

Rare and remarkable moths in the Famenne-Calestienne area: a survey (2000–2022)

Chris Steeman

Abstract. From 2000 to the end of 2022, intensive inventories were made by the author in the Famenne-Calestienne to map the moth population. The surveyed area runs from Givet eastwards to Aywaille, near Liège. Own observations (privately, with friends or as an active member of the Leafminers Working Group) are supplemented with observations from third parties. More than 380 rare and remarkable species are highlighted and their status is briefly discussed.

Samenvatting. De auteur verrichtte tussen 2000 en einde 2022 intensief inventarisaties in de Famenne-Calestienne om het nachtvlinderbestand in kaart te brengen. Het onderzochte gebied loopt van Givet oostwaarts naar Aywaille nabij Luik. Eigen waarnemingen (privé, met vrienden of als actief lid van de Werkgroep Bladmineerders) worden aangevuld met waarnemingen van derden. Meer dan 380 zeldzame en opmerkelijke soorten worden uitgelicht en hun status wordt kort besproken.

Résumé. Durant de 2000 à fin 2022, des inventaires intensifs ont été réalisés par l'auteur en Famenne-Calestienne pour cartographier les populations de papillons nocturnes. La zone étudiée s'étend de Givet vers l'est jusqu'à Aywaille près de Liège. Ses propres observations (en privé, avec des amis ou en tant que membre actif du groupe de travail des mineurs de feuilles) sont complétées par des observations de tiers. Plus de 380 espèces rares et remarquables sont mises en évidence et leur statut est brièvement discuté.

Key words: Rare species — Faunistics — Lepidoptera — Moths — Famenne — Calestienne — Belgium.

Steeman C.: Koning Albertlei 90, 2950 Kapellen, België. christiaan.steeman@telenet.be

DOI: <https://doi.org/10.6084/m9.figshare.25709868>

Introduction

The Fagne-Famenne (Fig. 1) is a long and narrow depression, with an altitude that varies between 150 and 250 m and an average width of about 20 km. It narrows in a northeasterly direction and is divided into two areas: the Fagne to the west of the river Meuse at Givet and the Famenne to the east. It is located between the Condroz and the Ardennes massif and is bordered to the south by a characteristic subregion called the Calestienne (Fig. 1). This narrow limestone zone is a limestone plateau about 130 km long and 2 to 4 km wide with an altitude varying

between 250 and 300 m and is dotted with elongated hills called “tiennes”. It runs from the French border west of Chimay (HA) to Louveigné (LG) near Remouchamps (LG) in the east. Han-sur-Lesse (NA) is one of the more well-known villages of the Calestienne. Three river basins cross the area: that of the Lesse, the Lhomme and the Ourthe.

The Famenne unites the communes of Beauraing (NA), Houyet (NA), Wellin (LX), Rochefort (NA), Nassogne (LX), Marche-en-Famenne (LX), Hotton (LX), Somme-Leuze (NA), Erezée (LX), Durbuy (LX), Ferrières (LG), Hamoir (LG), Aywaille (LG), Sprimont (LG) and extends over 3 provinces, Namur, Liège and Luxembourg.

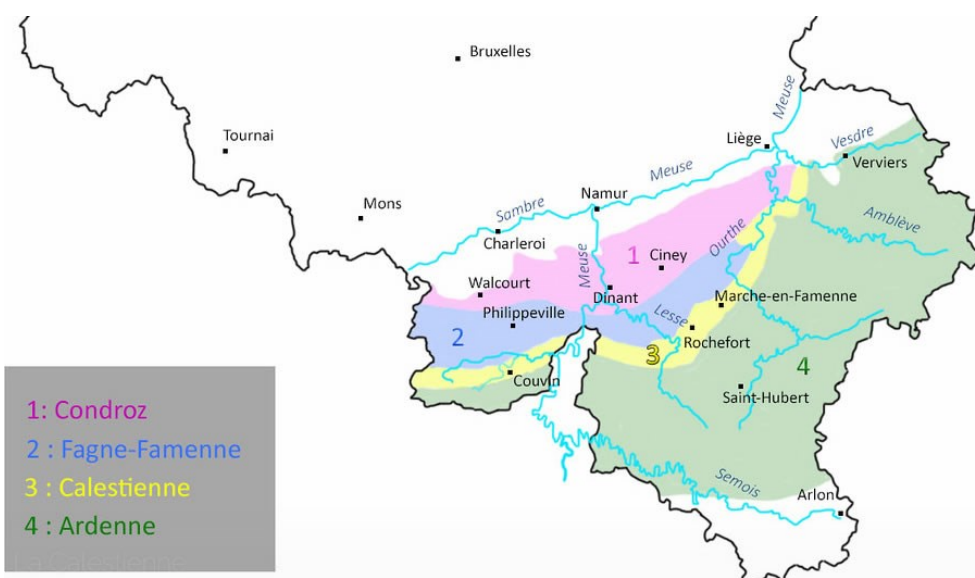


Fig. 1. Map with the geographic regions in southern Belgium with Fagne-Famenne (blue coloured) and Calestienne (yellow coloured).

Methods and equipment

In this paper, the abbreviations of the Catalogue of the Lepidoptera of Belgium (De Prins 2016; De Prins & Steeman 2003–2023) are used for the Belgian provinces. AN: Antwerp, LI: Limburg, HA: Hainaut, NA: Namen, LG: Liège, LX: Luxembourg. The list has been drawn up systematically and per family according to the Catalogue of the Lepidoptera of Belgium (De Prins & Steeman 2003–2023). The study was conducted from January 2000 to December 2022 and treats the rare and specific species of Famenne-Calestienne (the area between Givet and Aywaille). Many of these observations were made by the author himself but were also supplemented by third parties to obtain a complete overview, if possible. Searching for moths was done in many ways: looking for leaf mines, tubes, cases and caterpillars, visiting hibernation sites, day excursions, searching with a torch at night, with a butterfly net, with the use of pheromones and sugar bait but also moth traps with UV light (125W) and actinic tubes (15W blue 350nm and synergetic green 540nm) were used systematically. Usually three, but sometimes up to six or ten traps were used. The traps were set up in the evening and checked at dawn in the early morning. All specimens were counted and the majority of moths were photographed and released after observation. Some difficult species were collected for determination through genital analysis and/or DNA barcoding by Damien Gailly at the Conservation Genetics Laboratory (GeCoLab) at the University of Liège under the direction of Johan Michaux. Authorisations for the inventories were granted by the Département de la Nature et des Forêts (DNF).

Species account

Micropterigidae

Micropterix schaefferi Heath, 1975: 1 specimen on 20.v.2010 at Aywaille (LG), leg. R. Stas (De Prins & Steeman 2011). Another specimen on 21.v.2020 at the quarry de Chambralles near Aywaille (LG), leg. E. Steckx.

Nepticulidae

Ectoedemia agrimoniae (Frey, 1858) – Agrimony Pigmy: sparse sightings of leafmines.

Ectoedemia arcuatella (Herrich-Schäffer, 1855) – Strawberry Pigmy : leafmine observations at the Briqueterie de Rome near Durbuy (LX) (Wullaert 2015).

Stigmella aeneofasciella (Herrich-Schäffer, 1855) – Brassy Pigmy (Fig. 2): the place to find leaf mines in the area is at the Briqueterie de Rome near Durbuy (LX) where a healthy population occurs.

Stigmella atricapitella (Haworth, 1828) – Black-headed Pigmy: leafmines are difficult to distinguish. Through the study of the genitalia, we know this species is distributed throughout the area in low numbers.



Fig. 2. *Stigmella aeneofasciella*, 29.x.2016, Durbuy, NA. © Chris Steeman.

Stigmella mespilicola (Frey, 1856) – Wild-service Pigmy: 1 leafmine on 20.viii.2016 at Tienne de Boton at Belvaux (NA). This was **the first observation for Belgium** (Wullaert 2017). This species is only found in NA where the foodplant *Sorbus torminalis* (L.) Crantz (Rosaceae) (Wild Service-tree) is well represented. In Belgium mainly in the Calestienne area.

Stigmella ruficapitella (Haworth, 1828) – Red-headed Pigmy: leafmines are difficult to distinguish. Through the study of the genitalia, we know this species is distributed throughout the area in low numbers.

Stigmella samiatella (Zeller, 1839) – Chestnut Pigmy: 2♂ on 28.vii.2020 at Ri d'Howisse near Wavreille (NA). 1♂ on 17.viii.2020 at Comogne near Focant (NA). 1♂ on 09.viii.2021 at Gros Tienne near Lavaux-Ste.-Anne (NA), leg. Leafminers working group, gen. det. S. Wullaert. **New species for the province of NA.**

Trifurcula beirnei Puplesis, 1984 – Greenweed Pigmy: one genitalized ♂ on 17.vii.2022 at Mont des Pins near Bomal (LX), leg. Leafminers working group, gen. det. S. Wullaert. Only the fourth observation for Belgium.

Trifurcula eureka (Tutt, 1899) – Field Lotus Pigmy: 15 leafmines on *Lotus corniculatus* (Leguminosae) (Common Bird's-foot-trefoil) on 28.ix.2013 at the Briqueterie de Rome near Durbuy (LX). **This species has never been observed in Belgium before** (Wullaert 2015).

Zimmermannia atrifrontella (Stainton, 1851) – Oak-bark Pigmy: 1♀ on 15.ix.2020 at Ri d'Howisse near Wavreille (NA). 1♀ on 19.ix.2020 at Grignaux et Hérimont at Han-sur-Lesse (NA).

Zimmermannia liebwerdella (Zimmermann, 1940): so far, the only observation in LX: 1 mine on beech bark (Fagaceae) (*Fagus sylvatica* L.) on 24.x.2020 at Resteigne (LX). **New species for the province of LX.**

Zimmermannia longicaudella Klimesch, 1953: only 2 observations between 2000 and 2022 in Belgium: 2♂ on 09.viii.2021 at Gros Tienne near Lavaux-Ste.-Anne (NA) and 4♂ on 23.vii.2022 at bois des Petites Tailles near Revogne (NA), both leg. Leafminers working group, gen. det. S. Wullaert & C. Steeman.

Adelidae

Nemophora minimella (Denis & Schiffermüller, 1775) – Small Long-horn: 11 specimens on 07.viii.2017 at Gros Tienne near Lavaux-Ste.-Anne (NA). Each time 1 specimen on 14.viii.2017 and on 28.vii.2018 at the same place, leg. R. Meeuwis & R. Nossent.

Nemophora ochsenheimerella (Hübner, 1813) – Ochsenheimer's Long-horn: 1 specimen on 24.v.2015 at Noiseux (NA), leg. J. Verstraeten. 1 specimen on 26.v.2022 at Grand Quarti near Finnevaux (NA).

Nematopogon schwarziellus (Zeller, 1839) – Sandy Long-horn: rediscovered again through examination of the genitalia in 2021 after a long period with no observations. 1♂ & 1♀ on 23.v.2021 and 1♂ & 2♀ on 16.v.2022 at Grand Quarti near Finnevaux (NA), both leg. Leafminers working group, gen. det. S. Wullaert.

Prodoxidae

Lampronia flavimitrella (Hubner, 1817) – Bramble Bright: 2 specimens at bois du Roi near Beauraing (NA), leg. D. Testaert (De Prins, Steeman & Sierens 2017).

Lampronia luzella (Hübner, 1817) – Wood Bright: only one observation of this very rare species. 1 specimen on 06.vi.2016 at Turmont at Han-sur-Lesse (NA), leg. P. Lighezzolo (Steeman & Sierens 2018). **New species for the province of NA.**

Meessiidae

Agnathosia mendicella (Denis & Schiffermüller, 1775): 1♂ to pheromone of *Synanthedon conopiformis* (Esper, 1782) (Dale's Oak Clearwing) on 28.vi.2022 at Grand Quarti near Finnevaux (NA). There are very few records of this species in Belgium.

Karsholtia marianii (Rebel, 1936): 2 specimens on 05.vi.2022 at the quarry de la Falize at Aywaille (LG), leg. T. Muus.

Stenoptinea cyaneimarmorella (Millière, 1854) – Barred Brown Clothes Moth: 1 specimen on 02.vii.2004 at Gros Tienne near Lavaux-Ste.-Anne (NA) (De Prins 2005). **This observation was only the second for Belgium and new for the province of NA.** Only 1 other observation in the area is known of this very rare species: 1♂ to pheromone on 11.vi.2022 at Les Pairées Ouest near Resteigne (LX), leg. Leafminers working group.

Tenaga rhenania (G. Petersen, 1962): 7 specimens on 22.vi.2020 at the quarry de la Falize at Aywaille (LG). This was the first observation for Belgium (Wullaert 2023). Another imago on 20.vii.2022 at the same place, leg. D. Gailly & R. Thunus.

Psychidae

Eumasia parietariella (Heydenreich, 1851): each time 1 case with larva found on 17.iii, 05.iv. and on 13.iv.2013 at the quarry de la Falize and the adjacent quarry du

Goiveux at Aywaille (LG). This species **has never been observed in Belgium before** (Darcis *et al.* 2014). Hitherto known only from those two quarries.

Psyche crassiorella Bruand, 1851 – Scarce Grass Bagworm: one of the few places and the hotspot for this species can be found at the quarry de la Falize at Aywaille (LG).

Tineidae

Triaxomasia caprimulgella (Stainton, 1851) – Small Timber Clothes Moth: 1♂ on 26.vi.2019 at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group, gen. det. S. Wullaert. **New species for the province of LG.** Only known from a few specimens in Belgium.

Montescardia tessulatellus (Lienig & Zeller, 1846): 1 specimen on 13.vi.2015 at Les Spinets at On (LX), leg. D. Sloomackers *et al.* Each time 1 specimen on 23.v., and on 11.vi.2021, both at Grand Quarti near Finnevaux (NA). **New species for the provinces of LX and NA.**

Roeslerstammiidae

Roeslerstammia erxlebella (Fabricius, 1787) – Copper Ermel: 1 specimen on 05.viii.2017 at the quarry de Bièrnauchamps at Wavreille (NA).

Bucculatricidae

Bucculatrix ainliella Murtfeldt, 1905 – Oak Skeletonizer: a North-American invasive species. 1♂ on 10.viii.2014 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group, gen. det. S. Wullaert.

Bucculatrix cristatella (Zeller, 1839) – Crested Bentwing: 2 specimens on 15.ix.2019 and 2 specimens on 10.ix.2020, both at Mont des Pins near Bomal (LX), leg. D. Gailly *et al.* 1♂ on 22.v.2020 at Grand Quarti near Finnevaux (NA). **It was at least 40 years ago that this species was last observed in NA.**

Gracillariidae

Phyllonorycter cavella (Zeller, 1846) – Gold Birch Midget: 1 specimen on 11.vii.2016 at Grande Tinaimont near Han-sur-Lesse (NA), leg. J. Dewolf *et al.* **New species for the province of NA** (De Prins *et al.* 2017).

Phyllonorycter cerasinella (Reutti, 1852): 1♂ on 02.vi.2018, 03.v.2019, 17.v.2019 and 08.vi.2019 at Les Pairées Ouest near Resteigne (LX), leg. Leafminers working group, gen. det. S. Wullaert & R. Recour. **New species for the province of LX.** A very rare and local species in Belgium with few observations.

Phyllonorycter dubitella (Herrich-Schäffer, 1855) – Southern Midget: 1♀ on 24.v.2021 at Grand Quarti near Finnevaux (NA), leg. Leafminers working group, gen. det. S. Wullaert. Although the foodplant *Salix caprea* L. (Salicaceae) (Goat Willow) is very numerous in Belgium, it is a species that is rarely seen.

Phyllonorycter hostis Triberti, 2007 – Red Apple Midget: 1♂ on 09.v.2020 at Grand Quarti near Finnevaux (NA). **This was the first observation for Belgium** (Steehan 2021a). 7♂ on 18.iv.2022, leg. C. Steeman *et al.*, gen. det. A. Beidts and 1♂ on 16.v.2022, both at Grand Quarti near Finnevaux (NA), leg. Leafminers working group, gen. det. S. Wullaert. The species is currently only known in Belgium from four localities in the Calestienne.

Yponomeutidae

Pseudoswammerdamia combinella (Hübner, 1786) – Copper-tipped Ermine (Fig. 3): although a rare species, most sightings for Belgium occur in the Famenne-Calestienne region.



Fig. 3. *Pseudoswammerdamia combinella*, 06.iv.2017, Finnevaux, NA. © Chris Steeman.

Zelleria hepariella Stainton, 1849 – Brown Ash Ermine: present in very small numbers in the western part of the Famenne-Calestienne.

Ypsolophidae

Ypsolopha horridella (Treitschke, 1835) – Dark Smudge: rare yet widely distributed across the area in small numbers.

Ypsolopha lucella (Fabricius, 1775) – Plain Smudge: 1 specimen on 23.vii.2004 at the quarry du Fond des Vaux at Wellin (LX) (De Prins 2005). **New species for the province of LX.** Further observations: 1 specimen on 13.vii.2014 at Les Spinets at On (LX), leg. J. Jansen *et al.* 1 specimen on 25.vi.2022 at Comogne near Focant (NA). 1 specimen on 16.vii.2022 at Mont des Pins near Bomal (LX), leg. Leafminers working group. 1 specimen on 26.vii.2022 at On (LX), leg. E. Van de Schoot.

Ypsolopha mucronella (Scopoli, 1763) – Spindle Smudge: 1 specimen on 09.iv.2004 at Bois d'Oro at Wellin (LX) (De Prins 2005). **This is only the second known observation for Belgium and new for the province of LX.** About a week later, the third observation happened on 17.iv.2004 at Gros Tienne near Lavaux-Ste.-Anne (NA) (De Prins 2005) and was **the first for the province of NA.** From then on seen irregularly, mostly as singles. Still a very rare species.

Ypsolopha vittella (Linnaeus, 1758) – Elm Smudge: 1 specimen on 02.viii.2018 at Mont des Pins near Bomal (LX), leg. D. & P. Gailly.

Glyphipterigidae

Orthotelia sparganella (Thunberg, 1788) – Reed Fanner: 2 larvae on 01.v.2017 at Han-sur-Lesse (NA), leg. R. Meert. 1 specimen on 06.vii.2017 at Comogne near Focant (NA). A very rare species in southern Belgium.

Digitalvalva pulicariae (Klimesch, 1956) – Fleabane Fanner (Fig. 4): 1 specimen on 24.iv.2017 at Han-sur-Lesse (NA). **The species was only seen before 1980 in this province.**



Fig. 4. *Digitalvalva pulicariae*, 24.iv.2017, Han-sur-Lesse, NA. © Chris Steeman.

Argyresthiidae

Argyresthia abdominalis Zeller, 1839 – Downland Argent: where *Juniperus* (Cupressaceae) (*Juniperus*) grows, the species is present, sometimes even in good numbers.

Argyresthia ivella (Haworth, 1828) – Gold-four Argent: 10 specimens on 22.vii.2015 at Turmont at Han-sur-Lesse (NA), leg. W. Mertens *et al.* 1 specimen on 22.viii.2015 at Maupas near Belvaux (NA), leg. W. Mertens *et al.* 6 specimens on 13.viii.2022 at Ri d'Howisse near Wavreille (NA). A very rare species that only occurs in the provinces of NA and LX.



Fig. 5. *Argyresthia arceuthina*, 05.v.2017, Belvaux, NA. © Chris Steeman.

Argyresthia dilectella Zeller, 1847 – Juniper Argent: 1♀ on 05.viii.2017 at Tienne des Vignes near Resteigne (LX), leg. Leafminers working group, gen. det. S. Wullaert. Also, a species that is bound to *Juniperus* with few observations in Belgium.

Argyresthia praecocella Zeller, 1839 – Ochreous Argent: 1♀ on 03.v.2019, 1♀ and 1 specimen on 17.v.2019, 1♂ on 27.v.2022, all at Les Pairées Ouest near Resteigne (LX), leg. Leafminers working group, gen. det. S. Wullaert, A. Beidts & C. Steeman. A *Juniperus* specialist that is very rarely seen.

Autostichidae

Oegoconia quadripuncta (Haworth, 1828) – Four-spotted Obscure: 1♂ on 25.vi.2018 at Petite Tinaimont near Han-sur-Lesse (NA).

Oecophoridae

Aploa palpellus (Haworth, 1828) – Scarce Brown Streak: 2 specimens on 05.viii.2017 at the quarry de Bièrnauchamps at Wavreille (NA). **New species for the province of NA.** 2 specimens on 23.vii.2018 at Parc animalier du Domaine des Grottes at Han-sur-Lesse (NA), leg. Leafminers working group. 1 specimen on 25.vii.2018 at Ri d'Howisse near Wavreille (NA). 1 specimen on 05.viii.2019 at the quarry du Batis d'Haurt near Bure (LX). A very rare and local species.

Pleurota aristella (Linnaeus, 1767): a very rare and local species in very small numbers throughout the area.

Depressariidae

Agonopterix atomella (Denis & Schiffermüller, 1775) – Greenweed Flat-body: 1♂ on 09.v.2021 at Mont des Pins near Bomal (LX), leg. Leafminers working group, gen. det. S. Wullaert. Only a few specimens are known in Belgium.

Agonopterix kaekeritziana (Linnaeus, 1757) – Straw Flat-body (Fig. 6): 1♂ on 08.viii.2017 at the military camp at Marche-en-Famenne (LX), leg. D. Dufour, E. Thoen & C. Steeman, gen. det. C. Steeman. It was since 1858 that this species was reported from Belgium. A strongly declining species of which hitherto only 2 observations are known after 1980.



Fig. 6. *Agonopterix kaekeritziana*, 08.viii.2017, Marche-en-Famenne, LX. © Chris Steeman.

Agonopterix nanatella (Stainton, 1849) – Carline Flat-body: 1 specimen on 21.viii.2003 at the quarry de la Falize at Aywaille (LG), leg. R. Spronck (De Prins 2005). **New species for the province of LG.** This remains a hot spot for this species.

Agonopterix yeatiana (Fabricius, 1781) – Coastal Flat-body: 1 specimen on 02.iv.2005 at Gros Tienne near Lavaux-Ste.-Anne (NA) (De Prins 2006). **New species for the province of NA.** 1 specimen on 08.v.2016 at the Briqueterie de Rome near Durbuy (LX).

Depressaria pulcherrimella Stainton, 1849 – Pignut Flat-body: 1♂ on 21.viii.2018 at Les Pairées Ouest near Resteigne (LX). **New species for the province of LX.** 1 specimen on 15.ix.2019 at Mont des Pins near Bomal (LX), leg. D. Gailly *et al.*

Depressaria ultimella Stainton, 1849 – Fen Flat-body: currently only known from 2 locations in Belgium. The species does not fly far from the foodplant and does not come to light, which is also the reason why few sightings are known. There is a healthy population nearby Gros Tienne near Lavaux-Ste.-Anne (NA), discovered in 2019, leg. R. Meert. **A new species for the province of NA.**

Semioscopus oculella (Thunberg, 1794) (Fig. 7): 1 specimen on 29.iii.2006 at Gros Tienne near Lavaux-Ste.-Anne (NA). **New species for the province of NA.** 1 specimen on 29.iii.2017, 2 specimens on 26.iii.2018, 3 specimens on 03.iv.2018 and another specimen on 27.ii.2022, all at Grand Quarti near Finnevaux (NA). An early spring species that can fly from the end of February, is probably the reason why there are so few observations of this very rare species.



Fig. 7. *Semioscopus oculella*, 26.iii.2018, Finnevaux, NA. © Chris Steeman.

Anchinia cristalis (Scopoli, 1763): *Daphne mezereum* L. (Thymelaeaceae) (Mezereon) is a fairly common plant in the limestone region and this species is therefore well represented where this plant grows. Usually found as a mine or as a caterpillar, adults are not commonly seen as they are moderately attracted to light.

Lypusidae

Agnoea flavifrontella (Denis & Schiffermüller, 1775) – Yellow-headed Tubic: 1♂ on 31.v.2020 at Grand Quarti near Finnevaux (NA).

Agnoea latipennella (Jäckh, 1959): 1♂ on 28.v.2022 at Grignaux et Hérumont at Han-sur-Lesse (NA), leg. Leafminers working group, gen. det. S. Wullaert.

Gelechiidae

Anacampsis obscurella (Denis & Schiffermüller, 1775): in small numbers throughout the area.

Aproaerema ochrofasciella (Toll, 1936): 5 mines on 23.vi.2017 at Gros Tienne near Lavaux-Ste.-Anne (NA). 2 mines on 28.vi.2020 at Les Pairées Ouest near Resteigne (LX), leg. Leafminers working group.

Aproaerema patruella (Mann, 1857): 1♂ on 16.ix.2018 at Grand Quarti near Finnevaux (NA). **This was the first observation for Belgium** (Wullaert 2019).

Aproaerema vinella Banks, 1898: in small numbers throughout the area.

Mesophleps silacella (Hübner, 1796) – Straw Crest: irregularly found on Maupas near Belvaux (NA).

Nothris lemniscellus (Zeller, 1839): in small numbers on limestone rocks in the Calestienne. Leafmines are more commonly observed than adults.

Acompsia schmidtellus (Heyden, 1848) – Marjoram Crest: singles scattered over the area.

Aristotelia brizella (Treitschke, 1833) – Thrift Neb: for the present an unusual sighting of 2 specimens on 24.v.2021 at Grand Quarti near Finnevaux (NA), leg. Leafminers working group, gen. det. C. Steeman. **New species for the province of NA.** The foodplant *Armeria maritima* (Mill.) Willd. (Plumbaginaceae) (Thrift) is not present in the reserve, it probably grows as an ornamental plant in gardens in the nearby villages.

Metzneria aestivella (Zeller, 1839) – Carline Neb: a healthy population occurs in the quarry du Goiveux and the adjacent quarry de la Falize at Aywaille (LG).

Monochroa lutulentella (Zeller, 1839) – Black Neb: singles scattered over the area.

Oxypteryx immaculatella (Douglas, 1850) – Twilight Neb: 3 specimens on 25.vi.2018 at Petite Tinaimont near Han-sur-Lesse (NA). **New species for the province of NA.** 1♂ on 31.v.2020 and 1 specimen on 26.v.2022, both at Grand Quarti near Finnevaux (NA).

Athrips rancidella (Herrich-Schäffer, 1854) – Cotoneaster Webworm: a healthy population in the western part of the Famenne-Calestienne.

Chionodes distinctella (Zeller, 1839) – Eastern Groundling: 1♂ on 25.vi.2018 at Petite Tinaimont near Han-sur-Lesse (NA).

Chionodes fumatella (Douglas, 1850) – Downland Groundling: 1♀ on 24.vii.2016 at Ri d'Howisse near Wavreille (NA), leg. Leafminers working group, gen. det. S. Wullaert. **New species for the province of NA and second observation for Belgium.**

Mirificarma lentiginosella (Zeller, 1839) – Greenweed Groundling: 1♂ on 21.viii.2018 at Les Pairées Ouest near Resteigne (LX). 1♂ on 16.ix.2018 at Grand Quarti near Finnevaux (NA), leg. Leafminers working group, gen. det. S. Wullaert.

Caryocolum fraternella (Douglas, 1851) – Mouse-ear Groundling: 2♂ on 24.vii.2016 at Ri d'Howisse near Wavreille (NA), leg. Leafminers working group, gen. det. S. Wullaert. **New species for the province of NA.** 1♂ on 05.viii.2019 at the same place. 2♂ on 02.viii.2019 at the military camp at Marche-en-Famenne (LX), leg. D. Dufour *et al.*

Caryocolum kroesmanniella (Herrich-Schäffer, 1854) – Scarce Groundling: 1♂ on 31.vii.2018 at Grignaux et Hérumont at Han-sur-Lesse (NA). 1 specimen on 02.viii.2018 at Mont des Pins near Bomal (LX), leg. D. Gailly. 1 larva between *Stellaria holostea* L. (Caryophyllaceae) (Greater Stitchwort) reared on 27.iv.2019 at Jemelle (NA).

Caryocolum tricolorella (Haworth, 1812) – Three-colour Groundling: 1♂ on 08.viii.2017 at the military camp at Marche-en-Famenne (LX), leg. D. Dufour, E. Thoen & C. Steeman, gen. det. C. Steeman.

Caryocolum vicinella (Douglas, 1851) – Coast Groundling: 2♂ on 23.vii.2018 at Parc animalier du Domaine des Grottes at Han-sur-Lesse (NA), leg. Leafminers working group, gen. det. S. Wullaert.

Scrobipalpa obsoletella (Fischer von Röslerstamm, 1841) – Summer Groundling: 1♂ on 08.v.2016 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group, gen. det. S. Wullaert. **New species for the province of LX.**

Carpatolechia decorella (Haworth, 1812) – Winter Oak Groundling (Fig. 8): one of the few overwintering Gelechiidae in the adult stage. 1 specimen on 23.vi.2017 at Parc animalier du Domaine des Grottes at Han-sur-Lesse. This species had not been reported from Belgium since 1858. **New species for the province of NA.** 1 specimen on 21.ii.2018, leg. M. Valdueza and 1♂ on 21.ix.2020, both at Petite-Tinaimont near Han-sur-Lesse. 1♀ on 19.ix.2020 and 1 specimen on 27.ix.2021 at Grignaux et Hérumont at Han-sur-Lesse. 1♂ on 04.xii.2020 at Belvaux. All these observations were made in the immediate vicinity of the caves near Han-sur-Lesse (NA).



Fig. 8. *Carpatolechia decorella*, 27.ix.2021, Han-sur-Lesse, NA. © Chris Steeman.

Carpotolechia fugacella (Zeller, 1839): 1 specimen on 22.vi.2020 at the quarry de la Falize at Aywaille (LG) and another specimen on 06.vi.2022 at Gros Tienne near Lavaux-Ste.-Anne (NA), both leg. Leafminers working group.

Teleiopsis rosabella (Fologne, 1862): a healthy population occurs at Jemelle (NA).

Elachistiidae

Elachista adscitella Stainton, 1851 – Oblique-barred Dwarf: 2♀ on 10.ix.2016 at Belvédère, Rocher Serin et Fond St.-Martin at Han-sur-Lesse (NA), leg. W. Mertens *et al.*, gen. det. S. Wullaert. 1♂ on 05.viii.2017 at the quarry de Bièrnauchamps at Wavreille (NA). 1♂ on 12.vi.2022 at Les Pairées Ouest near Resteigne (LX), leg. Leafminers working group, gen. det. S. Wullaert.

Elachista albifrontella (Hübner, 1817) – White-headed Dwarf: 1♂ on 21.v.2020 at Ri d'Howisse near Wavreille (NA). 4♂ on 23.v.2020 at Basse Wimbe near Lessive (NA). 3♂ on 12.vi.2022 at Les Parées Ouest near Resteigne (LX), leg. Leafminers working group, gen. det. S. Wullaert.

Elachista bedellella (Sircom, 1848) – Grey Dwarf: 1♂ on 03.v.2019 at Turmont at Han-sur-Lesse (NA).

Elachista biatomella (Stainton, 1848) – Two-dotted Dwarf: 1♂ on 29.vi.2020 at Gros Tienne near Lavaux-Ste.-Anne (NA), Leafminers working group, gen. det. S. Wullaert.

Elachista bisulcella (Duponchel, 1843) – Yellow-tipped Dwarf: 1♂ on 23.vii.2018 at Parc animalier du Domaine des Grottes at Han-sur-Lesse (NA), leg. Leafminers working group, gen. det. S. Wullaert. **New species for the province of NA.** 2♂ on 20.vii.2022 at Comogne near Focant (NA). 1 ex. on 08.viii.2022 at Grand Quarti near Finnevaux. (NA).

Elachista chryso-desmella Zeller, 1850: scattered throughout the area in small numbers.

Elachista cinereopunctella (Haworth, 1828) – Grey-spotted Dwarf: scattered throughout the area in small numbers.

Elachista differens Parenti, 1978: 2♂ on 24.vi.2018 at Petite Tinaumont near Han-sur-Lesse (NA). **This species has never been observed in Belgium before** (Steehan 2019a). 1♀ on 21.vi.2020 at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group, gen. det. S. Wullaert. 1♂ on 06.vi.2022 at Gros Tienne near Lavaux-Ste.-Anne (NA), leg. Leafminers working group, gen. det. S. Wullaert.

Elachista freyerella (Hübner, 1825) – Broken-barred Dwarf: 1♂ on 02.ix.2018 at Grignaux et Hérimont at Han-sur-Lesse (NA).

Elachista gangabella Zeller, 1850 – Yellow-barred Dwarf: scattered throughout the area in small numbers.

Elachista gleichenella (Fabricius, 1781) – Twin-barred Dwarf: 1♂ on 12.vi.2022 at Les Pairées Ouest near

Resteigne (LX), leg. Leafminers working group, gen. det. C. Steeman. **New species for the province of LX.**

Elachista humilis Zeller, 1850 – Obscure Dwarf: 1♂ on 13.v.2019 at Grand Quarti near Finnevaux (NA). **New species for the province of NA.**

Elachista lastrella Chrétien, 1896: small numbers late April-May in the Calestienne around Han-sur-Lesse (NA).

Elachista metella Kaila, 2002: this species was described new to science in 2002 and belongs to the *Elachista cingillella* (Herrich-Schäffer, 1855) complex. After investigation by Kaila & Junnilainen 2002, this complex consists of 6 valid species. All references to *Elachista cingillella* from southern Europe and Belgium in fact concern *Elachista metella*. Recorded from the province of NA as *Elachista cingillella* based on three male specimens which were caught at Belvaux on 26.v.1980, leg. & gen. det. G. & W. De Prins. During 2019 one ♂ was collected on 17.v. at Les Pairées Ouest near Resteigne (LX). **The occurrence of this species is thus reported here for the first time for Belgium.** Later observations in the area: 2♂ on 10.viii.2020 at Ave-et-Auffe (NA), 1♂ on 05.vi.2021 at the quarry de la Falize at Aywaille (LG), both leg. Leafminers working group, gen. det. S. Wullaert. 1♂ on 12.vi.2022 at Les Pairées Ouest near Resteigne (LX). Hitherto a very rare species in very small numbers.

Elachista pullicomella Zeller, 1839: scattered throughout the area in small numbers.

Elachista subnigrella Douglas, 1853 – Dark Dwarf: 1♂ on 08.v.2018 and another ♂ on 17.v.2019, both at Les Pairées Ouest near Resteigne (LX). **New species for the province of LX.**

Elachista unifasciella (Haworth, 1828) – Narrow-barred Dwarf: 1♂ on 08.vi.2019 and 1♂ on 12.vi.2022, both at Les Pairées Ouest near Resteigne (LX), leg. Leafminers working group, gen. det. S. Wullaert.

Elachista utonella Frey, 1856 – Bog Dwarf: 1♂ on 06.vii.2019 at the military camp at Marche-en-Famenne (LX), leg. D. Dufour *et al.*

Perittia obscurepunctella (Stainton, 1848) – Honeysuckle Dwarf: some leafmines found throughout the area.

Stephensia brunnichella (Linnaeus, 1767) – Basil Dwarf: 1♀ on 08.v.2018 at Tienne du Grand Sart at Wiesme (NA). Since 1862 this species had not been reported from Belgium. From the search for leafmines we now know that there is a healthy population throughout the area.

Chrysoclista linneella (Clerck, 1759) – Lime Cosmet: a species that is very rare everywhere in Belgium, only a few caterpillars have been found near Les Pairées Ouest near Resteigne (LX).

Spuleria flavicaput (Haworth, 1828) – Yellow-headed Cosmet: 1 specimen on 16.v.2015 at the Briqueterie de Rome near Durbuy (LX) (Wullaert 2021a). **New species for the province of LX.** 1 specimen on 21.v.2016 at Les Pairées Est near Resteigne (LX), leg. P. Lighezzolo.

Coleophoridae

Coleophora adjunctella Herrich-Schäffer, 1861 – Southern Case-bearer: 1 case on 03.v.2014 at Gros Tienne near Lavaux-Ste.-Anne (NA). **This was the first observation for Belgium** (Van Steenwinkel & Wullaert 2016). Nowadays well represented throughout the area.

Coleophora conspicuella Zeller, 1849 – Knapweed Case-bearer (Fig. 9): very small populations present at the Briqueterie de Rome near Durbuy (LX) and at the military camp at Marche-en-Famenne (LX).



Fig. 9. *Coleophora conspicuella*, 15.v.2018, Durbuy, LX. © Chris Steeman.

Coleophora conyzae Zeller, 1868 – Spikenard Case-bearer: 1 case on 06.vi.2015 at the quarry de la Falize at Aywaille (LX), leg. Leafminers working group.

Coleophora coracipennella (Hübner, 1796) – Blackthorn Case-bearer: 1♂ on 22.vii.2019 at Comogne near Focant (NA).

Coleophora galbulipennella Zeller, 1838 – Kent Case-bearer: 1 specimen on 07.vi.2014 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group (Wullaert 2015). The species was only known before 1980 in our country.

Coleophora gallipennella (Hübner, 1796): **first found new for the province of NA** on 12.ix.2010, a few bags on *Astragalus glycyphyllos* L. (Papilionoideae) (Wild Liquorice) at Gros Tienne near Lavaux-Ste.-Anne (NA), leg. Leafminers working group (De Prins & Steeman 2011). Nowadays, present in very small numbers, usually found as a case.

Coleophora ochrea (Haworth, 1828) – Large Buff Case-bearer: well represented in dry limestone areas, only found where the foodplant *Helianthemum nummularium* Mill. (Cistaceae) (Common Rock-rose) grows.

Coleophora orbitella Zeller, 1849 – Pale Birch Case-bearer: 1♂ on 22.v.2020 at Grand Quarti near Finnevaux (NA).

Coleophora paripennella Zeller, 1839 – Dark Thistle Case-bearer: very small numbers throughout the area.

Coleophora prunifoliae Doets, 1944 – New Sloe Case-bearer: very small numbers throughout the area.

Coleophora ramosella Zeller, 1849 – Daisy Case-bearer: 5♂ on 02.vii.2016 at Maupas near Belvaux (NA). **This species has never been observed in Belgium before** (Wullaert 2017). Nowadays quite frequently in the vicinity of Han-sur-Lesse (NA) where *Galatella linosyris subsp. linosyris* (Asteraceae) (Goldilocks Aster) grows on limestone cliffs.

Coleophora saxicolella (Duponchel, 1843) – Orache Case-bearer: although the foodplants *Atriplex* sp. and *Chenopodium* sp. (Amaranthaceae) (Saltbush & Goosefoot) are common in the region and also in Belgium, the species is infrequently found.

Coleophora sylvaticella (Wood, 1892) – Hereford Case-bearer: 1♂ on 20.v.2019 at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group, gen. det. S. Wullaert. 1♀ on 26.v.2022 at Grand Quarti near Finnevaux (NA).

Coleophora therinella (Tengström, 1848) – Blackbindweed Case-bearer: 1♂ on 24.vii.2016 at Ri d'Howisse near Wavreille (NA) (Wullaert 2017). **New species for the province of NA.**

Coleophora trigeminella Fuchs, 1881 – Scarce Thorn Case-bearer: 1 case found on 08.vi.2019 at Les Pairées Ouest near Resteigne (LX), leg. Leafminers working group. Only a handful of sightings in Belgium.

Coleophora trochilella (Duponchel, 1843) – Verge Case-bearer: 1 specimen on 03.v.2014 at Gros Tienne near Lavaux-Ste.-Anne (NA), leg. Leafminers working group. 6 cases on 16.v.2015 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group (De Prins, Steeman & Sierens 2016). **New species for the province of LX.**

Coleophora versurella Zeller, 1849 – Pale Orache Case-bearer: only one observation: 1♀ on 22.vii.2020 at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group, gen. det. S. Wullaert.

Coleophora vestianella (Linnaeus, 1758) – Easter Case-bearer: an extremely rare species, very few observations in Belgium. 1♀ on 23.ix.2018 at Belvédère, Rocher Serin et Fond St.-Martin at Han-sur-Lesse (NA), leg. Leafminers working group, gen. det. S. Wullaert. **New species for the province of NA.**

Coleophora virgaurea Stainton, 1857 – Golden-rod Case-bearer (Fig. 10): quite frequently in the vicinity of Han-sur-Lesse (NA) where *Solidago virgaurea* L. (Asteraceae) (Goldenrod) grows, but cases are hard to find on the foodplant.

Coleophora wockeella Heinemann, 1854 – Betony Case-bearer: 3♂ on 25.vi.2018 at Petite Tinaimont near Han-sur-Lesse (NA). **This was the first observation for Belgium** (Steeman 2019a). Cases are found every year at this place. Hitherto known from two locations in Belgium.



Fig. 10. *Coleophora virgaurea*, 17.xi.2018, Han-sur-Lesse, NA. © Chris Steeman.

Coleophora zelleriella Heinemann, 1854 - : also a very rare species with few observations in Belgium. 1♂ on 06.vii.2019 at the military camp at Marche-en-Famenne (LX), leg. D. Dufour *et al.*

Momphidae

Mompha conturbatella (Hübner, 1819) – Large Dark Mompha: only one sighting: 1 specimen on 08.vi.2014 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group.

Scythrididae

Scythris dissimilella (Herrich-Schäffer, 1855): small scattered populations.

Scythris laminella (Denis & Schiffermüller, 1775): present in very small numbers.

Scythris picaepennis (Haworth, 1828) – White-dusted Owlet: 1♂ on 18.vi.2018 and 2♀ on 22.v.2020, both at Gros Tienne near Lavaux-St.-Anne (NA).

Scythris subcinctella (Bruand, 1851) – Copper Owlet: 1♂ on 25.v.2017 at Maupas near Belvaux (NA). **This species has never been observed in Belgium before** (Steeman & Sierens 2018). Nowadays the species has small and healthy populations around the Han-sur-Lesse (NA) area.

Alucitidae

Alucita desmodactyla Zeller, 1847 : 1♂ on 16.vii.2022 at Mont des Pins near Bomal (LX). **This was the first observation for Belgium** (Wullaert 2023).

Pterophoridae

Calyciphora albodactylus (Fabricius, 1794): a healthy population at the quarry de la Falize and the quarry du Goiveux at Aywaille (LG).

Capperia fusca (Hofmann O., 1898): small numbers throughout the area.

Marasmarcha lunaedactyla (Haworth, 1811) – Crescent Plume: small numbers throughout the area. A healthy population at Les Spinets at On (LX).

Merrifieldia leucodactyla (Denis & Schiffermüller, 1775) – Thyme Plume: 1 specimen on 25.vi.2016 at Gros Tienne near Lavaux-St.-Anne (NA), leg. W. Mertens *et al.*

Oxyptilus chrysodactyla (Denis & Schiffermüller, 1775): small numbers throughout the area.

Oxyptilus parvidactyla (Haworth, 1811) – Small Plume: singles at the quarry de la Falize at Aywaille (LG) and at Belvédère, Rocher Serin et Fond St.-Martin at Han-sur-Lesse (NA).

Platyptilia nemoralis Zeller, 1841: only two sites: 1 specimen on 13.viii.2007 at the military camp at Marche-en-Famenne (LX). 1 specimen on 08.vi.2014 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group.

Stenoptilia stigmatodactylus (Zeller, 1852): 2 specimens on 13.viii.2007 at the military camp at Marche-en-Famenne (LX).

Epermeniidae

Phaulernis dentella (Zeller, 1839) – Scale-tooth Lancewing (Fig. 11): only 1 sighting of this ubiquitously very rare species: 1 specimen on 21.v.2020 at Ri d'Howisse near Wavreille (NA).



Fig. 11. *Phaulernis dentella*, 21.v.2020, Wavreille, NA. © Chris Steeman.

Choreutidae

Choreutis pariana (Clerck, 1759) – Apple Leaf Skeletoniser: 1 larva on 20.viii.2012 at Gros Tienne near Lavaux-St.-Anne (NA), leg. C. Snyers. 5 larvae on 30.viii.2014 at Rochefort (NA), leg. D. Sloommaekers *et al.* 2 specimens on 07.viii.2017 at the military camp at Marche-en-Famenne (LX).

Prochoreutis myllerana (Fabricius, 1794) – Small Metal-mark: 1♀ on 16.ix.2018 at Gros Tienne near Lavaux-St.-Anne (NA), leg. Leafminers working group.

Tortricidae

Olindia schumacherana (Fabricius, 1787) – White-barred Tortrix: 3 specimens on 06.vi.2015 at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group. 6 specimens on 08.vi.2014 at the Briqueterie de Rome near Durby (LX), leg. Leafminers working group. 1 specimen on 25.vi.2016 at Parc animalier du Domaine des Grottes at Han-sur-Lesse (NA), leg. W. Mertens *et al.* 2 specimens on 02.vi.2018 at Ave-et-Auffe (NA).

Periclepsis cinctana (Denis & Schiffermüller, 1775) – Dover Twist (Fig. 12): a species that is well represented in the limestone region. A nice population around Maupas near Belvaux (NA) with a maximum of 30 specimens on 25.v.2017.



Fig. 12. *Periclepsis cinctana*, 25.v.2017, Lavaux-Ste.-Anne, NA. © Chris Steeman.

Aphelia viburnana (Denis & Schiffermüller, 1775) – Bilberry Tortrix: 2♂ on 07.vi.2014 at the Briqueterie de Rome near Durby (LX), leg. Leafminers working group, gen. det. S. Wullaert. 2 specimens on 16.vi.2020 at Grand Quarti near Finnevaux (NA).

Choristoneura diversana (Hübner, 1817) – Forest Tortrix (Fig. 13): 3 specimens on 18.vi.2018 at Grand Quarti near Finnevaux (NA). A very rare species, not often recorded.



Fig. 13. *Choristoneura diversana*, 18.vi.2018, Finnevaux, NA. © Chris Steeman.

Clepsis senecionana (Hübner, 1819) – Obscure Tortrix: a small population is present at the Briqueterie de Rome near Durby (LX).

Dichelia histrionana (Frölich, 1828) – Spruce Tortrix: very sparsely represented in the area.

Ptycholomoides aeriferana (Herrich-Schäffer, 1851) – Yellow Larch Tortrix: only one sighting of a specimen on 11.vii.2016 at Grand Tinaimont near Han-sur-Lesse (NA).

Cnephasia cupressivorana (Staudinger, 1871): 2♂ on 13.v.2019 at Grand Quarti near Finnevaux (NA). **This species has never been observed in Belgium before** (Steeman 2021b). Nowadays there is a nice population of this early spring *Cnephasia* in this nature reserve. First observations outside this area: 1♂ on 02.v.2022 at Comogne near Focant (NA). These 2 areas are the only places in Belgium where this species occurs.

Cnephasia genitalana Pierce & Metcalfe, 1922 – Dover Shade: scattered in small numbers throughout the area.

Cnephasia longana (Haworth, 1811) – Long-winged Shade: only 1 sighting of a ♀ on 04.vii.2018 at Comogne near Focant (NA).

Cnephasia pasiuana (Hübner, 1799) – Meadow Shade: scattered in small numbers throughout the area.

Eana incanana (Stephens, 1852) – Bluebell Shade: due to its similarity to *Cnephasia* species, the species can be determined by checking the genitalia. Only one sighting: 1♂ on 26.v.2022 at Grand Quarti near Finnevaux (NA).

Eana argentana (Clerck, 1759) – Silver Shade: 3 specimens on 30.vi.2018 at Mont des Pins near Bomal (LX), leg. D. Gailly & P. Vanmeerbeek.

Exapate congelatella (Clerck, 1759) – Autumnal Shade: a nice healthy population at Ri d'Howisse near Wavreille (NA). Outside this area, there are only 2 sites in Belgium where this species occurs: at Teuven (LI) and in Vallée de la Sûre near Géronne (LX). Due to the late flight time it is possible that this species is overlooked.

Acleris permutana (Duponchel, 1836) – Buff Button: 1 specimen on 11.vii.2015 at Tienne d'Aise near Ave-et-Auffe (NA), leg. R. Nossent *et al.* A species in Belgium only known from a few specimens.



Fig. 14. *Acleris roscidana*, 17.v.2022, Focant, NA. © Chris Steeman.

Acleris roscidana (Hübner, 1799) (Fig. 14): 1♀ on 06.viii.2018 at Comogne near Focant (NA). **This was the first observation for Belgium** (Steeman 2019b). Another

♀ on 17.v.2022 at the same place. As far as known, the only place in Belgium to observe this species.

Acleris rufana (Denis & Schiffermüller, 1775) – Sweetgale Button: 1 specimen on 16.xi.2016 at Gros Tienne near Lavaux-Ste.-Anne (NA). **New species for the province of NA.** 1♀ on 13.iv.2022 at Ri d'Howisse near Wavreille (NA). The species is very rare in the Famenne-Calestienne area, but it is more common in damp and peaty areas further south in the country.

Acleris shepherdana (Stephens, 1852) – Meadow-sweet Button: 1 specimen on 16.viii.2016 at Gros Tienne near Lavaux-Ste.-Anne (NA). Two specimens on 28.vii.2020 at Ri d'Howisse near Wavreille (NA) and another specimen on 20.vii.2022 at Comogne near Focant (NA). This species is very rare in the Famenne-Calestienne area and it is confined to wetland habitats.

Aethes bilbaensis (Rössler, 1877) – Samphire Conch: a recent species new to Belgium in 2016 in LI (Steeman & Sierens 2018; Wullaert 2018). The next Belgium observation was 1♂ in Les Hectais et Fosse Eghin near Belvaux (NA) on 18.vii.2017. Another ♂ on 06.vii.2019 at the military camp at Marche-en-Famenne (LX) and 1♂ and 1♀ on 02.viii.2019 at the same location. 1♂ on 03.ix.2022 at Comogne near Focant (NA).

Aethes hartmanniana (Clerck, 1759) – Scabious Conch: a rare species that only occurs in NA and LX, it prefers *Knautia* sp. (Caprifoliaceae) (*Scabiosa* sp.) and *Scabiosa* sp. (Caprifoliaceae) (*Pincushius* sp.) that grows on drier soils. Irregularly distributed throughout the area in small numbers. A maximum of up to 10 specimens on 25.v.2016 at bois de Grandhan near Durbuy (LX), leg. L. Decrick *et al.*

Aethes margaritana (Haworth, 1811) – Silver Coast Conch: the only place in the area where the species occurs is at the military camp at Marche-en-Famenne (LX), where there is a good population.

Aethes piercei Obratzsov, 1952 – Devil's-bit Conch: only occurring in NA and LX, it prefers wetter soils where the foodplant *Succisa pratensis* Moench (Caprifoliaceae) (Devil's-bit Scabious) grows. A healthy population at Grand Quarti near Finnevaux (NA), outside this nature reserve only sightings of singles.

Commophila aeneana (Hübner, 1800) – Orange Conch: very sparingly distributed throughout the area with a small population at Ave-et-Auffe (NA).

Diceratura ostrinana (Guenée, 1845): after 2004 only observed in the Namur Famenne -Calestienne area with several good populations at Gros Tienne near Lavaux-Ste.-Anne (NA) and Comogne near Focant (NA).

Falseuncaria ruficiliana (Haworth, 1811) – Red-fringed Conch: a very rare species in NA and only known from 2 places in Belgium. Since 2020 seen every year in very small numbers at Grand Quarti near Finnevaux (NA).



Fig. 15. *Falseuncaria ruficiliana*, 08.viii.2022, Finnevaux, NA. © Chris Steeman.

Phalonidia gilvicomana (Zeller, 1847) – Wall-lettuce Conch: 1 specimen on 22.vii.2015 at Turmont at Han-sur-Lesse (NA), leg. W. Mertens *et al.* 1 specimen on 02.viii.2018 at Mont des Pins near Bomal (LX), leg. D. & P. Gailly. New species for the province of LX.

Phtheochroa sodaliana (Haworth, 1811) – Buckthorn Conch: a very rare species that occurs only at LG and LX and only known from a handful of observations. 1 specimen on 08.vi.2014 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group.

Apotomis lineana (Denis & Schiffermüller, 1775) – Willow Marble: 1 specimen on 11.vii.2015 at Tienne d'Aise near Ave-et-Auffe (NA), leg. R. Nossent *et al.*

Celypha rurestrana (Duponchel, 1843) – Hawkweed Marble: each time 1 specimen on 06.vi.2004 and 04.vi.2005, both at Gros Tienne near Lavaux-Ste.-Anne (NA). New species for the province of NA. 2♂ on 06.vi.2015 and 1♂ on 19.ix.2019, both at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group.

Phiaris umbrosana (Freyer, 1842): only a handful of sightings of this very rare species are known in NA and LX. 1 specimen on 16.v and 17.v.2017, both at Grand Quarti near Finnevaux (NA). 1 specimen on 26.v.2017 at Les Hectais et Fosse Eghin near Belvaux (NA) and also on the same day 2 specimens at Tienne d'Aise near Ave-et-Auffe (NA).

Pseudosciaphila branderiana (Linnaeus, 1758) – Great Marble: very few sightings of this very rare species in Belgium. 2 specimens on 05.vi.2017 and 1 specimen on 16.vi.2020, both at Grand Quarti near Finnevaux (NA).

Endothenia lapideana (Herrich-Schäffer, 1851) (Fig. 15): 5 larvae on 21.iii.2018 at Tienne des Vignes near Resteigne (LX). **This was the first observation for Belgium** (Meert 2018). Nowadays this species is found to be particularly numerous where the foodplant *Digitalis lutea* (Plantaginaceae) (Straw Foxglove) grows in the Famenne-Calestienne area. It is found more as a larva than as an adult, because the latter does not come to light. Hitherto, the species can only be found in the wider area of Han-sur-Lesse (Famenne-Calestienne) and in the Viroinval in the wider area around Nismes (Fagne).



Fig. 16. *Endothenia lapideana*, 06.vi.2018, Ave-et-Auffe, NA. © Chris Steeman.

Bactra robustana (Christoph, 1872) – Saltern Marble: 1♂ on 24.v.2022 at bois des Petites Tailles near Revogne (NA). **New species for the province of NA.**

Ancylis tineana (Hübner, 1799) – Rannoch Roller: 1 specimen on 24.iv.2022 at Comogne near Focant (NA). A very rare species in NA.

Ancylis unguicella (Linnaeus, 1758) – Broken-barred Roller: another very rare *Ancylis* species in NA. 1 specimen on 24.vii.2016 at Ri d’Howisse near Wavreille (NA), leg. Leafminers working group. **New species for the province of NA.**

Eucosmomorpha albersana (Hübner, 1813) – Honeysuckle Bell (Fig. 16): very irregular sightings throughout the area.



Fig. 17. *Eucosmomorpha albersana*, 03.vi.2006, Belvaux, NA. © Chris Steeman.

Crociosema plebejana Zeller, 1847 – Southern Bell: only 1 sighting of this rare migrant: 1 specimen on 08.xi.2015 at Ave-et-Auffe (NA), leg. W. Mertens *et al.*

Epiblema scutulana (Denis & Schiffermüller, 1775) – Knapweed Bell: 1 specimen on 21.v.2016 at Basse Wimbe near Lessive (NA), leg. D. Sloomackers *et al.* 1♀ on 21.v.2018 at Maupas near Belvaux (NA).

Epinotia cruciana (Linnaeus, 1761) – Willow Tortrix: only one observation: 1 specimen on 19.vii.2015 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group.

Epinotia maculana (Fabricius, 1775) – Dark Aspen Bell: 1 specimen on 16.ix.2018 at Grand Quarti near Finnevaux (NA), leg. Leafminers working group.

Eriopsela quadrana (Hübner, 1813) – Four-spot Bell: 1 specimen on 07.v.2016 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group. **After 110 years this species has been rediscovered** (Wullaert 2017).

Eucosma aspidiscana (Hübner, 1817) – Golden-rod Bell: stronghold of this species in NA, a good population occurs at Gros Tienne near Lavaux-Ste.-Anne (NA). Has been observed less and less in recent years.

Gypsonoma oppressana (Treitschke, 1835) – Poplar Shoot: 1 specimen on 19.vii.2015 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group. **A new species for the province of LX.** 1 specimen on 18.vii.2017 at Les Hectais et Fosse Eghin near Belvaux (NA). 1 specimen on 02.viii.2018 at Mont des Pins near Bomal (LX), leg. D. Gailly.

Zeiraphera ratzeburgiana (Saxesen, 1840) – Spruce-bud Moth: 1♀ on 08.viii.2020 at Ri d’Howisse near Wavreille (NA). **New species for the province of NA.** A very rare species in southern Belgium.

Cydia conicolana (Heylaerts, 1874) – Pine-cone Piercer: 2 specimens on 26.v.2017 at Les Hectais et Fosse Eghin near Belvaux (NA).

Cydia coniferana (Saxesen, 1840) – Pine-bark Piercer: 1♂ on 10.viii.2020 at Le Roptai at Ave-et-Auffe (NA), leg. Leafminers working group.

Cydia illutana (Herrich-Schäffer, 1851) – Larch Piercer: 1 specimen on 07.vi.2014 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group. 2 specimens on 26.v.2022 and 1♂ and 1♀ on 27.v.2022, both at Grand Quarti near Finnevaux (NA).

Cydia indivisa (Daniletsky, 1963) – Spruce-bark Piercer: 1♂ on 09.v.2020 at Grand Quarti near Finnevaux (NA).

Cydia inquinatana (Hübner, 1800) – Scarce Maple Piercer: 1 specimen on 13.vi.2015 at Les Spinets at On (LX), leg. R. Nossent *et al.* **New species for the province of LX.**

Cydia interscindana (Möschler, 1866) – Juniper Piercer: in the vicinity of Han-sur-Lesse (NA), represented in small numbers where the foodplant *Juniperus communis* L. grows.

Cydia servillana (Duponchel, 1836) – Sallow-shoot Piercer: 1 exuvia on *Salix caprea* (Salicaceae) (Goat Willow) on 23.v.2019 at Bure (LX), leg. R. Meert. 1 specimen on 23.v.2021 at Grand Quarti near Finnevaux (NA), leg. Leafminers working group.

Dichrorampha plumbagana (Tretschke, 1830) – Silver-lined Drill: 1 specimen on 03.v.2014 at Gros Tienne near Lavaux-Ste.-Anne (NA), leg. Leafminers working group. **New species for the province of NA.**

Dichrorampha plumbana (Scopoli, 1763) – Lead-coloured Drill: scattered irregularly in very small numbers throughout the area.

Dichrorampha sedatana Busck, 1906 – Dingy Drill: scattered irregularly in very small numbers throughout the area.

Grapholita gemmiferana Tretschke, 1835 – Isle of Wight Piercer: 4 specimens on 24.v.2019 at Beauraing (NA), leg. J. Soors.

Grapholita pallifrontana Lienig & Zeller, 1846 – Liquorice Piercer: scattered irregularly in very small numbers throughout the area.

Pammene gallicana (Guenée, 1845) – Purple-shaded Piercer: 1 ex on 21.vi.2003 at the quarry de la Falize at Aywaille (LG), leg. R. Spronck (De Prins 2005). **New species for the province of LG.** 1 specimen on 16.vii.2017 at Gros Tienne near Lavaux-Ste.-Anne (NA), leg. W. Mertens.

Pammene gallicolana (Lienig & Zeller, 1846): 1♂ on 30.vi.2006 at Maupas near Belvaux (NA). 1 specimen on 13.vi.2015 at Belvédère, Rocher Serin et Fond St.-Martin at Han-sur-Lesse (NA), leg. R. Nossent *et al.*

Pammene juniperana (Millière, 1858): in the vicinity of Han-sur-Lesse (NA), represented in very small numbers where the foodplant *Juniperus communis* grows.

Pammene rhediella (Clerck, 1759) – Fruitlet-mining Tortrix: everywhere in Belgium a very rare species, sparsely represented throughout the area.

Pammene spiniana (Duponchel, 1843) – Triangle-marked Piercer: 1♀ on 29.viii.2020 at the Briqueterie de Rome near Durbuy (LX), leg. R. Recour & R. Vernieuwe.

Pammene splendidulana (Guenée, 1845) – Drab Oak Piercer (Fig. 17): scattered irregularly in very small numbers throughout the area.



Fig. 18. *Pammene splendidulana*, 18.iv.2022, Finnevaux, NA. © Chris Steeman.

Pammene suspectana (Lienig & Zeller, 1846) – Ash-bark Piercer: 1♂ on 24.v.2021 at Grand Quarti near Finnevaux (NA), leg. Leafminers working group. **This is only the second observation for Belgium. New species for the province of NA.**

Pammene trauniana (Denis & Schiffermüller, 1775) – Maple Piercer: 1 specimen on 10.v.2003 at Gros Tienne near Lavaux-Ste.-Anne (NA). 1 specimen on 27.vi.2015 at Belvédère, Rocher Serin et Fond St.-Martin at Han-sur-Lesse (NA), leg. D. Sloommaekers.

Sesiidae

Eusphecia melanocephala (Dalman, 1816) – Aspen Clearwing (Fig. 19): this species is reasonably represented where *Populus tremula* L. (Salicaceae) (European aspen) occurs in the area.



Fig. 19. *Eusphecia melanocephala*, 21.vi.2019, Finnevaux, NA. © Chris Steeman.

Synanthedon scoliaeformis (Denis & Schiffermüller, 1775) – Welsh Clearwing: *Betula* sp. (Betulaceae) (Birch sp.) is not very common in the Famenne region, so the species is sparsely represented.

Synanthedon conopiformis (Esper, 1872) – Dale's Oak Clearwing (Fig. 20): just outside the Calestienne near Liège at Chaudfontaine (LG) there is a large healthy population, outside this area the sightings are very scarce. 5♂ to pheromones on 29.vi.2020 at Grand Quarti near Finnevaux (NA), this was also **the first record for this province.**



Fig. 20. *Synanthedon conopiformis*, 29.vi.2020, Finnevaux, NA. © Chris Steeman.

Synanthedon spuleri (Fuchs, 1908): 1 exuvia on 23.vi.2017 and 3 larvae on 30.vii.2017, both at Parc animalier du Domaine des Grottes at Han-sur-Lesse (NA), both leg. R. Meert. 2♂ to pheromone 02.vi.2018 at Les Pairées Ouest near Resteigne (LX), leg. Leafminers working group.

Synanthedon loranthi (Králíček, 1966) – Mistletoe Clearwing: although well represented in the south of our country in the Gaume (LX), this species has recently been discovered in the Famenne region of Namur. 2 exuvia on *Viscum album* (Santalaceae) (Mistletoe) on 23.vi.2022 at Comogne near Focant (NA), leg. R. Meert.

Limacodidae

Heterogena asella (Denis & Schiffermüller, 1775) – Triangle: fairly rare in the Famenne-Calestienne region with sparse observations.

Zygaenidae

Adscita geryon (Hübner, 1813) – Cistus Forester: 1♂ on 03.vii.2018 at Les Pairées Ouest near Resteigne (LX). 2 specimens on 23.v.2019 at Houyet (NA), leg. M. Paquay.

Zygaena lonicerae (Scheven, 1777) – Narrow-bordered Five-spot Burnet: 1 specimen on 09.vii.2006 en 1♀ on 03.vii.2018, both at Gros Tienne near Lavaux-Ste.-Anne (NA).

Zygaena transalpina (Esper, 1783) – Southern Six Spot Burnet: a fairly regular appearance as singles or in very small numbers. A nice population around Belvaux (NA) with a maximum of 25 specimens ever counted.

Pyralidae

Ancylosis cinnamomella (Duponchel, 1836) (Fig. 21): a very regular appearance in small numbers in the limestone region.



Fig. 21. *Ancylosis cinnamomella*, 25.iv.2017, Han-sur-Lesse, NA. © Chris Steeman.

Apomyelois bistriatella (Hulst, 1887) – Heath Knot-horn: quite rare in small numbers scattered throughout the area.

Delplanqueia dilutella (Denis & Schiffermüller, 1775) – Powdered Knot-horn: present in very small numbers around Han-sur-Lesse (NA).

Delplanqueia inscriptella (Duponchel, 1837) – Brown Powdered Knot-horn: 1 specimen on 25.vi.2016 at Parc animalier du Domaine des Grottes at Han-sur-Lesse (NA). **This was the first observation for Belgium** (Slootmaekers *et al.* 2018). A very rare species that is present in small numbers around Han-sur-Lesse (NA).

Ephestia elutella (Hübner, 1796) – Cacao Moth: 1♂ on 25.vi.2016 at Parc animalier du Domaine des Grottes at Han-sur-Lesse (NA), leg. D. Slootmaekers *et al.*

Ephestia welseriella (Zeller, 1848): 1 specimen on 27.vi.2015 at Belvédère, Rocher Serin et Fond St.-Martin at Han-sur-Lesse (NA). **This species has never been observed in Belgium before** (Slootmaekers *et al.* 2018). A species that is present where the foodplant *Allium* sp. (Alliaceae) (Onion sp.) grows on the calcareous rocks.

Pempelia compositella (Treitschke, 1835): a species that only occurs in NA, with good populations around Han-sur-Lesse (NA) on calcareous rocks.

Pempelia palumbella (Denis & Schiffermüller, 1775) – Heather Knot-horn: very few sightings throughout the area.

Phycitodes binaevella (Hübner, 1813) – Ermine Knot-horn: 1♂ on 19.ix.2021 at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group, gen. det. S. Wullaert.

Phycitodes inquinatella (Ragonot, 1887): very few sightings throughout the area.

Selagia argyrella (Denis & Schiffermüller, 1775) – Silvery Knot-horn: 1 specimen on 22.viii.2015 at Ave-et-Auffe (NA), leg. R. Nossent *et al.*

Uncinus obductella (Zeller, 1839) – Kent Knot-horn: well distributed throughout the area.

Vitula biviella (Zeller, 1848) – Pine-blossom Knot-horn: 2 specimens on 13.ix.2020 at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group.

Zophoda grossulariella (Hübner, 1809) – Gooseberry Knot-horn: 1 specimen on 11.vii.2016 at Grande Tinaimont near Han-sur-Lesse (NA), leg. W. De Rouck. 1 specimen on 11.v.2021 at Comogne near Focant (NA).

Crambidae

Anania funebris (Ström, 1768) – White-spotted Sable Moth: 1 specimen on 02.vi.2007 at Gros Tienne near Lavaux-Ste.-Anne (NA).

Anania fuscalis (Denis & Schiffermüller, 1775) – Cinerous Pearl: 1 specimen on 23.vii.2005 at Han-sur-Lesse (NA), leg. L. Janssen. 3 specimens on 22.vii.2015 at Turmont at Han-sur-Lesse (NA), leg. W. Mertens *et al.* 2 specimens on 23.vii.2019 at Grignaux et Hérumont at Han-sur-Lesse (NA).

Loxostege sticticalis (Linnaeus, 1761) – Diamond-spot Pearl: an irregular migrant which can establish small populations locally and temporarily. A few observations: 1 specimen on 18.vii.2003 at Gros Tienne near Lavaux-Ste.-Anne (NA). 1 specimen on 19.vii.2015 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group. 1 specimen on 19.ix.2015 at Belvédère, Rocher Serin et Fond St.-Martin at Han-sur-Lesse (NA), leg. R. Nossent *et al.*

Paratalanta hyalinalis (Hübner, 1796) – Translucent Pearl: well distributed throughout the area.

Psammotis pulveralis (Hübner, 1796) – Scarce Marsh Pearl: 1 specimen on 06.vii.2019 at the military camp at Marche-en-Famenne (LX), leg. R. Nossent *et al.*

Pyrausta obfuscata (Scopoli, 1763): 1 larva on *Inula conyzae* (Asteroideae) (Ploughman's-spikenard) on 30.viii.2014 at Les Spinets at On (LX), leg. D. Sloommaekers *et al.*

Diasemia reticularis (Linnaeus, 1761) – Lettered China-mark: 1 specimen on 25.v.2017 at the quarry de Bièrnauchamps at Wavreille (NA).

Hellula undalis (Fabricius, 1781) – Old World Webworm: 1♀ on 24.x.2022 at Bois des Petites Tailles near Revogne (NA). **This observation was the second for our country** (Steeman 2023).

Scoparia conicella (La Harpe, 1863): 1♂ on 07.vi.2015 at the quarry du Goiveux at Aywaille (LG), leg. Leafminers working group. 1♀ on 18.vi.2018 at Grand Quarti near Finnevaux (NA). 2♀ on 25.vi.2018 at Petite Tinaimont near Han-sur-Lesse (NA).

Scoparia subfusca Haworth, 1811 – Large Grey: 4 specimens on 23.vii.2004 and 1 specimen on 28.v.2005, both at the quarry du Fond des Vaux at Wellin (LX) (De Prins, 2005). **New species for the province of LX.** 1♀ on 12.vi.2021 at Grand Quarti near Finnevaux (NA). 1 specimen on 18.vii.2022 at Ri d'Howisse near Wavreille (NA). 1 specimen on 23.vii.2022 at Bois des Petites Tailles near Revogne (NA), leg. Leafminers working group.

Catoptria mytilella (Hübner, 1805) (Fig. 22): well represented throughout the Calestienne.



Fig. 22. *Catoptria mytilella*, 12.vi.2017, Han-sur-Lesse, NA. © Chris Steeman.

Pediasia contaminella (Hübner, 1796) – Waste Grass-veneer: 1 specimen on 19.vii.2015 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group.

Platytes alpinella (Hübner, 1813): only a few sightings around Han-sur-Lesse (NA).

Lasiocampidae

Eriogaster catax (Linnaeus, 1758) – Eastern Eggar (Fig. 23): 1♂ on 09.x.2004 and 1♂ on 30.ix.2005, both at Gros Tienne near Lavaux-Ste.-Anne (NA). These are the only known observations of adult specimens after 2000 in Belgium. Adults are almost never seen as they rarely come to light. Not every year, but frequently 1 or more nests with larvae are found in the large vicinity of Lavaux-Ste.-Anne (NA). A highly threatened species.



Fig. 23. *Eriogaster catax*, 09.x.2004, Lavaux-Ste.-Anne, NA. © Chris Steeman.

Eriogaster lanestris (Linnaeus, 1758) – Small Eggar: adult specimens are rarely seen because they are rarely attracted to light. 1♂ on 08.iv.2019 at Grand Quarti near Finnevaux (NA). 1♀ laying eggs on *Prunus spinosa* L. (Rosaceae) (Blackthorn) on 16.iii.2020 at Minaure near Resteigne (LX). Every year a small number of nests with larvae are found scattered over the area.

Phylodesma ilicifolia (Linnaeus, 1758) – Small lappet: the Belgian stronghold of this species lies in the Antwerp Campine and the Hautes Fagnes (LG). Observations elsewhere are extremely rare. 1 specimen on 05.v.2017 at Les Hectais et Fosse Eghin near Belvaux (NA).

Phylodesma tremulifolia (Hübner, 1810) – Aspen Lappet: 1 specimen on 29.iv.2005 at Gros Tienne near Lavaux-Ste.-Anne (NA) (De Prins 2006). **New species for the province of NA.** From then onwards scattered throughout the area in small numbers.

Odonestis pruni (Linnaeus, 1758) – Plum Lappet: fairly scattered throughout the area in small numbers.

Endromidae

Endromis versicolora (Linnaeus, 1758) – Kentish Glory: fairly scattered throughout the area in very small numbers.

Sphingidae

Acherontia atropos (Linnaeus, 1758) – Death’s Head Hawkmoth: only 1 observation of a dead specimen on 10.x.2019 at Rochefort (NA), leg. M. Paquay.

Hyles gallii (Rottemburg, 1775) – Bedstraw Hawkmoth (Fig. 24): a very rare species throughout the area with only one observation: 1 specimen on 28.viii.2017 at Basse Wimbe near Lessive (NA).



Fig. 24. *Hyles gallii*, 28.viii.2017, Lessive, NA. © Chris Steeman.

Proserpinus proserpina (Pallas, 1772) – Willowherb Hawkmoth: a handful of observations throughout the area.

Geometridae

Boudinotiana notha (Hübner, 1803) – Light Orange Underwing: scattered throughout the area in small numbers.

Alsophila aceraria (Denis & Schiffermüller, 1775) (Fig. 25): the Belgian stronghold of this species lies in NA, mainly around Han-sur-Lesse where it is well represented in small numbers. A maximum of 42♂ was recorded on 25.xii.2022 at Gros Tienne near Lavaux-Ste.-Anne (NA). Presumably overlooked in many places due to the late flight time of this late autumn species.



Fig. 25. *Alsophila aceraria*, 08.xii.2019, Lavaux-Ste.-Anne, NA. © Chris Steeman.

Chiasma aestimaria (Hübner, 1809) – Tamarisk Peacock (Fig. 26): 1 specimen on 23.vi.2017 at Parc animalier du Domaine des Grottes at Han-sur-Lesse (NA). **The first observation for Belgium** (Steeman & Sierens 2018).



Fig. 26. *Chiasma aestimaria*, 23.vi.2017, Han-sur-Lesse, NA. © Chris Steeman.

Agriopsis bajaria (Denis & Schiffermüller, 1775): the Belgian stronghold of this species lies in NA, mainly around Han-sur-Lesse where it is well represented, mostly in small numbers. A maximum of 87♂ was recorded on 08.xi.2020 at Gros Tienne near Lavaux-Ste.-Anne. Presumably sometimes overlooked at places due to the late flight time of this autumn species.

Paradarisa consonaria (Hübner, 1799) – Square Spot: scattered throughout the Calestienne in small numbers.

Peribatodes ilicaria (Geyer, 1833) – Lydd Beauty: sighted irregularly, mostly as singles, in the great perimeter around Han-sur-Lesse (NA).

Theria primaria (Haworth, 1809) – Early Moth: a species that occurs in small to good numbers throughout the area. In the region between Han-sur-Lesse and Resteigne, the highest numbers in Belgium are recorded. A maximum number of 271♂ on 05.i.2019 and 231♂ on 09.i.2020, both at Minaure near Resteigne (LX). Because of the flight time around the end of the year and in wintertime, the species is very likely to be overlooked in many places.



Fig. 27. *Theria rupicaprararia*, 04.iii.2017, Lavaux-Ste.-Anne, NA. © Chris Steeman.

Theria rupicaprararia (Denis & Schiffermüller, 1775) (Fig. 27): the stronghold of the species lies in the perimeter around Han-sur-Lesse (NA). Usually in small numbers, up to a few dozen specimens are seen every year. A few maxima: 83♂ and 2♀ on 04.iii.2017 around Gros Tienne near Lavaux-Ste.-Anne (NA) and 164♂ and 15♀ on 05.iii.2018 at Tienne d’Aise near Ave-et-Auffe (NA).

Gerinia honoraria (Denis & Schiffermüller, 1775): a very rare and local species which nowadays only still has populations around Han-sur-Lesse (NA). Occasionally caught as 1 or 2 specimens at light around late May or beginning of June. 1 exception: 7 specimens on 28.v.2022 at Grignaux et Hérumont at Han-sur-Lesse (NA), leg. Leafminers working group.

Charissa obscurata (Denis & Schiffermüller, 1775) – Annulet: reasonably present in the Liège quarries, around Han-sur-Lesse (NA) very rare and mostly singles.

Charissa pullata (Denis & Schiffermüller, 1775) – Limestone Annulet: present in small numbers around the calcareous rocks in the Calestienne area.

Gnophos furvata (Denis & Schiffermüller, 1775): present in small numbers around the calcareous rocks in the Calestienne area. Slightly more frequent around Han-sur-Lesse (NA).

Aspitates gilvaria (Denis & Schiffermüller, 1775) – Straw Belle: present in small numbers around the calcareous rocks in the Calestienne area. This species is much more common in the Fagne near Nismes (NA).

Idaea deversaria (Herrich-Schäffer, 1847) – Ashen Wave: present in very small numbers, usually around calcareous rocks.

Idaea dilutaria (Hübner, 1799) – Silky Wave (Fig. 28): present in good numbers throughout the area, especially around calcareous rocks or in quarries where the foodplant (*Helianthemum nummularium*) is present.



Fig. 28. *Idaea dilutaria*, 22.vi.2020, Aywaille, LG. © Chris Steeman.

Idaea ochrata (Scopoli, 1763) – Bright Wave: a very rare species in the area, only seen occasionally at Gros Tienne near Lavaux-Ste.-Anne (NA).

Idaea trigeminata (Haworth, 1809) – Treble Brown Spot: 1 vagrant specimen on 18.vii.2003 at Gros Tienne near Lavaux-Ste.-Anne (NA).

Scopula immorata (Linnaeus, 1758) – Lewes Wave: present in small numbers throughout the area.

Scopula tessellaria (Boisduval, 1840) – Dusky-brown Wave: only one record: 1 specimen on 14.vi.2019 at the Briqueterie de Rome near Durbuy (LX), leg. J. Claessens.

Scopula umbelaria (Hübner, 1813): 2 larvae on 16.ix.2007 at Han-sur-Lesse (NA), leg. J. Y. Baugnée. Nowadays very probably an extinct species in the Famenne. There is still a very small population in the Fagne nearby Matagne-la-Grande (NA). This is the only known population at this time.

Rhodostrophia vibicaria (Clerck, 1759): present in small numbers in and around calcareous grasslands and rocks and quarries throughout the area, but more frequent in the Liège part of the Calestienne. Here sometimes good numbers, e.g. 51 specimens at the quarry de la Falize at Aywaille on 30.v.2020, leg. Leafminers working group.

Cyclophora annularia (Fabricius, 1775) – Mocha: the stronghold of this species lies in the Famenne-Calestienne area and in the Gaume (LX) area. Has been observed in small to moderate numbers with the exception of 164 specimens on 23.vii.2022 at Bois des Petites Tailles near Revogne (NA), leg. Leafminers working group.

Cyclophora porata (Linnaeus, 1767) – False Mocha: very sparsely represented around Han-sur-Lesse (NA).

Cyclophora pupillaria (Hübner, 1799) – Blair’s Mocha: 1 specimen of this rare migrant on 30.x.2022 at Comogne near Focant (NA).

Cyclophora ruficiliaria (Herrich-Schäffer, 1855) – Jersey Mocha: present in small numbers throughout the area.

Catarhoe rubidata (Denis & Schiffermüller, 1775) – Ruddy Carpet (Fig. 29): present in small numbers throughout the area.



Fig. 29. *Catarhoe rubidata*, 03.viii.2017, Lavaux-Ste.-Anne, NA. © Chris Steeman.

Epirrhoe galiata (Denis & Schiffermüller, 1775) – Galium Carpet: present in good numbers around calcareous rocks and quarries.

Orthonama vittata (Borkhausen, 1794) – Oblique Carpet: 1 specimen on 25.viii.2016 at Ave-et-Auffe (NA),

leg. P. Ligezzolo. 3 specimens on 25.vii.2018 at Ri d'Howisse near Wavreille (NA). Much more common in bogland in Flanders.

Xanthorhoe biriviata (Borkhausen, 1794) – Balsam Carpet: only seen a few times at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group. Still a rare species in the southern part of Belgium.

Xanthorhoe quadrifasiata (Clerck, 1759) – Large Twin-Spot Carpet: well represented in small numbers throughout the area.

Euphyia biangulata (Haworth, 1809) – Cloaked Carpet: sparingly represented mainly in the western half of the Famenne-Calestienne.

Euphyia unangulata (Haworth, 1809) – Sharp-angled Carpet: sparingly represented throughout the area.

Anticlea derivata (Denis & Schiffermüller, 1775) – Streamer: present in small to moderate numbers throughout the area.

Larentia clavaria (Haworth, 1809) – Mallow: 1 specimen on 24.ix.2006 at Maupas near Belvaux (NA). 1 specimen on 15.ix and 19.ix.2020, both at Ri d'Howisse near Wavreille (NA). Better represented in the Ardennes.

Spargania luctuata (Denis & Schiffermüller, 1775) – White-banded Carpet: 2 specimens on 08.vi.2014 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group. Better represented in the Ardennes.

Hydriomena impluviata (Denis & Schiffermüller, 1775) – May Highflyer: very sparsely represented throughout the area.

Chloroclysta miata (Linnaeus, 1758) – Autumn Green Carpet: 1 specimen on 23.ix.2006 at Surhaut near Wavreille (NA). 1 ♀ on 02.v.2019 at Gros Tienne near Lavaux-Ste.-Anne (NA). 1 specimen on 26.ix.2022 at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group. Better represented in the Ardennes.

Coenotephria salicata (Denis & Schiffermüller, 1775) – Striped Twin-spot Carpet: unique to the region in Belgium. Present in fairly good numbers in limestone quarries throughout the area. Larger numbers in the Liège Calestienne: 40 specimens on 13.ix.2020 at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group.

Colostygia multistrigaria (Haworth, 1809) – Mottled Grey: only a few observations on calcareous grasslands: 1 specimen on 27.iii.2016 at Tienne d'Aise near Ave-et-Auffe (NA), leg. W. Mertens *et al.* 1 specimen on 06.iv.2019 at Mont des Pins near Bomal (LX), leg. D. Gailly & N. Terorde. 1 specimen on 28.ii.2021 at Tienne d'Aise near Ave-et-Auffe (NA).

Colostygia olivata (Denis & Schiffermüller, 1775) – Beech-green Carpet (Fig. 30): 1 specimen on 10.viii.2002 and another specimen on 08.viii.2003, both at the quarry de la Falize at Aywaille (LG), leg. R. Spronck (De Prins 2006). **New species for the province of LG.** 1 specimen on 23.vii.2004 at Bois d'Oro at Wellin (LX). 1 specimen on 11.vii.2016 at Grande Tinaimont near Han-sur-Lesse (NA),

leg. W. Mertens *et al.* 1 specimen on 05.viii.2017 at the quarry de Bièrnauchamps at Wavreille (NA). 1 specimen on 06.viii.2017 at Belvédère, Rocher Serin et Fond St.-Martin at Han-sur-Lesse (NA).



Fig. 30. *Colostygia olivata*, 05.viii.2017, Wavreille, NA. © Chris Steeman.

Dystroma citrata (Linnaeus, 1761) – Common Marbled Carpet: present in very small numbers. Much more represented in the Ardennes.

Ecliptopera capitata (Herrich-Schäffer, 1839) – Yellow-headed Phoenix: 2 specimens on 25.vi.2016 at Parc animalier du Domaine des Grottes at Han-sur-Lesse (NA), leg. W. Mertens *et al.* Better represented in the Ardennes.

Electrophaes corylata (Thunberg, 1792) – Broken-barred Carpet: present in very small numbers mainly in the wide area of Han-sur-Lesse (NA).

Eulithis prunata (Linnaeus, 1758) – Phoenix: usually observed as singles throughout the area, although still rare.

Lampropteryx otregiata (Metcalf, 1917) – Devon Carpet: 1 specimen on 16.v.2015 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group. **This was the first observation for Belgium** (Wullaert 2015). 1 ♀ on 07.viii.2016 at Basse Wimbe near Lessive (NA), leg. Leafminers working group. Another specimen on 14.viii.2021 at the same place.

Lampropteryx suffumata (Denis & Schiffermüller, 1775) – Water Carpet (Fig. 31): quite frequent in low numbers.



Fig. 31. *Lampropteryx suffumata*, 10.iv.2016, Belvaux, NA. © Chris Steeman.

Thera juniperata (Linnaeus, 1758) – Juniper Carpet: although there are reasonable numbers of *Juniperus*, the species is still very rare in this region: 1 specimen on 14.x.2018 at Les Pairées Ouest near Resteigne (LX).

Asthena anseraria (Herrich-Schäffer, 1855): 1 specimen on 27.vi.2015 at Belvédère, Rocher Serin et Fond St.-Martin at Han-sur-Lesse (NA), leg. D. Sloommaekers *et al.*

Pareulype berberata (Denis & Schiffermüller, 1775) – Barberry Carpet: 1 specimen on 30.vi.2015 at Les Spinets at On (LX), leg. D. Sloommaekers *et al.* A very rare species in the Famenne-Calestienne.

Triphosia dubitata (Linnaeus, 1758) – Tissue (Fig. 32): due to the presence of the many caves in the Calestienne, the species can be found hibernating in large numbers. 82 specimens on 05.ii.2017 at Belvédère, Rocher Serin et Fond St.-Martin at Han-sur-Lesse (NA). Each time 166 specimens on 03.ii.2019 and on 09.ii.2020, both at Domaine des Grottes at Han-sur-Lesse (NA). This species is not often seen on the wing, as it is very poorly attracted to light.



Fig. 32. *Triphosia dubitata*, 05.ii.2017, Han-sur-Lesse, NA. © Chris Steeman.

Horisme radicularia (de La Harpe, 1855) – Cryptic Fern: the presence of this species was first proven by a specimen trapped on 07.v.2016 at Han-sur-Lesse (NA), leg. & gen. det. D. De Groote and determined via genitalia. Due to the similarity with *H. tersata* (Denis & Schiffermüller, 1775) – Fern, older specimens were examined again and it turned out that *H. radicularia* was already present from 2004 onwards: 1 specimen on 20.viii.2004 at Gros Tienne near Lavaux-Ste.-Anne (NA). **This was the first observation for Belgium** (Steeman 2017). Nowadays present in small numbers throughout the area.

Odezia atrata (Linnaeus, 1758) – Chimney Sweeper: present in very small numbers throughout the area. Much more represented in the Ardennes.

Nothocasis sertata (Hübner, 1817) (Fig. 33): 1 specimen on 19.ix.2015 at Belvédère, Rocher Serin et Fond St.-Martin at Han-sur-Lesse (NA), leg. D. Sloommaekers *et al.* 1 specimen on 17.ix.2018 and on 19.ix.2020 at Grignaux et Hérumont at Han-sur-Lesse (NA). 1 specimen on 21.ix.2020 at Petite Tinaimont near Han-



Fig. 33. *Nothocasis sertata*, 21.ix.2020, Han-sur-Lesse, NA. © Chris Steeman.

sur-Lesse (NA). The Belgian stronghold of this species is the Gaume (LX) region.

Eupithecia actaeata Walderdorff, 1869: 1♂ on 05.viii.2019 at the quarry du Batis d'Haurt near Bure (LX). The species was newly discovered to Belgium in 1980 (De Prins 1983) and since then very few observations are known.

Eupithecia egenaria Herrich-Schäffer, 1848 – Fletcher's Pug: 1 specimen on 24.v.2017 at Parc animalier du Domaine des Grottes at Han-sur-Lesse (NA). **New species for the province of NA.** One week later, on 31.v.2017, 8 specimens were trapped at the same place. Another specimen on 12.vi.2017 at Grignaux et Hérumont at Han-sur-Lesse (NA).

Eupithecia expallidata Doubleday, 1956 – Bleached Pug: 1 specimen on 13.viii.2022 at Ri d'Howisse near Wavreille (NA). Much more represented in the Ardennes.

Eupithecia irriguata (Hübner, 1813) – Marbled Pug (Fig. 34): 2 specimens on 24.iv.2020 at Villers-sur-Lesse (NA), leg. J. B. Schuermans. 1 specimen on 02.v.2022 at Comogne near Focant (NA). The species lives in the treetops of old oak trees on limestone soil and is therefore very rarely encountered at light.



Fig. 34. *Eupithecia irriguata*, 02.v.2022, Focant, NA. © Chris Steeman.

Eupithecia lariciata (Freyer, 1841) – Larch Pug: 1 specimen on 08.vi.2014 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group.

Eupithecia plumbeolata (Haworth, 1809) – Lead-coloured Pug: 1 specimen on 11.vii.2015 at Petite Tinaumont near Han-sur-Lesse (NA), leg. W. Mertens *et al.* 2 specimens on 12.vi.2017 at Grignaux et Hérimont at Han-sur-Lesse (NA). 1 specimen on 23.vi.2017 at Parc animalier du Domaine des Grottes at Han-sur-Lesse (NA).

Eupithecia pusillata (Denis & Schiffermüller, 1775) – Juniper Pug: present in small numbers at Les Pairées Ouest, and Tienne de Vignes near Resteigne (LX), where a lot of *Juniperus* grows.

Eupithecia selinata Herrich-Schäffer, 1861: present in small numbers throughout the area.

Eupithecia semigraphata Bruand, 1850: 1 specimen on 01.vii.2006 at Ave-et-Auffe (NA). 1 specimen on 25.vi.2016 and 24.vi.2017, both at Parc animalier du Domaine des Grottes at Han-sur-Lesse (NA). 1♂ on 16.vi.2016, 1 specimen on 18.viii.2018 and 9 specimens at 20.vii.2022, all at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group.

Eupithecia venosata (Fabricius, 1787) – Netted Pug (Fig. 35): 1 specimen on 24.vi.2005 at Ri d’Howisse near Wavreille (NA). 1 specimen on 13.vi.2015 at Les Spinets at On (LX), leg. D. Sloomackers *et al.* 1 specimen on 20.v.2019 and 1 specimen on 22.vi.2020, both at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group.



Fig. 35. *Eupithecia venosata*, 24.vi.2005, Wavreille, NA. © Chris Steeman.

Notodontidae

Drymonia dodonaea (Denis & Schiffermüller, 1775) – Marbled Brown: only one observation: 1 specimen on 03.vi.2018 at Tienne des Vignes near Belvaux (LX), leg. Leafminers working group. Much better represented in the Ardennes and the Gaume (LX).

Drymonia velitaris (Hufnagel, 1766): 3 specimens on 24.vi.2005 at Ri d’Howisse near Wavreille (NA). 1 specimen on 13.v.2015 at Thier de la Haie near Han-sur-Lesse (NA), leg. R. Nossent *et al.* All other Belgian observations in the 21st century are from the Campine region (AN, LI).

Leucodonta bicoloria (Denis & Schiffermüller, 1775) – White Prominent: only one observation: 1 specimen on 16.v.2022 at Grand Quarti near Finnevaux (NA), leg.

Leafminers working group. Much more common in the Ardennes.

Odontesia carmelita (Esper 1799) – Scarce Prominent: 1 specimen on 27.iv.2013 at the Briqueterie de Rome near Durbuy (LX), leg. W. Mertens. 1 specimen on 06.v.2013 at Ave-et-Auffe (NA), leg. Y. van den Heuvel. 1 specimen on 07.v.2017 at Ri d’Howisse near Wavreille (NA), leg. Leafminers working group.

Ptilophora plumigera (Denis & Schiffermüller, 1775) – Plumed Prominent (Fig. 36): a species that is well represented and mainly occurs in the large area around Han-sur-Lesse (NA). Usually, a few dozen are observed, larger numbers are exceptions: 74 specimens on 08.xi.2020 and a whopping number of 347 specimens on 14.xi.2021, both at Gros Tienne near Lavaux-Ste.-Anne (NA).



Fig. 36. *Ptilophora plumigera*, 06.xi.2018, Lavaux-Ste.-Anne, NA. © Chris Steeman.

Erebidae

Leucoma salicis (Linnaeus, 1758) – White Satin Moth: 1 specimen on 06.vii.2019 and 1 specimen on 19.vi.2021, both at the military camp at Marche-en-Famenne (LX).

Gynaephora fascelina (Linnaeus, 1758) – Dark Tussock: 1 specimen on 11.vii.2015 at Tienne d’Aise near Ave-et-Auffe (NA), leg. R. Nossent *et al.*

Orgyia recens (Hübner, 1819) Scarce Vapourer: an extremely rare and declining species. Only known from a single caterpillar on 19.v.2018 at Behotte near Eprave (NA), leg. S. Bonmarchand.

Arctia villica (Linnaeus, 1758) – Cream-spot Tiger: fairly widespread in small numbers throughout the area, somewhat larger numbers in the Liège Calestienne area with a maximum of 55 specimens on 06.vi.2021 at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group.

Diacrisia purpurata (Linnaeus, 1758) – Purple Tiger (Fig. 37): 1 specimen on 02.vi.2007 at Gros Tienne near Lavaux-Ste.-Anne (NA). The Belgian stronghold of the species is the Gaume (LX).



Fig. 37. *Diacrisia purpurata*, 02.vi.2007, Lavaux-Ste.-Anne, NA. © Chris Steeman.

Callimorpha dominula (Linnaeus, 1758) – Scarlet Tiger: sparsely represented throughout the area. Much more common in the Ardennes.

Utetheisa pulchella (Linnaeus, 1758) – Common Speckled: 1 specimen of this very rare migrant on 28.x.2022 at Baronville near Beauraing (NA), leg. D. Sevrin. Another specimen on 29.x.2022 at Wanlin (NA).

Lithosia quadra (Linnaeus, 1758) – Four-spotted Footman: compared to the past, this rare species is seen more and more in the last 15 years. Nowadays occurring in small numbers throughout the area.

Nudaria mundana (Linnaeus, 1761) – Muslin Footman: mostly seen as singles throughout the area. Observations of pre-adult stage specimens such as pupae and caterpillars can be found under rocks or near rocks: 15 larvae on 27.ii.2016 at Ave-et-Auffe (NA), leg. P. Lighezzolo. 60 pupae at a cave entrance on 30.xii.2022 at Revogne (NA).

Paidia rica (Freyer, 1858) – Glaucous Muslin (Fig. 38): 1 specimen on 30.vii.2016 at Les Spinets at On (LX), leg. W. Mertens *et al.* 1 specimen on 16.vii.2017 at Grand Quarti near Finnevaux (NA). 1 specimen on 18.vii.2017 at Les Hectais et Fosse Eghin near Belvaux (NA).



Fig. 38. *Paidia rica*, 16.vii.2017, Finnevaux, NA. © Chris Steeman.

Pelosia muscerda (Hufnagel, 1766) – Dotted Footman: a very rare species with only a few observations throughout the area.

Setina irrorella (Linnaeus, 1758) – Dew Moth: observed around Han-sur-Lesse (NA) in small numbers up to a few dozens. A maximum of 106 specimens on 23.vi.2017 at Parc animalier du Domaine des Grottes.

Dysauxes ancilla (Linnaeus, 1767) – The Handmaid: usually seen as singles around Han-sur-Lesse (NA), somewhat more common in the Liège Calestienne area.

Lygephila pastinum (Treitschke, 1826) – Blackneck: present in very small numbers.

Schrankia coastaestrigalis (Stephens, 1834) – Pinion-streaked Snout: observed occasionally, usually as singles.

Colobochyla salicalis (Denis & Schiffermüller, 1775) – Lesser Belle: 1 specimen on 08.vi.2014 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group. 1 specimen on 05.viii.2017 at the quarry de Bièrnauchamps at Wavreille (NA).

Eublemma purpurina (Denis & Schiffermüller, 1775) – Beautiful Marbled: sparse observations of specimens, with the exception of 21 specimens on 22.vii.2022 at the quarry de la Falize at Aywaille (LG), leg. D. Gailly & R. Thunus.

Phytometra viridaria (Clerck, 1759) – Small Purple-barred: present in very small numbers.

Catephia alchymista (Denis & Schiffermüller, 1775) – Alchemist: somewhat more common in the western part of the Famenne-Calestienne. Is usually observed in singles or in smaller numbers.

Minucia lunaris (Denis & Schiffermüller, 1775) – Lunar Double-stripe (Fig. 39): a species that has been observed a little more in recent years. 1 specimen on 22.v.2020 at Grand Quarti near Finnevaux (NA). 1 specimen on 10.vi.2020 at the quarry du Batis d'Haurt near Bure (LX), leg. J. S. Rousseau-Piot. 1 specimen on 27.v.2022 at Gros Tienne near Lavaux-Ste.-Anne (NA), leg. B. De Ketelaere. 1 specimen on 28.v.2022 at Grignaux et Hérimont at Han-sur-Lesse (NA), leg. Leafminers working group. 1 specimen on 06.vi.2022 at Gros Tienne near Lavaux-Ste.-Anne (NA), leg. Leafminers working group.



Fig. 39. *Minucia lunaris*, 22.v.2020, Finnevaux, NA. © Chris Steeman.

Noctuidae

Abrostola asclepiadis (Denis & Schiffermüller, 1775) (Fig. 40): represented in small numbers where the foodplant, *Vincetoxicum hirundinaria* (Apocynaceae) (Common Vincetoxicum), grows on calcareous rocks.



Fig. 40. *Abrostola asclepiadis*, 17.iv.2017, Belvaux, NA. © Chris Steeman.

Acontia lucida (Hufnagel, 1766) – Pale Shoulder: 1 specimen on 13.viii.2020 at Aye (LX), leg. W. De Smet & M. Baete.

Acontia trabealis (Scopoli, 1763) – Spotted Sulphur: 1 specimen on 13.viii.2020 at Aye (LX), leg. W. De Smet & M. Baete. 1 specimen on 20.vii.2022 at the quarry de la Falize at Aywaille (LG), leg. D. Gailly & R. Thunus.

Aedia funesta (Esper, 1786) – The Druid: 1 vagrant specimen on 26.vi.2019 at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group. This is the second observation for Belgium.

Acronicta cuspis (Hübner, 1813) – Large Dagger: 1 specimen on 20.v.2004 at Gros Tienne near Lavaux-Ste.-Anne (NA). 1 specimen on 28.v.2005 at the quarry du Fond des Vaux near Wellin (LX). 1 specimen on 29.vii.2006 and 1 specimen on 04.viii.2006, both at Gros Tienne near Lavaux-Ste.-Anne (NA).

Tyta luctuosa (Denis & Schiffermüller, 1775) – Four-spotted: 1 specimen on 02.viii.2019 at the military camp at Marche-en-Famenne (LX), leg. D. Dufour *et al.*



Fig. 41. *Cucullia chamomillae*, 01.vi.2018, Ave-et-Auffe, NA. © Chris Steeman.

Cucullia chamomillae (Denis & Schiffermüller, 1775) – Chamomile Shark (Fig. 41): a species that is found more as a caterpillar than as an adult specimen. 4 larvae on 01.vi.2018 at Ave-et-Auffe (NA).

Cucullia lucifuga (Denis & Schiffermüller, 1775): 1 specimen on 09.vi.2019 at Tienne des Vignes near Resteigne (LX), leg. Leafminers working group. **New species for the province of LX.** Only a few historical Belgian records, all from the Han-sur-Lesse area (NA).

Amphipyra perflua (Fabricius, 1787) – Larger Pale-tipped Moth: 1 specimen on 27.vii.2001 at Belvédère, Rocher Serin et Fond St.-Martin at Han-sur-Lesse (NA), leg. P. Lighezzolo. 7 specimens on 21.vii.2015 at Turmont at Han-sur-Lesse (NA), leg. J. Jansen *et al.* 7 specimens on 24.vii.2016 at Ri d'Howisse near Wavreille (NA), leg. Leafminers working group. 3 specimens on 16.vii.2017 at Grand Quarti near Finnevaux (NA), leg. Leafminers working group. 1 specimen on 17.vii.2017 and 4 specimens on 18.vii.2017, both at Les Hectais et Fosse Eghin near Belvaux (NA). 1 specimen on 21.vii.2018 and 2 specimens on 27.vii.2020, both at Ri d'Howisse near Wavreille (NA).

Brachionycha nubeculosa (Esper, 1785) – Rannoch Sprawler (Fig. 42): 1 specimen on 29.iii.2017, 1 specimen on 03.iv.2018 and 1 specimen on 10.iv.2023 all at Grand Quarti near Finnevaux (NA). 1 specimen on 20.iii.2022 at Gros Tienne near Lavaux-Ste.-Anne (NA). 1 specimen on 28.iii.2022 and 1 specimen on 13.iv.2022, both at Ri d'Howisse near Wavreille (NA). More common in the Fagne area.



Fig. 42. *Brachionycha nubeculosa*, 29.iii.2017, Finnevaux, NA. © Chris Steeman.

Heliothis peltigera (Denis & Schiffermüller, 1775) – Bordered Straw: a rare migrant: 1 specimen on 13.vi.2015 at Thier de la Haie near Han-sur-Lesse (NA), leg. R. Nossent *et al.* 1 specimen on 08.viii.2015 at Tienne des Vignes near Resteigne (LX), leg. V. Goethals.

Heliothis viriplaca (Hufnagel, 1766) – Marbled Clover: 1 specimen on 16.viii.2019 and 1 specimen on 02.vii.2022, both at Belvédère, Rocher Serin et Fond St.-Martin at Han-sur-Lesse (NA), leg. F. Clarinval & F. Vanhove. 1 specimen on 31.vii.2020 near the quarry Fond des Vaux near Wellin (LX), leg. T. Vandaudenard & A. Pouillon. 1 specimen on 12.viii.2021 at the quarry de la Lesse at Resteigne (LX).

Spodoptera exigua (Hübner, 1808) – Small Mottled Willow: a rare migrant: 12 specimens on 19.vii.2015 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group. 1 specimen on 22.vii.2015 at Turmont at Han-sur-Lesse (NA), leg. W. Mertens *et al.* 1 specimen on 12.ix.2015 at Les Pairées Ouest near Resteigne (LX), leg. R. Nossent *et al.* 1 specimen on 13.viii.2022 at Ri d’Howisse near Wavreille (NA). 1 specimen on 01.x.2023 at Gros Tienne near Lavaux-Ste.-Anne (NA).

Caradrina gilva (Donzel, 1837) (Fig. 42): 1 specimen on 26.vi.2019 and 1 specimen on 30.v.2020, both at the quarry de la Falize at Aywaille (LG), leg. D. Gailly *et al.*

Caradrina flavirena (Guenée, 1852) – Lorimer’s Rustic: 1♀ on 13.ix.2020 at the quarry de la Falize at Aywaille (LG). As far as known, the only sighting in Belgium (Wullaert 2021b).

Hoplodrina respersa (Denis & Schiffermüller, 1775) – Sprinkled Rustic: well represented and usually observed around calcareous rocks, but sometimes seen outside this habitat. It has been expanding northwards in the last decade.

Hoplodrina superstes (Ochsenheimer, 1816) – Powdered Rustic: present in small numbers and more bound to calcareous rocks than the previous species.

Chloantha hyperici (Denis & Schiffermüller, 1775) – Pale-shouldered Cloud: exclusively observed in the Liège Calestienne area. 1 specimen on 26.vi.2019, 1 specimen on 30.v.2020, 2 specimens on 22.vi.2020, 3 specimens on 11.viii.2020, 2 specimens on 15.viii.2020 and 7 specimens on 06.vi.2021, all at the quarry de la Falize at Aywaille (LG), leg. D. Gailly & Leafminers working group.

Apamea lateritia (Hufnagel, 1766) – Scarce Brindle: sparse sightings of mostly singles throughout the area. Much better represented in the Ardennes.

Helotropha leucostigma (Hübner, 1808) – The Crescent: 1 specimen on 02.viii.2019 at the military camp at Marche-en-Famenne (LX), leg. D. Dufour *et al.* Locally common in Flanders.

Litoligia literosa (Haworth, 1809) – Rosy Minor: 1 specimen on 06.vii.2019 at the military camp at Marche-en-Famenne (LX), leg. D. Dufour *et al.*

Photodes fluxa (Hübner, 1809) – Mere Wainscot: 8 specimens on 16.vii.2017 and 2 specimens on 19.vii.2022, both at Grand Quarti near Finnevaux (NA).

Photodes minima (Haworth, 1809) – Small Dotted Buff: 1 specimen on 30.vii.2016 at Les Spinets at On (LX), leg. W. Mertens *et al.* 1 specimen on 16.vii.2017 at Grand Quarti near Finnevaux (NA), leg. Leafminers working group. Another specimen at the same spot on 18.vi.2018. 4 specimens on 06.vii.2019 at the military camp at Marche-en-Famenne (LX), leg. D. Dufour *et al.*

Episema glaucina (Esper, 1789) (Fig. 43): a very rare xerotherm species, only found in NA. The species is very variable in its colouration and forewing pattern, well-marked and patternless, including dark (brown) and pale (white) forms. There are about 6 small populations in the



Fig. 43. *Episema glaucina*, 24.ix.2018, Belvaux, NA. © Chris Steeman.

immediate vicinity of Han-sur-Lesse. A maximum number of 17 specimens (12 white form, 5 brown form) were trapped on 03.x.2018 at Maupas near Belvaux.

Aporophyla lueneburgensis (Freyer, 1848) – Northern Deep-brown Dart: until recently it was generally accepted that *Aporophyla lutulenta* ([Denis & Schiffermüller, 1775) – Deep-brown Dart occurred in southern Belgium. However, according to a recent study by Nowacki *et al.* (2023), we now know that *A. lutulenta* has a more eastern distribution in Europe and does not occur in Belgium where it is replaced by *A. lueneburgensis*. The species is well represented in the western part of the Famenne-Calestienne area.

Dicycla oo (Linnaeus, 1758) – Heart Moth: well represented, most observations in the Namur Famenne-Calestienne.

Dryobotodes eremita (Fabricius, 1775) – Brindled Green: although the foodplant *Quercus* sp. (Fagaceae) (Oak sp.) is abundant everywhere, this still remains a species mainly from the Campine area (AN, LI) and it is extremely rare in the Famenne-Calestienne. 1 specimen on 26.ix.2015 at Gros Tienne near Lavaux-Ste.-Anne (NA), leg. R. Nossent *et al.* 1 specimen on 26.ix.2022 at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group.

Mniotype adusta (Esper, 1790) – Dark Brocade: 1 specimen on 13.vi.2016 at Thier de la Haye near Han-sur-Lesse (NA), leg. R. Nossent *et al.* 1 specimen on 31.v.2017 at Parc animalier du Domaine des Grottes at Han-sur-Lesse (NA).



Fig. 44. *Mniotype satara*, 28.viii.2017, Ave-et-Auffe, NA. © Chris Steeman.

Mniotype satura (Denis & Schiffermüller, 1775) – Beautiful Arches (Fig. 44): scattered in small numbers.

Polymixis flavicincta (Denis & Schiffermüller, 1775) – Large Ranunculus: scattered in small numbers throughout the area.

Egira conspicularis (Linnaeus, 1758) – Silver Cloud: well represented, sometimes up to a few dozen in the larger surroundings of Han-sur-Lesse (NA) and Beauraing (NA).

Tholera cespitis (Denis & Schiffermüller, 1775) – Hedge Rustic: 1 specimen on 15.viii.2021 at Grand Quart near Finnevaux (NA).

Ceramica pisi (Linnaeus, 1758) – Broom Moth: 1 specimen on 27.vi.2015 at Belvédère, Rocher Serin et Fond St.-Martin at Han-sur-Lesse (NA), leg. D. Sloommaekers *et al.* 1 specimen on 06.vii.2017 at Comogne near Focant (NA). 1 specimen on 03.vi.2018 at Tienne des Vignes near Resteigne (LX), leg. Leafminers working group. 1 specimen on 22.vi.2020 at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group. More common in the Ardennes.

Hadena compta (Denis & Schiffermüller, 1775) – Varied Coronet: 1 specimen on 27.v.2022 at Mont des Pins near Bomal (LX), leg. J. Werts.

Hecatera bicolorata (Hufnagel, 1766) – Broad-barred White: occurring in very small numbers.

Lacanobia contigua (Denis & Schiffermüller, 1775) – Beautiful Brocade: 1 specimen on 08.vi.2014 at the Briqueterie de Rome near Durbuy (LX), leg. Leafminers working group. 7 specimens on 03.vi.2018 at Tienne des Vignes near Resteigne (LX), leg. Leafminers working group.

Lacanobia suasa (Denis & Schiffermüller, 1775) – Dog's Tooth: occasional sightings throughout the area.

Lacanobia aliena (Hübner, 1809) (Fig. 45): an extremely rare species only occurring in NA. 1 specimen on 24.vi.2006 at Maupas near Belvaux. 1 specimen on 25.vi.2016 at Parc animalier du Domaine des Grottes at Han-sur-Lesse, leg. W. Mertens *et al.* 1 specimen on 02.vii.2016 at Maupas near Belvaux, leg. R. Nossent & W. De Rouck. 1 specimen on 11.vii.2016 at Grande Tinaimont near Han-sur-Lesse, leg. W. Mertens *et al.*



Fig. 45. *Lacanobia aliena*, 24.vi.2006, Belvaux, NA. © Chris Steeman.

Lacanobia splendens (Hübner, 1808) – Splendid Brocade: 1 specimen on 12.vii.2014 at Ri d'Howisse near Wavreille (NA), leg. D. Sloommaekers *et al.* 1 specimen on 20.vii.2022 at Comogne near Focant (NA).

Pachetra sagittigera (Hufnagel, 1766) – Feathered Ear: only two observations: 1 specimen on 20.v.2004 at Gros Tienne near Lavaux-Ste.-Anne (NA). 1 specimen on 22.vi.2013 at Tienne de Boton at Belvaux (NA), leg. T. Merckx.

Polia bombycina (Hufnagel, 1766) – Pale Shining Brown: occasional sightings throughout the area.

Polia hepatica (Clerck, 1759) – Sivery Arches: 1 specimen on 24.vii.2016 at Ri d'Howisse near Wavreille (NA), leg. Leafminers working group.

Leucania obsoleta (Hübner, 1803) – Obscure Wainscot: occasional sightings throughout the area.

Mythimna pudorina (Denis & Schiffermüller, 1775) – Striped Wainscot: occasional sightings around Han-sur-Lesse (NA).

Mythimna sicula (Treitschke, 1835): a species with a preference to limestone habitats. Scattered in small numbers throughout the area.

Chersotis multangula (Hübner, 1803) (Fig. 46): quite regularly in small numbers around Han-sur-Lesse (NA) and also in LG at the quarry de la Falize, with a maximum of 51 specimens on 22.vi.2020, leg. Leafminers working group.



Fig. 46. *Chersotis multangula*, 01.vi.2017, Han-sur-Lesse, NA. © Chris Steeman.

Naenia typica (Linnaeus, 1758) – Gothic: 1 specimen on 07.vii.2006 at Maupas near Belvaux (NA). 1 specimen on 25.vi.2016 at Parc animalier du Domaine des Grottes at Han-sur-Lesse (NA), leg. D. Sloommaekers *et al.* 1 specimen on 29.vii.2016 at Les Spinets at On (LX), leg. E. Thoen *et al.* 1 specimen on 30.vi.2019 at Mont des Pins near Bomal (LX), leg. D. Gailly *et al.*

Rhyacia simulans (Hufnagel, 1766) – Dotted Rustic: only one sighting: 1 specimen on 05.ix.2003 at Gros Tienne near Lavaux-Ste.-Anne (NA).

Xestia agathina (Duponchel, 1827) – Heath Rustic: 1 specimen on 10.ix.2020 at Mont des Pins near Bomal (LX), leg. D. Gailly & N. Terorde. 1 specimen on 13.ix.2020 at the quarry de la Falize at Aywaille (LG), leg. Leafminers working group.



Fig. 47. *Xestia stigmatica*, 06.viii.2018, Focant, NA. © Chris Steeman.

Xestia stigmatica (Hübner, 1813) – Square-spotted Clay (Fig. 47): present in small numbers in the western part of the Famenne-Calestienne area.

Acknowledgements

I would like to thank the Département de la Nature et des Forêts for the permission to enter and inventory the nature reserves in the Famenne-Calestienne, and, in particular, Patrick Lighezzolo and Marc Paquay for the pleasant cooperation over the years and their help in getting all the right ‘dérogations’.

Many thanks to Damien Gailly and Johan Michaux for the DNA testing of some specimens, Tom Sierens for his additions and corrections to this paper and Willy De Prins for carefully reading the final draft.

My sincerest thanks also to my friends for their pleasant company on the many excursions together, by day and by night, and to anyone I might have forgotten.

References

- Darcis J. M., Steckx E. & De Prins W. 2014. *Eumasia parietariella* (Lepidoptera: Psychidae), un nouveau papillon pour la réserve naturelle de la Heid des Gattes et pour la Belgique — *Phegea* **42**(2): 33–36. http://www.phegea.org/Phegea/2014/Phegea42-2_33-36.pdf
- De Prins W. 1983. *Eupithecia actaeata* Walderdorff, een nieuwe soort voor de Belgische fauna (Lepidoptera, Geometridae) — *Phegea* **11**(4): 73–76. http://www.phegea.org/Phegea/1983/Phegea11-4_73-76.pdf
- De Prins W. 2005. Interessante waarnemingen van Lepidoptera in België in 2004 (Lepidoptera) — *Phegea* **33**(1): 1–8. http://www.phegea.org/Phegea/2005/Phegea33-1_1-8.pdf
- De Prins W. 2006. Interessante waarnemingen van Lepidoptera in België in 2005 (Lepidoptera) — *Phegea* **34**(1): 3–12, (2):67–71. http://www.phegea.org/Phegea/2006/Phegea34-1_3-12.pdf; http://www.phegea.org/Phegea/2006/Phegea34-2_67-71.pdf
- De Prins W. 2010. Interessante waarnemingen van Lepidoptera in België in 2009 (Lepidoptera) — *Phegea* **38**(3): 93–109. http://www.phegea.org/Phegea/2010/Phegea38-3_93-109.pdf
- De Prins W. 2016. Catalogus van de Belgische Lepidoptera – Catalogue of the Lepidoptera of Belgium. — *Entomobrochure* **9**: 1–247. www.phegea.org/Documents/CatalogueBelgianLepidoptera_2016.pdf
- De Prins W. & Steeman C. 2011. Interessante waarnemingen van Lepidoptera in België in 2010 (Lepidoptera) — *Phegea* **39**(4): 121–136. http://www.phegea.org/Phegea/2011/Phegea39-4_121-136.pdf
- De Prins W. & Steeman C. 2003–2023. *Catalogue of the Lepidoptera of Belgium*. — <https://projects.biodiversity.be/lepidoptera> (accessed 28 November 2023).
- De Prins W., Steeman C. & Sierens T. 2016. Interessante waarnemingen van Lepidoptera in België in 2015 (Lepidoptera) — *Phegea* **44**(3): 50–62. http://www.phegea.org/Phegea/2016/Phegea44-3_50-62.pdf
- De Prins W., Steeman C. & Sierens T. 2017. Interessante waarnemingen van Lepidoptera in België in 2016 (Lepidoptera) — *Phegea* **45**(3): 52–64. http://www.phegea.org/Phegea/2017/Phegea45-3_52-64.pdf
- Meert R. 2018. *Endothenia lapideana* (Lepidoptera: Tortricidae) nieuw voor België — *Phegea* **46**(4): 122–125. http://www.phegea.org/Phegea/2018/Phegea46-4_122-125.pdf
- Nowacki J., Mahecha O., Waşala R. & Zubek A. 2023. The taxonomic separateness of the species *Aporophyla lueneburgensis* (Freyer 1848) and *Aporophyla lutulenta* ([Denis Schiffermuller] 1775) occurring in Poland (Lepidoptera: Noctuidae). — *SHILAP Revista de lepidopterologia* **51**(201): 37–50.
- Slootmaekers D., Snyers C. & Wullaert S. 2018. *Ephestia welseriella* and *Delplanqueia inscriptella* (Lepidoptera: Pyralidae, Phycitinae), new to the Belgian fauna — *Phegea* **46**(3): 91–93. http://www.phegea.org/Phegea/2018/Phegea46-3_91-93.pdf
- Steeman C. 2017. *Horisme radicularia* (Lepidoptera: Geometridae, Larentiinae), nieuw voor de Belgische fauna. *Phegea* **45**(3): 50–52. http://www.phegea.org/Phegea/2017/Phegea45-3_50-52.pdf
- Steeman C. 2019a. *Coleophora wockeella* (betoniekokermot) en *Elachista differens* (zeggemineermot) (Lepidoptera: Coleophoridae, Elachistidae) nieuw voor de Belgische fauna — *Phegea* **47**(2): 26–29. http://www.phegea.org/Phegea/2019/Phegea47-2_26-29.pdf
- Steeman C. 2019b. *Acleris roscidana* (Lepidoptera: Tortricidae, Tortricini), nieuw voor de Belgische fauna — *Phegea* **47**(2): 67–68. http://www.phegea.org/Phegea/2019/Phegea47-2_67-68.pdf
- Steeman C. 2021a. *Phyllonorycter hostis* (Lepidoptera: Gracillariidae, Lithocolletinae), nieuw voor de Belgische fauna — *Phegea* **49**(3): 125–128. http://www.phegea.org/Phegea/2021/Phegea49-3_125-128.pdf
- Steeman C. 2021b. *Cnephasia cupressivorana* (Lepidoptera: Tortricidae, Cnephasiini), nieuw voor de Belgische fauna — *Phegea* **49**(2): 78–80. http://www.phegea.org/Phegea/2021/Phegea49-2_78-80.pdf
- Steeman 2023. *Hellula undalis* (Lepidoptera: Crambidae, Glaphyriinae), nieuw voor de Belgische fauna — *Phegea* **51**(3): 128–131.
- Steeman C. & Sierens T. 2018. Interessante waarnemingen van Lepidoptera in België in 2017 (Lepidoptera) — *Phegea* **46**(2): 31–47. http://www.phegea.org/Phegea/2018/Phegea46-2_31-47.pdf



- Van Steenwinkel C. & Wullaert S. 2016. *Coleophora adjectella* – sleedoornkokermot (Lepidoptera: Coleophoridae), nieuw voor de Belgische fauna — *Phegea* **44**(4): 98–100. http://www.phegea.org/Phegea/2016/Phegea44-4_98-100.pdf
- Wullaert S. 2015. Melding van minerende en andere zeldzame Lepidoptera in België met 10 nieuwe soorten voor de Belgische fauna (Nepticulidae, Tineida, Momphidae, Cosmopterigidae, Gelechiidae, Tortricidae en Geometridae) — *Phegea* **43**(3): 50–63. http://www.phegea.org/Phegea/2015/Phegea43-3_50-63.pdf
- Wullaert S. 2017. Resultaten van de Werkgroep Bladmineerders uit 2016 met meldingen van minerende en andere zeldzame Lepidoptera in België en met 5 nieuwe soorten voor de Belgische fauna (Coleophoridae, Tortricidae, Gelechiidae en Nepticulidae) — *Phegea* **45**(3): 79–96. http://www.phegea.org/Phegea/2017/Phegea45-3_79-96.pdf
- Wullaert S. 2018. Resultaten van de Werkgroep Bladmineerders uit 2017 met meldingen van minerende en andere zeldzame Lepidoptera in België en met negen nieuwe soorten voor de Belgische fauna (Depressariidae, Gelechiidae, Hepialidae, Heliozelidae, Nepticulidae, Pterophoridae en Tortricidae) — *Phegea* **46**(3): 74–90. http://www.phegea.org/Phegea/2018/Phegea46-3_74-90.pdf
- Wullaert S. 2021a. Resultaat van de excursies naar *Les Anciennes Briqueteries de Rome*, Durbuy, 2012–2017 (Lepidoptera) — *Phegea* **49**(2): 67–72. http://www.phegea.org/Phegea/2021/Phegea49-2_67-72.pdf
- Wullaert S. 2021b. Resultaten van de Werkgroep Bladmineerders uit 2019 en 2020 met meldingen van 9 nieuwe soorten voor de Belgische fauna (Elachistidae, Cosmopterigidae, Gelechiidae, Noctuidae, Tineidae en Tortricidae) — *Phegea* **49**(3): 109–124. http://www.phegea.org/Phegea/2021/Phegea49-3_109-124.pdf
- Wullaert S. 2023. Resultaten van de Werkgroep Bladmineerders uit 2021 en 2022 met meldingen van 15 nieuwe soorten voor de Belgische fauna (Alucitidae, Blastobasidae, Coleophoridae, Crambidae, Depressariidae, Elachistidae, Nepticulidae, Psychidae, Pyralidae, en Tineidae) — *Phegea* **52**(1): 4–28.
-

Received: 01 March 2023

Accepted: 12 September 2023