

The Manual for Identification of Lepidoptera and Hymenoptera Defoliators: Damage and Larvae

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Evropský sociální fond
Praha & EZ: Investujeme do vaší budoucnosti

Eriocraniidae

Eriocrania Zeller 1851 (probably *Eriocrania semipurpurella* (Stephens, 1835), and/or *Eriocrania sparrmannella* (Bosc 1791), and/or *Eriocrania cicatricella* (Zetterstedt, 1839))

English name: not available

Systematic: Lepidoptera, Eriocraniidae

Hosts: *Betula* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult wingspan 10-13 mm, ground colour yellowish to brownish, often with lilac metallic shine. Larvae feed from mid-June into August. Larva makes large blotch mine with frass deposited in numerous short rows, mainly on Betulaceae and Corylaceae.

Hibernation and a long diapause take place in different shelters on tree stems or stumps beneath a silk. Pupation in cocoon in spring. They can be netted during the day flying around the foodplant, birch (*Betula*).

Habitat: Occurrence in broadleaf forests, mainly in edge zone of birch and oak stands. Some species frequently abundant.



Gracillaridae

Acrocercops brongniardella (Fabricius 1798)

English name: not available

Systematic: Lepidoptera, Gracillariidae

Hosts: *Quercus* spp.e

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: The wingspan 8-10 mm. Larva 6-8 mm in length, little flattened, pale yellowish-green, with visible digestive system. Thoracic shield little brownish, with four black spots. Head frontally and laterally brown, else yellowish. Young larva often with black spots dorsally, mature one reddish. Larva mines (mine starts with inconspicuous tunnel), frequently in groups in inflated blotch mines (stigmatonoms) on leaves of *Quercus* spp. A bivoltine species, hibernation as adult. It attacks mainly young trees and May sprouts of older trees.

Habitat: Edges of oak forests, young plantations and stands, forest steppes, sometimes abundant.



Yponomeutidae

Argyresthia (Blastotere) illuminatella Zeller 1839

English name: not available

Systematic: Lepidoptera, Yponomeutidae

Hosts: *Abies* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult 9-12 mm in span, forewings shiny ochre yellow, antennae with dark and light rings. Larva is grey with black head and prothorax. Larva feeds in a shoot of *Abies* spp., mainly *A. alba* from autumn to spring. Bored shoot is usually broken off by spring time. Larva remains in base of non-broken part, closing off the end of shoot with silk and pupates therein.

Habitat: On young shaded firs. Local and not abundant.



Argyresthia (Argyresthia) pruniella (Clerck 1759)

English name: Cherry Fruit Moth

Systematic: Lepidoptera, Yponomeutidae

Hosts: *Prunus* spp., *Cerasus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 10-13 mm. Larva 8-12 mm in length, whitish at birth, later yellow-green, with brown head, prothoracic and anal plates. Female lays eggs individually, or in groups of 2-3 eggs in a batch, on buds, under bud scales or in bark cracks. Larva hibernates within egg. In the spring young caterpillars penetrate into flower or leaf buds. Later they move on to buds and flowers of Prunoidea, mainly cherries (*Prunus*, subgenus *Cerasus*). They sometimes cause damage to young shoots, making holes inside (become partly dry). Larva pupates in a dense two-layer cocoon in the ground, less often in bark cracks of trees.

Habitat: Forest edges, gardens, orchards. A pest mainly of cherry trees.



Argyresthia (Argyresthia) pygmaeella (Denis & Schiffermüller 1775)

English name: not available

Systematic: Lepidoptera, Yponomeutidae

Hosts: *Salix* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 10-13 mm. Larva 10-13 mm in length, pale pink-brown, head and thoracic plate black, abdominal plate little darker – rusty. Pinnacles little darker than vicinity, setae inconspicuous. Larva feeds on broad-leaf willows, mainly on *Salix caprea*. It hibernates in a terminal bud and lives in the heart of young shoot in spring time. It pupates mainly on the ground.

Habitat: Forest edges, clearings, stream banks, abundant.



Argyresthia (Argyresthia) retinella Zeller 1839

English name: not available

Systematic: Lepidoptera, Yponomeutidae

Hosts: *Betula* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 9-10 mm. Ground colour of forewings white with brown scales on internal part of wing and with two extensive irregular brown spot in central and external part of forewing. Larva pale yellow, partially translucent (darker internal organs visible as light-brown line), head and thoracic plate bright-brown. It feeds on *Betula* spp., in spring boring into short lateral twigs of branches, their leaves wilting under this process. Pupation in cocoon on ground. The adults are generally on the wing in June and July

Habitat: Birch stands, forest edges etc., and mainly on acid substrate, locally abundant, may form outbreaks.



Argyresthia (Argyresthia) submontana Frey 1871

English name: not available

Systematic: Lepidoptera, Yponomeutidae

Hosts: *Sorbus aria*

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 9-13 mm, ground colour white with brown-golden spots and scattered scales. Larva 9-12 mm in length, greyish-brown, head, thoracic plate and abdominal plate black. Intersegment areas more conspicuous grey. Pinnacles dark, setae inconspicuous. Larva feeds on *Sorbus aria* among leaves of opening buds. It pupates on ground.

Habitat: Rocky and warm (dealpine) forest areas on limestone and igneous rocks with occurrence of host plant, locally fairly abundant.



Yponomeuta cagnagella (Hübner 1813)

English name: Spindle Ermine

Systematic: Lepidoptera, Yponomeutidae

Hosts: *Euonymus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 19-26 mm. It can be distinguished by the wing-tip cilia on the forewing which are pure white, as opposed to greyish in case of *Y. padella*. Larva 15-22 mm in length, ground colour greyish with darker dorsal line. Subdorsal line formed by a row of black spots, head and prothoracic shield black, pinnacles dark-grey and conspicuous, setae medium in length. Larva feeds gregariously on *Euonymus* spp. in a nest, pupal cocoons in a group, regularly adjacent to each other. Moths fly from June to October.

Habitat: Bushes, forests and edges of water-courses, abundant. Sometimes, causes defoliation during outbreaks.



Yponomeuta padella (Linnaeus 1758)

English name: Orchard Ermine

Systematic: Lepidoptera, Yponomeutidae

Hosts: mainly on *Prunus* and *Crataegus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 19-22 mm, ground colour greyish, also wing-tip cilia greyish. Larva 14-16 mm in length, dirty-yellow to gray, with black head, wing buds, and spiracle rims. Female lays eggs in groups on branches of host plants, covering the eggs with a shield. Caterpillars live gregariously in a silken web. Larvae hibernates in the 1st instar, into silk shelter (nest). Pupation takes place in nests; white cocoons are located separately, rather than aggregately in compact packs. Cocoons sparse, pupa is visible. The larvae feed on mainly on *Prunus* and *Crataegus* spp. and cherry (*Prunus* spp.). It flies in July and August.

Habitat: Shrubby slopes, forest edges, gardens. Fairly abundant, sometimes causes outbreaks.



Ypsolophidae

Ypsolopha alpella (Denis & Schiffermüller 1775)

English name: not available

Systematic: Lepidoptera, Ypsolophidae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult 14-17 mm in span, ground colour yellowish to pale brownish, with inconspicuous pattern on forewings.

Adults of this genus have typical projected labial palpi. Larvae of all species of this genus similar to each other. The body slender, spindle-like, with 10 relatively long legs (the pair on last segment longer). Larva bright green, dorsal vein partially visible, bordered by bright yellow spats.

Subdorsal line more conspicuous, Pinnacles black, bordered by bright-yellow-green area, setae dark, inconspicuous. Head brown-darkgreen, eyes black. Sometimes, larva is almost yellow. The larva feeds in a slight web on the leaves of *Quercus* spp., it prefers *Q. pubescens* species group, and pupates in a boat-shaped cocoon typical of the genus, amongst the bark. Hibernation as egg. The adults fly during August.

Habitat: Warm oak stands, forest steppes, in warm regions of central Europe, fairly abundant.



Ypsolopha horridella (Treitschke 1835)

English name: not available

Systematic: Lepidoptera, Ypsolophidae

Hosts: Rosaceae

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 16-21 mm, ground colour brown to grey-brown, with inconspicuous pattern and with raised scale-tufts or crests on the dorsal part of the forewings. Larva pale-green with yellowish spots. Dorsal line almost invisible, subdorsal line very conspicuous, pinnacles and setae dark. Head yellowish with pale-brown marbling posteriorly. Larva feeds on Rosaceae (Pomoidea, Prunoidea), especially on *Crataegus* spp. Hibernates as egg. The adults fly in July and August.

Habitat: Bushes, forest edges, orchards and gardens, fairly abundant.



Ypsolopha mucronella (Scopoli 1763)

English name: not available

Systematic: Lepidoptera, Ypsolophidae

Hosts: *Euonymus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 26-33mm, ground colour greyish-silver or yellowish-silver. Forewing very narrow and long, pointed. The adult moth has a particularly distinctive attenuated resting posture. Larva 15-20 mm in length, ground colour grey-brown with inconspicuous marbling. Dorsal line yellowish on abdominal segments I-VI, then dark. Pinnacles dark-brown to black, setae medium in length, black, head grey with brown-black spots. Larva feeds on *Euonymus* spp. Hibernation as adult.

Habitat: Shrubby slopes and banks of watercourses with occurrence of host plant, fairly abundant.



Ypsolopha scabrella (Linnaeus 1761)

English name: not available

Systematic: Lepidoptera, Ypsolophidae

Hosts: Rosaceae

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 20-22 mm, ground colour pale (anterior part of forewings) and dark (posterior part of forewings) brown greyish, three raised tufts of scales are visible on forewings, when adult resting. Larva 18-25 mm in length, ground colour pale green, with yellowish suffusion, dorsal line conspicuous, yellowish, subdorsal line inconspicuous. Pinnacles and setae dark-brown to black, head little darker than body. Larva feeds on Rosaceae (Pomoidea, Prunoidea) spp., mainly on *Prunus spinosa*. Hibernation as egg. Nocturnal, it flies in July and August.

Habitat: Habitats similar to those of *Y. horridella* (bushes, forest edges, orchards and gardens), fairly abundant.



Ypsolopha sylvella (Linnaeus 1767)

English name: not available

Systematic: Lepidoptera, Ypsolophidae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult 18-20 mm in span, ground colour greyish to brownish, with several conspicuous darker spots on forewings. Larva similar to previous one, Pinnacles black bordered by white areas. Larva feeds on *Quercus* spp. Hibernation as egg. The adult moths occur during August and September, and can be attracted by light.

Habitat: In oak stands, fairly abundant.



Oecophoridae

Diurnea fagella (Denis & Schiffermüller 1775)

English name: March Tubic

Systematic: Lepidoptera, Chimabachidae

Hosts: Polyphagous on deciduous trees

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Quite a small moth, with an average wingspan of about 25 mm. The females have much shorter, stunted wings than the males. Larva similar that of *D. lipsiella*, vox-yellowish or greenish, with ochre, or red-brown head. Young larvae more greyish, with brown-black head and prothoracic plate. Thoracic legs pale. Metathoracic legs enlarged, last but one segment in opposite to *D. lipsiella*. Larva spun two leaves, superimposed one to one (underside of one leaf join upperside of the second leaf) and form chamber spinned by white silk without excrements, where also hibernates. Skeletonise leaves as young, later consume them all. Hibernation as pupa. This is an early spring species, occurring from March to May. Larva feeds polyphagously on deciduous woody species.

Habitat: In deciduous forests, abundant, sometimes cases visible defoliation also on seedlings.



Diurnea lipsiella (Denis & Schiffermüller 1775)

English name: not available

Systematic: Lepidoptera, Chimabachidae

Hosts: mainly *Quercus* spp. and *Carpinus betulus*

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 20-24 mm. As *D. fagella*, the females have under-developed wings (brachypterous). The adult moths fly in October and November. Larva up to 35 mm in length, flattened, with big head. Mature larva is vox-yellow, young one more yellow-grey. Pinnacles inconspicuous. Head brown, black-brown on younger instars. Metathoracic legs enlarged, mainly on last segment. Anal shield inconspicuous. Larva feeds between two margins of leaf, young one between two spun leaves, which skeletonise and consume completely later. Enlarged metathoracic legs produce sounds. It also pupates between leaves. Hibernation as egg. Larva feeds polyphagously on deciduous woody species, but prefers *Quercus* spp. and *Carpinus betulus*.

Habitat: In oak stands in warmer sites, abundant, may be pest.



Coleophoridae

Coleophora badiipennella (Duponchel 1843)

English name: not available

Systematic: Lepidoptera, Coleophoridae

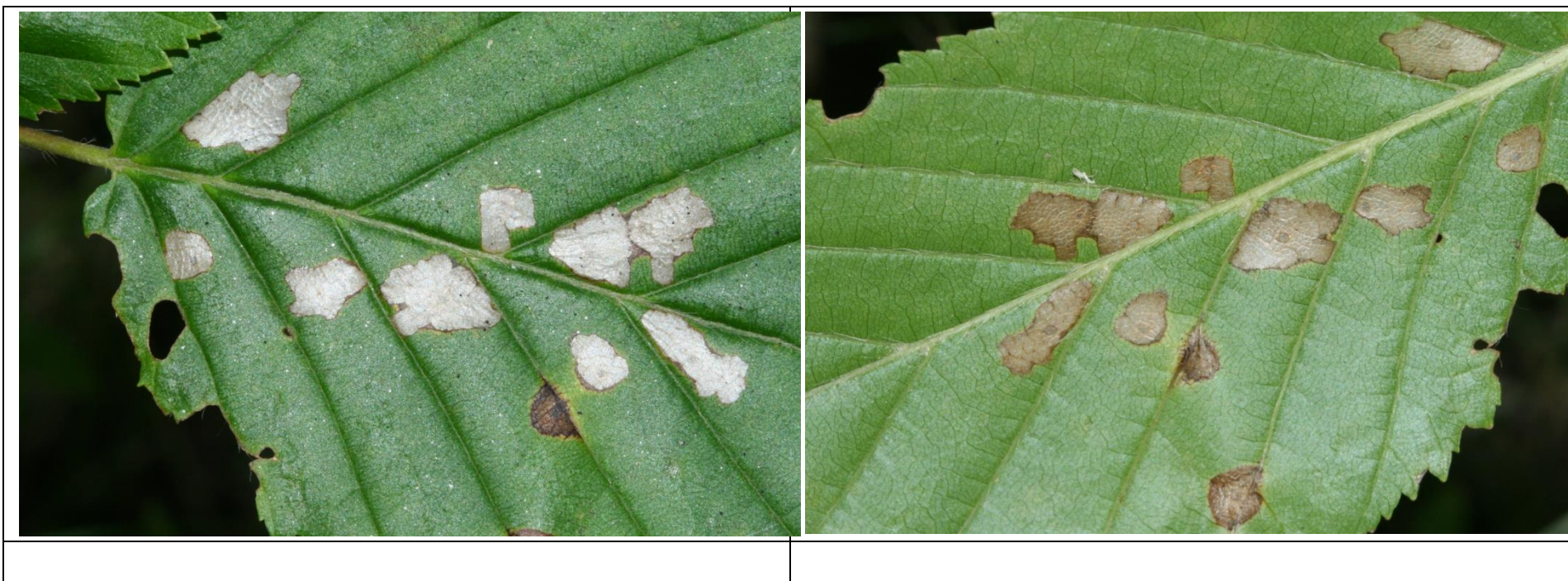
Hosts: *Carpinus betulus*, *Ulmus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 9-11 mm, ground colour of forewings brown with white narrow stripe on costal margin. The adults fly in June and July. The larva constructs a short and stubby case from a fragment of a leaf of the foodplants, after mining a narrow gallery.

Habitat: It occurs around the edges of woodland and prefers saplings to mature trees.



Coleophora binderella (Kollar 1832)

English name: not available

Systematic: Lepidoptera, Coleophoridae

Hosts: polyphagous on deciduous trees, mainly on *Alnus* spp., *Corylus avellana*, *Betula* spp., and *Carpinus betulus*

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 8-12 mm, the forewings are dark-brown with scattered brighter scales. The eggs are deposited on the underside of leaves of alder, hazel, birch or hornbeam. The larva creates its case from a portion of the leaf, and then attaches to the underside of the leaf, with the larva mining underside of the leaf. The larvae hibernates in the case attached to a leaf or twig. The adults emerge in late June or July.

Habitat: Woodland where the foodplants are found.



Coleophora gryhipennella (Hübner 1796)

English name: not available

Systematic: Lepidoptera, Coleophoridae

Hosts: *Rosa* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 11-13 mm, forewings brown-grey (identification by genitalia is advisable). The adult occurs in late June – July. The larva feeds on rose (*Rosa* spp.), building successively larger portable cases from cut-out leaf fragments. The case is flat, serrated, bivalved, constructed from leaf margins of food plant. Pupation is in the case fixed to a stem in late May and June.

Habitat: Edges of forests, abandoned pastures and sparse forests, where the foodplants are found.



Coleophora hemerobiella (Scopoli 1763)

English name: not available

Systematic: Lepidoptera, Coleophoridae

Hosts: Polyphagous on deciduous trees, mainly on *Crataegus* spp., *Malus* spp. and other Rosaceae

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 12 - 14 mm, whitish forewings speckled with dark grey and usually a blackish spot. Adults fly during July. Larva spends the first one-and-a-half years in a small pistol-case, and in the second spring building a long straight case which is dark brown and rather distinctive. The larva feeds on hawthorn (*Crataegus*), apple (*Malus*) and a number of other Rosaceae.

Habitat: Edges of forests, abandoned pastures and sparse forests, where the foodplants are found.



Gelechiidae

Anacamptis timidella (Wocke 1887) syn: *Tachyptilia disquei* Mess, 1907

English name: not available

Systematic: Lepidoptera, Gelechiidae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Larva about 12 mm in length, red-violet, head black-brown, prothoracic plate and anal plate black. Pinnacles conspicuous, black, bearing long black setae. Larva feeds on *Quercus* spp. (mainly on *Q. cerris*, *Q. pubescens*) into transversely rolled leaf.

Habitat: Marginal zone of oak stands in warmer regions, forest steppes. Rather abundant in south of central Europe.



Stenolechia gemmella (Linnaeus, 1758), or *Stenolechiodes* (probably *Stenolechiodes pseudogemmellus* Elsner 1996)

English name: not available

Systematic: Lepidoptera, Gelechiidae

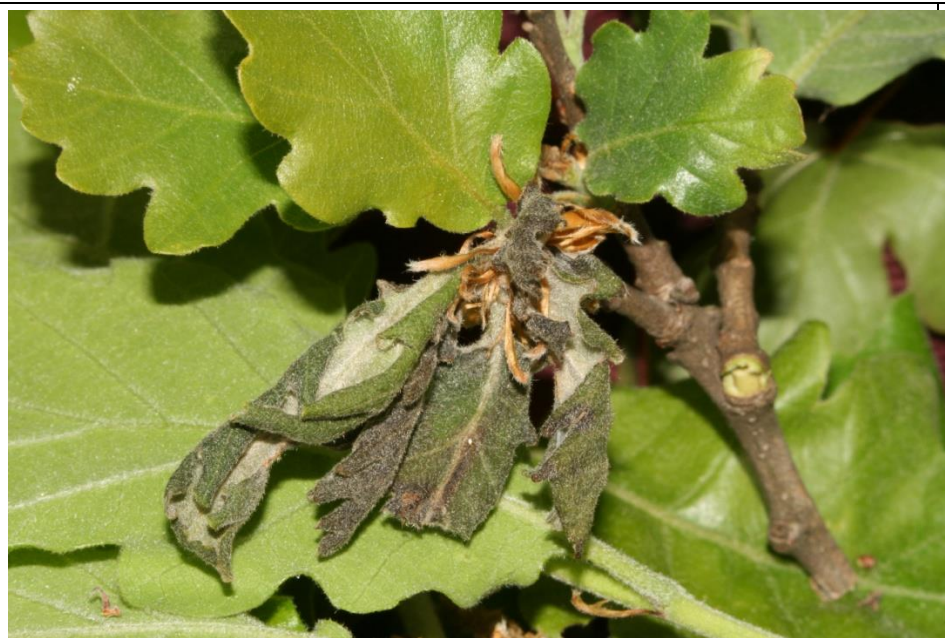
Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult 10-12 mm in span, ground colour greyish with several black lines/spots. Larva is 8-10 mm in length, slender, whitish. Pinnacles (mainly posteriorly) big conspicuous, greyish-brown. Head and also anal plate brown. Larva feeds on *Quercus* spp. in young sprouts in May-June and causes decline of their ends. Sometimes a pest.

Habitat: Oak stands in lowland and also in medium elevations, abundant



Tortricidae

Apotomis capreana (Hübner 1817)

English name: not available

Systematic: Lepidoptera, Tortricidae

Hosts: *Salix* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 17-22 mm. Forewings white with diffuse grey lines, in basal area suffused. Larva varies from light to greyish green, pinnacles similar in colour with long setae. Head and prothoracic shield pale yellowish green. Larva feeds on *Salix* spp., mainly on wide-leaved species, such as *S. caprea*, *S. cinerea* and *S. aurita*, reputedly sometimes also on other broadleaf trees. The larvae feed in spun leaves during the spring, producing moths between June and August.

Habitat: Occurs in more or less moist habitats such as forest edges, clearings, stream banks and in marshes. Fairly abundant.



Archips oporana (Linnaeus 1758)

English name: not available

Systematic: Lepidoptera, Tortricidae, Tortricinae

Hosts: *Abies alba*, *Pinus sylvestris* and other conifers

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 19-28 mm, ground colour yellow-brown to red-brown and brown with darker marbling. The larvae 15-18 mm in length, yellowish green in colour. Pinnacles, like small black spots are dispersed all over the body. The head is dark: - black or brown. Larva feeds on coniferous trees – e.g. Scots pine (*Pinus sylvestris*), silver fir (*Abies alba*), mines as juvenile, later among spun needles, and hibernates. The adult flies in late June and July, from afternoon into dusk.

Habitat: In coniferous forests fairly abundant.



Dichelia histrionana (Frolich 1828)

English name: not available

Systematic: Lepidoptera, Tortricidae, Tortricinae

Hosts: *Picea* and *Abies* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wing span 18-20 mm, forewings grey with brownish, or olive tint, cilia usually darker than ground colour. It flies from June to August. Hindwings brown-grey. Larva is green, pinnacles not sclerotised, young larvae with dark, older with lighter head with darker markings. Prothoracic shield lighter anteriorly, dark posteriorly. It feeds on *Picea* and *Abies* spp. in and among spun needles. It mines and hibernates as juvenile. Pupation in feeding place.

Habitat: In spruce and silver fir stands, not abundant.



Epinotia abbreviana (Fabricius 1794)

English name: not available

Systematic: Lepidoptera, Tortricidae, Olethreutinae

Hosts: *Ulmus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 12 mm - 16 mm, hindwings white or whitish-creamy, markings yellowish or ferruginous. Male without costal fold. It flies in June and July at dusk and night. Larva is yellowish green, sometimes with brown admixture dorsally. Pinnacles small, black, head, prothoracic shield and thoracic legs dark brown or glossy black. In April, the early instar larva feeds through an elm (*Ulmus* spp.) bud. Later, larva feeds on *Ulmus* spp., among (usually three) spun leaves of terminal shoots. Pupation occurs in late May or early June on soil or on feeding place. Field maple (*Acer campestre*) may also be fed.

Habitat: Shrubby slopes, forest edges, floodplain forests, mainly in warmer regions. Local, not abundant.



Epinotia nigricana (Herrich-Schäffer 1851)

English name: not available

Systematic: Lepidoptera, Tortricidae, Olethreutinae

Hosts: *Abies* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult wing span 11-14 mm, flying from spring to August. Ground colour whitish sometimes strongly combined with brown. Larva glossy yellowish (darker in younger instars) with more greenish hue dorsally. Pinnacles small, concolorous with body. Head, thoracic shield and thoracic legs black to blackish brown. Larva feeds on *Abies* spp., hibernates as juvenile. Initially it feeds in decaying remains of buds, then bores into living buds (opening into bud protected by silk with particles of resin, bud scale and frass), there hibernates and attacks healthy buds. Pupation on ground, sometimes in feeding place.

Habitat: Fir stands, not abundant (sometimes causes outbreaks, however).



Eudemis profundana (Denis & Schiffermüller 1775)

English name: not available

Systematic: Lepidoptera, Tortricidae, Olethreutinae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult wingspan 15-20 mm, ground colour greyish to brownish, with darker marbling. Larva 15-18 mm in length, slender, spin-like, green in colour (sometimes also greyish or brownish-green). Pinnacles are brownish, little darker and more glossy than vicinity. Setae rather long, pale. Digestive organs and dorsal vein are visible through skin. Head (often greenish) yellow-brown with black spot on eyes and temples. Larva typically roll one or several leaves to narrow, cigar-like longitudinal tube. It lives inside silk shelter tube, which contains excrements. Larvae live on woody species. Pupation in cocoon on ground. Hibernation as juvenile larva. Larva feeds mainly on *Quercus* spp. (reputedly also on other woody species).

Habitat: Marginal zone of oak stands, fairly abundant (rarely causes outbreaks).



Gypsonoma sociana (Haworth 1811)

English name: not available

Systematic: Lepidoptera, Tortricidae, Olethreutinae

Hosts: *Populus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 10-15 mm, ground colour of forewings white at majority, suffusion greyish, basal area black, blackish distally. Larva brownish, sculptured, head, prothoracic shield and thoracic legs dark brown to black-brown. It feeds on *Populus* spp. (often on *P. tremula*), rarely on *Salix* spp. It bores into terminal buds of shoots in spring. Entrance opening covered by spun scale fragments and frass. Hibernation in hibernacula. Adult from May to July.

Habitat: Forest edges, poplar plantations, floodplain forests, sometimes abundant.



Hedya dimidiana (Clerck 1759)

English name: not available

Systematic: Lepidoptera, Tortricidae, Olethreutinae

Hosts: *Prunus padus*.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 14-18 mm, forewings brownish black with paler and darker markings. Large white triangular blotch beyond to mid-costa. Adult on wings June-July. Larva greenish-grey, with black setae, head same in colour as body. Prothoracic shield, thoracic legs, pinnacles and anal shield brown. They live in August-September among spun leaves of *Prunus padus* (reportedly also other Rosaceae) hibernate as juvenile, continue feeding in April (May) and pupate in feeding place.

Habitat: Shrubby places close to water, stream banks, locally not rare.



Hedya nubiferana (Haworth 1811)

English name: Marbled Orchard Tortrix

Systematic: Lepidoptera, Tortricidae, Olethreutinae

Hosts: Rosaceae

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 15-21 mm, similar to previous species. One of many similar species which mimics a bird-dropping when at rest. Larva 12-18 mm in length, greyish-green, head shining black. Pinnacles small, black, thoracic plate black, paler at anterior margin. Anal plate blackish-brown, thoracic legs dark-brown or black. Larva feeds among spun leaves of Rosaceae (rarely on other woody species), mainly on Maloideae, such as *Malus*, *Pyrus*, *Crataegus* and *Sorbus* spp., hibernating as small in bark crevices or among spun leaves. Flying from dusk into the night, between June and August. A pest of fruit trees.

Habitat: Forest edges, shrubby places, orchards and gardens, very abundant.



Neosphaleroptera nubilana (Hübner 1799)

English name: not available

Systematic: Lepidoptera, Tortricidae, Tortricinae

Hosts: *Crataegus* and *Prunus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 13-15mm, forewings of male brown with darker strigulation, forewings of female grey suffused brownish, strigulate brown. Adults flies from (May) June to July. Larva 12-15 mm in length, pale-green to yellow-green with paler intersegment parts. Head pale-brown with yellowish pattern, thoracic shield concolour with body. Pinnacles inconspicuous, setae medium long, inconspicuous. Larva feeds on *Crataegus* and *Prunus* spp. in spun terminal shoots, pupation in feeding place, reputedly pest of apricot and plum trees. Univoltine.

Habitat: Bushy forest edges and slopes. Very abundant in warmer regions.



Pandemis cerasana (Hübner 1786)

English name: Barred Fruit-tree Tortrix

Systematic: Lepidoptera, Tortricidae, Tortricinae

Hosts: Polyphagous on deciduous trees

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 16-25 mm, ground colour yellowish-brown with darker (brown) marbling and scattered darker scales. Larva long, slender, spindle-like, length 20-23 mm. Green to greyish-green, lateral and ventral side brighter sometimes. Larva feeds frequently on *Quercus*, *Corylus*, Rosaceae spp., sometimes a pest on fruit and ornamental trees in a folded leaf or among spun leaves, hibernates as juvenile. Pupation in feeding place..

Habitat: Forest edges, shrubby places, orchards and gardens, parks. Everywhere abundant. It may damage oaks in late spring.



Tortricodes alternella (Denis & Schiffermüller 1775)

English name: not available

Systematic: Lepidoptera, Tortricidae, Tortricinae

Hosts: mainly on *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 19-23 mm, ground colour brown-yellowish to grey-brown with brighter internal and darker external part of forewings. The species has an unusually narrow wing shape for a tortricid. Larva about 20 mm in length, medium slender, dorsally olive-brown, meat-brown to chocolate-brown, with wide, irregularly bordered line. Subdorsal line similar, narrower, less continuous. Pinnacles big, white, setae sit on their dark centres. Ventral side whitish-yellow to greenish, brighter than dorsal side. Head yellow-brown to orange, with dark spots. One of the earliest of the Tortricids to be on the wing, this species can be found between February and April. Larva feeds on broadleaf trees, mainly on *Quercus* spp. among spun leaves, pupation in soil, and hibernation as pupa. Univoltine. Eggs are laid individually to branches.

Habitat: Oak stands, abundant.



Zeiraphera isertana (Fabricius 1794)

English name: not available

Systematic: Lepidoptera, Tortricidae, Olethreutinae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 14-19 mm, ground colour of forewing grey or white, suffused and strigulated grey. Marking dark grey often with brown hue and darker areas. Hindwing brownish. Larva brownish ochreous, translucent in distal part, Pinnacles small, black. Head and prothoracic shield reddish brown. The larva feed during May and June in folded or spun leaves of *Quercus* spp., sometimes also in juicy young galls of Cynipoidea. Occasionally attacks tiny insects (also other tiny larvae). The adults fly from June to July (August) and come to light.

Habitat: Oak stands, often abundant species throughout much of central Europe where oak woodland is to be found.



Pyralidae

Acrobasis repandana (Fabricius 1798)

English name: not available

Systematic: Lepidoptera, Pyralidae, Phycitinae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult 15-22 mm in span, on wings June-August. Forewings ochre-brown to brown, with white straight line in 1/3 of wing length. Internal area (between those line and body) brighter than external one. Larva yellow to yellow-green, pinnacles same in colour as body with medium in length translucent setae. Head, thoracic legs and thoracic plate bright, head with inconspicuous pattern. It feeds on *Quercus* spp. in silk nests, preferring bottom branches of *Q. robur* and *Q. petraea* group.

Habitat: Mainly in lowlands, fairly abundant, sometimes causes local outbreaks.



Acrobasis sodalella Zeller 1848

English name: not available

Systematic: Lepidoptera, Pyralidae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Larva up to 25 mm in length, relatively dark-green dorsally and laterally with five black-green or black-greyish stripes, space between them greenish-yellow. Ventral side very dark, black-green or grey, head and thoracic shield brown, with many black spots. Larva feeds on *Quercus* spp. between spun leaves as young, later in silk nest, preferring young and bushy *Q. cerris* and *Q. pubescens*. It skeletonises leaves and lives in silky, by excrements fulfilled tube.

Habitat: In the warmest regions of central Europe, especially in forest steppes.



Acrobasis suavella (Zincken 1818)

English name: Thicket Knot-horn

Systematic: Lepidoptera, Pyralidae

Hosts: Rosaceae

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult 18-24 mm in span, with subtle pattern of brown, black and grey on the forewings, hindwings are brown-grey, on wings May-July. Larva 18-21 mm, yellow-green, dorsal line darker, subdorsal line red-brown, from head to abdominal segment 8. Head and thoracic shield pale-brown, shield with two reddish spots, head with brown pattern. Pinnacles yellowish, inconspicuous, setae long, inconspicuous. Larva feeds on woody species of family Rosaceae mainly on *Prunus spinosa*, and reputedly also on *Rhamnus* spp., in silken tube on branches among leaves.

Habitat: Shrubby slopes and forest edges, often on calcareous soils, not rare.



Phycita meliella (Mann 1864)

English name: not available

Systematic: Lepidoptera, Pyralidae, Phycitinae

Hosts: *Fraxinus* spp., *Quercus* spp.?

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: The adults have a subtle pattern of brown, black and grey on the forewings, hindwings are white-grey. Wingspan 20-26 mm, on wings June-July. Larva 15-21 mm in length, ground colour yellow, with brown-red marbling in upper half of body. Pinnacles little darker than vicinity, setae relatively long, inconspicuous, head yellow-brown, with orange-brown marbling. Larva feeds mainly on *Fraxinus* spp., reputedly also on oak, individually or in groups in silk nest on leaves.

Habitat: Warm, rocky forest-steppe, bushy edges of dry forests on south-faced slopes.



Phycita roborella (Denis & Schiffermüller 1775)

English name: Dotted Oak Knot-horn

Systematic: Lepidoptera, Pyralidae, Phycitinae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: The adults have a subtle pattern of red, black and grey on the forewings, hindwings are grey. Wingspan 24-29 mm. Larva 20-25 mm in length, ground colour brown-yellow, with brown marbling. Dorsal line inconspicuous, subdorsal line dark-brown, conspicuous. Pinnacles brown, setae relatively long, inconspicuous, head brown, with several darker spots. Larva feeds mainly on *Quercus* spp., individually or in groups in silk nest on leaves, hibernates.

Habitat: Oak stand edges, forest steppes, fairly abundant in warmer regions.



Pieridae

Gonepteryx rhamni (Linnaeus 1758)

English name: Common Brimstone

Systematic: Lepidoptera, Pieridae

Hosts: *Frangula* and *Rhamnus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult 40-45 mm in wingspan, male lemon-yellow, female white-yellow, with red spot in discoidal plate on each wing. It hibernates and flies early spring, then next flight at June. Eggs are laid to fresh leaves or to branches close to buds. Larva skeletonise leaf later makes complete feeding. Larva is bright greenish dorsally and dark green ventrally, covered by conspicuous and dense pinnacles which are darker than vicinity (present also on head). Setae short, lateral line brighter than vicinity, spiracles almost white, framed by inconspicuous line. Larva feeds on *Frangula* and *Rhamnus* spp., pupation on host plant, Hibernation as adult. Pupation above ground, pupae fixed by cremaster hooks to silkcovered substrate and girdled by threads located in transverse furrow on the 1st abdominal segment.

Habitat: Near water, forest edges, forested valleys, shrubby places and gardens, abundant.



Lycaenidae

Favonius quercus (Linnaeus 1758)

English name: Purple Hairstreak

Systematic: Lepidoptera, Lycaenidae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult 25-30 mm in wingspan, dark brown with metallic-blue wings (male) or with metallic-blue spots on forewings (female). Larva up to 20 mm in length, relatively flattened, wider, than tall, rusty-brown or cinnamon-brown in colour with dark-brown dorsal line, which is bordered by paler stripe. Each segment bear dark-brown, in upper part whitish bordered, skewed stripe below dorsum. Last three segments usually paler than other ones. Lateral line is whitish. Larva feeds on *Quercus* spp. Hibernation as individual egg on branches. Pupation on ground.

Habitat: Marginal zone of oak forests, open oak forests, locally fairly abundant.



Satyrium ilicis (Esper 1779)

English name: Ilex Hairstreak

Systematic: Lepidoptera, Lycaenidae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult 22-30 mm in span, the upperside dark brown with a patch of orange scales on forewings (female with more conspicuous one) and with a small orange spot in the bottom corner of the hindwing. The outer edge of the hindwing has a line of separate orange spots and there is one short tail on the hindwings. Larva 15-18 mm in length, very domed anteriorly mainly, higher than wide. Colour green with indicated dorsal line and skewed lines laterally. Prior pupation, larva turns colour to reddish. Head is black. Larva feeds on *Quercus* spp., mainly on young and bushy specimens. Pupa on branches, girdled by silk.

Habitat: Forest steppes, edges of warm oak stands, in warmer regions. Locally not rare.



Satyrium w-album (Knoch 1782)

English name: White Letter Hairstreak

Systematic: Lepidoptera, Lycaenidae

Hosts: *Ulmus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult 22-30 mm in span, the upperside dark brown with a small orange spot in the bottom corner of the hindwing. The male has a small pale spot on the forewings. Underside with white line, hindwings with boldly marked strong white „W“. The outer edge of the hindwing has an orange border and there are two short tails on the hindwings. Larva 15-18 mm in length, colour pale green, green up to reddish-green, higher than wide, domed in anterior part. It has white spots below dorsum. Head is brown. It turns colour prior pupation to reddish-brown or reddish. Larva feeds on *Ulmus* spp. (mainly on fruits), exceptionally on oak.

Habitat: Forest edges, sparse forests, alleys, parks and stream valleys with occurrence of host tree.



Thecla betulae (Linnaeus 1758)

English name: Brown hairstreak

Systematic: Lepidoptera, Lycaenidae

Hosts: mainly on *Prunus spinosa*

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult 32-37 mm in wingspan, both sexes are dark brown on the upperside with orange tails. The female also has a bright orange band across both forewings. The undersides are similar in both sexes and are bright orange with two white streaks. Larva up to 18 mm in length, light green, with a pair of closely run cream-white lines along dorsum which diverge over the thorax. Lateral sides with diagonal lines, head is black. Larva feeds mainly on *Prunus spinosa*, pupation on ground, hibernation as egg.

Habitat: Shrubby slopes, forest edges, fairly abundant.



Nymphalidae

Nymphalis antiopa (Linnaeus 1758)

English name: Camberwell Beauty

Systematic: Lepidoptera, Nymphalidae

Hosts: *Salix* and *Betula* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult 50-60 cm in wingspan, ground colour dark-brown, with yellow coastal area in form of 5-7 mm wide stripe (overwintering adults with almost white one). Line of blue spots present on external marginal area on wings. It flies from July to May (hibernating). Larval ground colour blackish to black, Pinnacles white, setae dense and also white, mature 50-60 mm in length. Body covered by conspicuous, tree-like thorns. Abdominal segments 1-8 with conspicuous orange almost circular spot on dorsum. Larvae live gregariously on mainly on *Salix* and *Betula* spp., mainly on bushy trees or lower portion of canopy of small trees.

Habitat: Forest roads, clearings and edges, stream valleys, roadsides, fairly abundant.



Polygonia c-album (Linnaeus 1758)

English name: Comma

Systematic: Lepidoptera, Nymphalidae

Hosts: Polyphagous on deciduous trees and some herbs

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult 35-40 mm in span, ground colour orange-brownish to reddish-brownish with darker spots and lines of small paler spots in external submarginal region. It has a white marking on its underwings resembling a comma. The wings have a distinctive ragged edge, resembling a fallen leaf, when resting. Larva medium in size, 25-30 mm in length, rusty in colour. Head with branched spines, dorsum and spines (from abdominal segment 3 caudad) are whitish, resembling a bird dropping. Larva feeds polyphagously on *Ribes*, *Humulus*, *Urtica*, *Ulmus*, *Salix* spp., bivoltine. Hibernation as adult.

Habitat: Forest clearings, edges and roadsides, floodplains, gardens, abundant.



Drepanidae

Asphalia ruficollis (Denis & Schiffermüller 1775)

English name: not available

Systematic: Lepidoptera, Drepanidae, Drepaninae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 30-35 mm, ground colour grey-brownish with several brownish spots. Larva 30-35 mm in length, brown grey on dorsum, with whitish dorsal line, lateral and ventral sides yellowish, with black spots laterally. Head and prothoracic shield pale brown-yellow. Larva feeds on *Quercus* spp., mainly on *Q. pubescens*, on low and bushy trees. Hibernates as pupa.

Habitat: Margins of warm oak stands, forest steppes. In south of central Europe, local.



Cymatophorima diluta (Denis & Schiffermüller 1775)

English name: Oak Lutestring

Systematic: Lepidoptera, Drepanidae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 33-35 mm, ground colour grey-brownish with two darker brown stripes in central part of forewings. Larva 30-35 mm in length, dull greenish-whitish-yellowish, dorsal line darker, head and spiracles black. Lateral line little paler. Larva feeds on *Quercus* spp., on low and bushy trees, hibernation as egg.

Habitat: Margins of warm oak stands, forest steppes. In south of central Europe, not rare.



Geometriidae

Agriopsis bajaran (Denis & Schiffermüller 1775)

English name: not available

Systematic: Lepidoptera, Geometridae

Hosts: Polyphagous on deciduous trees, often *Quercus* spp., Oleaceae

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Male wingspan 22-30 mm, ground colour grey brown with 2-3 darker stripes, female with almost completely reduced wings. Larva 25-30 mm in length, relatively robust, grey-brown, marbled. Dorsal line inconspicuous, interrupted. Abdominal leg free segments with black longitudinal spots laterally. Abdominal segment 3 with conspicuous brown-ochre spot laterally. Spiracles yellow, bordered by brown-black circles. Dorsal side with several pairs of small elevations. Head pale-brown with darker brown spots. Larva feeds on woody species, mainly Oleaceae and Rosaceae, but also *Quercus* spp. Hibernation as egg.

Habitat: Forest edges, warm bushy slopes, in warmer regions, sometimes abundant.



Agriopsis marginaria (Fabricius 1776)

English name: Dotted Border

Systematic: Lepidoptera, Geometridae

Hosts: polyphagous on deciduous trees

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Male wingspan 27-35 mm, ground colour pale brown with 2-3 darker stripes, female with reduced wings. Larva 30-35 mm in length, relatively slender, brown, with yellowish a blackish longitudinal stripes. Subdorsal area above spiracles with very wide, black stripe. Longitudinal stripes on abdominal segment 8 usually connected by transverse black pattern. Larva feeds on broadleaf woody plants, mainly on *Quercus* spp. – usually in warmer areas. Hibernation usually as pupa. The females are flightless, and have only vestigial wings. They lay eggs in number about 200 to egg masses on branches. The moths are out from February to April, when the males can be attracted to light.

Habitat: Oak and mixed forests of warmer regions, locally fairly abundant.



Angerona prunaria (Linnaeus 1758)

English name: Orange Moth

Systematic: Lepidoptera, Geometridae

Hosts: variety of deciduous trees, often on oaks (*Quercus* spp.)

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 35-45 mm, ground colour orange-brown to brown with orange bands (form *corylaria*). Larva 30-40 mm in length, brown-gray, gradually thickened from thorax toward abdominal segment 6. Segment 8 with sharp tubercles, segments 4-9 and 12 with smaller tubercles. Larvae of instars III and IV hibernates between spun leaves, they show twig-like mimicry. Larva feeds polyphagously on low and bushy woody plants. Pupation occurs within sparse web cocoon between leaves on ground surface. Females lay up to 250 eggs in small groups, usually on lower side of leaves. The males of this species are brighter in colour and usually slightly smaller than the females, but both sexes can be found in the typical plain orange form.

Habitat: Forest edges, bushes, locally not rare.



Archiearis parthenias (Linnaeus 1761)

English name: Orange Underwing

Systematic: Lepidoptera, Geometridae, Archiearinae

Hosts: *Betula* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 31-38 mm, female larger than male. Forewings brownish with darker grey suffusion, with usually three white costal spots. Hindwings orange with brown border. This is a day-flying moth, unusually being on the wing in the early part of the year between March (February) and April, preferring to fly in sunshine. The greenish caterpillar feeds firstly on the catkins, and then on the leaves of birch (*Betula*), which they fold and spun by margins. Also found on *Sorbus aucuparia* and *Fagus*. Pupation on rotting wood or bark.

Habitat: It inhabits birch woods, in medium elevation in central Europe, not rare



Biston strataria (Hufnagel 1767)

English name: Oak Beauty

Systematic: Lepidoptera, Geometridae, Ennominae

Hosts: polyphagous on deciduous trees, often on oaks (*Quercus* spp.)

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult wingspan 40-50 mm. A large-bodied species with alternate bands of chestnut and white, spotted with black. It flies in March and April. Larva 60-65 mm in length, medium slender, twig-like, with deeply heard head and flatten vertical front. Prothoracic shield with small elevations, abdominal segments 4 and 5 with knobs laterally. Ventral side of abdominal segments 3-5 with granular projections, abdominal segment 8 with elevation. Anal legs very big, similarly spiracles. Body colour very unstable, greenish, brownish to greyish, without more conspicuous patterns, ventral side between prolegs and anal legs whitish. Larva feeds polyphagously on broadleaf trees, often on *Quercus* spp.

Habitat: Deciduous forests, roadsides, orchards, parks, more abundant in warmer regions.



Colotois pennaria (Linnaeus 1761)

English name: Feathered Thorn

Systematic: Lepidoptera, Geometridae, Ennominae

Hosts: polyphagous on many deciduous trees and shrubs

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 35-45 mm, ground colour of forewings yellowish-brown to reddish-brown, with two darker lines and spot in discoidal field. Larva up to 50 mm in length, branch-like with rounded head. Young larvae (up to instar III) with rudimental prolegs on abdominal segment 5. Dorsal side of abdominal segment 8 with 2 conspicuous horns. Greyish or brownish in colour, ventral side with pale (white or yellow) longitudinal stripe. Dorsal side with rhomboid spots sometimes. In the vicinity of spiracles and on subdorsal area of thoracic segments white spots. Larva feeds in spring polyphagously on broadleaf trees, mainly on lowland drier oak stands, where the species may causes defoliation. Hibernation as egg. The single generation flies in the autumn, from September to November.

Habitat: Deciduous forests, in warmer regions more abundant, in oak stands sometimes causes outbreaks and damage.



Earophila badiata (Denis & Schiffermüller 1775)

English name: Shoulder-stripe

Systematic: Lepidoptera, Geometridae, Larentiinae

Hosts: *Rosa* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 25-30 mm. It shows a variety of colour forms, but all have the same basic pattern. Ground colour grey to grey-brown, forewings with several stripes of light and dark colour. Larva 35-45 mm in length, typical geometrid - very slender, variable in colour, grey-green to brown-pink. Spiracles whitish, bordered by wide dark-brown circles. Pinnacles white, setae medium in length, inconspicuous. Head yellow to orange, sometimes with dark spot laterally. An early spring species, flying in March and April. The larvae feed on types of rose (*Rosa*).

Habitat: It inhabits woodland, scrubland, forest edges, shrubby places, pastures, also gardens and parks, and other open areas. Not rare



Lycia pomonaria (Hübner 1790)

English name: not available

Systematic: Lepidoptera, Geometridae, Ennominae

Hosts: Polyphagous on deciduous trees

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Male wingspan 25-30 mm, ground colour yellowish-grey with several darker narrow stripes on forewings. Female almost wingless, male on wings at early spring. Larva similar to that of *A. hispidaria*, yellow-grey with orange collar on anterior margin of prothorax (on dorsal side). Similarly in colour also inter-segmental areas. Longitudinal lines are marked by black spots. Larva feeds on broadleaf woody species. Hibernation as pupa (with completely developed adult inside).

Habitat: Floodplain and other deciduous forests, orchards and parks at lower altitudes, local.



Nothocasis sertata (Hübner 1817)

English name: not available

Systematic: Lepidoptera, Geometridae

Hosts: *Acer pseudoplatanus*

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Larva 10-15 mm in length, pale-grey-green, with paler intersegment parts. Dorsal and subdorsal lines in colour of intersegment parts. Head, prothoracic plate and anal plate black. Pinnacles black, setae short, inconspicuous. Larva feeds on *Acer pseudoplatanus*, often in groups among spun leaves of terminal shoot of young trees. Hibernation as egg.

Habitat: Deciduous and mixed forests, mainly at higher and climatically harder regions, fairly abundant.



Philereme transversata (Hufnagel 1767)

English name: Dark Umber

Systematic: Lepidoptera, Geometridae, Larentiinae

Hosts: *Rhamnus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult dark brown, the trailing edges of the wings are distinctly scalloped. Wingspan 29-37 mm. Larva has two colour forms – one is pale green; the other dark brown and cream. Pale green form: Dorsal line little darker, inconspicuous, lateral line white. Pinnacles yellow, setae dark, conspicuous. Spiracles orange, placed little below lateral white line, bordered by white. Brown, irregular spot starts below lateral line from mid of abdominal segment 6 to the end of body. Head little darker green than rest of body. Hibernation as egg. Larva feeds on *Rhamnus*, reputedly also on *Prunus* spp. Larvae often among spun leaves, pupation in ground cocoon.

Habitat: Shrubby places, forest edges, not abundant.



Philereme vetulata (Denis & Schiffermüller 1775)

English name: Brown Scallop

Systematic: Lepidoptera, Geometridae, Larentiinae

Hosts: *Rhamnus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: A species with grey wings, which has scalloped edges to both fore and hindwings, but more noticeably on the hindwings. Wingspan 24-30 mm. Hibernation as egg. The caterpillar is dark grey with paler (almost white) stripes and orange suffusion laterally. Pinnacles black, setae inconspicuous. Head dark brown to black, prothoracic shield pale brown. Larva feeds on *Rhamnus* spp. and *Frangula alnus*. As previous species, larvae among spun leaves.

Habitat: Forest edges and undergrowth, shrubby places, stream valleys, fairly abundant.



Notodontidae

Drymonia dodonaea (Denis & Schiffermüller 1775)

English name: Marbled Brown

Systematic: Lepidoptera, Notodontidae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 33-36 mm, ground colour greyish to brown-greyish, with lighter pattern on forewings, body densely hairy. Larva 30-40 mm in size. Subdorsal lines very inconspicuous up to missing at all. Margin of dorsal line is formed by conspicuous, whitish stripes sitting close to each other. Colour glossy-green, lateral line yellow, sometimes with reddish spots. Anal plate may bear black spots. Larva feeds on *Quercus* spp. (rarely on *Fagus* and *Betula* spp.), sometimes bivoltine.

Habitat: In oak stands, more abundant in warm regions, elsewhere rather rare.



Drymonia ruficornis (Hufnagel 1766)

English name: Lunar Marbled Brown

Systematic: Lepidoptera, Notodontidae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 35-40 mm. Similar to the Marbled Brown (*D. dodonaea*), this species has a black crescent in the white area of the forewing. Flying in April and May. Larva green with four white-yellow longitudinal lines and smooth cuticle. Spiracles sit into lateral line, green interiorly, framed by darker lines. Pinnacles same in colour as body, setae short, inconspicuous. Larva feeds on *Quercus* spp., mostly univoltine.

Habitat: Inhabiting deciduous woodland, mainly in warmer regions, not rare. An outbreak reported from Romania.



Peridea anceps (Goeze 1781)

English name: Great Prominent

Systematic: Lepidoptera, Notodontidae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 50-65 mm, ground colour brownish to brown-grey, with darker and paler pattern. Larva 50-60 mm in length has skewed yellow-white stripes bordered by red on dorsum-subdorsum, which pass over two segments. Colour pale-green, little darker dorsal line is bordered by white area. Head darker green with whitish stripes, reddish laterally. Lateral part of mesothorax with red spot bordered by yellow-white area. The larva lacks the humps, and feeds during the late summer on oak (*Quercus* spp.). Pupation in ground cavity.

Habitat: In oak stands, local, in south fairly abundant some years.



Noctuidae

Allophyes oxyacanthae (Linnaeus 1758)

English name: Green-brindled Crescent

Systematic: Lepidoptera, Noctuidae

Hosts: variety of Rosaceae species, mainly *Crataegus* and *Prunus spinosa*

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 35-45 mm, ground colour brown to grey-brown, with two brighter spots bordered by narrow black line on forewings. Forewings sparsely suffused by green scales in lines on margins and in central area. Larva up to 45 mm in length, reddish brown or greyish brown, with whitish, dark-grey or greenish patterns. Dorsal line little conspicuous, subdorsal ones formed by short interrupted lines. Abdominal segment 1 with a pair of reddish L-shaped markings. Abdominal segment 8 slightly humped. Head reddish-brown with black markings. Larva feeds on woody plants of family Rosaceae, such as *Crataegus*, *Prunus spinosa* and fruit trees. Pupation in stiff cocoon on ground. Hibernation as egg. An autumn species, flying from September to November.

Habitat: Shrubby places, forest edges, orchards, fairly abundant.



Anorthoa munda (Denis & Schiffermüller 1775)

English name: Twin-spotted Quaker

Systematic: Lepidoptera, Noctuidae, Hadeninae

Hosts: Polyphagous on deciduous trees

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 38-44 mm, ground colour orange-brown to grey-brown, with two stigmata on forewings outlined paler and usually with two (or more) black spots (they form submarginal line sometimes) in sub-marginal area. Larva 40-50 mm in length, narrowed anteriorly, with elevated abdominal segment 8. Older instars grey-brown, or olive-grey, darkly marbled. Dorsal line narrow, white-yellow, interrupted. Between subdorsal and lateral line is darker stripe, bordered unsharply dorsad and sharply ventrad. This dark stripe reaches dorsal line on abdominal segment 8 and interrupts it, and is almost black here. Head is orange-brown with darker marbling. Larva feeds polyphagously on broadleaf woody species, prefers *Quercus* spp. and *Carpinus betulus*. Pupa (with adult fully developed within) hibernates.

Habitat: In broadleaf forests, shrubby places, gardens and parks, often abundant in warmer regions.



Catocala nymphagoga (Esper 1787)

English name: Oak Yellow Underwing

Systematic: Lepidoptera, Noctuidae, Catocalinae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult wingspan 35-43 mm, forewings brown-black with grey pattern, hindwings yellow with brown-black stripes. Larva up to 55 mm in length, red-brown-grey to brown-grey. Longitudinal lines inconspicuous, Pinnacles inconspicuous brownish, bordered by pale area. Abdominal segment 5 with hump, spot on its top yellowish, bordered by black spots. Abdominal segment 8 with 2 spiny papillae. Head red-brown with yellowish spurs on top. Larva feeds on *Quercus* sp., mainly on *Q. pubescens* in spring. The adults fly from June to August.

Habitat: Edges of warm oak stands, forest steppes. In south-east and south of central Europe, local and usually not abundant.



Cosmia (Calymnia) trapezina (Linnaeus 1758)

English name: The Dun-bar

Systematic: Lepidoptera, Noctuidae, Xyleninae

Hosts: Polyphagous broad leaved trees

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 30-35 mm, ground colour yellow-brown to reddish-brown with conspicuous two lines which divide forewings to thirds, when medium third is darker. Larva up to 35 mm in length, mature yellow-green to grass-green. Dorsal line is wider than subdorsal one, yellow-white in colour. Lateral line very wide, greenish-yellow, yellowish on margins lies above the spiracles and goes to anal legs. Dark and inconspicuous narrow line is above that lateral line. Spiracles greyish, with brown circle and white centre. Pinnacles small, but conspicuous, dark. Setae small, dark, conspicuous. Head green with dark-brown mouthpart and black eyes. Larva feeds polyphagously on broadleaf trees, such as *Quercus*, *Ulmus* etc., facultative entomophagous.

Habitat: In deciduous forests, orchards, gardens, abundant.



Jodia croceago (Denis & Schiffermüller 1775)

English name: Orange Upperwing

Systematic: Lepidoptera, Noctuidae, Xyleninae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 30-35 mm, ground colour of male ochre-brown, female pale yellowish, both sexes with inconspicuous darker pattern. Male hindwings cream yellowish, female whitish to whitish-silver. Larva about 40 mm in length, rather robust with elevated abdominal segment 8. Colour yellow-grey to reddish, pinnacles white, dorsal line inconspicuous, pale. Between dorsal and subdorsal line on abdominal segments sit skewed brown to black-brown lines which form arrow directed postad. Abdominal segment 8 with white spot on each side of dorsal part. Head big, red-brown, dotted by pale cloud-like spots. It is on wings in October and November, hibernation as adult then reappearing from March to May. Larva feeds on *Quercus* spp., mainly on low growing and bushy trees, the larvae occurring from April to July.

Habitat: Edges of warm oak stands, forest steppes. Local, not abundant.



Minucia lunaris (Denis & Schiffermüller 1775)

English name: Lunar Double-stripe

Systematic: Lepidoptera, Noctuidae, Catocalinae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Wingspan 53-61 mm, ground colour yellowish-brown-grey or yellowish-grey, forewings divided to the thirds by two narrow whitish lines. Larva 60-65 mm in length, yellow-brown or yellow-grey with darker undulates and spots. Longitudinal lines little conspicuous, subdorsal usually more visible than dorsal one. Lateral line relatively wide, red-brown. Abdominal segments 1 and 8 with ochre, dark bordered spots. Pinnacles darker, bordered by paler areas. Spiracles yellow with black frame. Ventral side yellowish, big brown spots between prolegs. Head red-brow, with darker and paler stripes. Larva feeds on *Quercus* spp., mainly on May sprouts. Pupates in sparse silk into litter. Hibernation as pupa.

Habitat: Oak stands, mainly their edges, plantations and young stands, in warmer regions sometimes fairly abundant.



Orthosia (Monima) cerasi (Fabricius 1775)

English name: Common Quaker

Systematic: Lepidoptera, Noctuidae, Hadeninae

Hosts: Polyphagous on deciduous trees

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult quite variable, there are forms with a plain ground colour, and others with a darker band across the forewing, but all have two large, rounded stigmata outlined paler. Wingspan 34-40 mm. The larva is 30-35 mm in length, bright green with yellow markings – dorsal conspicuous, subdorsal and lateral inconspicuous lines and dense small yellow spots. Pinnacles yellow, setae medium in length, inconspicuous. Head and thoracic shield uniformly grey-green. Prothoracic segment (anteriorly) and abdominal segment 8 (posteriorly) with transverse (between subdorsum) yellow line. Spiracles white, bordered with inconspicuous black line. Larva feeds polyphagously on broadleaf woody plants, mostly oaks and lime trees. The single generation flies in March and April, when it is often attracted to light. Pupa hibernates, in the soil.

Habitat: Forests, shrubby places, orchards and gardens, widely distributed, abundant in lowlands and warmer regions.



Tiliacea sulphurago (Denis & Schiffermüller 1775)

English name: not available

Systematic: Lepidoptera, Noctuidae, Xyleninae

Hosts: *Acer campestre*

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult 35-40 mm in span, ground colour of forewing yellow, with brown pattern, which is less conspicuous on internal margin and forms continuous stripe on external submargin area of hindwings. The caterpillar 25-35 mm in length, ground colour pale grey-brown, with darker upper part of body. Dorsal and subdorsal lines brown, inconspicuous, lateral line more conspicuous with darker and brighter lobes, pinnacles and setae inconspicuous. Head and spiracles dark brown. Larva feeds on *Acer campestre*, (reputedly also on other broadleaf trees), bores opening buds as juvenile, later among spun leaves.

Habitat: Forest steppes, shrubby places, forest edges. In warmer places, at lower altitudes, not abundant.



Lymantriinae

Arctornis l-nigrum (Müller 1764)

English name: Black V Moth

Systematic: Lepidoptera, Noctuidae, Lymantriinae

Hosts: polyphagous, including beech and birch

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Adult 35-45mm in span, antennae short, white, legs with black spots. Wings white (freshly emerged adults with pale-green venation), forewings with V(L)-shaped spot at the medial area. Mature larva about 50 mm in length, blackish, or brownish with yellow, or brown lateral areas. Setae in anterior and posterior parts are conspicuously longer than others. Dorsal area with sparse, rusty and whitish brushes, else setae are yellowish to rusty. Dorsum has whitish longitudinal stripes. Head black. Larva feeds polyphagously on broadleaf trees, preferring *Fagus*, *Carpinus* and *Tilia* spp., and hibernates, pupation among leaves. It flies in June and July, sometimes bivoltine.

Habitat: Deciduous forests, usually not abundant.



Hymenoptera, Symphyta

Tenthredinidae

Apethymus cerris (Kollar 1850)

English name: not available

Systematic: Hymenoptera, Symphyta, Tenthredinidae

Hosts: *Quercus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest – damage description: Larva 25-30 mm in length, ground colour greyish to greenish, dorsal side darker than lateral and ventral ones. Lateral side with more than 10 black spots, head brown-black, thoracic legs brown. Larvae are feeding on oak leaves. Larvae hatch in the spring, feeding on sprouting leaves. Feeding is ended still in the spring, and larvae as eonymphae aestivate in the soil. Pupating begins in the beginning of autumn, adults emerge and fly in September and October. The eggs are laid by females into the bark of young shoots and overwinter.

Habitat: The oak stands, preferably of *Quercus cerris*



Pamphiliidae

Pamphilius sylvaticus (Linnaeus 1758)

English name: not available

Systematic: Hymenoptera, Symphyta, Pamphiliidae

Hosts: *Crataegus* spp., *Prunus* spp., *Sorbus* spp.

Pest pressure risk: high, medium, low

Occurrence in CE: widespread, common, rare

Pest-damage description: The larva 20-25 mm in the length, ground colour green with dark brown head and thoracic shields. It feeds on leaves of various species of Rosaceae, especially on *Sorbus aucuparia*. The leaves are eaten mostly on the margins and rolled and spinned together. The larva lives inside this roll. Adults emerge in the late May and in June, and lay eggs. The larva lives until July, overwinters in the cocoon in the soil, and pupates here in the spring.

Habitat: Broadleaved tree stands, and also solitary trees and shrubs.

