; LI Hamont, 21.VI.2012, P. Cox & H. Claes.

**Luxembourg** No records.

**Range** Europe, frequent.

***Jaapiella thalictri* (Rübsaamen, 1895)**

**Biology** Host *Thalictrum flavum* (Ranunculaceae).

Up to 10 mm large, bud-like clustering of markedly stunted, ± whitish haired leaves on tips of main and side shoots or in inhibited axillary buds on the longitudinal growth.

**References** HB: 7012, H: 2450, DA: p160, DVL: p283, RS: p325.

**Netherlands** ZH Hoogmade-Wijde Aa, 1.VI.2000, JCR.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Jaapiella vacciniorum* (Kieffer, 1913) (fig. 78)**

**Biology** Host *Vaccinium myrtillus* (Ericaceae).

Leaves on shortened shoot tips keel-shaped, slightly thickened, uneven, imbricate; developing into a gall, up to 8 mm long and 5 mm broad, in which the exterior leaf largely encloses the inner ones.

**References** HB: 7384, H: 4564, DA: p244, DVL: p296, RS: p345, Docters van Leeuwen 1951, Skuhrová 1986, 1987.

**Netherlands** OV Ommen-Bestmenerven, 16.VI.2012, M. Courbois; Doetinchem, 19.VI.1932; UT Leersum, 2.VI.1932 & 8.VI.1948, 3 × DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rare.



*Jaapiella veronicae* (Vallot, 1827)

**Biology** Host *Veronica chamaedrys*, also on other *Veronica* species (Plantaginaceae). Youngest pair of leaves folded together, pouch-like, swollen, thickened. Transformed into a uniform, usually broad conical, sometimes laterally flattened, 2-valved, 5-10 mm long gall.

**References** HB: 7435, H: 5080 sq., 7324, 7327, DA: p265, DVL: p298, RS: p350, RJK: p65, Leclercq 1942, Gratia 1958, Lambinon 1959, 1976, Lambinon et al. 2001, Staudt 2013.

**Netherlands** 188 records: all provinces, FI excepted.

**Belgium** 166 records: all provinces, BR, BW excepted.

**Luxembourg** ARD Eschweiler; LOR Beaufort.

**Range** Europe, most frequent.

*Janetiella glechomae* Tavares, 1930 (fig. 79)

New for Belgium, the Netherlands.

**Biology** Host *Glechoma hederacea* (Lamiaceae). Mericarps swollen and sometimes joined.

**References** DA: p255.

**Netherlands** GR Robbenoort, 21.VI.2014, JCR, M. Courbois & L. Hofstee; NH Amsterdam-Nieuwendam, 18/21.VI.2012; Castricum, 19.VI.2012, 3 × W.N. Ellis; ZH De Balij, 20.VI.2012; Bielandse bos, 20.VI.2012; Oostvoorne dunes, 18.VI.2013; Vlaardingingen-Broekpolder, 19.VI.2012, 4 × B. van As; Leiden-Hooghkammerpark, 20.VI.2012, JCR; Meijndel-Boerderij, 13.VI.2014, S. Carbonnelle, W.N. Ellis & JCR; GE Bennekom, 13.vi. 2010, E. Dijkstra (det. M. Skuhrová).

**Belgium** HN Frasnes-lez-Couvin, 19.VI.2014; Lompret, 15.VI.2014; Virelles, 16.VI.2014, 3 × S. Carbonnelle.

**Luxembourg** No records.

**Range** W-Europe, moderately frequent but overlooked.

**Note** The record from Bennekom (13.vi.2010) is the first after Tavares (1930) described the species from France.

*Janetiella lemeei* (Kieffer, 1904)

New for Belgium?

**Biology** Host *Ulmus carpiniifolia, laevis* (Ulmaceae). Bark of young shoot axial parts or on veins of laminas with blunt conical swellings, up to about 3 mm long, first succulent, later on tough-walled.

**References** HB: 7309, DA: p139, RS: p341, Docters van Leeuwen 1946.

**Netherlands** GR Leek, IX.1933, DVL.

**Belgium** AN St. Amands-Pandgatheide, 4.X.2011, J. Reyniers (doubtful).

**Luxembourg** LOR Bonnevoie; Esch-sur-Alzette Gaalgebierg; Pulvermühle (all: Lambinon et al. 2012b).

**Range** Europe, rarely recorded.

*Janetiella thymi* (Kieffer, 1888)

**Biology** Host *Thymus* spp. (Lamiaceae). Both apical leaf pairs amongst the terminal leaves, which are not involved in the gall formation, develop into a globular to oblong-oval gall up to about 4 mm large. Leaves shortened, swollen hemispherical to boat-shaped, thickened at base; outside glabrous.

**References** HB: 7073, H: 4912, DA: p260, DVL: p284, RS: p327.

**Netherlands** OV Denekamp, VII.1946, DVL;

NH Hilversum, VIII.1901, J.C.H. de Meijere;

ZH Katwijk, 5.IX.1916, DVL.

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** Euro-Siberian, rarely recorded.

*Janetiella tuberculi* (Rübsaamen, 1889)

**Biology** Host *Cytisus scoparius* (Fabaceae). Up to 2 mm large, one-sided, often numerous swellings close to shoot tip, often situated below a bud and associated with a shortening of the axis.

**References** HB: 6258, H: 3424, 3448, DA: p196, RS: p96.

**Netherlands** No records.

**Belgium** No location, no date (Gosseries 1991).  
**Luxembourg** No records.  
**Range** Europe, very rarely recorded, easily overlooked.

***Kaltenbachiola strobi* (Winnertz, 1853)**

**Biology** Host *Picea abies*, *P. glauca* (cult.), *P. pungens* (cult.) (Pinaceae). Inside the scales with 1-3 weak, ± wart-shaped, lighter swellings. Cone remains closed for a longer time.  
**References** HB: 4795, H: 93 sq., DA: p92, DVL: p187, RS: p186  
**Netherlands** UT Neerlangbroek-Leeuwenburgh, 14.III.1968, 14.IV.1968; GE Hoge Veluwe, 2.IX.1980, 3 × WN.  
**Belgium** No location, no date, M. De Meyer; LX Vielsam, no date, Offergeld (both: De Meyer 1988).  
**Luxembourg** No records.  
**Range** Europe, rarely recorded.

***Karshomyia caulicola* (Coquillett, 1895)**

**Biology** Mycetophagous on various hosts, e.g., *Papaver* spp., cabbage.  
**References** Nijveldt 1985a.  
**Netherlands** FL Oost-Flevoland, 25.VI.1981, 12.VIII.1981, 30.VI.1982, 7.VII.1982, all WN.  
**Belgium** No records.  
**Luxembourg** No records.  
**Range** Holarctic, rarely recorded.

***Kiefferia pericarpicola* (Bremi, 1847)**

= *K. pimpinellae*

**Biology** Host *Pimpinella* also on *Conium*, *Daucus*, *Torilis* and other Apiaceae. Usually only one mericarp strongly inflated, bladder-like; distinctly protruding from the umbel. Wall thin (on *Pimpinella*), often reddened.  
**References** HB: 4849, H: 4440 sq., DVL: p190, RS: p100, RJK: p19, Gratia 1958, Lambinon et al. 2001.

**Netherlands** 43 records: GR, OV, NH, ZH, GE, LZ.  
**Belgium** 52 records: all provinces, VB excepted.  
**Luxembourg** LOR 3 records.  
**Range** Euro-Siberian, most frequent.

***Lasioptera arundinis* Schiner, 1854**

= *Thomasiella arundinis*

**Biology** Host *Phragmites australis* (Poaceae). Longitudinal growth of lateral shoots ± stunted, deformed to 15-30 (50) cm long obliquely ascending slightly spindle-shaped swollen, tough-walled shoots. Leaf sheaths well developed, ± gaping, the closely converging laminae markedly shortened.  
**References** HB: 4744, H: 241, DA: p77, DVL: p184, RS: p184, Skuhrová & Skuhrový 1981, Skuhrová 1986, Darvas et al. 2000.  
**Netherlands** UT Amersfoort-De Hoef, 15.IX.2012, M. Courbois, J. van Harten, H.-J. van der Kolk, W. van der Ham & W. Bosgra; UT Leersum, 31.VIII.1936; GE Eibergen, 26.III.1936; Plasmolen, 8.VII.1943, 3 × DVL; Wageningen-Droevendaalse steeg; NB Oirschot-Mortelen, 13.IV.2012, both M. Courbois.  
**Belgium** 8 locations in Baetens & De Bruyn (2001); furthermore WV Harelbeke/Deerlijk-De Gavers, 27/28.IV.2013, T. Vandewiele & B. Sercu.  
**Luxembourg** No records.  
**Range** Europe, frequent.

***Lasioptera calamagrostidis* Rübsaamen, 1893**

= *Thomasiella calamagrostidis*

**Biology** Host various Poaceae, especially *Calamagrostis epigeios*. Culm underneath the sheath above a node often with weak, slightly rimmed depressions on all sides. Not a true gall.  
**References** HB: 1266, H: 200, DA: p72, RS: p205, Nijveldt 1968 (on *Calamagrostis*).  
**Netherlands** UT Rhenen-Grebbeberg, 17.I.1968; GE Wageningen, 3.XI.1966, both WN.  
**Belgium** No records.

Luxembourg No records.

Range Europe, very rare.

### *Lasioptera carophila* F. Löw, 1874

**Biology** Host *Daucus*, *Pimpinella*, and many other Apiaceae. Centre of stalk of (partial) umbel swollen, club-shaped to globular. Galls single or multi-chambered; wall tough, covered with whitish-grey mycelium inside (on *Daucus*).

**References** HB: 2290, H: 4534, 7191-93, DA: p242, DVL: p125, RS: p100.

**Netherlands** NH Noordhollands Duinreservaat-Soeckebacker, 5.I.2013, J. van Roosmalen; ZH Scheveningen, 22.VIII.1934; NB Cuijk, 23.IX.1936; LZ Bemelen, 5.IX.1952; Valkenburg, 30.IX.1923, 4 × DVL.

**Belgium** OV Merelbeke-Reimeren, 15 & 30.IX.2012, D. Dekeukeleire; AN Balen-Malou, 29.II.2012; LI Helderbeekvallei, 30.VIII.2009; BR Evere, 11.IX.2011, 3 × B. Hanssens; HN Quaregnon, 19.XI.2013, P. Dupriez; NM Finnevaux, 23.VIII.2013; Villers-sur-Lesse, 7.VIII.2010; both J.-Y. Bagnée.

**Luxembourg** LOR Bridel-Biergerkräiz; Kirchberg-Klosegrönchen (both: Lambinon et al. 2012b).

Range Europe, moderately frequent.

### *Lasioptera flexuosa* Winnertz, 1853

= *Lasioptera flexuosella*, *Microlasioptera flexuosa*

New for Belgium

**Biology** Host *Phragmites australis* (Poaceae). Culm in the non-flowering unshortened upper part slightly swollen. Many orange-coloured larvae present in the dark or black pith.

**References** HB: 4739, H: 243, DA: p77, DVL: p186.

**Netherlands** No records.

**Belgium** BR Molenbeek, 24.III.2010; Neder-over-Hembeek, 20.III.2012, both B. Hanssens.

**Luxembourg** No records.

Range Europe, very rare, may be confused with *L. hungarica*.

### *Lasioptera hungarica* Möhn, 1968

**Biology** Host *Phragmites australis* (Poaceae).

Larvae occur in the upper internodes of the culm without inducing galls.

**References** HB: 4739, H: 243, DA: p77, DVL: p186.

**Netherlands** FI Schiermonnikoog, 2.VIII.1947, DVL; NH Diemen-Vijfhoek, 22.IV.2010; Ilperveld-Waterland, 13.IV.2010; both R. Pieters, NB Oisterwijk, 31.VIII.1948; ZV Terneuzen, 21.VIII.1937, both DVL.

**Belgium** 7 locations in Baetens & De Bruyn (2001).

**Luxembourg** No records.

Range Europe, moderately frequent, often confused with *L. flexuosa*.

### *Lasioptera populnea* Wachtl, 1883

**Biology** Host *Populus alba*, x *canescens*, *P. tremula* (Salicaceae). Galls relatively thick-walled, about 4-5 mm across, usually protruding on the upper side, more rarely protruding on the underside of leaf. Inside is an oval inner gall, with its longitudinal axis along the longitudinal axis of the lamina.

**References** HB: 5106, H: 512 sq., DA: p96, DVL: p200, RS: p390.

**Netherlands** ZH Voornes Duin-Brede Water, 2.VIII.2013, B. van As; Voornes Duin-Waterbosch, 28.VI.2009, F. Grotenhuis; NB Reusel-Belevensche Heide, 21.VI.2011, W.N. Ellis; LZ Epen, 3.IX.1930; Valkenburg, 15.IX.1926, both DVL.

**Belgium** LG Angleur-Sart Tilman; Seraing, both 11/III.1953 (both: Gratia 1958); Chaudfontaine, 4.VII.2014, J.-Y. Bagnée.

**Luxembourg** ARD Lellange; LOR Bettendorf-Schoofsbësch; Dudelage-Haardt; Gare de Sandweiler-Contern; Grevenmacher-Dreisermillen (all: Lambinon et al. 2001, 2012b).

Range Europe, moderately frequent.

### *Lasioptera rubi* (Schrank, 1803)

**Biology** Host *Rubus* spp. (Rosaceae). Rotund to constricted barrel-shaped swelling, mainly

one-sided, about 10-20 (30) mm long and 5-7 (15) mm broad; later on woody with rough fissured bark.

**References** HB: 5889, H: Ru5 sq., 6762 sq., DA: p185, DVL: p242, RS: 276, RJK: p51, Gratia 1958, Lambinon 1959, Lambinon et al. 2001.

**Netherlands** 310 records: all provinces.

**Belgium** 259 records: all provinces.

**Luxembourg** ARD 2 records; LOR 9 records.

**Range** Euro-Siberian, most frequent.

***Lathyromyza schlechtendali* (Kieffer, 1886) (fig. 80)**

**Biology** Host *Lathyrus linifolius* (= *montanus*) (Fabaceae). Tube-shaped to cylindrical, not thickened and discoloured, sometimes ± reddened roll of leaflet; may also disfigure flower.

**References** HB: 3715, H: 3781 sq., DA: p211, DVL: p161, RS: p151, Schoevers 1942.

**Netherlands** LN Mook, 9.VI.1937, DVL.

**Belgium** HN Virelles, 25.VI.2014, S. Carbonnelle; NM Agimont, 2.VIII.2013 (Carbonnelle 2013);

Matagne-la-Petite, 22.VIII.2013, S. Carbonnelle; Matagne-la-Grande, 1.VIII.2012 (Lambinon et al. 2012a); Willerzie, 31.VIII.1975 (Lambinon 1976); LX Marche-en-Famenne, 1.VI.2013, S. Carbonnelle.

**Luxembourg** No records.

**Range** Euro-Siberian, rarely recorded.

***Lestodiplosis vorax* (Rübsaamen, 1892) s.l. (fig. 81)**

**Biology** Larvae develop as predator on other gall midge larvae.

**References** Roskam 1977, Baylac 1982.

**Netherlands** GR Lauwersoog-Zuidwalbos, 21.VI.2014, JCR, M. Courbois & L. Hofstee (on *Contarinia loti*); ZH Meijndel, 8.VI.1972, v.1978, VI.1978, VII.1978; IX.1980, VII.1981 (on *Semudobia* all species), JCR; UT Langbroek, 22.VI.1960, WN.

**Belgium** No location, no date (Gosseries 1991);

HN Virelles, VI.2014, S. Carbonnelle (as *Lestodiplosis chrysanthemi*).

**Luxembourg** No records.

**Range** Europe, moderately frequent.

**Note** A large number of species have been described in *Lestodiplosis*; many are possibly conspecific with *L. vorax* (Baylac 1982); the status of many other species is doubtful, hence listed here as *L. vorax* (Rübsaamen.) s.l. Nijveldt & Beuk (2002) mentioned 13 species: *L. centralis* (Winnertz, 1853), *L. cirsii* Barnes, 1928, *L. fascipennis* (Winnertz, 1853), *L. fuscicollis* (Bouché, 1834), *L. gracilis* Nijveldt, 1953, *L. heterobiae* Barnes, 1928, *L. pallidicornis* Kieffer, 1898, *L. pini* Barnes, 1928, *L. raphani* Barnes, 1929, *L. rosarum* Barnes, 1928, *L. tarsonemi* Rübsaamen, 1895, *L. urticae* Nijveldt, 1951, *L. variegata* (Macquart, 1826). Gosseries (1991) mentioned 2 species, viz., *L. fascipennis* (Winnertz, 1853) and *L. variegata* (Macquart, 1826).

***Loewiola centaureae* (F. Löw, 1875)**

**Biology** Host *Centaurea* spp. (Asteraceae). Main and side veins, more rarely also the midrib or petiole, regularly with solitary rotund-oval or spindle-shaped galls, but also in rows situated gregariously, in the lamina extending and visible on both sides. Wall fleshy to cartilaginous, ± pale green.

**References** HB: 1605, H: 5949 sq., DA: p296, DVL: p109, RS: p26, Docters van Leeuwen 1951.

**Netherlands** LZ Bemelen, 3.IX.1952; Gerendal, 8.IX.1953; Wahlwiller, 9.IX.1949, 3 × DVL; Voerendaal-Kunderberg, 4.VIII.2012, J. van Harten, G. Baller & K. van Bockhove.

**Belgium** AN Hezemeerheide II, 31.V.2014, C. Van Steenwinkel; LX Barvaux, no date (Lambinon 1958).

**Luxembourg** LOR Erpeldange/Bous-Hiwelberg (Lambinon et al. 2012b).

**Range** Europe, rarely recorded.

***Macrodiplosis pustularis* (Brems, 1847)**

= *M. dryobia*

**Biology** Host *Quercus* spp., deciduous oaks (Fagaceae). Tip of lobe broadly downward deflected, closely appressed to the leaf surface; slightly thickened, a little discoloured and yellow- or sometimes red spotted.

**References** HB: 5507, H: 1306, 1711, 1923, 6542, DA: p121, DVL: p226, RS: 249, RJK: p44, Lambinon et al. 2001, 2012ab.

**Netherlands** 146 records: all provinces.

**Belgium** 95 records: all provinces, VB, BW excepted.

**Luxembourg** ARD 6 records; LOR 23 records.

**Range** Europe, most frequent.

***Macrodiplosis roboris* (Hardy, 1854)**

= *M. volvens*

**Biology** Host *Quercus* spp., deciduous oaks (Fagaceae). Margin of expanded leaves narrowly tubular and rolled upwards between the lobes; roll clearly thickened and ± leathery-brittle.

**References** HB: 5506, H: 1307 sq., 6483 sq., DA: p121, DVL: p227, RS: p249, RJK: p44, Lambinon 1976, Lambinon et al. 2001, 2012ab.

**Netherlands** 83 records: FI, FL, OV, NH, ZH, UT, GE, NB, ZE, LZ.

**Belgium** 58 records: all provinces.

**Luxembourg** ARD 3 records; LOR 14 records.

**Range** Europe, up to Kazakhstan, most frequent.

***Macrolabis aquilegiae* (Kieffer, 1909)**

**Biology** Host *Aquilegia vulgaris* (Ranunculaceae). Flowers only slightly stunted and disfigured, not or hardly opened. ± greened.

**References** HB: 623, H: 6651, DA: p157, DVL: p88, Halstead & Harris 2011.

**Netherlands** FI Ameland-Nes, 30.VI.2014, T.

Kiewiet; **GR** Groningen, IV.1940, DVL; **ZH** Oostvoorne-Strypemonde, 10.VIII.2012, J.-J. Spaargaren; **GE** Bennekom, VII.1969; 5.VI.1970, VII.1970;

Wageningen, 5.VI.1975, 4 × WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, moderately frequent.

***Macrolabis brunellae* Tavares, 1907**

= *Macrolabis ruebsaameni*

**Biology** Host *Prunella grandiflora*, *P. vulgaris* (Lamiaceae). Terminal leaves erect, touching one another at margins, leaf base pouch-like, swollen, abnormally haired, ± discoloured; several white to light-yellow larvae between leaves or, if present, flower primordia.

**References** HB: 5197, H: 4816 sq., 7269, DA: p256, DVL: p202, RS: p221, Docters van Leeuwen 1949, Skuhrová et al. 2006a (synonymy).

**Netherlands** GE Vorden, 10.VII.1934, DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Macrolabis fagicola* (Barnes, 1939)**

New for the Netherlands

**Biology** Inquiline in malformations caused by *Contarinia fagi* on *Fagus sylvatica*.

**References** HB: 2657.

**Netherlands** NB Zundert, VIII.2009; Zundert, v.2011, A. Smits.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Macrolabis heraclei* (Kaltenbach, 1862)**

= *M. corrugans*

**Biology** Host various Apiaceae; e.g., *Heracleum*, *Cicuta*, *Pastinaca*, *Peucedanum*, etc. Leaflets folded as in bud, shortened, curled; tissue close to larvae ± thickened and discoloured, prematurely withering after departure of larvae. Galls often overtopped by expanded, not disfigured parts.



**References** HB: 3174, H: 4512, DA: p236, 239, DVL: p149, RS: p134 (on *Heracleum*).

**Netherlands** 18 records: DR, OV, NH, UT, GE, LZ.

**Belgium** 38 records: BR, HN, NM, LG, LX.

**Luxembourg** ARD Eschweiler-Naashéck (Lambinon et al. 2012b).

**Range** Euro-Siberian, very frequent.

### *Macrolabis hieracii* Rübssaamen, 1917

**Biology** Host numerous *Hieracium* species, exceptionally on species of the subgenus *Pilosella* (Asteraceae). Terminal leaves of lateral and main shoots swollen, folded upwards, making a fleshy pouch, with outside often ± villous pubescent; mid- and basal veins, sometimes also the neighbouring stem parts, thickened and discoloured.

**References** HB: 3199, H: 6144 sq., DA: p304, DVL: p151, RS: p135, De Meijere 1946.

**Netherlands** OV Lochem, no date; GE Nijmegen-Malden, 25.VI.1946; LZ St. Pietersberg, 3.IX.1955, all DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rare.

### *Macrolabis incolens* Rübssaamen, 1895

**Biology** Inquiline in galls of *Jaapiella veronicae* on *Veronica* spp.

**References** Nijveldt 1962.

**Netherlands** UT Langbroek, 9.VI.1961, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

### *Macrolabis jaapi* Rübssaamen, 1916

**Biology** Host *Galium aparine*, *G. spurium* (Rubiaceae). Tuft pineapple-like, large, dense. Shoot axis strongly stunted, spongy swollen. Leaves at base succulent, whitish, abnormally pubescent, occasionally some leaves in the

complex develop normally. Might be inquiline in galls of *Dasineura aparines*.

**References** De Meijere 1939 (omitted), Nijveldt 1962, Stelter 1994.

**Netherlands** UT Langbroek, 22.VI.1960, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rare.

### *Macrolabis lamii* Rübssaamen, 1916 (fig. 82)

New for Belgium

**Biology** Host *Lamium album*, *L. flexuosum*, *L. purpureum* (Lamiaceae). Terminal, little developed, sometimes ± joined pairs of leaves are transformed into a bud-like, oblong, whitish to yellowish, sometimes ± pubescent shoot tip gall.

**References** HB: 3614, H: 4843 sq., 7275, DA: p257, DVL: p161, RS: p147, Robbins 1997.

**Netherlands** UT Baarn, 16.VIII.2011, T. Fijen;

GE Nijmegen-Malden, 25.VII.1934, DVL;

ZE Burgh-Het Zeepe, 10.VIII.2011, M. Sluijter;

LZ Epen, 10.VI.1934, DVL.

**Belgium** OV Kortelake, 20.V.2012, B. Uitterhaegen;

AN Weert-Briel, 2.VIII.2011, J. Reyniers.

**Luxembourg** No records.

**Range** Europe, rare.

### *Macrolabis lonicerae* Rübssaamen, 1912 (fig. 83)

New for Belgium

**Biology** Host *Lonicera etrusca*, *L. implexa*, *L. nigra*, *L. periclymenum* (Caprifoliaceae). Slightly thickened leaf roll; may also live as inquiline in galls of *Dasineura periclymeni* (Stelter, in litt. to Bühr).

**References** HB: 3949, DA: p274, DVL: p167, RS: p158.

**Netherlands** FI Ameland-Grootslecht, 12.VI.2014, T. Kiewiet; NH Zwanenwater, 25.IX.2012,

J.-J. Spaargaren; ZH Bloedbergduin, 5.V.2012,

J. Scheffers; Voorschoten-Raaphorst, 13.VI.2014,

S. Carbonnelle, W.N. Ellis & JCR; GE Oosterbeek-

Westerbouwing, 5.VII.1976; Voorst, 2.VI.1976, both WN; NB Oisterwijk, 30.VIII.1948; LN Mook-Plasmolen, 8.VII.1943; LZ Epen, 9.VI.1934, 3 × DVL.

**Belgium** ov Lokeren-Eenbes, 11.VI.2010, L. Roelandt & R. Windey.

**Luxembourg** No records.

**Range** Europe, moderately frequent.

### *Macrolabis luceti* (Kieffer, 1899)

= *M. rhodophila*

**Biology** Inquiline in galls of *Dasineura rosae* on *Rosa canina*, also on related roses (Rosaceae).

**References** Nijveldt 1957.

**Netherlands** GR Lauwersoog-Bosschuur, 21.VI.2014, JCR, M. Courbois & L. Hofstee; GE Putten-Schovenhorst, 9/19.IX.1954, 26.V.1955, 5.VI.1955, 26.V.1955, DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rare.

### *Macrolabis pavida* (Winnertz, 1853)

**Biology** Inquiline in galls of *Dasineura acrophila* on *Fraxinus excelsior* (Oleaceae).

**References** Skuhřavá et al. 2005.

**Netherlands** UT Langbroek, 22.VI.1960, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rare.

### *Macrolabis pilosellae* (Binnie, 1877)

**Biology** Host *Hieracium*, on species of the subgenus *Pilosella* (Asteraceae). Rosettes with many variously enlarged and thickened leaves at their centres, externally with abnormally felt-like pubescence, the leaf margins or lamina often ± cone-shaped converging.

**References** HB: 3198, H: 6199, DA: p304, DVL: p152, RS: p135, 190.

**Netherlands** ov Ruurlo, 2.IX.1950; UT Leersum, 2.IX.1936; GE Nijmegen-Gassel, 28.VIII.1942, all DVL; NB Boxtel, 8.IX.1974, WN.

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** Europe, rarely recorded.

### *Macrolabis podagrariae* (H. Loew, 1850)

New for Belgium

**Biology** Host *Aegopodium podagraria* (Apiaceae). Tips of developing leaves folded upwards; ± curled and clumped. Main and lower parts of lateral veins thickened.

**References** HB: 182, H: 4454, DA: p237.

**Netherlands** No records.

**Belgium** NM Ave-et Auffe, 7.X.2007,

M.-T. Romain.

**Luxembourg** No records.

**Range** Europe, very rare.

### *Macrolabis stellariae* (Liebel, 1889) (fig. 84)

**Biology** Host *Stellaria media* (Caryophyllaceae). The strongly stunted outer pair of leaves on shoot are sessile, directed upwards and converging, mussel-like. Swollen at base, thickened and discoloured. Browning and rapidly decaying after departure of larvae.

**References** HB: 6854, H: 2315, DA: p153, DVL: p278, RS: p318.

**Netherlands** GR Noordbroek, 9.VII.1963, WN;

ov Winterswijk-Kotten, 28.VI.1941, DVL;

NH Wieringermeer, 2.VII.1952, WN; Winkel,

1.VII.1952; ZH Gouda, 6.VIII.1940; GE Nijmegen-Hengstdal, 27.VII.1934; GE Rekken, 21.VIII.1936, 4 × DVL; Driehuizen, 8.IX.2012, H.-J. van der Kolk.

**Belgium** No location, no date (Gosseries 1991);

NM Pesche, 12.X.2013, S. Carbonnelle.

**Luxembourg** No records.

**Range** Europe, moderately frequent.

***Massalonia betulifolia* Harris, 1974**

**Biology** Host *Betula* spp. (Betulaceae). Older laminae with solitary or only a few, very flat, concolorous, hardly protruding parenchyma galls.

**References** HB: 1081A, DA: p136, RS: p57.

**Netherlands** No records.

**Belgium** LX Habay-la-Neuve, 22.VIII.2009 (Romain 2009c).

**Luxembourg** No records.

**Range** Europe, very rarely recorded, may be overlooked.

***Massalonia ruber* (Kieffer, 1890) (fig. 85)**

= *M. rubra*

**Biology** Host *Betula pendula*, *B. pubescens*, x *intermedia* (Betulaceae). Main, or more rarely lateral veins of leaf, occasionally also the petiole, with spindle-shaped, glabrous, hard, pale-green or often also ± purple-red swelling, especially visible on the underside.

**References** HB: 1070, H: 1075 sq., DA: p136,

DVL: p97, RS: p56, RJK: p13.

**Netherlands** 4I records: OV, NH, ZH, UT, GE, NB, LZ.

**Belgium** WV Bruges-centre, 8.VI.2010; J. Devos; LI Lommel, 15.IX.2009, R. Barendse; VB Averbode, 1.IX.2013, S. Hermans; BR Evere, 3.X.2010,

B. Hanssens; LG Angleur-Sart-Tilman, 15.VIII.1954 (Gratia 1958); Liège, 4 & 20.X.2010, J.-Y. Baugnée; LX Fouches, 18.VI.2012, D. Dekeukeleire.

**Luxembourg** ARD Troisvierges; LOR Dudelange-Haardt (both: Lambinon et al. 2001).

**Range** Europe up to Kazakhstan, very frequent.

***Mayetiola bimaculata* (Rübsaamen, 1895)**

**Biology** Host *Calamagrostis canescens* (Poaceae).

Saddle-shaped, sometimes brown, depressions shouldered at the ends by nodular thickenings.

Gall 10-12 mm long, solitary or up to 4 on culm arranged upon one another or screw-like. Leaf sheath gaping.

**References** HB: 1268/69, H: 205, DA: p73,

DVL: p103, RS: p205, Docters van Leeuwen 1957.

**Netherlands** OV Steenwijk, 4.VIII.1941;

NB St. Michelsgestel, VII.1947, both DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rare.

***Mayetiola destructor* (Say, 1817)**

**Biology** Host various Poaceae. Young shoots of winter- and summer grain weakly swollen onion-like at base. Leaf sheaths closely gathered together. Laminae often erect, often dark green, shorter and broader, as in healthy plants. Inner leaves later on withering, without conspicuous yellowing. Shoots developing further above the lower node sometimes slightly swollen and cracked. Spikes etiolated, sessile.

**References** HB: 6399, H: 340, DA: p83, RS: p205, Skuhrová 1986, Darvas et al. 2000.

**Netherlands** GE Wageningen-I.P.O., IX-X.1960, 29.VIII.1978; VII.1979; NB Dinteloord, 14.V.1948, all WN.

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** Cosmopolitan, except Australia. Potentially important pest but rarely recorded.

***Mayetiola festucae* Ertel, 1975**

**Biology** Host *Festuca rubra* (Poaceae). Inconspicuous galls on culm.

**References** cf. HB: 2703, Ertel 1975.

**Netherlands** No records.

**Belgium** WV St. Idesbald, no date (Ertel 1975).

**Luxembourg** No records.

**Range** The Belgian record is the only of the species.

***Mayetiola graminis* (Fourcroy, 1785)**

= *Poomyia poae*

**Biology** Host *Poa cenisia*, *nemoralis*, rarely *P.*

*trivialis* (Poaceae). Stem in the middle or upper

part of the culm above a node locally weakly swollen, with numerous, at first whitish, then light brown rootlets, in lateral direction at either side of furrow, ± appressed to culm, protruding from leaf sheath.

**References** HB: 4931, H: 264, DA: p79, DVL: p193, RS: p204, Gratia 1958, Lambinon 1959, 1968, 1976, Lambinon et al. 2001.

**Netherlands** ov Winterswijk, 24.VIII.1939, DVL; GE Arnhem, 2.IV.1913, J.C.H. de Meijere & J.T. Oudemans; Ewijk, 2.VIII.1940; Nijmegen-Beek, 20.VI.1913; De Steeg, IX.1917; LN Mook-Plasmolen, 2.IX.1938; LZ Bemelen, 3.IX.1952; Berg, 20.VIII.1944; Epen, 4.IX.1930; Heerlen, 12.IX.1932; Sibbe, 7.IX.1953; Valkenburg, no date, 10 × DVL.

**Belgium** 24 records: HN, NM, LG, LX; furthermore many records LG Goffontaine, Jupille, Bellaire, Dalhem, Oupeye, Chaudfontaine, Streupas (all: Leclercq 1942).

**Luxembourg** ARD 6 records; LOR 6 records.

**Range** Europe, very frequent.

### *Mayetiola hellwigi* (Rübsaamen, 1912)

New for Belgium

**Biology** Host *Brachypodium pinnatum*, *B. sylvaticum* (Poaceae). Stem just above a node with 10-12 mm long and 4-5 mm broad, saddle-like depression, thickened at both ends. Usually ± enclosed by leaf sheaths.

**References** HB: 1138, H: 297, DA: p80, RS: Docters van Leeuwen 1941.

**Netherlands** FR Wolvega-Lindenvallei, 4.VIII.1941, DVL; LZ Vijlberbossen, 19.VIII.2008, F. Grotenhuis.

**Belgium** NM Dinant, 3.X.2013, J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, rare.

### *Mayetiola holci* Kieffer, 1896

**Biology** Host *Holcus lanatus*, *H. mollis* (Poaceae). Culm stunted, beneath the discoloured leaf sheath neighbouring a node, with weak, slightly rimmed depressions.

**References** HB: 3275, H: 215, 217, DA: p74, RS: p205, Nijveldt 1981.

**Netherlands** GE Wageningen, 26.VI.1981, 23.VII.1981, both WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rare.

### *Mayetiola radificifa* (Rübsaamen, 1895)

**Biology** Host *Poa nemoralis* (Poaceae). Stem in the middle or upper part of the culm above a node locally weakly swollen, with numerous, at first whitish, then light brown rootlets, adventitious rootlets mostly on above-ground or subterranean nodes on culm; rootlets however not separated by longitudinal furrow, but irregularly growing in a tangled mass.

**References** HB: 4932, H: 265, DA: p79, DVL: p193, RS: p204, Docters van Leeuwen 1953.

**Netherlands** LN Mook-Plasmolen, 21.IX.1938; LZ Bemelen, 21.IX.1952, both DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** W-, C-Europe, very rarely recorded.

### *Mayetiola schoberi* Barnes, 1958

**Biology** Host *Poa pratensis* (Poaceae). Shoot axis weakly swollen above the second or third node. Above a node several white larvae live between culm and sheath.

**References** HB: 4934, DA: p79, DVL: p194, Nijveldt 1980.

**Netherlands** NH Haarlemmermeer, v.1979, x.1981, II.1982; GE Echteld, 29.VI.1978, 6.VIII.1978, v.1979; NB Nuenen-Nieuwe Dijk, all WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Denmark, Germany, the Netherlands, moderately frequent.

***Mayetiola ventricola* (Rübsaamen, 1899)**

= *Pemphigocecis ventricola*

**Biology** Host *Molinia caerulea* (Poaceae). Culm just above the ground swollen to a bellied out, apically conically narrowed gall up to 10 mm long, which erupts from the leaf sheath.

**References** HB: 4325, H: 249, DA: p77, DVL: p177, RS: p206.

**Netherlands** DR Dwingelo-Ihee, 5.IX.1947, DVL; UT Biltoven, VII.1919, J.C.H. de Meyere.

**Belgium** No records.

**Luxembourg** No records.

**Range** W-, C-Europe, very rarely recorded.

***Mikiola fagi* (Hartig, 1839)**

**Biology** Host *Fagus sylvatica* (Fagaceae). Large, smooth (hairless) hard galls alongside the venation, often on the midrib, acuminate egg-shaped, pale green or often ± reddened; underside slightly arched, thick-walled woody, with large larval chamber.

**References** HB: 2669, H: 1151 sq., DA: p133, DVL: p134, RS: p112, RJK: p21, Skuhrová 1986, 1987, Leclercq 1942, Gratia 1958, Lebeau & Lambinon 1968, Skuhrová & Roques 2000, Lambinon et al. 2001.

**Netherlands** 459 records: all provinces, FI, ZE excepted.

**Belgium** 197 records: all provinces.

**Luxembourg** ARD 13 records; LOR 49 records.

**Range** Europe, up to Caucasus, most frequent, potential pest.

***Mikomya coryli* (Kieffer, 1901)**

**Biology** Host *Corylus avellana*, *C. maxima* (= *tubulosa*) (Betulaceae). Flat upward proliferations of leaf, surrounded by a 6 mm large, slightly discoloured and thickened area.

**References** HB: 2035, H: 1060 sq., DA: p135, DVL: p117, RS: p88.

**Netherlands** GR Ter Wupping, 29.I.2011,

H. Anraad; NB Beugen-Werveld, 6.X.2009, P. Smeets; LZ Epen, no date, DVL.

**Belgium** No records.

**Luxembourg** LOR Esch-sur-Alzette-Ellergronn (Lambinon et al. 2001).

**Range** Europe, rare, may be often overlooked.

***Monarthropalpus flavus* (Schrank, 1776)**

= *M. buxi*

New for Belgium

**Biology** Host *Buxus* spp. (Buxaceae). Lamina usually with yellowish-green, vaguely defined, ± rotund-oval blisters, often close to midrib on upperside, on underside later on ± translucent, flat bulging. Often several per leaf, ± coalescing.

**References** HB: 1258, H: 3911, DA: p218, DVL: p102, RS: p63.

**Netherlands** FR Buitenpost, 24.VI.2014; Buitenpost-De Kruidhof, 24.VI.2014, both T. IJlstra; GE Wageningen, 1911, J. Ritzema Bos; NB Borne, IV.1933, J.C.H. de Meijere.

**Belgium** WV Damme-centre, 8.VI.2010, H. De Blauwe; Torhout, 16.VII.2013, E. & J. Devos; OV Ghent, 10.I.2012, D. Dekeukeleire; AN St. Amands-Pandgatheide, 30.VII.2011, J. Reyniers; Molve Zandputten, 27.VII.2009, R. Barendse; LI Neerpelt, 24.III.2010, H. Claes; NM Vierves-sur-Viroin, 4.III.2003, S. Claerebout; LG Ben-Ahin, 1.IV.2010; Liège, no date, both J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, secondarily Holarctic, moderately frequent, often harmful.

***Monobremia subterranea* (Kieffer, 1898)**

**Biology** Predator on aphids on various hosts, e.g., *Tanacetum vulgare* (Asteraceae).

**References** Nijveldt 1980, Gagné & Jaschhof 2014.

**Netherlands** ZH Voorschoten-Duivenvoorde, 10/20.VI.1978, JCR; GE Wageningen, 2.VII.1955, WN.

**Belgium** No records.



Luxembourg No records.  
Range Europe, very rarely recorded.

***Monodiplosis liebeli* (Kieffer, 1889)**

**Biology** Inquiline in galls caused by *Macro-diplosis* spp. on *Quercus* spp. (Fagaceae).  
**References** Skuhrová & Skuhrový 1995.  
**Netherlands** No records.  
**Belgium** No location, no date (Gosseries 1991).  
**Luxembourg** No records.  
Range Europe, very rarely recorded.

***Mycodiplosis coniophaga* (Winnertz, 1853)**

**Biology** Mycetophagous on various hosts; e.g., on leaves of *Rosa* spp. which are infested by the rust *Phragmidium mucronatum*.  
**References** Skuhrová et al. 2005, Gagné & Jaschhof 2014.  
**Netherlands** GE Wageningen, 29.V.1953; NB Zundert, 21.VII.1953, both WN.  
**Belgium** No location, no date (Gosseries 1991).  
**Luxembourg** No records.  
Range Europe, rarely recorded but widespread and probably common.

***Mycodiplosis erysiphes* (Rübsaamen, 1889)**

**Biology** Mycetophagous on various hosts, e.g., on leaves of *Hieracium murorum*, *Sonchus oleraceus*, which are infested by the mildew *Erysiphe lamprocarpa* (Erysiphales).  
**References** Nijveldt 1973a, Gagné & Jaschhof 2014.  
**Netherlands** GE Tiel-Thedingsweert, 1967/68; Wageningen-I.P.O., 7.X.1971, both WN.  
**Belgium** No records.  
**Luxembourg** No records.  
Range Germany, the Netherlands, very rarely recorded but probably widespread and very frequent.

***Mycodiplosis inimica* (Fitch, 1861)**  
= *Isodiplosis deuttera*, *I. involute*, *I. plasmoparae*

**Biology** Mycetophagous on wheat (*Triticum* spp., Poaceae) infested by *Plasmopara viticola* (Peronosporales).  
**References** Nijveldt 1963, Skuhrová et al. 2014 (restored name).  
**Netherlands** GE Hemmen, 1958, WN.  
**Belgium** No records.  
**Luxembourg** No records.  
Range Europe, N-America, very rarely recorded.

***Mycodiplosis sphaerothecae* (Rübsaamen, 1889)**

**Biology** Mycetophagous on various hosts, e.g., *Mentha* spp. infested by fungi *Sphaerotheca humuli*; *Erysiphe* spp., *Microsphaera* spp., *Puccinia menthae*, *Sphaerotheca* spp. (Erysiphales).  
**References** Nijveldt 1960, Gagné & Jaschhof 2014.  
**Netherlands** NH Alkmaar, 16.IX.1958, 20.V.1959, both WN.  
**Belgium** No records.  
**Luxembourg** No records.  
Range D NL, very rarely recorded.

***Neomikiella beckiana* (Mik, 1885) (fig. 86)**  
New for Belgium

**Biology** Host *Inula conyza* (Asteraceae). Partly open bud or young leaves, usually of basal rosette, are largely stunted and densely haired over an extensive area.  
**References** HB: 3431, H: 5622/23, RS: p141.  
**Netherlands** No records.  
**Belgium** NM St. Servais, 5.VI.2009, J.-Y. Baugnée; Vierves-sur-Viroin, 3.VIII.2012 (Carbonnelle 2014).  
**Luxembourg** No records.  
Range Europe, very rarely recorded.

*Neomikiella lychnidis* (Vallot, 1827) (fig. 87)

**Biology** Host *Silene latifolia* subsp. *alba*, *S. dioica*, *S. noctiflora* (Caryophyllaceae). Almost bud-like accumulation of strongly stunted, disfigured and abnormally haired leaves on shoot tips or in axillary buds.

**References** HB: 4219, H: 2292, DA: p151, DVL: p269, RS: p309.

**Netherlands** NH Amsterdam, vi.1918, J.C.H. de Meijere; Noord-Hollands Duinreservaat-Wimmenummerduinen, 16.vi.2012, L. Knijnsberg; ZH Katwijk, 29.vii.1913 & 27.ix.1915; Wassenaar, no date; GE Nijmegen-Ubbergen, 27.vii.1934, 4 × DVL; Duffelt-Millingerwaard, 18.x.2012, V. Sanders.

**Belgium** No location, no date (Gosseries 1991); HN Ciply, 14.viii.2012, P. Dupriez.

**Luxembourg** No records.

**Range** Europe, sub-mediterranean, moderately frequent.

*Obolodiplosis robiniae* (Haldeman, 1847) (fig. 88)

New for Belgium

**Biology** Host *Robinia pseudoacacia* (Fabaceae). Cartilaginous, downward rolls of leaflet margins.

**References** DVL: p237, RS: p269, RJK: p48, Skuhrová et al. 2007, Roskam et al. 2008, Roskam in Docters van Leeuwen 2009.

**Netherlands** 678 records: all provinces. First record FR Olterterp-Amvestbossen, 26.ix.2006, T. Muus. DVL no records.

**Belgium** 224 records: all provinces. First record NM Éclaye, 7.ix.2007, M.-T. Romain & J. Leurquin.

**Luxembourg** Rapid expansion in ARD, LOR after first record in 2006 (Lambinon et al. 2012b).

**Range** Like the host, native to eastern N-America. Outside N-America the midge was first observed in 2002 in Japan and N-Korea. From 2003 onwards in N-Europe, later on in C-, W-Europe, incl. Great Britain, most frequent.

*Oligotrophus gemmarum* (Rübsaamen, 1914)

= *Schmidtella gemmarum*  
New for Belgium

**Biology** Host *Juniperus communis* incl. var. *saxatilis* (Cupressaceae). Vegetative bud gall in leaf axil, with three short broad scale-like leaves at base.

**References** HB: 3523, H: 125, DA: p67, DVL: p159, RS: p145, Harris et al. 2006.

**Netherlands** DR Sleenerzand, 3.vi.2013, A. Grosscurt; Zeegse, 23.iii.2013, W.N. Ellis; OV Dene-kamp, vii.1946, DVL; GE Elspeet-Buitengebied, 11.i.2014, H.-J. van der Kolk, M. Groeneveld & M. Langbroek.

**Belgium** NM Dourbes, 22.vi.2014, S. Claerebout.

**Luxembourg** No records.

**Range** Europe, rare.

*Oligotrophus juniperinus* (Linnaeus, 1758) (fig. 89)

**Biology** Host *Juniperus communis* incl. var. *depressa* (= *intermedia*) (Cupressaceae). Up to 12 mm long, oblong, not acuminate gall. Needles of the outer whorl broadened and thickened over their whole length. Needles of the inner whorl narrow, adpressed. Leaves of the outer whorl spreading distally at maturity.

**References** HB: 3528, H: 127, DA: p66, DVL: p159, RS: p145, RJK: p26.

**Netherlands** DR Sleenerzand, 3.vi.2013, A. Grosscurt; Zeegse, 23.iii.2013, W.N. Ellis; OV Dene-kamp-Lutterzand, 4.vi.1933; Denekamp, vii.1946, both DVL; Holten-De Borkeld, 28.iii.2014, J. Ligtenberg; Holten-De Borkeld, 6.iv.2014, G. van der Maat; Losser-De Zandbergen, 24.ii.2014, B. Haamberg; Lemele-Archemerberg, 8.xii.2013; Ommen-Beerzerveld, 30.xi.2013; Ommen-Junnebelten, 15.xii.2013; all H. Soepenbergh;

**Belgium** No location, no date (Gosseries 1991); NM Dourbes, 22.vi.2014; NM Nismes, 20.iv.2013; Treignes, 4/12.v.2013, 4 × S. Claerebout;

LX Resteigne, 9.X.2011; 20.III.2014, both J.-Y. Baugnée.  
Luxembourg No records.  
Range Europe, frequent.

***Oligotrophus panteli* Kieffer, 1898 (fig. 90)**

New for Belgium

**Biology** Host *Juniperus communis* incl. var. *saxatilis* (Cupressaceae). Gall up to 12 mm long; ± slender conical, acuminate. Needles of the outer whorl only broadened in the basal half the upper half narrowed, enclosing completely the inner whorl of shorter, narrower needles.

**References** HB: 3527, H: 126, DA: p66, RS: p145.

Netherlands No records.

Belgium NM Resteigne, 9.X.2011, J.-Y. Baugnée; Treignes, 12.V.2013, S. Claerebout.

Luxembourg No records.

Range Europe, very rarely recorded.

***Oligotrophus schmidti* Rübsaamen, 1914 (fig. 91)**

New for Belgium

**Biology** Host *Juniperus communis* (Cupressaceae). Hard and tough galls, without scale needles at base.

**References** HB: 3529, DA: p67, RS: p145.

Netherlands No records.

Belgium NM Dourbes, 22.VI.2014, S. Claerebout.

Luxembourg No records.

Range Europe, very rarely recorded.

***Ozirhincus longicollis* Rondani, 1840**

**Biology** Host *Leucanthemum vulgare*, *Tanacetum argenteum*, *Anthemis*, *Matricaria* spp. (Asteraceae). Ovary or fruit swollen without or together with the lower flower parts. Also the bract may be involved in the gall formation.

**References** HB: 1798/99, H: 5726 sq., DA: p288, RS: p154.

Netherlands UT Elst-Plantage Willem III, 20.V.2014, M. Lammers.

Belgium No location, no date (Gosseries 1991);

NM Bambois, 30.VI.2014, Roly, 25.VI.2014; both S. Carbonnelle.

Luxembourg No records.

Range Europe, rarely recorded.

***Ozirhincus millefolii* (Wachtl, 1884)**

= *Clinorrhyncha millefolii*

New for the Netherlands

**Biology** Host *Achillea millefolium*, *A. biserrata*, *A. nobilis* incl. subsp. *neilreichii*, *A. ptarmica* (Asteraceae). Ovary or fruit, sometimes also the basal part of corolla, lightly swollen.

**References** HB: 126, H: 5672 sq., RS: p26.

Netherlands NH Amsterdam-Nieuwendam, 15.VIII.2011 & 6.VII.2012, both W.N. Ellis;

GE Bennekom, 15.V.2010, E. Dijkstra.

Belgium No location, no date (Gosseries 1991).

Luxembourg No records.

Range Euro-Siberian, secondarily Holarctic, rarely recorded.

***Ozirhincus tanacetii* (Kieffer, 1889)**

= *Clinorrhyncha tanacetii*

**Biology** Host *Tanacetum vulgare* (Asteraceae).

Achene a little shortened, swollen especially at the base to double the normal size; often white glossy. Infested florets clearly overtopping the healthy ones.

**References** HB: 6936, H: 5749, DA: p288, DVL: p280, RS: p322.

Netherlands NH Amsterdam-Nieuwendam, 7.IX.2012, W.N. Ellis; UT Leersum, 26.IX.1956;

Rhenen, 4.IX.1934, both DVL DVL; Rhenen, VIII.1934, Koorneef; Zeist-A28, 28.IX.2009,

H. Jansen; GE Apeldoorn-Het Woudhuis, 28.VIII.2013, J.A.C. Clark; Ede-Edese Heide, 22.VII.2012, M. Geluk & J. Wind; Loenen,

21.IX.2012, A. Grosscurt; GE Rheden,

24.VII.2013, A. Benschop; ZE Rilland-Eerste

Bathpolder, 2.IX.2011. N.-J. Dek; LZ Houthem-

St. Gerlach, 13/15.IX.2012, both W.N. Ellis;  
**Belgium** No location, no date (Gosseries 1991);  
**ov** Balegem, 19.VIII.2012 & 27.X.2012, both  
B. Uitterhaegen; **AN** Grootenhout-Giels Bos,  
18.XI.2012, J. Mortelmans; **LX** Hotton,  
21.IX.2013, J.-L. Giot & M.-T. Romain.  
**Luxembourg** No records.  
**Range** Euro-Siberian, moderately frequent.

***Parallelodiplosis galliperda* (F. Löw, 1889)  
(fig. 92)**

**Biology** Inquiline under the leaf galls of the  
cynipid *Neuroterus quercusbaccarum* on *Quercus*  
*robur*, etc. (Fagaceae).  
**References** Docters van Leeuwen 1957, Skuhravá  
1986.  
**Netherlands** **GE** Wageningen, VIII.1960; 8.X.1961,  
both W.N.  
**Belgium** No location, no date (Gosseries 1991).  
**Luxembourg** No records.  
**Range** Europe, rarely recorded but often very  
abundant in Great Britain; this may be the case in  
mainland Europe. It is just not looked for and  
recorded (K.M. Harris, in litt.).

***Physemocecis hartigi* (Liebel, 1892) (fig. 93)**  
New for the Netherlands

**Biology** Host *Tilia* spp. (Malvaceae). Lamina  
usually with several to sometimes many flat, circle-  
shaped, umbilicate parenchyma galls, hardly  
protruding on the upperside, on the underside  
slightly arched, pustule-shaped.  
**References** HB: 7100, H: 4138 sq., DA: p228, RS: p329.  
**Netherlands** **LZ** Vlodrop-Nat. Park De Meinweg,  
9.VI.2012, M. Courbois.  
**Belgium** **HN** Lompret, 23.VI.1968 (Lebeau &  
Lambinon 1968), **NM** Couvin, 29.V.2014; Virelles,  
8.VI.2014, both S. Carbonnelle; Vierves-sur-  
Viroin, 21.VI.2013, S. Claerebout.  
**Luxembourg** **LOR** Mondorf-les-Bains (Lambinon  
et al. 2001).  
**Range** Europe, rarely recorded.

***Physemocecis ulmi* (Kieffer, 1909)**

New for Belgium

**Biology** Host *Ulmus* spp. (Ulmaceae). Rotund,  
3-4 mm wide pustules, situated in the leaf paren-  
chyma, slightly bulging on the upperside, darker  
or yellowish-green to deep yellow coloured, not  
protruding on the underside.

**References** HB: 7337, H: 2046, 2064, DA: p139,  
RS: p341.

**Netherlands** 24 records: FR, GR, OV, NH, UT, GE,  
ZE, ZV, LN, LZ.

**Belgium** **wv** Herdersbrug, 19.VII.2013, H. De  
Blauwe; **AN** Ruisbroek, 30.IX.2011, J. Reyniers;  
Turnhout, 25.VI.2013, G. Luyts; **BR** Molenbeek-  
Saint-Jean, 27.VII.2009, J. Leveque; **HN** Baudour,  
11.XII.2013, P. Dupriez; **NM** Namur, 5.VI.2012;  
**LG** Liège, 2.VI.2012, both J.-Y. Baugnée.

**Luxembourg** **LOR** Bonnevoie; Esch-sur-Alzette;  
Luxembourg; Manternach-Laeresmillen; Moes-  
dorf; Pulvermühle (all: Lambinon et al. 2012b).

**Range** Europe, very frequent.

***Placochela nigripes* (F. Löw, 1877)**

= *P. ligustri*

**Biology** Host *Ligustrum* spp. (Oleaceae), *Sambu-*  
*cus* spp. (Adoxaceae). Corolla globularly swollen,  
slightly leather-like; tube slightly elongated.  
Flowers unopened.

**References** HB: 6220, H: 5326 sq., DA: p273,  
DVL: p264, Alta & Docters van Leeuwen 1946  
(on *Sambucus*), HB: 3840, H: 4679, DA: p250,  
DVL: p164, RS: p155, Docters van Leeuwen 1957  
(on *Ligustrum*), RJK: p27.

**Netherlands** 20 records: GR, NH, ZH, UT, GE, ZE,  
LN, LZ.

**Belgium** 30 records, all provinces: AN, wv, BW  
excepted.

**Luxembourg** **LOR** 1 record (Lambinon et al.  
2012b).

**Range** Europe, very frequent.

### *Planetella arenariae* (Rübsaamen, 1899)

**Biology** Host *Carex acuta*, *acutiformis* (= *paludosa*), *C. arenaria*, *C. davalliana*, *C. birta*, *C. muricata*, *C. nigra*, ? *C. praecox* (= *stolonifera*) (Cyperaceae). Shoot axis on rhizome already seriously stunted; often with only etiolated leaves above the ground. Stems or leaf sheaths with ± egg-shaped galls, which usually consist of several oblong-oval, flattened one-chambered parts.

**References** HB: 1479, H: 358, 6331/32, DA: p87, DVL: p106, RS: p72.

**Netherlands** FI Ameland, 28.VIII.1935; Terschelling, 14.VII.1950; Vlieland, 9.VIII.1937; NH Texel, 30.VI.1952; ZH Wassenaar-Duinrell, 9.X.1943, all DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rare.

### *Planetella extrema* (Walker, 1837)

= *P. crassipes*

**Biology** Caught in flight, host unknown, presupposed *Carex* spp. (Cyperaceae). Malformation unknown, cf. leaf sheaths.

**References** Skuhrová 1986.

**Netherlands** ZH Nieuwkoopse Plassen, 11.VIII.1918, J.C.H. de Meijere.

**Belgium** No records.

**Luxembourg** No records.

**Range** Great Britain, the Netherlands, Poland, very rarely recorded.

**Note** Type-species in Walker's original description, however not in HB, H, DA, DVL & RS.

### *Planetella gallarum* (Rübsaamen, 1899)

**Biology** Host *Carex acuta* (= *gracilis*), *C. davalliana*, *C. elata* (= *hudsonii*, *reticulosa*), *C. flacca*, *C. rostrata* (= *inflata*), *C. nigra*, *C. saxatilis*, *C. praecox* (= *stolonifera*), *C. stricta*, *C. trinervis*, *C. vesicaria* (Cyperaceae). Stem of shoot, also leaves, usually close to the ground, with oblong, glabrous, ± glossy brown,

terminally rounded galls, only connected with their middle part to the basal leaf part, narrowed at both ends.

**References** HB: 1484/86, H: 370 sq., DVL: p105, RS: p72, Nijveldt 1980, Roskam & Adema 2013. **Netherlands** NH Bergen, 28.VII.1914; Callants-oog-Zwanewater, 5.VII.1922; Texel-De Koog, VIII.1902, 3 × J.C.H. de Meijere; ZH Goeree-Kwade Hoek, 29.IX.1959; 27.VIII.1968; Oostvoorne dunes, 5.VII.1914, 31.VIII.1938, 4 × WN; Oostvoorne-dunes, 16.IX.2003, JCR; Rockanje dunes, 5.VII.1949; UT Veenendaalse Hei, v.1929; GE Beefink, no date; Nijkerk, no date, 4 × DVL; Bennekom, 26.III.1982, WN; NB Lierop, VII.1951, DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, moderately frequent.

### *Planetella producta* (Meigen, 1830)

**Biology** Caught in flight, host unknown, presupposed *Carex* spp. (Cyperaceae). Malformation unknown, cf. leaf sheaths.

**References** Skuhrová 1986.

**Netherlands** NH Amsterdam, 14.VII.1918; Hilversum, 20.VIII.1904, 9.IX.1907, 3 × J.C.H. de Meijere; UT Utrecht, no date, W. baron Six; LN Mook, VIII.1910, MacGillavry.

**Belgium** No records.

**Luxembourg** No records.

**Range** Germany, Great Britain, the Netherlands, rarely recorded.

### *Plemeliella abietina* Seitner, 1908

**Biology** Host *Picea abies*, *P. glauca*, *P. obovata*, *P. pungens* (all cult.), etc. (Pinaceae). Seeds narrowed, oblong, acuminate, ± twisted and bent, discoloured. Wings of seed absent, seed often falling prematurely.

**References** HB: 4798, Skuhrová 1986, Nijveldt 1997, Skuhrová & Roques 2000.

**Netherlands** GE Hoge Veluwe, 2.IX.1980, WN.



**Belgium** No records.  
**Luxembourg** No records.  
**Range** Europe, very rare.

***Polystepha malpighii* (Kieffer, 1909) (fig. 94)**  
New for Belgium, the Netherlands.

**Biology** Host *Quercus petraea*, *Q. robur* (Fagaceae). Distinct blister on upper surface of lamina (central depression may appear in old gall); contains white gall midge larva which escapes via a hole in lower surface.

**References** HB: 5486, DA: p121, RS: p248, Entwistle 2001.

**Netherlands** GR Lauwersoog-Bossschuur, 21.VI.2014, JCR, M. Courbois & L. Hofstee; OV Den Ham-Hallerhoek, 9.VI.2014, H. Soepenbergh; ZH Bergambacht-Kwakels, 20.XI.2012 & 29.XI.2012, T. de Groot & J. Monhemius; Meijendel-Boerderij, 13.VI.2014, S. Carbonnelle, W.N. Ellis & JCR; GE Apeldoorn-Zuiderpark, 23.VIII.2012, J.-J. Spaargaren.

**Belgium** OV Balegem, 25.V.2014, B. Uitterhagen; VB Bierbeek, 18.XI.2009, M. Abts.

**Luxembourg** LOR Grevenmacher-Dreisermillen; Howald; Kirchberg-Klosegrönchen (all: Lambinon et al. 2012b).

**Range** Europe, moderately frequent.

***Prodiplosis violicola* (Coquillett, 1900)**  
? = *Contarinia violicola*

**Biology** Host *Viola arvensis*, *V. cornuta*, *V. tricolor*, etc. (Violaceae). Leaves on shoot tips densely clustered, rosette- to tuft-like, partially rolled, distorted, also strongly lobed; the outer ones glabrous, the inner ones weakly pubescent.

**References** HB: 7582, Nijveldt 1957, Skuhrová 1986 (alien).

**Netherlands** GE Bennekom, 2.VI.1954, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Native in N-America; introduced NW-Europe, very rare.

**Note** The material recorded belongs to a true *Contarinia*, probably undescribed (De Meijere 1946, Nijveldt & Beuk 2002).

***Putoniella pruni* (Kaltenbach, 1872)**  
(fig. 95)

New for Belgium, the Netherlands.

**Biology** Host *Prunus domestica*, *P. fruticosa*, *P. insititia*, *P. spinosa*, etc. (Rosaceae). Lamina at midrib or side vein with pouch-like, downward fold. Folds (10) 20-30 (50) mm long, thickened, cartilaginous, often reddened. With narrow, longitudinal slit opening on upperside.

**References** HB: 5234, H: 3295 sq., DA: p191, RS: p223, 224, Skuhrová, 1986, 1987.

**Netherlands** LZ Wahlwiller/Nijswiller-Kruisberg, 30.V.2013, G. Menting.

**Belgium** NM Agimont, 8.VI.2011, G. Minet; Aublain, 2.VI.2013, S. Carbonnelle; Eprave, 22.V.2009, 29.VIII.2013, both J.-Y. Baugnée; Vierves-sur-Viroin, 20.IX.2003, S. Claerebout; Vogenée, no date, M.-T. Romain & J.-P. Duvivier; Rochefort, 3.V.2014; Treignes, 10.V.2014, both Y. Princen & S. Claerebout; Lavaux-Ste-Anne, 3.V.2014; Viroinval, 10.V.2014, LX RN Briqueterie de Rome, 8.VI.2014, 3 × C. van Steenwinkel; Hotton, 19.V.2012, M.-T. Romain; La Roche-en-Ardenne, 17.V.2012, P. Hauteclair.

**Luxembourg** ARD Heinerscheid; Vianden; LOR Bous-Weiergewan; Howald; Schleifmühle (all: Lambinon et al. 2001).

**Range** Europe, frequent.

***Rabdophaga albipennis* H. Loew, 1850**

**Biology** Host *Salix alba*, ? *S. caprea*, ? *S. aurita*, ? *S. cinerea*. Young twigs with often only inconspicuous one-sided thickening.

**References** HB: 6007, H: S32 sq., RS: p288, DA: p100, Moraal & De Goffau 1989.

**Netherlands** ZH Strijensas, autumn 1987, L.C.M. de Goffau.

**Belgium** No records.

**Luxembourg** No records.  
**Range** N-Europe, very rarely recorded.

***Rabdophaga clavifex* (Kieffer, 1891)**

= *R. repenticola*

**Biology** Host *Salix aurita*, *S. caprea*, *S. cinerea*, *S. myrsinifolia* (Salicaceae). Tip of shoot strongly stunted over about 15 mm and swollen, club-shaped, especially the terminal part densely occupied with often abnormally pubescent buds.

**References** HB: 6004, 2390, H: S15, DA: p98,

DVL: p252-253, 260, RS: p284.

**Netherlands** 18 records: FI, DR, NH, ZH, GE, NB, LZ.

**Belgium** ov Oudenaarde-Bos t'Ename, 23.V.2010, H. De Brauwer; LI Lommel-Sahara, 12.VI.2010, Y. Princen & J. Devalez; HN Virelles, 6.III.2013, S. Claerebout; LG Werbomont, winter 1956/57 (Gratia 1958).

**Luxembourg** No records.

**Range** Euro-Siberian, frequent.

***Rabdophaga degeerii* (Bremi, 1847) (fig. 96)**

= *R. ramicola*

**Biology** Host *Salix purpurea*, *S. daphnoides*, etc. (Salicaceae). Galls usually slender barrel-or spindle-shaped, 10-30 mm long, 5-8 (10) mm wide and gradually narrowing; glabrous. Bark not bursting. Sometimes several, ± close galls per shoot in a row, which may also develop terminally on shoots. Inside several, distinctly separated, irregular rotund to oblong chambers.

**References** HB: 6028, DVL: p259, RS: p432, DA: p100, Stelter 1989a, 1993, Nijveldt & Beuk 2002.

**Netherlands** 39 records: FI, DR, NB, OV, NH, ZH, UT, ZE.

**Belgium** wv Nieuwpoort-Ideeëntuin, 3.X.2009, J. Devalez; ov Bellem-Spildoorn, 30.V.2014, H. Wallays; HN Virelles, 13.IX.2009, M.-T. Romain in Rouard (2010); Cerfontaine, 7.IV.2013, S. Claerebout; NM Matagne-la-Grande, 31.VII.2013 (Carbonnelle 2013); LG Aywaille, 11.XI.1943

(Gratia 1959); LX Huombois, 26.VI.2010, M.-T. Romain.

**Luxembourg** LOR Kirchberg-Klosegrönchen (Lambinon et al. 2012b).

**Range** Europe, very frequent.

***Rabdophaga deletrix* (Rübsaamen, 1921)**

**Biology** Host *Salix alba*, *S. viminalis* (Salicaceae). Stunted leaf buds.

**References** Skuhravá 1986 (under *Dasineura*), Moraal & De Goffau 1989.

**Netherlands** ZH Strijensas, autumn 1987, L.C.M. de Goffau.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Rabdophaga dubiosa* Kieffer, 1913**

**Biology** Host *Salix aurita*, *S. caprea*, *S. cinerea*, *S. helvetica*, *S. repens*, etc. (Salicaceae). Galls pear-shaped; one end acutely, almost angularly constricted, the other end gradually tapering; up to about 10-12 mm long and 5-8 (12) mm thick. Bark not cracking.

**References** HB: 6025, H: S41 sq., DA: p101, DVL: p252, 261, RS: p289.

**Netherlands** FI Terschelling-Noordvaarder, 15, 17 & 19.VII.2012, 3 × M. Courbois; FR Nijberkoop-Diakonieveen, 12.V.2012, T. Kaizer; Polder Rohel, 11.IX.2011, T. IJlstra; ov Winterswijk-Kotten, 27.VII.1938, DVL; NH Hilversum, 29.V.1903, 1.VI.1903; UT Baarn, 4.V.1908, 3 × J.C.H. de Meijere; GE Eibergen, 24.VIII.1936, DVL; Scherpenzeel-Groot Wolfswinkel, 7.VI.2013, H.-J. van der Kolk; Oisterwijk, 31.VIII.1948, DVL; ZV Braakman, 5.III.2010, M. Knipping.

**Belgium** ov Oudenaarde-Bos t'Ename, 13.IX.2010, P. Blondé; AN Niel, 5.VIII.2010, P. De Smedt; Scheps, 7.VIII.2009; LI Lommel, 12.VI.2010, both R. Barendse; VB Neerijse, 8.VI.2008, M.-T. Romain; HN Hensies, 17.IX.2009, J.-Y. Baugnée; NM Sclaigheux, 18.XII.2013,

J. Claessens; Treignes, 3.VII.1999 (Jacobs 2001);  
Corphalie, 12.I.2014, P. Vanmeerbeeck; LX Arlon,  
11.VI.2013, J.-Y. Baugnée.  
**Luxembourg** No records.  
**Range** Europe, frequent but apparently rarer than  
*R. salicis*.

***Rabdophaga exsiccans* Rübsaamen, 1916**  
**(fig. 97)**

New for Belgium

**Biology** Host *Salix repens* (Salicaceae). Swelling  
usually on two years old twigs, distinctly protrud-  
ing, up to about 15 (30) mm long and 3-5 mm  
wide, glabrous, often ± discoloured. A large cavity  
in pith. The shoot above the gall is conspicuously  
stunted and dies off prematurely.

**References** HB: 6030, DVL: p261, RS: p434,  
DA: p99, Skuhřavá 1986 (under *Dasineura*).  
**Netherlands** FI Ameland, 1.IX.1946; Schier-  
monnikoog, 4.VIII.1947; Terschelling, 14.VII.1952  
& no date, 4 × DVL; Terschelling-Stuifdijk,  
17.VII.2012, M. Courbois; OV Ruurlo, 5.IX.1950;  
UT Bithoven, 8.VIII.1930, NB Oisterwijk,  
7.IX.1948, 3 × DVL; Bladel-Cartierheide, 6.IX.2012,  
R. Barendse.

**Belgium** LX Bihain, 25.V.2010, J. Devalez.

**Luxembourg** No records.

**Range** C-, W-Europe, moderately frequent.

***Rabdophaga gemmicola* (Kieffer, 1896)**

= *R. gemmarum*

**Biology** Host *Salix aurita*, *caprea*, *cinerea* (Sali-  
caceae). Buds brownish, slightly thickened; often  
also ± stunted.

**References** HB: 6072, H: S25 sq.

**Netherlands** No location, no date (Alta & Docters  
van Leeuwen 1946).

**Belgium** LG Hockay, 23.VIII.1953 (Gratia 1958).

**Luxembourg** No records.

**Range** Europe, very rarely recorded, may be over-  
looked.

***Rabdophaga heterobia* (H. Loew, 1850)**  
**(fig. 98)**

**Biology** Host *Salix triandra* (Salicaceae). Galls of-  
ten distinctly biarticulate. An up to about 10 mm  
large, ± bud-like converging, loose, inner rosette  
is surrounded by 3-6 sessile expanded leaves, which  
are only in their basal half shortened and widened,  
but otherwise almost normally developed. All  
laminae heavily white pubescent at their base.

**References** HB: 6054, H: S10 sq., DA: p98,

DVL: p247-248, 252, 260, RS: p430.

**Netherlands** 61 records: FR, GR, OV, NH, ZH, UT,  
GE, ZE.

**Belgium** 15 records: WV, OV, VB, NM.

**Luxembourg** ARD Arsdorf-Lac de la Sûre; LOR  
Ehnen-Wormeldange; Wasserbillig (all: Lambinon  
et al. 2012b).

**Range** Euro-Siberian, most frequent.

***Rabdophaga iteobia* (Kieffer, 1890) (fig. 99)**

**Biology** Host *Salix aurita*, *S. caprea*, *S. cinerea*,  
*S. glauca*, *S. repens* (Salicaceae). Tufts about 10-15  
mm large, strongly pubescent, often only bud-  
like, compact, ± bulging, oblong, rarely rotund-  
oval. Tips of leaves occasionally bent outwards.

**References** HB: 6057, H: S11 sq., 6434B, DA: p98,

DVL: p253, 260, RS: p286, RJK: p56.

**Netherlands** 25 records, FI, DR, OV, NH, ZH, UT,  
GE, ZE.

**Belgium** 14 records WV, OV, HN, NM, LG.

**Luxembourg** 1 record, LOR (Lambinon et al. 2001).

**Range** Euro-Siberian, very frequent.

***Rabdophaga jaapi* Rübsaamen, 1916**  
**(fig. 100)**

= *R. repentis*

New for Belgium

**Biology** Host *Salix repens*, *S. aurita* × *repens* and  
other close hybrids (Salicaceae). Rosette ± cone-  
to spindle-shaped, about 10-15 mm long and  
4-6 mm wide, often ± silver-white pubescent.

**References** HB: 6056, H: 910, DVL: p260, RS: p430.  
**Netherlands** 20 records: FI, DR, OV, NH, ZH, UT, GE, NB, ZE.

**Belgium** LX Bihain, 25.V.2010, J. Devalez.

**Luxembourg** No records.

**Range** Europe, frequent.

### *Rabdophaga justini* Barnes, 1935

**Biology** Host *Salix purpurea*, *S. purpurea* x *viminalis* (Salicaceae). Galls hardly visible from the outside, only on young shoots, predominantly situated close to buds; chambers distinctly isolated. Larvae in a shallow, oblong-oval depression of the sapwood; neighbouring bark initially lighter, later on usually blackish, with preformed exit hole.

**References** HB: 6042, DA: p99, RS: p290, Nijveldt 1960, Stelter 1989a, not in DVL.

**Netherlands** NB Diessen, 13.IV.1959, G. van Rossem.

**Belgium** No records.

**Luxembourg** No records.

**Range** Great Britain and the Netherlands, very rare.

### *Rabdophaga karschi* (Kieffer, 1891)

= *R. oculiperda*

New for Belgium

**Biology** Host *Salix aurita*, *S. cinerea*, *S. caprea*, ? *S. purpurea*, ? *S. repens* (Salicaceae). Stem galls uniformly, spindle-shaped or cylindrical on all sides, up to about 8-15 (20) mm long and 3 mm thick.

**References** HB: 6033, H: S34 sq., RS: p431, DA: p99, Stelter 1978, 1989a, 1993, Nijveldt 1985b.

**Netherlands** UT Bithoven, 7.VIII.1930, DVL; ZE Oostkapelle-Oranjezon oost, 6.VIII.2011, H. De Blauwe.

**Belgium** wv Heist, 28.XI.2010, 16.IV.2011, 27.VIII.2013; Knokke, 26.IX.2010; De Panne, 11.VIII.2012 & 4.I.2013, 6 x H. De Blauwe & J. Devos; Karthuizerduinen, 3.XI.2012 & 30.X.2013; Ter Yde, 30.X.2011 & 6.XI.2012, 4 x K. Peeters;

Oosterduinen, 24.III.2012; E. Devos; AN Zandvliet, 22.VIII.2012, J. Soors; HN Virelles, 30.III.2014, S. Carboneille; LX Bihain, 25.V.2010; J. Devalez.

**Luxembourg** No records.

**Range** Europe, moderately frequent.

### *Rabdophaga marginemtorquens* (Bremi, 1847)

**Biology** Host *Salix fragilis*, *S. viminalis*, *S. elaeagnos* and close hybrids (Salicaceae). Leaf margin over large area, often over both leaf halves, rolled downwards. Roll over 20 mm long and composed of several, oblong-cylindrical single galls, centrally more strongly thickened, narrow, both ends narrowed, against each other ± distinctly bordered.

**References** HB: 6136, H: S51, 590 sq., 6392 sq., DA: p102, DVL: p250, RS: p293, Lambinon 1958, Stelter 1989b, Lambinon et al. 2001.

**Netherlands** 74 records, all provinces, DR, ZV excepted.

**Belgium** 25 records, all provinces, LI, BW excepted.

**Luxembourg** LOR 10 records.

**Range** Euro-Siberian, most frequent.

### *Rabdophaga nervorum* (Kieffer, 1895)

= *R. noduli*

New for Belgium

**Biology** Host *Salix alba*, *S. babylonica*, *S. elaeagnos*, *S. fragilis*, *S. grandifolia*, *S. nigra*, *S. pentandra*, *S. phylicifolia*, *S. purpurea*, sometimes on willows, etc. (Salicaceae). Galls slender; especially distinctly protruding on the underside; one-chambered; 3-5 (7) mm long and 2-3 mm wide. On the midrib and sometimes on the main lateral veins, as well as usually only simultaneously also on the petioles. The neighbouring lamina may locally be bulged or otherwise disfigured.

**References** HB: 6169, H: S49 sq., 6406 sq., DA: p101, DVL: 4th ed. p254?, cf. DVL 2nd ed. no. 971, RS: p436, Stelter 1989a, 1993, Nijveldt & Beuk 2002.

Netherlands **DR** Dwingelo-Ihee, 4.IX.1947; **OV** De Lutte, 29.VIII.1958; Ruurlo, 2.IX.1950; Winterswijk, 24.VIII.1939; **UT** Bilthoven, 10.VIII.1930; **GE** Nijkerk, 18.VIII.1934; Nijmegen-Hatert, 25.VII.1934; Vorden, 9.VII.1934; **NB** Oisterwijk, 7.IX.1948 & 10.IX.1948; **LN** Roggel, 31.VII.1933, all DVL.  
**Belgium** **LX** Ochamps, 27.IX.2008, M.-T. Romain.  
**Luxembourg** No records.  
**Range** Europe, moderately frequent.

### *Rabdophaga pierrei* (Kieffer, 1896)

**Biology** Host *Salix aurita*, *S. cinerea*, *S. caprea*. (Salicaceae). Chambers in the outer sapwood, spindle-shaped, numerous, at right angle to the longitudinal axis of the shoot. Bark not bursting.  
**References** **HB**: 6036, **H**: S37 sq., **DA**: p99, **DVL**: p252 (erroneously synonymised with *R. salicis*)  
**Netherlands** **ZH** Vlaardingeng, no date; Werken-dam, 11.1930, both J.C.H. de Meijere.  
**Belgium** No records.  
**Luxembourg** No records.  
**Range** Europe, very rare.

### *Rabdophaga pulvini* (Kieffer, 1891) = *R. superna*

**Biology** Host *Salix aurita*, *S. caprea*, *S. cinerea*, *S. purpurea*, *S. silesiaca* (Salicaceae). Axis with several swellings, sometimes situated below a galled bud. Internodes sometimes stunted; occasionally ± arched or bent in- and outwards.  
**References** **HB**: 6043, **H**: S19 sq., **DA**: p98, **DVL**: p253, **RS**: p286, Stelter 1989a.  
**Netherlands** **FI** Ameland, 1.IX.1946; Schiermonnikoog, 1.VIII.1947; **DR** Gasselte, 24.VIII.1938; **OV** Winterswijk, 24.VIII.1939; **NH** Hilversum, 11.IX.1930; **ZH** Katwijk, 22.IX.1915; **UT** Bilthoven, 8.VIII.1930; **GE** Eibergen, 22.VIII.1936; Nijkerk, 18.VIII.1934; Overasselt, 27.IX.1936; **NB** Bergeijk, 3.VII.1936; Oisterwijk, 6.IX.1948, all DVL.  
**Belgium** No records.  
**Luxembourg** No records.  
**Range** Europe, moderately frequent.

### *Rabdophaga rosaria* (H. Loew, 1850)

**Biology** Host *Salix alba*, *S. aurita*, *S. caprea*, *S. cinerea*, incl. forms and hybrids (Salicaceae). Rosette uniform, often dense, with many sessile leaves, strongly widened at their base, rapidly shortened towards the inside, externally normally pubescent.  
**References** **HB**: 6053, **H**: S8, sq., 6371 sq., **DA**: p98, **DVL**: p247, 252, 260, **RS**: p430, **RJK**: p52, Gratia 1958, Lambinon 1959, 1976, Lambinon et al. 2001, 2012a, b, Staudt 2013.  
**Netherlands** 425 records, all provinces.  
**Belgium** 98 records, all provinces.  
**Luxembourg** **ARD** 5 records; **LOR** 29 records.  
**Range** Euro-Siberian, most frequent; see also remark under *R. strobilina*.

### *Rabdophaga roskami* Stelter, 1989

New for Belgium

**Biology** Host *Salix viminalis* (Salicaceae). Shorter leaf rolls than those caused by *R. marginemtorquens* (Bremi); may be inquiline in galls of *R. marginemtorquens* (Redfern 2011).  
**References** **DA**: p102, **DVL**: p263, **RS**: p293, Stelter 1989b, Roskam in Docters van Leeuwen 2009.  
**Netherlands** **FR** Buitenpost, 17.IX.2012, T. IJlstra; **DR** Elp-Holmers, 7.IX.2013, E. De Weerd; **NH** Vogelenzang-Amsterdamse Waterleidingduinen, 2.VIII.2010, J. Koster; **ZH** Leiden-Hooghkamepark, 29.V.2009, JCR; **GE** Afferden-Afferdensche en Deensche Waarden, 25.VI.2014, M. Courbois; Wageningen-Wageningse Bovenpolder, 30.X.2011, E. Kloen.  
**Belgium** **wv** Bruges, 8.VI.2010, J. Devos.  
**Luxembourg** No records.  
**Range** Adults first detected in samples reared by H. Stelter; the midges are reared from samples together with *R. marginemtorquens*. J.C. Roskam reared the species from Dutch samples (see above). W-Europe, moderately frequent.



### *Rabdophaga saliciperda* (Dufour, 1841)

**Biology** Host *Salix alba*, *S. babylonica*, *S. caerulea* (= *alba* var. *caerulea*), *S. fragilis* (Salicaceae).

Chambers in the outer sapwood, spindle-shaped, numerous, running in the same direction along the longitudinal axis of the shoot or are somewhat inclined. The hardly thickened bark on the galls bursts soon, dies off and disintegrates, exposing large areas of irregularly shothole-like perforated sapwood after emergence of the midges.

**References** HB: 6035, H: S36 sq., DA: p99, DVL: p248, RS: p432, Stelter 1980, 1993.

**Netherlands** 50 records: FR, GR, OV, NH, ZH, GE, NB, ZE.

**Belgium** 16 records: WV, OV, AN, VB.

**Luxembourg** No records.

**Range** Euro-Siberian, very frequent; harmful if numerous.

### *Rabdophaga salicis* (Schrank, 1803)

= *R. noduli*, *R. ramicola*

**Biology** Host *Salix aurita*, *S. caprea*, *S. cinerea*, *S. elaeagnos* (Salicaceae). Galls of the axis with ± broadened base, narrowed towards the lamina, varying in size; sometimes with only one, often with several, larval chambers which are always devoid of frass.

**References** HB: 6160, H: S48, 854, DA: p101, DVL: p252, 254, 261, RS: p289, 294, Leclercq 1942, Docters van Leeuwen 1953, Gratia 1958, Lambinon et al. 2001.

**Netherlands** 153 records, all provinces.

**Belgium** 53 records, all provinces, VB, BW excepted.

**Luxembourg** ARD 2 records; LOR 6 records.

**Range** Euro-Siberian, most frequent.

### *Rabdophaga strobilina* (Bremer, 1847)

(fig. 101)

**Biology** Inquiline in galls of *R. rosaria* on *Salix* spp. (Salicaceae). Larvae occur on the leaf bases in the outer part of these galls.

**References** DVL: p440, RS: p285, Lambinon 1960, Stelter 1982a, 1989a, Harris 2006.

**Netherlands** 28 records: FI, GR, OV, NH, ZH, GE.

**Belgium** AN Rumst, 18.III.2013, C. Deschepper; HN Jamioulx, 5.IX.2009, Lambinon & Romain in (Romain 2009b, as *R. cinerearum*); Marais d'Harchies, 7.III.2013, M. Lemaire & E. Lorin; Marcinelle, 5.IX.2009, M.-T. Romain; Mons, 27.IX.2013, P. Degossely; Virelles, 13.IX.2009, M.-T. Romain in Rouard (2010, as *R. cinerearum*); NM Cerfontaine, 1.VIII.2009, M.-T. Romain; Han-sur-Lesse, 18.VIII.2007 (Lambinon et al. 2007); Vogenée, no date, M.-T. Romain & J.-P. Duvivier; LG Aiwalles, 11.IX.2010; Plombières, 3.IX.2010; Robertville, 17.VII.2010; LX Daverisse, no date; Huombois, 26.VI.2010, 5 × M.-T. Romain; Resteigne, no date, M.-T. Romain & J.-P. Duvivier.

**Luxembourg** No records.

**Range** Europe, very frequent.

**Note** Often contaminated with *R. rosaria*;

Dauphin (2012) indicates *R. strobilina* instead of *R. rosaria*.

### *Rabdophaga terminalis* (H. Loew, 1850)

**Biology** Host *S. triandra* and possibly other willows (Salicaceae). Terminal leaves curled, folded and crinkled; the growth of the shoot is stopped and side shoots develop.

**References** HB: 6058, H: S10, DA: p98, DVL: p248, 259, RS: p286, Lambinon 1958, Lambinon et al. 2001, 2013, Staudt 2013.

**Netherlands** 61 records: FI, OV, NH, ZH, UT, GE, NB, ZE, ZV, LZ.

**Belgium** 15 records, all provinces, BR, WV, LG excepted.

**Luxembourg** ARD 1 record; LOR 4 records.

**Range** Euro-Siberian; most frequent.

### *Rabdophaga triandraperda* Barnes, 1935

**Biology** Host *Salix triandra* (Salicaceae). Galls on the base of one-year old shoots or coppice. From

the outside sometimes hardly discernible in the beginning. Larvae, isolated, often numerous in oblong-oval, shallow chambers in the sapwood closely situated along the longitudinal axis. Exuviae protruding from the galls after emergence of the adults, leaving after forming dark 'shot holes' in the ± disintegrating bark.

**References** HB: 6038, DVL: p249, RS: p434, DA: p99, Nijveldt 1953d, Skuhrová 1986 (under *Dasineura*).

**Netherlands** ZH Barendrecht, 28.XII.1956; UT Jaarsveld, 25.IV.1952; Langbroek, x.1962; Neerlangbroek-Leeuwenburgh, 14.III.1968, 18.V.1979, 5 × WN; GE Wageningen-Wageningse Bovenpolder, 11.III.2012, M. Courbois; NB Heeswijk, 6.II.1958, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** W-Europe, moderately frequent.

### *Rabdophaga viminalis* (Westwood, 1847)

**Biology** Host *Salix viminalis* (Salicaceae); records on other narrow-leaved willows need to be confirmed (Skuhrová et al. 2014). Swelling smaller, weak, solitary or with several together and then up to 10 mm long. Chambers in pith and in wood each contain a single larva.

**References** HB: 6031, H: S39, 1036, RS: p434, DA: p99, Nijveldt 1981, Skuhrová 1986 (under *Dasineura*), Stelter 1993.

**Netherlands** UT Langbroek, 18.V.1979, WN; GE Opheusden-Maneswaard, 8.VIII.2012, M. Courbois.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

### *Resseliella betulicola* (Kieffer, 1889)

(fig. 102)

= *Plemeliella betulicola*

**Biology** Host *Betula pendula* (Betulaceae). The laminae of young leaves do not develop completely

and remain mostly folded upwards. Midrib and basal part of the side veins thickened.

**References** HB: 1076, H: 1069 sq., DA: p136, DVL: p97, RS: p56, RJK: p14.

**Netherlands** FI Terschelling, 15.VII.1950, DVL; GR Lauwersoog-Bosschuur, 21.VI.2014, JCR, M. Courbois & L. Hofstee; OV Denekamp, VII.1946, DVL; Ommen-de Kleine Wolf, 20.VI.2011, A. Grosscurt; ZH Meijndel, 20.VII.1974; Nieuwkoop-Noorden, 11.VII.1974, both JCR; UT Bilt-hoven, 15.VII.1930; Leersum, 16.VI.1933, 19.VIII.1936 & 2.VI.1950, both DVL; GE Putten-Waterweg, 8.X.2013, W. Bosgra; ZE Kamperland-Onrustpolder, 3.V.2008, F. Grotenhuis; LZ Houthem, 13.VII.1933, DVL.

**Belgium** No location, no date (Gosseries 1991); AN Beeltjes, 14.VII.2013, 20.V.2014, S. Hermans; LI Eigenbilzen, 1.VI.2010, R. Barendse; VB Averbode, 1.IX.2013, S. Hermans; NM Le Mesnil, 31.VIII.2008 (Lambinon & Romain 2009).

**Luxembourg** No records.

**Range** Euro-Siberian, moderately frequent.

### *Resseliella crataegi* (Barnes, 1939)

**Biology** Larvae develop gregariously under bark of *Crataegus* spp. (Rosaceae), without causing galls.

**References** Van Rossem et al. 1974, Skuhrová 1986.

**Netherlands** ZE Breskens, 14.IX.1972, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

### *Resseliella dizygomyzae* (Barnes, 1933)

= *Profeltiella dizygomyzae*

**Biology** Inquiline in mines of *Dizygomyza* spp. (Agromyzidae) on *Salix triandra* (Salicaceae).

**References** Nijveldt 1956, Skuhrová 1986.

**Netherlands** UT Langbroek, 15.IX.1954, 28.X.1966, both WN.

**Belgium** No records.

Luxembourg No records.  
Range Europe, very rarely recorded.

### *Resseliella oculiperda* (Rübsaamen, 1893)

**Biology** Larvae damage rootstocks when these are grafted with scion buds by 'shield budding' on cultivated roses and apples (Rosaceae).

**References** Skuhrová, 1986.

**Netherlands** No locality, no date (Nijveldt & Beuk 2002).

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

### *Resseliella piceae* Seitner, 1906

**Biology** Host *Abies alba* (Pinaceae). Larvae develop gregariously (1-8) inside young seeds in cones without producing any visible malformation.

**References** Skuhrová 1986, Skrzypczynska et al. 1993, Skuhrová et al. 2008 (biology, distribution).

**Netherlands** LZ Vaals, VII.1989, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe up to Caucasus, very rare. Locally it may cause serious damage (Skuhrová & Roques 2000).

### *Resseliella ribis* (Marikovski, 1956)

**Biology** The larvae feed in natural splits in the young twigs of *Ribes* spp. (Saxifragaceae) and these feeding wounds allow entry of infection by several fungi.

**References** Skuhrová 1986, Skuhrová & Roques 2000, Alford 2007.

**Netherlands** NH Heemskerk, 15.IX.1981, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rare, pest species.

### *Resseliella skubravorum* Skrzypczynska, 1975

**Biology** Larvae develop gregariously in cones of *Larix decidua* (Pinaceae), without causing galls.

**References** Skuhrová 1986, Grijpma & Van der Weerd 1991, Skuhrová et al. 2008, 2010 (alien in W-Europe).

**Netherlands** LZ Vaals, 5.VII.1989, WN.

**Belgium** No location, no date, A. Roques (Skuhrová et al. 2010).

**Luxembourg** No records.

**Range** Europe, very rare.

### *Resseliella theobaldi* (Barnes, 1927)

**Biology** The larvae feed in natural splits in the young twigs of *Rubus* spp. (Rosaceae) and these feeding wounds allow entry of infection by several fungi.

**References** Nijveldt 1959, Skuhrová 1986, Skuhrová & Roques 2000, Alford 2007.

**Netherlands** GE Wageningen, 22.VII.1953, 6.VI.1957; LN Horst, 22.VII.1959, all WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rare, pest species.

### *Rhizomyia fasciata* Kieffer, 1904

**Biology** Unknown, caught in flight, probably xylophagous or mycetophagous.

**References** Nijveldt 1999.

**Netherlands** UT Neerlangbroek, 4.IV.1968, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** France, Russia, the Netherlands, very rarely recorded.

### *Rhopalomyia artemisiae* (Bouché, 1834)

**Biology** Host *Artemisia campestris* incl. subsp. *variabilis*, *A. scoparia*, *A. vulgaris* (Asteraceae).

Terminal cluster of disfigured and oval leaves, bud-like, enclosing a little ovoid larval chamber.

**References** H: 5774 sq., 7468, Skuhrová 1986, 1987 (analysis of distribution).

**Netherlands** No records.

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** Euro-Siberian, very rarely recorded in this area, however found in 23 countries of Europe.

***Rhopalomyia baccarum* (Wachtl, 1883)  
(fig. 103)**

= *Misopatha baccarum*

New for Belgium

**Biology** Host *Artemisia campestris* incl. subsp. *maritima*, *A. scoparia*, *A. vulgaris* (Asteraceae). Galls 2-5 mm large, berry-like, distinct on both sides of the lamina.

**References** HB: 744, H: 5798, DA: p290, DVL: p90, RS: p44, Skuhrová 1986.

**Netherlands** FR Sneek-Burgemeester Rasterhoffpark, 5.IX.2010, H. Talsma; ZH Delft, 1.VIII.1951, DVL; Maasland-Aalkeet Binnenpolder, 26.IX.2011, B. van As; UT Baarn, VI.1927, Bierhaalder; GE Rhenen-Grebbe, 18.VII.1952; LZ Slenaken, no date, both DVL.

**Belgium** wv Herdersbrug, 3.X.2010 & 23.VIII.2011, both H. De Blauwe.

**Luxembourg** No records.

**Range** Euro-Siberian, Asia Minor, moderately frequent.

***Rhopalomyia chrysanthemii* (Ahlberg, 1939)**

**Biology** Host *Chrysanthemum indicum*, *rubellum*, incl. various forms. Stem internodes ± stunted and swollen, occupied with often many, 2-3 mm large, acute-conical, ± obliquely protruding, ± pubescent galls. Hosts in case of strongly infestation often largely deformed.

**References** HB: 1764, RS: p153, Skuhrová 1986.

**Netherlands** No records.

**Belgium** No location, no date (De Clercq 1981, Skuhrová et al. 2010).

**Luxembourg** No records.

**Range** Origin unknown, probably from temperate Asia. For Europe, recorded in Great Britain in 1927; since then in large areas of N-, C-, NW-Europe in nurseries, as well in greenhouses as in outdoor cultures. Very rarely recorded.

***Rhopalomyia cristaegalli* (Karsch, 1877)**

**Biology** Host *Rhinanthus angustifolia*, *alectorolophus* (= *major*), *glaber*, *minor* (Orobanchaceae). Flowers transformed into white-wooly, felt-like, succulent masses.

**References** HB: 5747, H: 5130, DA: p267, RS: p266, De Meijere 1946, Skuhrová 1986.

**Netherlands** FR Wolvega-Lindenvallei, 4.VIII.1941, DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Rhopalomyia florum* (Kieffer, 1890)  
(fig. 104)**

= *Diarthronomyia florum*

**Biology** Host *Artemisia* spp. (Asteraceae). Capitules slightly enlarged and elongated, truncated at the top, ± red-coloured. Between the flowers an ovate, translucent gall.

**References** HB: 783, H: 5817, DA: p291, DVL: p93, RS: 44, Skuhrová 1986.

**Netherlands** NH Amsterdam-Nieuwendam, 17.X.2010 & 15.VIII.2011, both W.N. Ellis; ZH Vlaardingen-Holypark, 26.IX.2008, B. van As; LZ Houthem-St. Gerlach, 15.IX.2012, W.N. Ellis.

**Belgium** No records.

**Luxembourg** No records.

**Range** Euro-Siberian, rarely recorded.

***Rhopalomyia foliorum* (H. Loew, 1850)**  
(fig. 105)

**Biology** Host *Artemisia vulgaris*, also on *A. abrotanum*. Galls protruding on upper side of leaf, about 2 mm long, oblong egg-shaped, acuminate, yellowish or reddish, at top with narrow opening, unilocular; thin-walled, ± transparent; solitary or gregarious; usually on veins.

**References** HB: 745, H: 5809, 5824, DA: p290, DVL: p91, RS: p45, RJK: p12, Skuhřavá 1986, Harris 2008.

**Netherlands** GR Haren, 10.IX.2008; DR Zuidwolde, 9.V.2009, both J. Bijkerk; GE Renkum, 4.IX.2012 & 25.VII.2013, both M. Immerzeel & A. Stip; Wageningen, 30.X.2011, M. Courbois, M. Lammers & K van Bockhove; NB Loonse en Drunense Duinen, 9.VII.2013, A. Stip & G. de Ouden.

**Belgium** No location, no date (Gosseries 1991); AN Vlasroot-Flaeshede, 5.IX.2013, L. van Bunder; LG Chênée, 24.XI.2011; Liège, 18.X.2010, both J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Euro-Siberian, moderately frequent.

***Rhopalomyia millefolii* (H. Loew, 1850)**

**Biology** Host *Achillea millefolium* (Asteraceae). Gall, ovoid to jar-shaped, up to 6 mm long, initially depending on the location pale or green and soft, later brown, almost black, tough walled, unilocular. At the narrowed upper end with deflected haired lobes around opening when mature.

**References** HB: 80, 91, 113, 127, H: 5720 sq., DA: p285, DVL: p76, RS: p24, RJK: p9, Skuhřavá 1986. **Netherlands** 18 records: GR, DR, OV, NH, ZH, UT, GE, ZV, LZ.

**Belgium** wv Nieuwpoort, 8.VI.2013, J. Devos; AN Balen, 29.VIII.2009, R. Barendse; NM Dinant, 5.IX.2010; Mornimont, 15.X.2013; Villers-sur-Lesse, 21.X.2013, 3 × J.-Y. Baugnée; Vogenée, no date, M.-T. Romain & J.-P. Duvivier; Willerzie, 31.VIII.1975 (Lambinon 1976); LG Plombières, 3.X.2010 (Lambinon et al. 2010).

**Luxembourg** No records.

**Range** Euro-Siberian, frequent.

***Rhopalomyia ptarmicae* (Vallot, 1849)**

**Biology** Host *Achillea ptarmica*, rarely *A. millefolium*, *A. ochroleuca* (= *pectinata*) (Asteraceae). Tip of shoot, possibly including inflorescences or also lateral buds, changed in a spongy, whitish or reddish, ± globular-oval, smaller or up to 30 mm large, not rarely whitish pubescent, multilocular gall, often disc-like framed by some ± shortened and broadened leaves.

**References** HB: 112, H: 5706 sq., DA: p286, DVL: p77, RS: p26, RJK: p10, Gratia 1958, Lambinon 1976, Skuhřavá 1986, Lambinon et al. 2001.

**Netherlands** 57 records: DR, OV, ZH, UT, GE, NB, LZ.

**Belgium** 37 records, all provinces, BR, LI excepted.

**Luxembourg** ARD 2 records.

**Range** Europe, most frequent.

***Rhopalomyia tanaceticola* (Karsch, 1879)**

**Biology** Host *Tanacetum vulgare* (Asteraceae).

Galls on axillary buds, on leaves, in axils of leaves and in flower heads.

**References** HB: 6924, H: 5750 sq., DA: p288, DVL: p279, RS: p321, RJK: p59, Leclercq 1942, Gratia 1958, Skuhřavá 1986, Lambinon et al. 2001, Harris 2008.

**Netherlands** 163 records, all provinces, FI, FL excepted.

**Belgium** 149 records, all provinces, BW excepted.

**Luxembourg** LOR 4 records.

**Range** Euro-Siberian, most frequent.

***Rondaniola bursaria* (Brems, 1847)**

**Biology** Host *Glechoma hederacea*, *G. hirsuta* (Lamiaceae). Lamina on upper side often with numerous haired, cylindrical pouch galls, slender, ± corniculate or sac-shaped, up to 4 mm tall,



dropping off when mature, leaving on the lamina a rotund, rimmed hole.

**References** HB: 3049, H: 4809 sq., DA: p256, DVL: p147, RS: p130, RJK: p24, Gratia 1958, Skuhrová 1986, Lambinon et al. 2001.

**Netherlands** 225 records, all provinces.

**Belgium** 108 records, all provinces.

**Luxembourg** LOR 1 record.

**Range** Europe, most frequent.

### *Sackenomyia reaumurii* (Bremer, 1847) (fig. 106)

= *Phlyctidobia solmsi*

New for Belgium, the Netherlands.

**Biology** Host *Viburnum lantana* (Adoxaceae).

Laminas often with many parenchyma galls, up to 6 mm broad, rotund, flat on both sides often ± reddened on upperside, light green on underside.

**References** HB: 7497, H: 5349, DA: p273, DVL: p300, RS: p351, Skuhrová 1986.

**Netherlands** LZ Wijlre-Akkers, 20.VII.2011, J.-J. Spaargaren.

**Belgium** NM Anseremme, 29.V.2012, G. Minet; Ave-et-Auffe, 7.VIII.2010, J.-Y. Baugnée; Ave-et-Auffe, 12.VI.2011 & 6.VIII.2012, both P. Van Sanden & D. Dekeukeleire; Bouvignes-sur-Meuse, 18.VII.2009, anon.; Bouvignes, 10.VII.2010, R. Barendse; Furfooz, 10.V.2014, J. Hendrix; Gendron, 20.IX.2007, M.-T. Romain & J. Leurquin; Han-sur-Lesse, no date, J.-Y. Baugnée; Honnay, 30.V.2012, P. Dupriez; Rochefort, 30.V.2014, K. Van Acker; Wavreille, 6.VIII.2012, J. Mortelmans; LX Marcheen-Famenne, 13.VI.2009, M.-T. Romain; Resteigne, 9.X.2011, J.-Y. Baugnée; Torgny, 13.VII.2010, anon.

**Luxembourg** LOR Ahn-Palmberg; Bettendorf-Schoofsbesch; Dudelange-Haardt; L Rosport-Hoelt (all: Lambinon et al. 2001).

**Range** Europe, frequent.

### *Schizomyia galiorum* Kieffer, 1889

**Biology** Host *Galium* spp. also on *Asperula* (Rubiaceae). Single flower buds are swollen, especially

at base, up to 3.5 mm long, wall thickened, outside violet coloured, inside lined with mycelium.

**References** HB: 823, 2936, H: 5281 sq., 7346 sq., DA: p271, DVL: p144, RS: p124.

**Netherlands** FR Polder Rohel, 30.VIII.2012, T. IJlstra; OV Wijchen, 23.VIII.1933; NH Texel, 13.VII.1933 & VIII.1938; ZH Katwijk, 22.IX.1915 & 27.IX.1915, 5 × DVL; NB Langenboom-De Kuilen, 1.XI.2010, A. Jacobs; LZ De Grebe, 22.VIII.1952, DVL.

**Belgium** HN Forge-Jean-Petit, 8.VIII.2013, S. Carbonnelle; Mouscron, 4.VIII.2013, S. Claerebout; NM Agimont, 2.VIII.2013 (Carbonnelle 2013); Aublain, 10.VIII.2013, S. Carbonnelle; Nismes, 2.VIII.2012 (Lambinon et al. 2012a); Nismes, 1.VIII.2013 (Carbonnelle 2013); Pondrome, no date, J.-Y. Baugnée; LX Barvaux, 28.VII.1957 (Lambinon 1958).

**Luxembourg** No records.

**Range** Euro-Siberian, frequent.

### *Semudobia betulae* (Winnertz, 1853)

New for Belgium

**Biology** Host *Betula* spp. (Betulaceae). Fruit more or less egg-shaped, swollen, dull, more or less pubescent, wings smaller than those of healthy fruits, but distinctly developed. Exit window circular, distinct.

**References** HB: 1113, H: 1067 sq., DA: p137, DVL: p98, RS: p54, RJK: p14, Roskam 1977, Entwistle 2000.

**Netherlands** 41 records, all provinces.

**Belgium** WV St. Kruis-centre, 25.VII.2013, J. Devos; OV Belzele-Durmakker, 29.VIII.2010, anon.; BR Evere, 21.IV.2013, B. Hanssens; LG Retinne, 28.VIII.2010, anon.

**Luxembourg** ARD Moulin de Bourscheid; LOR Ettelbruck; Mondorf-les-Bains (all: Lambinon et al. 2001).

**Range** Euro-Siberian, secondarily Holarctic, very frequent.

***Semudobia skubravae* Roskam, 1977**  
(fig. 107)

New for Belgium

**Biology** Host *Betula* spp. (Betulaceae). Malformation of the somewhat thickened base of the fruit scales, which are firmly connected with the spindle of the catkin.

**References** DA: p137, DVL: p98, RS: p53, Roskam 1977, Entwistle 2000.

**Netherlands** 37 records: FI, NH, ZH, UT, GE, ZE, LZ.

**Belgium** NM Frasnes-les-Couvin, 31.I.2014, S. Carbonnelle.

**Luxembourg** No records.

**Range** Holarctic, very frequent.

***Semudobia tarda* Roskam, 1977**

New for Belgium

**Biology** Host *Betula* spp. (Betulaceae). Fruit almost globular, swollen, glossy, glabrous, wings almost completely reduced, exit window indistinctly translucent.

**References** DA: p137, DVL: p98, RS: p54, RJK: p14, Roskam 1977, Entwistle 2000.

**Netherlands** 71 records: FI, NH, ZH, UT, GE, ZE, LN, LZ.

**Belgium** VB Hallerbos, 1.IX.2013, P. Kestemont; HN Vaulx-lez-Tournai, 26.XII.2013; NM Couvin, 15.XI.2013; Frasnes-les-Couvin, 7.XII.2013, 3 × S. Carbonnelle.

**Luxembourg** No records.

**Range** Euro-Siberian, secondarily Holarctic, most frequent.

***Silvestriola farinicola* (Barnes, 1929)**

**Biology** Mite predator, e.g., *Dermatophagoides farinae* (Acarina: Pyroglyphidae).

**References** Skuhřavá 1986.

**Netherlands** GE Putten, no date, J.T. Oudemans.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe (Great Britain, Italy, the Netherlands), very rarely recorded.

***Sitodiplosis mosellana* (Géhin, 1857)**

= *S. aurantiaca*

**Biology** Host *Triticum vulgare* (Poaceae). Larvae feed on developing grains in ears.

**References** De Meijere 1909, 1939, Skuhřavá 1986, Darvas et al. 2000.

**Netherlands** No location, no date, WN.

**Belgium** No location, no date (De Clercq 1981, Gosseries 1991).

**Luxembourg** No records.

**Range** Holarctic; pest species in the past. Currently under Shandy in Belgium (Chavalle et al 2014, Jacquemin 2014, Jacquemin et al. 2014).

***Spurgia euphorbiae* (Vallot, 1837)**

= *Bayeria capitigena*, *Dasineura subpatula*

**Biology** Host *Euphorbia cyparissias*, rarely on other species (Euphorbiaceae). Loose tuft consisting of many, sometimes slightly undulate, pale-green leaves, about 7-9 mm broad and 10-15 (20) mm long.

**References** HB: 2606, H: 3869 sq., 7012, DA: p217, DVL: p132, RS: p108, RJK: p20, Gagné 1990, Lambinon et al. 2001.

**Netherlands** 76 records: OV, NH, ZH, UT, GE, NB, LZ.

**Belgium** 26 records: AN, NM, LX.

**Luxembourg** ARD 2 records; LOR 6 records.

**Range** Europe, most frequent. All data under *Spurgia euphorbiae*; *S. esulae* is a mediterranean species (Gagné & Jaschhof 2014).

***Taxomyia taxi* (Inchbald, 1861)**

**Biology** Host *Taxus baccata* (Taxaceae). Leaves terminally on main and side shoots clustered into conspicuous, 10-20 (30) mm long, ± pale green, cone-like galls; leaves severely shortened and broadened, the inner ones almost scale-like, membranaceous or ± succulent.

**References** HB: 6969, H: 150 sq., DA: p67, DVL: p282, RS: p324, RJK: p59, De Meijere 1946, Skuhrová 1986, Skuhrová & Roques 2000, Redfern & Hunter 2005.

**Netherlands** ov Dinkelland, 28.II.2014, B. Haamberg; Delden-Twickel, 12.VI.1953 & 10.VI.1955; Deventer-Wilp, 25.VIII.1954; Winterswijk-Kotten, 27.VI.1941, 4 × DVL; GE Oosterbeek, 19.I.1967, WN; Bennekom, 18.II.2013; Veluwezoom, 21.IV.2014, both H.-J. van der Kolk.

**Belgium** wv Bruges, 8.VI.2010, 22.X.2010, both J. Devos & H. De Blauwe; ov St. Denijs-Westrem, 26.II.2010, anon.; St. Martens-Latem, 14.II.2010, anon.; AN Olmen-Asbeek, 28.VIII.2009, R. Barendse; HN Lomporet, 23.VI.1968 (Lebeau & Lambinon 1968); Lomporet, 5.IV.2014, S. Carbonnelle; Chimay, 27.IV.2013, S. Claerebout.

**Luxembourg** No records.

**Range** Europe, moderately frequent.

***Thecodiplosis brachyntera***  
(Schwägrichen, 1835)

**Biology** Host *Pinus sylvestris*, *P. mugo*, ? *P. pinea* (Pinaceae). Infestation of developing needles. They are severely shortened, their bases ± fused over a length of 2-3 mm, swollen, sometimes slightly twisted, erect and in autumn often golden-yellow.

**References** HB: 4857, H: 76 sq., DVL: p191, RS: 195, Skuhrový 1991, Skuhrová & Roques 2000.

**Netherlands** ov Ruurlo, 2.IX.1950, DVL; UT Elst-Remmerden, XI.1969; Neerlangbroek-Leeuwenburgh, 14.III.1968; GE Apeldoorn-Woeste Hoeve, 13.IX.1968; Arnhem-I.T.B.O.N., 4.IX.1961; Bennekom, II.1972; Elst, XI.1969, Wageningen, 21.X.1960, 12.XI.1960, 3.XII.1960, 9x WN; NB Lage Mierde-De Utrecht, 27.VIII.2003, W.N. Ellis.

**Belgium** No location, no date (Gosseries 1991); LG Theux, 20.IX.2010, J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Euro-Siberian, moderately frequent, pest species.

***Thurauia aquatica* Rübsaamen, 1899**

**Biology** Host *Carex appropinquata*, *C. ericetorum* (= *paradoxa*), *C. echinata*, *C. muricata*, *C. remota* (Cyperaceae). Stem and leaf sheath with weak depressions. No true galls.

**References** HB: 1476, Nijveldt 1985a, Skuhrová 1986.

**Netherlands** GE Veenendaal-Blauwe Hel, 25.VI.1982, H.J. Vlugg.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rare.

***Tricholaba trifolii* Rübsaamen, 1917**

**Biology** Host *Trifolium pratense* (Fabaceae). Galls restricted to the central part of the lamina, always surrounded by a broad margin of ungalled lamina tissue. Wall only slightly thickened, sometimes pale-green, also red discoloured, browned if mature. Also inquiline in galls of *Dasineura leguminicola*.

**References** HB: 7179, DA: p202, DVL: p289, RS: p334, Nijveldt 1957, 1959, 1963.

**Netherlands** GE Duffelt-Millingerwaard, 27.VII.2010, M. van Bergen; GE Hemmen, 7.VIII.1956, 30.VII.1957, 1958, 3 × WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Euro-Siberian, rare.

***Trisopsis abdominalis* Mamaev, 1961**

**Biology** Presumably predator; most adults are caught in flight; reared from conifer cones.

**References** Nijveldt 1980, Skuhrová 1986.

**Netherlands** GE Oosterbeek-Bato's Park, 3.III.1969, WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Germany, the Netherlands, Russia (? cosmopolitan), very rarely recorded.

### *Trotteria galii* Rübсаamen, 1912

**Biology** Inquiline in galls of *Schizomyia galiorum* on *Galium* spp. (Rubiaceae).

**References** DVL: p144, Skuhřavá 1986.

**Netherlands** FI Ameland, 26.VIII.1935; Schiermonnikoog, 3.VIII.1947; OV Wijchen, 26.

VII.1941; NB Gennep, 10.VII.1940, all DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, rarely recorded.

**Note** Galls with *Trotteria* are smaller and do not contain healthy *Schizomyia*-larvae.

### *Trotteria obtusa* (H. Loew, 1845)

= *T. sarothamni*

**Biology** Inquiline in galls of *Asphondylia sarothamni* on *Cytisus scoparius* (Fabaceae).

**References** Nijveldt 1985a, Skuhřavá 1986.

**Netherlands** GE Wageningen 23.VII.1984, 23.VII.1985, both WN.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

### *Wachtliella caricis* (H. Loew, 1850)

= *W. riparia*

**Biology** Host especially on sedges of the subgenus *Vignea*, such as *C. brizoides*, *C. caryophylla*, *C. cuprina*, *C. disticha*, *C. divulsa*, *C. vulpina* (= *muricata*), *C. pairaei*, ? *C. macrosolen* (= *macrocarpa*), etc. (Cyperaceae). Ovary transformed into an acuminate cylindrical, usually pale green gall, 5-10 (12) mm long.

**References** HB: 1506, H: 365 sq., DA: p87, DVL: p105, RS: p72.

**Netherlands** 16 records: UT, GE, LZ.

**Belgium** No location, no date (Gosseries 1991);

VB Demerbeemden, 25.V.2014, E. Molenaar;

HN St. Ghislain, 20.VI.2010, anon.; NM Agimont, 2.VIII.2013 (Carbonnelle 2013); Agimont,

8.VI.2011; Finnevaux, 13.VI.2009, both G. Minet;

Lessive, 22.VI.2010, J.-Y. Baugnée; Matagne-la-Grande, 1.VIII.2012 (Lambinon et al. 2012a);

LG Seille, 20.VI.2010, M.-T. Romain; LX Marloie, 7.VII.2012, J.-Y. Baugnée.

**Luxembourg** No records.

**Range** Europe, frequent.

### *Wachtliella persicariae* (Linnaeus, 1767)

**Biology** Host *Persicaria amphibia* (Polygonaceae). Conspicuous, fleshy thickened, vitreous and brittle, yellowish to red roll downwards on one or both leaf halves, partially locally narrowed, sometimes expanded over the whole margin. At the end of the shoots often on several neighbouring leaves.

**References** HB: 4989, H: 2159 sq., 6576 sq.,

DA: p146, DVL: p183, RS: p182, RJK: p29.

**Netherlands** 143 records, all provinces, FL, ZE excepted.

**Belgium** 66 records, all provinces, BW excepted.

**Luxembourg** LOR Reckange-sur-Mess (Lambinon et al. 2001).

**Range** Europe up to Caucasus, most frequent.

### *Wachtliella stachydis* (Bremer, 1847)

**Biology** Host *Stachys palustris*, *S. recta*, *S. sylvatica* (Lamiaceae). Inner leaves of end- or lateral buds strongly stunted, not unfolding, often ± boat-shaped, bent and shrivelled; developing into a 15-35 mm long, pale, erect, irregular gall. Laminae of ± spreading leaves with cartilaginous, green-yellow roll of leaf margin.

**References** HB: 6815, H: 4860 sq., DA: p258, RS: p317, DVL: p276, RJK: p58, Leclercq 1942, Gratia 1958.

**Netherlands** 20 records: DR, OV, NH, ZH, UT, GE, LZ.

**Belgium** 30 records: AN, VB, BW, HN, NM, LG, LX.

**Luxembourg** No records.

**Range** Europe, very frequent.

***Xylodiplosis nigratarsis* (Zetterstedt, 1850)  
(fig. 108)**

= *X. praecox*

**Biology** Larvae develop in xylem vessels of fresh-cut wood of *Quercus* spp. (Fagaceae).

**References** Nijveldt 1980, Skuhravá 1986, Skuhravá et al. 2006b (Denmark), 2014 (Germany). **Netherlands** GE Bennekom, 21.IV.2014, E. Dijkstra; NB Gemert-De Rips, 14.IX.1978, WN.

**Belgium** No location, no date (Gosseries 1991).

**Luxembourg** No records.

**Range** Europe, very rarely recorded.

***Zeuxidiplosis giardi* (Kieffer, 1896) (fig. 109)**

= *Diplosis giardiana*

**Biology** Host *Hypericum perforatum* and rarely on other species (Hypericaceae). Galls ± globose, usually reddish, consisting of the terminal, distinctly shortened and widened, completely galled pair of leaves; inside with a large chamber.

**References** HB: 3370, H: 4210 sq., 7082, DA: p229, RS: p139.

**Netherlands** No records.

**Belgium** NM Finnevaux, 23.VIII.2013, J.-Y. Baugnée; Matagne-la-Grande, 1.VIII.2012; Nismes, 2.VIII.2012; Olloy-sur-Viroin, 2.VIII.2012 (3 × Lambinon et al. 2012a); LX Sy, 28.VII.1957 (Lambinon 1958).

**Luxembourg** No records.

**Range** Euro-Siberian, secondarily Holarctic, rarely recorded. Introduced in California and New Zealand for biocontrol of *H. perforatum*.

***Zygiobia carpini* (F. Löw, 1874)**

**Biology** Host *Carpinus betulus*. (Betulaceae).

Midrib and the adjacent parts of the side veins on the leaf underside with conspicuous, interrupted or continuous, in that case bumpy swellings. Lamina sometimes over the midrib ± bent upwards.

**References** HB: 1550, H: 1045, DA: p134, DVL: p106, RS: p74, RJK: p16, Gratia 1958, Lambinon 1959, Skuhravá 1986.

**Netherlands** FL Lelystad-Gelderse Hout, 16.IX.2012, Soortenzoekdag Lelystad; OV Lochem, VII.1937, DVL; Boswachterij Ommen-Meiersbos, 24.IX.2012; Sallandse Heuvelrug-Eelerberg, 20.IX.2013, both H. Soepenbergh; Winterswijk, 24.VIII.1939, DVL; Winterswijk-Buskerbos, 8.VIII.2010, B. van As; NH Bergen Noord-Noordhollands Duinreservaat, 4.X.2012, J. van Roosmalen; Haarlem-Haarlemmerhout, 12.X.2011, D. Vonk; ZH Voorschoten-Kasteel Duivenvoorde, 15.IX.2012, B. van As; GE Rekken, 21.VIII.1936, DVL; Voorthuizen-Kieftveen, 15.VII.2011, N.-J. Dek; LN Mook-Plasmolen, 9.VII.1943, DVL; Mook-Plasmolen, 9.VII.2012, J. van Harten; LZ Geuldal, 3.VI.2008, F. Grotenhuis.

**Belgium** 49 records, all provinces, wv excepted.

**Luxembourg** ARD Esch-sur-Sûre; Heinerscheid-Lascheidsmühle; Perlé-Holz; Weidingen; LOR Berdorf-Roitzbach; Colpach Bas-Oberpallen; Dudelange-Haardt; Howald (all: Lambinon et al. 2001).

**Range** Europe, up to Caucasus, most frequent.



## Species removed from the list

### *Anarete coracina* (Zetterstedt, 1851)

**References** Nijveldt & Beuk 2002, Gagné & Jaschhof 2014.

**Note** Transferred to Sciaridae and hence removed from Cecidomyiidae.

### *Campylomyza bicolor* Meigen, 1818

**Biology** Mycetophagous on various hosts.

**References** Gagné & Jaschhof 2014.

**Netherlands** No location, no date. Listed in Fauna Europaea, not in Nijveldt & Beuk (2002).

**Belgium** No records.

**Luxembourg** no records.

**Range** France, Germany, Great Britain, Sweden, Latvia.

**Note** No specimens present in collections and not listed for the Netherlands in Gagné & Jaschhof (2014). Hence removed from Dutch checklist.

### *Apiomyia bergenstammi* (Wachtl, 1882)

**Biology** Host *Pyrus communis*, *P. salicifolia*, *P. syriaca* (Rosaceae). Buds, including attachments, transformed into a globular to conical, yellowish, multi-chambered, woody gall.

**References** HB: 5334, H: 2877 sq., DA: p182, DVL: p207, Docters van Leeuwen 1949.

**Netherlands** Groningen, no date, DVL.

**Belgium** No records.

**Luxembourg** No records.

**Range** Europe, Middle East, potential pest, very rarely recorded.

**Note** Only one record without exact location dated 1868. No specimens present in collections and not listed for the Netherlands in Gagné & Jaschhof (2014). Hence removed from the Dutch checklist.

### *Janetia cerris* (Kollar, 1850)

**Biology** Host *Quercus cerris* (Fagaceae). Leaf gall; upper part with broad base, acuminate-conical; about 2 mm high, glabrous, yellow-brown. The somewhat narrower, on the underside only weakly protruding, basal part is flat disc-like, with a central channel and densely covered with distant, fine yellowish hairs. Between both parts is the elongated larval chamber. At maturity the basal part becomes lid-like detached and drops off.

**References** HB: 5595, H: 1887 etc., DVL: p212.

**Netherlands** No location, 1876, H. Weijenberg.

**Belgium** No records.

**Luxembourg** No records.

**Range** Sub-mediterranean, very rare.

**Note** Not present in Dutch collections; very unlikely from the Netherlands (M. Skuhrová, in litt.), therefore removed.

### *Rabdophaga clausilia* (Bremi, 1847)

**Biology** Host *Salix alba* (Salicaceae). Narrow rolls of leaf margin.

**Note** Removed for Belgium and the Netherlands. Stelter (1993) and Skuhrová et al. (2006) point out that similar rolls of leaf margin on *Salix* are formed by Eriophyidae (Acarina), but the larva originally described (only as yellow) by Bremi would still be the name bearer. This species would

Table 1. Abundance of cecidomyiid species.

Table 1. Abundantie van galmuggen.

Frequency	Number of species
Very rare(-ly recorded) (1-2 records)	146
Rare(-ly recorded) (3-6 records)	78
Moderately frequent (7-14 records)	58
Frequent (15-30 records)	50
Very frequent (31-62 records)	35
Most frequent (> 63 records)	49

Table 2. Summary of all records. Doubtful records are between brackets. New species to the Netherlands (11) and Belgium (87) are indicated with an \*.

Table 2. Samenvatting van alle records. Twijfelachtige records staan tussen haakjes. Nieuwe landenrecords voor Nederland (10) en België (87) zijn aangegeven met een \*.

	NL	BE	L
<b>Lestremiinae</b>			
1 Anarete candidata	0	1	0
2 Anarete lacteipennis	0	1	0
3 Anaretella defecta	1	0	0
4 Anaretella iola	1	0	0
5 Lestremia cinerea	8	0	0
6 Lestremia leucophaea	1	1	0
<b>Micromyinae</b>			
7 Acoenonia cf. europaea	2	0	0
8 Aprionus bidentatus	1	0	0
9 Aprionus flavidus	1	1	0
10 Bryomyia bergrothi	1	0	0
11 Bryomyia gibbosa	1	0	0
12 Bryomyia producta	1	0	0
13 Campylomyza flavipes	6	0	0
14 Campylomyza serrata	1	0	0
15 Catocha latipes	2	0	0
16 Micromyia lucorum	2	0	0
17 Monardia atra	3	0	0
18 Monardia stirpium	2	0	0
19 Monardia toxicodendri	1	0	0
20 Mycophila fungicola	6	0	0
21 Mycophila speyeri	3	1	0
22 Xylopriona atra	0	1	0
<b>Winnertziinae</b>			
23 Heteropeza pygmaea	3	0	0
24 Miastor metraloas	6	1	0
25 Winnertzia curvata	1	0	0
26 Winnertzia nigripennis	1	0	0
27 Winnertzia rubricola	1	0	0
<b>Porricondylinae</b>			
28 Asynapta pectoralis	0	1	0
29 Asynapta phragmitis	3	0	0
30 Asynapta saliciperda	2	0	0
31 Asynapta strobi	3	0	0
32 Camptomyia abnormis	1	0	0
<b>Cecidomyiinae</b>			
33 Cedrocrypta montana	2	0	0
34 Claspptomomyia hamata	3	0	0
35 Coccopsilis marginata	2	0	0
36 Colpodia angustipennis	0	1	0
37 Colpodia pallidula	1	0	0
38 Divellepidosis hypoxantha	1	0	0
39 Monepidosis carolinae	2	0	0
40 Monepidosis pectinata	1	0	0
41 Neocolpodia paradoxa	1	0	0
42 Parepidosis arctuata	2	0	0
43 Parepidosis argentifera	1	0	0
44 Parepidosis venustior	1	1	0
45 Porricondyla hypoxantha	2	0	0
46 Porricondyla nigripennis	2	1	0
47 Porricondyla nitida	1	0	0
48 Porricondyla rufocinerea	1	0	0
49 Porricondyla rufescens	2	0	0
50 Acericecis campestre	0	5*	0
51 Ametrodiplosis crassinerva	2	0	0
52 Ametrodiplosis duclosii	0	1*	0
53 Ametrodiplosis thalicttricola	19	1*	0
54 Anabremia viciae	2	1*	0
55 Anisostephus betulinus	16	6	0
56 Anthodiplosis rudimentalis	50	6*	1
57 Aphidoletes aphidimyza	20	1	0
58 Aphidoletes urticaria	6	0	0
59 Arnoldiola libera	6	3*	0
60 Arnoldiola quercus	5	4*	0
61 Aschistonyx carpnicolus	1	4*	1
62 Asphondylia baudyisi	1	0	0
63 Asphondylia ervi	1	(1)	0
64 Asphondylia fusca	0	1	0
65 Asphondylia genistae	0	2*	0
66 Asphondylia lathyri	0	1*	0
67 Asphondylia melanopus	2	10*	0
68 Asphondylia ononidis	5	1*	0
69 Asphondylia pilosa	1*	4*	0

		NL	BE	L
70	<i>Asphondylia pruniperda</i>	5	1	0
71	<i>Asphondylia sarothamni</i>	121	55	1
72	<i>Asphondylia verbasci</i>	1	1	0
73	<i>Atrichosema aceris</i>	6	0	1
74	<i>Bayeriola salicariae</i>	8	13*	0
75	<i>Bayeriola thymicola</i>	3	5	0
76	<i>Blastomyia origani</i>	0	2*	0
77	<i>Brachyneura squamigera</i>	1	0	0
78	<i>Brachyneurina peniophorae</i>	1	0	0
79	<i>Cecidomyia harrisi</i>	1	0	0
80	<i>Cecidomyia magna</i>	3	0	0
81	<i>Cecidomyia pini</i>	15	1	0
82	<i>Cecidomyia sarae</i>	2	0	0
83	<i>Clinodiplosis cilicrus s.l.</i>	34	5	0
84	<i>Coniophora autumnalis</i>	3	0	0
85	<i>Coniophora graminicola</i>	1	0	0
86	<i>Contarinia acerplicans</i>	2	14	2
87	<i>Contarinia acetosellae</i>	1	0	0
88	<i>Contarinia aequalis</i>	3	9	0
89	<i>Contarinia anthobia</i>	6	6*	0
90	<i>Contarinia anthophthora</i>	8	0	0
91	<i>Contarinia asclepiadis</i>	1	3	0
92	<i>Contarinia baeri</i>	5	0	0
93	<i>Contarinia barbichei</i>	7	0	0
94	<i>Contarinia carpini</i>	0	6*	0
95	<i>Contarinia chrysanthemi</i>	0	2	0
96	<i>Contarinia coryli</i>	40	25	0
97	<i>Contarinia craccae</i>	4	9	0
98	<i>Contarinia dipsacearum</i>	2	0	0
99	<i>Contarinia fagi</i>	3	5	0
100	<i>Contarinia floriperda</i>	1	1*	0
101	<i>Contarinia galeobdolonis</i>	1	0	0
102	<i>Contarinia gei</i>	0	2	0
103	<i>Contarinia heraclei</i>	4	0	0
104	<i>Contarinia hyperici</i>	1	0	0
105	<i>Contarinia hypochoeridis</i>	1	5*	0
106	<i>Contarinia jacobaeae</i>	20	6	0
107	<i>Contarinia lonicerearum</i>	3	0	0
108	<i>Contarinia loti</i>	57	7	1
109	<i>Contarinia medicaginis</i>	15	8	0
110	<i>Contarinia molluginis</i>	0	1	0
111	<i>Contarinia nasturtii</i>	55	1	0
112	<i>Contarinia nicolayi</i>	7	0	0
113	<i>Contarinia petioli</i>	18	10	3

		NL	BE	L
114	<i>Contarinia picridis</i>	3	2	0
115	<i>Contarinia pilosellae</i>	1	0	0
116	<i>Contarinia pisi</i>	10	1	0
117	<i>Contarinia polygonati</i>	1*	0	0
118	<i>Contarinia pruniflorum</i>	0	1*	0
119	<i>Contarinia pulchripes</i>	1	1	0
120	<i>Contarinia pyrivora</i>	6	1	0
121	<i>Contarinia quercina</i>	0	1	0
122	<i>Contarinia quinquenotata</i>	2	0	2
123	<i>Contarinia ribis</i>	3	0	0
124	<i>Contarinia rubicola</i>	15	2*	0
125	<i>Contarinia rumicis</i>	3	9	0
126	<i>Contarinia sambuci</i>	1	0	0
127	<i>Contarinia schlechtendaliana</i>	0	3*	0
128	<i>Contarinia scoparii</i>	2	1	0
129	<i>Contarinia scrophulariae</i>	34	19	1
130	<i>Contarinia scutati</i>	6	0	0
131	<i>Contarinia solani</i>	12	4	0
132	<i>Contarinia sorbi</i>	12	5*	0
133	<i>Contarinia steini</i>	13	3	0
134	<i>Contarinia tiliarum</i>	58	38	5
135	<i>Contarinia tremulae</i>	9	1*	0
136	<i>Contarinia tritici</i>	1	1	0
137	<i>Contarinia valerianae</i>	2	1	0
138	<i>Contarinia viburnorum</i>	0	5*	0
139	<i>Coquillettomyia lobata</i>	1	2	0
140	<i>Craneobia corni</i>	7	12	7
141	<i>Cupressatia siskiyou</i>	6	0	0
142	<i>Cystiphora sanguinea</i>	21	3	7
143	<i>Cystiphora sonchi</i>	64	22	3
144	<i>Cystiphora taraxaci</i>	84	17	26
145	<i>Dasineura aceris</i>	0	1*	0
146	<i>Dasineura acrophila</i>	23	23	4
147	<i>Dasineura affinis</i>	23	2	0
148	<i>Dasineura alpestris</i>	9	0	0
149	<i>Dasineura angelicae</i>	4	0	0
150	<i>Dasineura aparines</i>	61	29	0
151	<i>Dasineura auritae</i>	44	30	4
152	<i>Dasineura berberidis</i>	0	1*	0
153	<i>Dasineura bergrothiana</i>	1	0	0
154	<i>Dasineura bistortae</i>	12	9*	2
155	<i>Dasineura capsulae</i>	5	0	1
156	<i>Dasineura cardaminis</i>	4	23	1
157	<i>Dasineura comosae</i>	0	2	0

	NL	BE	L
158 <i>Dasineura corylina</i>	3	0	0
159 <i>Dasineura crataegi</i>	142	109	34
160 <i>Dasineura cytisi</i>	0	1*	0
161 <i>Dasineura dioicae</i>	20	4*	0
162 <i>Dasineura dryophila</i>	0	1*	0
163 <i>Dasineura engstfeldi</i>	11	13	0
164 <i>Dasineura epilobii</i>	21	7	5
165 <i>Dasineura erigerontis</i>	0	1*	0
166 <i>Dasineura excavans</i>	0	1	2
167 <i>Dasineura fastidiosa</i>	16	0	0
168 <i>Dasineura fraxinea</i>	3	8	5
169 <i>Dasineura fraxini</i>	149	109	66
170 <i>Dasineura fructicola</i>	0	4*	0
171 <i>Dasineura galiicola</i>	29	5	0
172 <i>Dasineura gentianae</i>	3	0	0
173 <i>Dasineura gentneri</i>	4	0	0
174 <i>Dasineura glechomae</i>	28	13	0
175 <i>Dasineura gleditchiae</i>	30	7*	4
176 <i>Dasineura harrisoni</i>	1	0	0
177 <i>Dasineura helianthemis</i>	0	4	0
178 <i>Dasineura holostaeae</i>	1	0	0
179 <i>Dasineura hygrophila</i>	15	13	0
180 <i>Dasineura hyperici</i>	24	7	1
181 <i>Dasineura interbractea</i>	19	0	0
182 <i>Dasineura irregularis</i>	75	47	9
183 <i>Dasineura kiefferi</i>	0	2*	0
184 <i>Dasineura kiefferiana</i>	24	41	6
185 <i>Dasineura lamiicola</i>	0	1*	0
186 <i>Dasineura lathyri</i>	0	1*	0
187 <i>Dasineura lathyricola</i>	1	2*	0
188 <i>Dasineura leguminicola</i>	1	2*	0
189 <i>Dasineura lithospermi</i>	4	0	0
190 <i>Dasineura loewiana</i>	2	2*	0
191 <i>Dasineura lotharingiae</i>	6	1*	0
192 <i>Dasineura lupulinae</i>	2	5	0
193 <i>Dasineura mali</i>	21	7	1
194 <i>Dasineura medicaginis</i>	9	5*	1
195 <i>Dasineura myosotidis</i>	1	2*	0
196 <i>Dasineura napi</i>	10	3	1
197 <i>Dasineura odoratae</i>	11	5*	1
198 <i>Dasineura oxyacanthae</i>	2	4*	0
199 <i>Dasineura papaveris</i>	1	(2)	0
200 <i>Dasineura periclymeni</i>	8	0	0
201 <i>Dasineura phyteumatis</i>	1	0	0

	NL	BE	L
202 <i>Dasineura plicatrix</i>	64	78	8
203 <i>Dasineura populeti</i>	44	30	7
204 <i>Dasineura potentillae</i>	1	0	0
205 <i>Dasineura pseudococcus</i>	3	0	0
206 <i>Dasineura pteridicola</i>	12	3	1
207 <i>Dasineura pteridis</i>	28	11	4
208 <i>Dasineura pustulans</i>	64	87	5
209 <i>Dasineura pyri</i>	18	6	1
210 <i>Dasineura ranunculi</i>	20	8	0
211 <i>Dasineura rosae</i>	159	103	41
212 <i>Dasineura rubella</i>	1*	5*	1
213 <i>Dasineura ruebsaameni</i>	2	2	2
214 <i>Dasineura serotina</i>	31	19	0
215 <i>Dasineura similis</i>	4	5	0
216 <i>Dasineura sisymbrii</i>	154	47	5
217 <i>Dasineura spadicea</i>	10	2*	0
218 <i>Dasineura stelteri</i>	0	4	0
219 <i>Dasineura strumosa</i>	5	11	1
220 <i>Dasineura symphyti</i>	47	2*	0
221 <i>Dasineura tetensi</i>	7	1*	0
222 <i>Dasineura tetrahit</i>	1	1*	0
223 <i>Dasineura teucarii</i>	0	1*	0
224 <i>Dasineura thomasiana</i>	17	9	3
225 <i>Dasineura tiliacae</i>	42	27	2
226 <i>Dasineura tortilis</i>	36	20	0
227 <i>Dasineura tortrix</i>	4	2	0
228 <i>Dasineura traili</i>	5	3*	0
229 <i>Dasineura trifolii</i>	28	46	1
230 <i>Dasineura tubicoloides</i>	8	1*	0
231 <i>Dasineura tympani</i>	0	5*	19
232 <i>Dasineura ulmaria</i>	113	218	12
233 <i>Dasineura ulmicola</i>	1*	0	0
234 <i>Dasineura urticae</i>	319	322	47
235 <i>Dasineura viciae</i>	49	34	4
236 <i>Dasineura violae</i>	19	4*	0
237 <i>Dasineura violahirtae</i>	0	2*	0
238 <i>Didactylomyia longimana</i>	1	0	0
239 <i>Didymomyia tiliacea</i>	29	28	2
240 <i>Diodaulus linariae</i>	32	15	0
241 <i>Diodaulus traili</i>	6	1	0
242 <i>Drisina glutinosa</i>	9	39	20
243 <i>Endopsylla agilis</i>	1	0	0
244 <i>Feltiella acarisuga</i>	8	0	0
245 <i>Geocrypta campanulae</i>	0	1	0

	NL	BE	L
246 <i>Geocrypta galii</i>	50	37	2
247 <i>Geocrypta heterophylli</i>	0	1*	0
248 <i>Gephyraulus raphanistri</i>	28	2	0
249 <i>Giardomyia britannica</i>	1	0	0
250 <i>Giraudiella inclusa</i>	38	16	1
251 <i>Haplodiplosis marginata</i>	4	3	0
252 <i>Harmandiola cavernosa</i>	6	25	8
253 <i>Harmandiola globuli</i>	31	32	11
254 <i>Harmandiola pustulans</i>	0	1*	0
255 <i>Harmandiola tremulae</i>	41	52	12
256 <i>Hartigiola annulipes</i>	449	170	31
257 <i>Horidiplosis ficifolii</i>	1	0	0
258 <i>Hybolasioptera fasciata</i>	1	0	0
259 <i>Hygrodiplosis vaccinii</i>	1	0	0
260 <i>Iteomyia capreae</i>	140	112	48
261 <i>Iteomyia major</i>	141	75	4
262 <i>Jaapiella bryoniae</i>	10	12	0
263 <i>Jaapiella cirsicola</i>	4	3*	0
264 <i>Jaapiella clethrophila</i>	3	3	0
265 <i>Jaapiella compositarum</i>	1	1*	0
266 <i>Jaapiella floriperda</i>	0	2*	0
267 <i>Jaapiella genisticola</i>	19	15	3
268 <i>Jaapiella hedickei</i>	3	1	0
269 <i>Jaapiella jaapiana</i>	4	0	0
270 <i>Jaapiella loticola</i>	7	8	0
271 <i>Jaapiella medicaginis</i>	2	6	0
272 <i>Jaapiella parvula</i>	2	1*	0
273 <i>Jaapiella picridis</i>	1	0	0
274 <i>Jaapiella schmidti</i>	11	3*	0
275 <i>Jaapiella thalictri</i>	1	0	0
276 <i>Jaapiella vacciniorium</i>	4	0	0
277 <i>Jaapiella veronicae</i>	188	166	2
278 <i>Janetiella glechomae</i>	11*	3*	0
279 <i>Janetiella lemeei</i>	1	(1)	3
280 <i>Janetiella thymi</i>	3	1	0
281 <i>Janetiella tuberculi</i>	0	1	0
282 <i>Kaltenbachiola strobi</i>	3	2	0
283 <i>Karshomyia caulicola</i>	4	0	0
284 <i>Kiefferia pericarpicola</i>	43	52	3
285 <i>Lasioptera arundinis</i>	10	9	0
286 <i>Lasioptera calamagrostidis</i>	2	0	0
287 <i>Lasioptera carophila</i>	5	8	2
288 <i>Lasioptera flexuosa</i>	0	2*	0
289 <i>Lasioptera hungarica</i>	5	7	0

	NL	BE	L
290 <i>Lasioptera populnea</i>	5	2	5
291 <i>Lasioptera rubi</i>	310	259	11
292 <i>Lathyromyza schlechendali</i>	1	6	0
293 <i>Lestodiplosis vorax</i> s.l.	8	3	0
294 <i>Loewiola centaureae</i>	4	2	1
295 <i>Macrodiplosis pustularis</i>	146	95	29
296 <i>Macrodiplosis roboris</i>	83	58	17
297 <i>Macrolabis aquilegiae</i>	7	0	0
298 <i>Macrolabis brunellae</i>	1	0	0
299 <i>Macrolabis fagicola</i>	2*	0	0
300 <i>Macrolabis heraclei</i>	18	38	1
301 <i>Macrolabis hieracii</i>	3	0	0
302 <i>Macrolabis incolens</i>	1	0	0
303 <i>Macrolabis jaapi</i>	1	0	0
304 <i>Macrolabis lamii</i>	4	2*	0
305 <i>Macrolabis lonicerae</i>	9	1*	0
306 <i>Macrolabis luceti</i>	6	0	0
307 <i>Macrolabis pavida</i>	1	0	0
308 <i>Macrolabis pilosellae</i>	4	1	0
309 <i>Macrolabis podagrariae</i>	0	1*	0
310 <i>Macrolabis stellariae</i>	8	2	0
311 <i>Massalongia betulifolia</i>	0	1	0
312 <i>Massalongia ruber</i>	41	8	2
313 <i>Mayetiola bimaculata</i>	2	0	0
314 <i>Mayetiola destructor</i>	4	1	0
315 <i>Mayetiola festucae</i>	0	1	0
316 <i>Mayetiola graminis</i>	12	24	12
317 <i>Mayetiola hellwigi</i>	2	1*	0
318 <i>Mayetiola holci</i>	2	0	0
319 <i>Mayetiola radificata</i>	2	0	0
320 <i>Mayetiola schoberi</i>	6	0	0
321 <i>Mayetiola ventricola</i>	2	0	0
322 <i>Mikiola fagi</i>	459	197	62
323 <i>Mikomya coryli</i>	3	0	1
324 <i>Monarthropalpus flavus</i>	4	9*	0
325 <i>Monobremia subterranea</i>	3	0	0
326 <i>Monodiplosis liebeli</i>	0	1	0
327 <i>Mycodiplosis coniofaga</i>	2	1	0
328 <i>Mycodiplosis erysiphes</i>	2	0	0
329 <i>Mycodiplosis inimica</i>	1	0	0
330 <i>Mycodiplosis sphaerothecae</i>	2	0	0
331 <i>Neomikiella beckiana</i>	0	2*	0
332 <i>Neomikiella lychnidis</i>	7	2	0
333 <i>Obolodiplosis robiniae</i>	678	224*	2



	NL	BE	L
334 <i>Oligotrophus gemmarum</i>	4	1*	0
335 <i>Oligotrophus juniperinus</i>	10	7	0
336 <i>Oligotrophus panteli</i>	0	2*	0
337 <i>Oligotrophus schmidti</i>	0	1*	0
338 <i>Ozирhincus longicollis</i>	1	3	0
339 <i>Ozирhincus millefolii</i>	3*	1	0
340 <i>Ozирhincus tanacetii</i>	11	5	0
341 <i>Parallelodiplosis galliperda</i>	2	1	0
342 <i>Physemocecis hartigi</i>	1*	4	1
343 <i>Physemocecis ulmi</i>	24	7*	6
344 <i>Placocheila nigripes</i>	20	30	1
345 <i>Planetella arenariae</i>	5	0	0
346 <i>Planetella extrema</i>	1	0	0
347 <i>Planetella gallarum</i>	14	0	0
348 <i>Planetella producta</i>	4	0	0
349 <i>Plemeliella abietina</i>	1	0	0
350 <i>Polystepha malpighii</i>	6*	2*	3
351 <i>Prodiplosis violicola</i>	1	0	0
352 <i>Putoniella pruni</i>	1*	13	5
353 <i>Rabdophaga albipennis</i>	1	0	0
354 <i>Rabdophaga clavifex</i>	18	4	0
355 <i>Rabdophaga degeerii</i>	39	7	1
356 <i>Rabdophaga deletrix</i>	1	0	0
357 <i>Rabdophaga dubiosa</i>	13	10	0
358 <i>Rabdophaga exsiccans</i>	9	1*	0
359 <i>Rabdophaga gemmicola</i>	1	1	0
360 <i>Rabdophaga heterobia</i>	61	15	3
361 <i>Rabdophaga iteobia</i>	25	14	1
362 <i>Rabdophaga jaapi</i>	20	1*	0
363 <i>Rabdophaga justini</i>	1	0	0
364 <i>Rabdophaga karschi</i>	2	14*	0
365 <i>Rabdophaga marginemtorquens</i>	74	25	10
366 <i>Rabdophaga nervorum</i>	11	1*	0
367 <i>Rabdophaga pierreii</i>	2	0	0
368 <i>Rabdophaga pulvini</i>	12	0	0
369 <i>Rabdophaga rosaria</i>	425	98	34
370 <i>Rabdophaga roskami</i>	6	1*	0
371 <i>Rabdophaga saliciperda</i>	50	16	0
372 <i>Rabdophaga salicis</i>	153	53	8
373 <i>Rabdophaga strobilina</i>	28	14	0
374 <i>Rabdophaga terminalis</i>	61	15	5
375 <i>Rabdophaga triandraperda</i>	7	0	0

	NL	BE	L
376 <i>Rabdophaga viminalis</i>	2	0	0
377 <i>Resseliella betulicola</i>	13	6	0
378 <i>Resseliella crataegi</i>	1	0	0
379 <i>Resseliella dizygomysae</i>	2	0	0
380 <i>Resseliella oculiperda</i>	1	0	0
381 <i>Resseliella piceae</i>	1	0	0
382 <i>Resseliella ribis</i>	1	0	0
383 <i>Resseliella skuhravyorum</i>	1	0	0
384 <i>Resseliella theobaldi</i>	3	0	0
385 <i>Rhizomyia fasciata</i>	1	0	0
386 <i>Rhopalomyia artemisiae</i>	0	1	0
387 <i>Rhopalomyia baccarum</i>	6	2*	0
388 <i>Rhopalomyia chrysanthemi</i>	0	2	0
389 <i>Rhopalomyia cristaegalli</i>	1	0	0
390 <i>Rhopalomyia florum</i>	4	0	0
391 <i>Rhopalomyia foliorum</i>	6	4	0
392 <i>Rhopalomyia millefolii</i>	18	8	0
393 <i>Rhopalomyia ptarmicae</i>	57	37	2
394 <i>Rhopalomyia tanaceticola</i>	163	149	4
395 <i>Rondaniola bursaria</i>	225	108	1
396 <i>Sackenomyia reaumurii</i>	1*	15*	4
397 <i>Schizomyia galiorum</i>	8	8	0
398 <i>Semudobia betulae</i>	41	4*	3
399 <i>Semudobia skuhravae</i>	37	1*	0
400 <i>Semudobia tarda</i>	71	4*	0
401 <i>Silvestriola farinicola</i>	1	0	0
402 <i>Sitodiplosis mosellana</i>	1	1	0
403 <i>Spurgia euphorbiae</i>	76	26	8
404 <i>Taxomyia taxi</i>	8	8	0
405 <i>Thecodiplosis brachyntera</i>	11	2	0
406 <i>Thurauia aquatica</i>	1	0	0
407 <i>Tricholaba trifolii</i>	4	0	0
408 <i>Trisopsis abdominalis</i>	1	0	0
409 <i>Trotteria galii</i>	4	0	0
410 <i>Trotteria obtusa</i>	2	0	0
411 <i>Wachtliella caricis</i>	16	10	0
412 <i>Wachtliella persicariae</i>	143	66	1
413 <i>Wachtliella stachydis</i>	20	30	0
414 <i>Xylodiplosis nigratarsis</i>	2	1	0
415 <i>Zeuxidiplosis giardi</i>	0	5	0
416 <i>Zygiobia carpini</i>	14	49	8
Total	8593	4872	777

probably be an inquiline or predator, so is removed from *Rabdophaga* where it was placed by Gagné (2004).

## DISCUSSION

We gathered more than 14,000 records for this checklist: approximately 8,600 records for the Netherlands, 4,900 for Belgium and 800 for Luxembourg. The total number of cecidomyiid species for the whole area is 416: 6 species belong to the subfamily Lestremiinae, 16 species to Micromyinae, 5 species to Winnertziinae, 22 species to Porricondylinae and 367 species to the Cecidomyiinae. The mycetophagous Catotrichinae are absent from Europe (Gagné & Jaschhof 2014).

Of the total number of 416 species, 366 have been recorded in the Netherlands (345 in Nijveldt & Beuk 2002) of which 10 species (2.7%) have not been mentioned earlier in the literature. For Belgium significant progress has been made during the last two decades: 270 species have been recorded (140 in Gosseries 1991) of which 87 (32.2%) are new. For Luxembourg 96 species have been recorded, all recorded by Lambinon et al. (2001, 2012b); however checklists for Luxembourg have not been published before. The level of knowledge of Cecidomyiidae in the Netherlands may be assessed as very good, and rather poor in Belgium and Luxembourg. From adjacent but much larger countries higher numbers have been recorded: Skuhřavá et al. (2005) listed 668 cecidomyiid species for France and Skuhřavá et al. (2014) listed 686 species for Germany, for Cecidomyiinae alone. Five species are removed from the Dutch list: *Anarete coracina*, *Rabdophaga clausilia*, *Janetia cerris*, *Apiomyia bergenstammi* and *Campylomyza bicolor*.

Nijveldt & Beuk (2002), as well as Gosseries (1991) mentioned several species for the genera *Clinodiplosis* and *Lestodiplosis*. These are probably mostly ecological forms on different host plants or host gall makers. They are listed here as *Clin-*

*odiplosis cilicrus* s.l., and *Lestodiplosis vorax* s.l.

It is remarkable that a recent immigrant, *Obolodiplosis robiniae* on false acacia *Robinia pseudoacacia* was the most frequent species with 904 records, followed by *Mikiola fagi* on beech *Fagus sylvatica* with 718 records and *Dasineura urticae* on stinging nettle *Urtica dioica* with 688 records. The fourth most frequent species was *Hartigiola annulipes*, again on beech, with 650 records.

Out of the total of 416 species, 338 are gall inducers, 25 (sometimes doubtful) inquilines, 46 species have a mycetophagous or phytosaprophagous life style and seven species are predators or parasitoids. Numbers of species according to their frequency of recording are given in table 1. This often does not reflect their abundance. In many cases supposedly rare(-ly recorded) species may easily be found more abundantly by careful searching.

Most gall inducing species present in Belgium, Luxembourg and the Netherlands have also been recorded from surrounding territories of Germany (686 species, only Cecidomyiinae; Buhr 1964/1965; Skuhřavá et al. 2014), France (668 species; Houard 1908-13, Dauphin & Anietsbehere 1997, Skuhřavá et al. 2005), and Great Britain (620 species; Chandler 1998, Redfern et al. 2011). Although many more gall midge species have been recorded from these neighbouring larger territories, several species have not yet been encountered. They are listed below:

Germany: *Anabremia viciae*, *Dasineura bergrothiana*, *Dasineura fructicola*, *Prodidiplosis violicola* (mentioned in Buhr 1964/1965 for territories outside Germany but not documented for Germany) and *Cecidomyia harrisi*, *C. sarae*, *Coniophora graminicola*, *Contarinia pruniflorum*, *Dasineura fastidiosa*, *D. interbractea*, *Giardomyia britannica*, *Horidiplosis ficifolii*, *Janetiella glechomae*, *Massalongia betulifolia*, *Mayetiola festucae*, *Planetella extrema*, *Resseliella ribis*, *R. skuhřavyorum*, *Silvestriella farinicola* (not mentioned in Buhr 1964/1965).

France: *Dasineura fastidiosa*, *D. gentneri*, *D. gentianae*, *D. harrisoni*, *D. odoratae*, *Jaapiella hedickei*, *Macrolabis fagicola*, *Rabdophaga jaapi*, *Trotteria galii*.

Great Britain: *Anthodiplosis rudimentalis*, *Aschistonyx carpiniculus*, *Asphondylia verbasci*, *Contarinia anthophthora*, *C. dipsacearum*, *C. lonicerearum*, *C. picridis*, *C. scutati*, *Dasineura capsulae*, *D. fastidiosa*, *Dasineura phyteumatis*, *D. pseudococcus*, *Jaapiella clethrophila*, *Lasioptera flexuosa*, *Macrolabis fagicola*.

A summary of all records is given in table 2. Some of these species, viz., *Anthodiplosis rudimentalis*, *Asphondylia melanopus*, *Contarinia carpini*, *Janeitiella glechomae* (earlier only known from Tavares' type-locality!), *Polystepha malpighii*, *Rabdophaga iteobia*, *R. heterobia* and *R. karschi*, and *Sackenomyia reaumurii* have moderately to very frequent distributions; they were apparently overlooked earlier. *Dasineura odoratae* has been described rather recently and was apparently earlier recorded as *D. violae*.

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## SAMENVATTING

### Geannoteerde naamlijst van de galmuggen van Nederland, België en Luxemburg (Diptera: Cecidomyiidae)

Galmuggen behoren tot de belangrijkste galvormers. De uitgekomen larven veroorzaken prikkels waarop de waardplant reageert door het maken van vaak fascinerende structuren, de gallen, die zowel kost en inwoning bieden voor de zich ontwikkelende larven. De meeste galmuggen zijn heel specifiek gebonden aan bepaalde, vaak verwante, plantensoorten. Een minderheid leeft van rottende plantendelen, of voedt zich met schimmelhyfen. Sommige soorten jagen op bladluizen, mijten of andere galmuggen; zij worden gebruikt in de biologische bestrijding.

Het gehele gebied heeft 416 soorten opgeleverd; uit Nederland zijn 366 soorten bekend, uit België 270 en uit Luxemburg 96. Zowel waardplanten en misvormingen worden beschreven voor de galvormers, voorts de biologie van de niet-galvormende soorten, de verspreiding en de mate van voorkomen.

## RÉSUMÉ

### Liste commentée des cécidomyies des Pays-Bas, de Belgique et du Grand-Duché de Luxembourg (Diptera: Cecidomyiidae)

Les cécidomyies sont un des plus importants groupes d'organismes induisant des galls. Les larves émergentes produisent des stimuli auxquels les plantes-hôtes répondent souvent en formant des structures fascinantes, les galls, qui offrent nourriture et abri aux larves en développement. La plupart des cécidomyies sont étroitement liées à un hôte: la plupart sont strictement inféodées à une espèce végétale, voire à quelques espèces proches. Certaines cécidomyies ont des modes de nutrition différents: saprophages, mycophages ou prédatrices, et quelques-unes sont utilisées pour la lutte biologique.

Nous avons enregistré sur l'aire d'étude 416 espèces; 366 l'ont été aux Pays-Bas, 270 en Belgique, et 96 au Luxembourg. Le plantes-hôtes et le type de malformations sont précisées pour les espèces cécidogènes, ou des notes sur la biologie des espèces non-cécidogènes, ainsi que leur fréquence et leur distribution géographique.

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