

ANNOTATED CHECKLIST OF SAPROXYLIC COLEOPTERA IN THE COUNTIES OF NORTHERN IRELAND

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Abstract

A checklist of species considered saproxylic in the geographical area of Northern Ireland is provided. The listing follows the current taxonomic checklist order (Duff, 2012), with species name, proposed Northern Ireland status, and a short account of the ecology of each species. The records that follow are ordered by vice county, with locality name, grid reference (where available), recorder's name, date of record, and source. The sequence is in approximate date order, the earliest record first.

Key words: Coleoptera, insects, saproxylic, Northern Ireland, checklist.

Introduction

The checklist of species considered saproxylic in the geographical area of Northern Ireland is given below. The listing follows the current taxonomic checklist order (Duff, 2012), with species name, proposed Northern Ireland status, and a short account of the ecology of each species. The records that follow are ordered by vice county, with locality name, grid reference (where available), recorder's name, date of record, and source. The sequence is in approximate date order, the earliest record first.

The status within Northern Ireland is provided as a starting point, based on existing evidence. This will likely be modified as knowledge of the fauna increases. The range and status of species are summarised as follows: **Extinct** – no records since about 1900; **Rare** – only a few modern records; **Scarce** – known from only about ten or fewer modern localities; **Uncommon** – known from many counties, some with many records; **Widespread** – known from most counties and plenty of records; only the year of records are provided for the most widely recorded species; **Common/Widespread** – only VC distribution provided; **Established introduction** – species believed to have been brought into Ireland accidentally through commerce; a few have first been found only very recently; **Casual Introduction** – an occasional record only, no established populations known; **Recent arrival** – believed to have arrived naturally; **Doubtful** – only a single report but no evidence of a resident population and **Unclear** – too little information for meaningful assessment of status.

The recorder for all individual records will be given, usually as an acronym to save space (see Appendix 1), followed by any literature references (usually bracketed). All records

employed in this review (and many paraphrased as vice-county records for common species) have been uploaded to the Recorder database held by CEDaR LRC, Ulster Museum and National Biodiversity Network (NBN), Nottingham. A full list of references is appended.

Species accounts

FAMILY CARABIDAE ground beetles

***Ocys tachysoides* (Antoine, 1933) - Widespread and common (Plate 1)**

Formerly known as *Ocys harpaloides* (Audinet-Serville, 1821). Recent research has indicated that a species aggregate is involved here comprising *O. harpaloides* and *O. tachysoides* (Maddison and Anderson, 2016). The latter segregate was shown to correspond to a species name coined for material collected by Antoine in Morocco, 1933. Unlikely as it may seem, this is the saproxylic species occurring in Northern Ireland forests, and throughout much of Europe. *O. harpaloides* meanwhile, is a species of open habitats, mostly marine shorelines in Ireland, and is not saproxylic. *O. tachysoides* is abundant under bark on dead and live wood across Northern Ireland. **H33, H36, H37, H38, H39, H40.**

***Dromius meridionalis* Dejean, 1825 – Widespread**

Fairly widespread under bark on both broadleaf and coniferous trees. Predatory on mites and Collembola. **H33, H36, H37, H38, H39, H40.**

***Dromius quadrimaculatus* (L., 1758) – Widespread and common**

Common under bark of broadleaf trees across Northern Ireland. Habits similar to the previous species. **H33, H36, H37, H38, H39, H40.**

***Caladromius spilotus* (Illiger, 1798) – Scarce**

Less common than the two previous species, under bark mainly of broadleaves but also conifers. Often found on smaller trees such as *Malus*, *Crataegus*. **H37, H38, H39.**

FAMILY HISTERIDAE hister beetles

Members of this family are predatory, especially on larvae of other deadwood inhabiting insects, also on mites and springtails. The following species are the only Irish ones found associated with wood decay, but others are occasionally found in this situation although more strongly associated with other habitat types.

***Gnathoncus nannetanus* (Marseul, 1862) – Rare**

Associated with bird nests in hollow trees. Much under-recorded because of the habitat. **H36** Tyrone: Seskinore Forest (H486639), in grass heap, 13.v.2015, MDB. **H39** Antrim: Bucklebrook House (J137668), in hen litter, 23.iv.2012; in shed housing ducks, 25.v.2012, MDB. **H40** Londonderry: Berryman's Hill shore Lough Neagh (H995513), under swan carcase, 5.vii.2019, RA.

***Gnathoncus rotundatus* (Kugelann, 1792) – Rare**

Like the previous species, mostly associated with bird nests in trees, but also found in food stores. **H38** Down: East Twin, Belfast Docks (J3676), in grain storage, A. F. O’Farrell, 1942-1946. **H40** Londonderry: Derry Docks (C41), provender mill, A. F. O’Farrell, 1942-1946.

***Abraeus perpusillus* (Marsham, 1812) syn. *A. globosus* (Hoffman, J., 1803) – Rare**

A thermophilic species which is restricted to warmer, drier eastern counties of Ireland. **H38** Down: Hollymount NNR (J472437), under bark on *Fagus* by *Ganoderma* bracket, 25.iii.2012, RA; Lady and Sir Thomas Dixon Park (J305607), 6 in soft-rotted heartwood of standing dead *Acer pseudoplatanus*, plus 2 in *Bjerkandera adusta* outgrowths nearby on the main trunk, 26.ix.2015, RA.

***Margarinotus merdarius* Hoffmann, 1803 – Rare**

Probably less rare than appears because of its predilection for aviaries and poultry houses. **H38** Down: Killaughey Road, Donaghadee (J587789), 10, at base of old aviary, garden, 10.iv.2008, DN. **H39** Antrim: Bucklebrook House (J138668), 2, in duck shed, 25.v.2012; 2, in poultry shed, 4.vi.2015, MDB.

FAMILY PTILIIDAE feather-winged beetles

Usually found living under bark or in rotholes on trees, feeding on moulds.

***Nossidium pilosellum* (Marsham, 1802) – Extinct**

Develops in decaying wood, particularly rotten stumps and damp, rotten, fungus-colonised timber, and especially elm and *Fagus* in Britain. Northern Ireland: ‘very rare, on rotten stumps (Haliday, 1855)’ (Johnson and Halbert, 1902) – Belfast area (J37), AHH.

***Ptenidium laevigatum* Erichson, 1845 – Rare**

The only record indicates a non-saproxyllic habitat. **H39** Antrim: Larrybane Quarry (D049450) at roots of grass and moss, chalk quarry, 10.vii.2012, MDB (det. M. Derby).

***Ptinella cavelli* (Broun, 1893) – Established introduction**

Under bark of dead *Fagus* mainly and conifers. A native of New Zealand, first found by Chris Reid in 1975 (Nash, Anderson and O’Connor, 1997). **H36** Tyrone: Knockmany Forest (H540549), 31.vii.2017, MDB. **H37** Armagh: Tynan Abbey (H757427), 29.ix.2011, RA; Slieve Gullion Forest (J038193), 8.iii.2012, RA. **H38** Down: Clandeboye Estate (J4977), 25.viii.1975, CAMR; Bangor Town (J5081), 5.viii.1975, CAMR; Stormont Estate (J397746), 13.v.1994, RA; Lady Dixon Park (J302681), 24.xi.1992, RA; Hillsborough Forest (J250580), 13.iv.1995, RA; Rostrevor Oakwood NNR (J175184), 13.v.2000, RA; Sea Plantation Mount Stewart (J552695), 26.vii.2003, RA; Castle Espie (J494671), 21.vii.2006, RA; Donard Park (J373301), 31.xii.2011, RA; Shooter’s Island (J494471), 23.ii.2012, RA. **H39** Antrim: Lagan Meadows (J334700), 27.xi.1992, RA.

***Ptinella errabunda* Johnson, 1975 – Established introduction**

Probably another native of New Zealand which now occurs abundantly under bark and in decaying wood in several Northern Ireland parkland sites (Nash, Anderson and O'Connor, 1997). **H37** Armagh: Slieve Gullion Forest (J038193), under bark of fallen pine, 8.iii.2012, RA. **H38** Down: Lagan Meadows (J334700), under bark of *Pinus sylvestris*, 27.xi.1992, RA. **H39** Antrim: Newforge, River Lagan (J328692), under bark of rotting *Larix kaempferi* with fruiting decay fungus *Coniophora puteana*, 20.x.1992, RA (Nash, Anderson and O'Connor, 1997); Ballyskeagh, Belfast (J280671), under *Fagus* bark, 8.xii.1992, RA.

H40 Londonderry: Ness Wood ASSI (C524113), under bark, hazel coppice, 31.v.2017, MDB.

***Ptinella taylorae* Johnson, 1977 – Established introduction**

The rarest of the three *Ptinella* species occurring here. **H39** Antrim: Rea's Wood NNR (J140851), Antrim, under alder bark, 21.x.2006, RA.

***Pteryx suturalis* (Heer, 1841) – Very rare**

H39 Antrim: Rea's Wood NNR (J1485), Antrim, 17.iv.1974, AGI, det. CJ.

FAMILY LEIODIDAE round fungus beetles

The species of *Anisotoma* have an association with slime moulds, adults and larvae feeding on the spores. Species of *Agathidium* are most likely also associated with slime fungi but the evidence is less clear – not all species appear to be associated with decaying wood. In general, *Agathidium* species are typical of shady woodlands rather than sunny unwooded habitats.

***Anisotoma humeralis* (Fabricius, 1792) – Uncommon old growth species**

Modern sites almost invariably ancient woodlands and ancient wood pastures. **H33** Fermanagh: Reilly Wood, Crom (H339242), 28.v.1992, KNAA; Inisherk, Crom (H357243), FIT, 1.vii.1992-7.vii.1992, APF; Florencecourt (H181345), 24.viii.2010, RA. **H36** Tyrone: Brookend NR (H945727), Lough Neagh, 8.v.2007, RA; Seskinore Forest (H48486403), 3.viii.2015, MDB. **H38** Down: Stormont, Belfast (J404751), 17.ix.1994, RA; Tollymore Forest Park (J340324), 27.vi.1998, RA; Blackwood Walk (J468781), 15.v.2014, RA; Lady Dixon Park (J302679), 14.v.2020, RA. **H39** Antrim: Shane's Castle (J1188), vi.1902, CWB (Halbert, 1910b); 1.vii.2010, RA; Great Deer Park, Glenarm (D2911), 20.v.2006, KNAA; Ballinderry Lower (J136673), 14.viii.2016, MDB. **H40** Londonderry: Banagher Glen (C6704), FIT, 8.vii.2007, KNAA.

***Anisotoma orbicularis* (Herbst, 1792) – Rare old growth species**

Only known from Crom Estate. **H33** Fermanagh: Inisherk, Crom (H357243), 1.vi.1992, 7.vii.1992, 5.viii.1992 and 4.ix.1992; Inishfendra, Crom (H373237), 15-16.vii.1993, FIT samples, APF.

***Anisotoma castanea* (Herbst, 1792) – Recent arrival**

Associated with pine forests in Scotland. State of establishment unknown. **H36** Tyrone:

Parkanaur Forest (H739616), in *Armillaria* under cut *Prunus laurocerasus*, 21.ix.2013, MDB.

***Amphicyllis globus* (Fabricius, 1792) – Rare**

In decaying timber, mostly in ancient woodland areas in Britain. One modern report for Ireland. **H36** Tyrone: Parkanaur Forest (H736613), 1, in fungus, 21.ix.2013, MDB.

***Agathidium confusum* Brisout, 1863 – Rare old growth species**

First noted in Ireland in 1993 but now regarded as an overlooked native. **H33** Fermanagh: Inishfendra Island, Crom (H373327), FIT, 16.vi.1993 – 15.vii.1993, APF; Florencecourt (H176344), 1 on *Armillaria*, garden, MDB. **H36** Tyrone: Glenmore Wood ASSI (H654608), 1, beaten off *Corylus*, 18.ix.2013, RA; Parkanaur (H737610), 1 in rotting *Armillaria*, 29.xii.2014, MDB; (H739620), 4 in trap baited with chicken wings, 10.vii.2021, MDB. **H39** Antrim: Great Deer Park, Glenarm (D2911), in numbers from the twigs of a fallen large *Quercus* branch, 20.v.2006, KNAA (Alexander, 2008).

***Agathidium nigripenne* (Fabricius, 1792) – Scarce**

In Ireland mainly reported across the more northern counties, but not northern in Britain. **H33** Fermanagh: Inisherk Island, Crom (J357243), FIT, 1.vi.1992 – 7.vii. 1992, APF. **H36** Tyrone: Parkanaur Forest (H732612), 12.iv.2021, MDB. **H37** Armagh: Armagh (H8745), WFJ (Johnson and Halbert, 1902); Annagarriff NNR (H902616), Peatlands Park, 29.v.2000, RA (Anderson, Simms and Nelson, 2000). **H38** Down: Stormont Estate (J397746), 7.v.1994, 13.v.1994, RA; Belvoir Forest (J346694), 23.iv.1998, RA; Hillsborough Forest (J247579), 9.viii.2000, RA; Shooter's Island, Quoile (J494470), 23.ii.2012, MDB. **H39** Antrim: Farr's Bay, Randalstown (J089870), 4.vii.1986, RCW (Welch, 1986); Belfast Castle (J327793), 11.vii.2004 and 9.iii.2008, RA; Rea's Wood NNR (J140852), 23.x.2019, RA. **H40** Londonderry: Ness Wood (C528118), 19.v.2007, KNAA.

***Agathidium rotundatum* (Gyllenhal, 1827) – Rare**

Only a single recent site in Ireland, at Breen Wood. **H33** Fermanagh: Belleisle (H2935) (Porter, 1898; Johnson and Halbert, 1902). **H37** Armagh: Palace Demesne (H8744), in moss, WFJ (Johnson, 1892a); Coney Island, Lough Neagh (H9464), WFJ (Johnson and Halbert, 1902). **H39** Antrim: Murlough Bay (D2041), GWC, det. JNH (Johnson and Halbert, 1902); Breen Wood (D125337), 30.viii.2017, 1, in FIT, *Quercus petraea* wood, AM.

***Agathidium seminulum* (Linnaeus, 1758) – Rare**

Only a single site in Northern Ireland. **H33** Fermanagh: Munnilly Bridge, Old Ulster Canal (H485242), 19.vii.2011, RA.

***Agathidium varians* Beck, 1817 – Scarce**

H33 Fermanagh: Inisherk, Crom (H357243), FIT, 1.vi.1992 – 7.vii.1992, APF; Castle Coole Park (H2643), FIT, viii-14.ix.2007, KNAA. **H38** Down: Belvoir Forest, Belfast (J343696), 24.ii.1999, RA. **H39** Antrim: Shane's Castle (J1188), CWB, 1902, det. JNH (Johnson and

Halbert, 1902: Supplement List); Rea's Wood, Antrim (J138847), 3.xii.1994, RA; Great Deer Park, Glenarm (D2911), FIT, vii-19.viii.2007, KNAA; Victoria College, Belfast (J324713), 18.iv.2005, RA. **H40** Londonderry: Drenagh Estate (C6923), FIT, viii-15.ix.2007, KNAA.

FAMILY STAPHYLINIDAE rove beetles

Few staphylinids are restricted to decaying wood, though many are associated with fungal fruiting bodies and the degree of association with wood-decay fungi is often unclear. Species have therefore been included here which are not associated with primary decay in wood but with fungi which are mycorrhizal upon forest trees and therefore part of the whole wood biome. This engages the study of species which are not included by Alexander and Anderson (2012) in their summary of Irish saproxylic Coleoptera, for instance, all the extant species of *Gyrophæna* are listed, not just those found on bracket fungi or associated directly with dead trees. It is problematical to select species of a genus in which all feed on fungal spores on the basis of particular genera of fungi found on dead wood as the full range of food sources is incompletely known.

STAPHYLINIDAE SUBFAMILY OMALIINAE ocellate rove beetles

***Coryphium angusticolle* Stephens, 1834 – Rare old growth species**

Lives beneath bark of dead *Quercus* and other trees, and in red-rotten *Quercus*, mostly in wooded areas, possibly only ancient sites; widespread in Britain. **H37** Armagh: Derryadd Lough (H914604), Peatlands Park, 16.iii.2002, RA. **H38** Down: Holywood, sea coast (J4079) (Haliday, 1841, 1855; in a rotten stump, Haliday ms.) (Johnson and Halbert, 1902); Belvoir Forest, Belfast (J341695), 12.iv.1995; (J346694), 17.iii.1998, RA. **H40** Londonderry: Culmore Derry (C4722), CWB (Buckle, 1900; Johnson and Halbert, 1902).

***Acrulia inflata* (Gyllenhal, 1813) – Rare old growth species**

Adults and larvae occur under fungoid bark of various dead broad-leaved trees, where there is a moist interface. They may be general scavengers, or feeding upon insect material and on fungal spores. In Britain this species is confined to hill country in the north and west but in Ireland tends to be submontane. **H36** Tyrone: Glenmore Wood ASSI (H656607), in old fruiting body of *Piptoporus betulinus* on *Betula*, 21.vi.2014; (H656608), 18.x.2014, MDB. **H40** Londonderry: Banagher Glen (H669043), a pair among fruiting bodies of fungus *Hymenoscyphus calyculus* on *Quercus* branch, 6.xi.1999, RA; Drumlamph Woods (C840039), beaten off *Ulex* flowers, 26.v.2001, RA.

***Dropephylla devillei* Bernhauer, 1902 – Scarce old growth species**

In Northern Ireland species of the genus *Dropephylla* live under bark of dead wood feeding on small arthropods, and adults may also be found feeding at blossom. The four species listed here are reasonably widespread in both lowland and submontane sites and often in old forest

areas. **H33** Fermanagh: Castle Coole Park (H2542), 17.viii.2006, KNAA; Colebrooke Estate (H405445), 25.x.2012, MDB. **H36** Tyrone: Baronscourt Park (H3682), 15.vi. and 12.ix.2006, KNAA. **H37** Armagh: Peatlands Country Park (H896612), 17.iii.1993; (901615), 23.x.1993, RA; Slieve Gullion Forest (J039197), conifer bark, 8.iii.2012, RA; Loughgall Country Park (H902515), 26.ix.2012, MDB; Derrytrask School Lands (H885643), 21.ix.2020, RA. **H38** Down: Portavo Reservoir (J558823), 8.i.2015, MDB. **H39** Antrim: Cave Hill (J325795), in numbers under bark of Scots pine, 26.i.1980, RA (Hammond, 1980); Great Deer Park, Glenarm (H305115), 13.vi., 19.viii. and 16.ix.2006, KNAA.

***Dropephylla gracilicornis* (Fairmaire and Laboulbène, 1856) – Scarce**

Under bark and in rotten wood of dead branches of broad-leaved trees, especially *Quercus*. **H33** Fermanagh: Colebrooke Park (H405445), 25.x.2012, MDB. **H36** Tyrone: Baronscourt Park (H3682), 15.vi.2006, KNAA. **H37** Armagh: Slieve Gullion Forest (J039197), 8.iii.2012, MDB; Loughgall Country Park (H902515), 26.ix.2012, MDB; Derrytrask School Lands (H885643), 21.ix.2020, RA. **H38** Down: specimens seen (Hammond, 1980); Donard Park (J373301), 31.xii.2011, RA; Portavoe Reservoir (J558823), 8.i.2015, MDB. **H39** Antrim: Lady Dixon Park, Belfast (J301681), 21.v.1980, RA; Great Deer Park, Glenarm (305115), 19.viii.2006, KNAA.

***Dropephylla ioptera* (Stephens, 1832) – Uncommon**

Occasional under bark of dead branchwood on broadleaf trees. Adults visit flowers of *Sorbus aucuparia*, etc. Widespread in Britain, but “probably very local” in Ireland (Hammond, 1980). Nevertheless, not uncommon in Northern Ireland. **H33** Fermanagh: Castle Coole Park (H2542), 17.viii.2006, KNAA; Garrison, Lough Melvin (G938520), 30.v.2007, DAL; Knockninny Hill (H272302), 1.vi.2007, RA; Garrison (G938520), 30.v.2007, DAL; Filbert Hill, Castle Coole (H257437), 15.viii.2010, RA; Old Crom Castle (H364239), 24.v.2012, MDB. **H36** Tyrone: Baronscourt Park (H3682), 24.x.2006, KNAA; Wood Lough (H759602), 24.v.2012, RA; Parkanaur Forest (H736617), 6.ii.2013, 4.xii.2013, RA; Glenmore Wood ASSI (H655608), 18.ix.2013, MDB; Wood Lough (H759602), 24.v.2012, RA. **H37** Armagh: Peatlands Park (H890603), 29.v.2000, RA. **H38** Down: Hillsborough Forest (J250580), 20.vi.1995, RA; Morelands Meadow, Belvoir (J336696), 22.v.2004, RA. Donard Park, 31.xii.2011, RA. **H39** Antrim: Lady Dixon Park (J301680), 21.v.1980, RA; Barnett’s Park (J321687), 19.v.1994, RA; Dungonnell dam (D167172), 21.vi.1995, RA; Great Deer Park, Glenarm D305115), 22.v.2007, KNAA; Barnett’s Park (J320688), 11.xii.2015, RA. **H40** Londonderry: Ness Wood (C5211), 19.v.2007, KNAA.

***Dropephylla koltzei* Jászay and Hlavac, 2006 nec *vilis* (Erichson, 1840) – Uncommon**

Under bark of dead broad-leaved trees and conifers. Widespread in Britain but again “probably local” in Ireland (Hammond, 1980) referring to *Dropephylla koltzei*. It is unclear whether the true *D. vilis* occurs in Ireland. All materials identified as *D. vilis* using older keys

have proved to be *D. koltzei* upon dissection (RA). Both dissected and records for undissected specimens are provisionally combined here under *D. koltzei*. **H33** Fermanagh: Trory, Lower Lough Erne (H225483), under bark on dead sallow, 3.v.1995, KNAA. **H36** Tyrone: Ballybriest, Lough Fea (H763868), 5.vi.1994, RA; Washing Bay, Lough Neagh (H9902658), 31.i.2013, RA; Parkanaur (H735615), 6.iii.2013; (H737614), 4.xii.2013, RA. **H37** Armagh: Moyrourkan Lough (H985426), 18.x.1980, RA; Derryadd Lough (H914604), 11.v.2012, RA. **H38** Down: Donard Park (J373301), under bark of felled *Fagus*, vi.1923, OEJ (Janson, 1924); Leitrim Lodge (J224250), 1.iii.1980, RA; Morelands Meadow (J337697), 15.iv.2004, RA; Portavoe Reservoir (J560826), 8.i.2015, RA; Lackan Bog (J242368), 28.xii.2017, RA. **H39** Antrim: Carr's Glen (J317781), CWB (Johnson and Halbert, 1902); Belfast Castle (J325795), 26.i.1980, RA; Barnett's Park (J321687), 19.v.1994, RA.

***Hapalaraea pygmaea* (Paykull, 1800) – Rare old growth species**

Largely confined to areas of mature woodland, where it is found in bracket fungi, bird nests and squirrel dreys in the tree canopy, rotten wood, etc.; probably not an obligate wood-decay species. **H33** Fermanagh: Rossyvullan Hill, Castle Coole (H264430), one in *Polyporus squamosus* on dead standing sycamore, 20.vii.2010, RA; Colebrooke Park (H409450), dead branch on ancient *Quercus*, 25.x.2012, MDB/RA. **H37** Armagh: Tynan Abbey (H755414), three in *Polyporus squamosus* on elder, 26.vii.2011, RA/MDB; Derrymore House (J053281), in *Laetiporus sulphureus* on *Quercus*, 8.ix.2015, MDB. **H39** Antrim: near Belfast, R. Templeton (Johnson, 1889), 'now in collection of Belfast Nat. Hist. and Philosophical Society' (Johnson and Halbert, 1902). Hammond (1980) regards this record as unconfirmed.

***Phloeonomus punctipennis* Thomson, C.G., 1867 – Common and widespread**

Adults and larvae under bark of various dead broad-leaved wood; a fungal feeder; under-recorded due to past confusion with *Phloeonomus pusillus*; "probably widely distributed in Ireland" (Hammond, 1980). **H36, H33, H37, H38, H39.**

***Phloeonomus pusillus* (Gravenhorst, 1806) – Common and widespread**

Adults and larvae live under bark, mostly of dead conifer wood; widespread in Britain; "apparently less generally distributed in Ireland than *P. punctipennis*". **H36, H37, H38, H39, H40** (Hammond, 1980).

***Phloeostiba plana* (Paykull, 1792) – Scarce old growth species**

Adults attracted to fresh sap of broad-leaved trees – they feed on the sap; larvae develop under dead bark, feeding on sap as well as insects; mostly in areas of ancient woodland. **H36** Tyrone: Baronscourt Park (H3682), 12.ix.2006, KNAA; Parkanaur (H831612), bait trap – sugared red wine, 12.vi.2021, MDB. **H37** Armagh: Derrymore House (J054280), under bark of split *Fagus* trunk 8.xii.2013, MDB; ditto, in *Laetiporus sulphureus* on *Quercus*, 8.ix.2015, MDB. **H39** Antrim: Bucklebrook, Upper Ballinderry (J137668), bait trap – sugared red wine,

18.viii.2021, 29.viii.2021, MDB.

***Xylostiba monilicornis* (Gyllenhal, 1810) – Rare**

This species is winter- and spring-active meaning that the adult is easily overlooked. For this reason it has only recently been found in Ireland but is presumed to be an overlooked native. In Britain, it is said to be associated with ancient broad-leaved woods and pasture woodland in the midlands and north. The Irish records so far relate to subcortical habitat but in Britain it can also occur in agarics and birch polypore. **H37** Armagh: Slieve Gullion Forest Park (J038193), under bark on dead standing silver fir *Abies*, 8.iii.2012, RA. **H38** Down: Donard Demesne, Newcastle (J373301), 1 pair under fungoid bark of veteran *Fagus* on the ground, 9.i.2012, RA; Leitrim Lodge (J223256), 1 under bark of dead standing *Pinus sylvestris*, 29.ii.2012, RA.

STAPHYLINIDAE SUBFAMILY PSELAPHINAE short-winged mould beetles

Pselaphids are mainly predaceous feeders on mites but may also feed on moulds. The association with moulds in dead wood habitat competes with other mould habitats such as grass heaps.

***Euplectus infirmus* Raffray, 1910 – Rare**

In rotten wood and under bark, especially willow. Ireland (Pearce, 1957). **H33** Fermanagh: Castle Coole Park (H2643), from FIT in hollow horse chestnut, 14.ix.2006, KNAA. **H38** Down: Hillsborough Estate (J243576), 1 in pitfall in parkland, 5.vi.1992, RA.

***Euplectus karstenii* (Reichenbach, 1816) – Rare**

H33 Fermanagh: Castle Coole Park (H2643), from FIT in hollow horse chestnut, 14.ix.2006, KNAA.

***Euplectus mutator* Fauvel, 1895 syn. *E. fauveli* Guillebeau, 1888 – Rare**

Sometimes found in bird nests, also under bark and in rotten wood of *Quercus* and *Fagus* (Pearce, 1957). **H36** Tyrone: Knockmany Forest NR (H554559), under bark, large *Fagus* log, 30.viii.2017, RA; Derrygorry Brook at Favour Royal Forest (H624519), in grass heap, 8.x.2015, MDB. **H38** Down: Edenderry Woods (J318861), adhering to *Oxychilus alliarius* in *Fraxinus* wood pile, 11.xi.2016, RA.

***Euplectus piceus* Motschulsky, 1835 – Rare old growth species**

Under bark of *Quercus* and *Fagus*, and in red-rot decay in *Quercus*. **H33** Fermanagh: Castle Coole (H260433), in grass heap, 17.iii.2015, MDB.

***Bibloporus bicolor* (Denny, 1825) – Rare old growth species**

Under bark and in rotten wood of a wide variety of broadleaf and coniferous trees. **H33** Fermanagh: Inishfendra, Crom (H373237), FIT, 16.vi-15.vii.1993, APF.

STAPHYLINIDAE SUBFAMILY PHLOEOCHARINAE

Phloeocharis subtilissima Mannerheim, 1830 – Scarce

Amongst debris under *Fagus* bark, in moss on trees, on bracket fungi especially *Daedaleopsis confragrosa* on *Salix*, etc. **H37** Armagh: Peatlands Park (H904606), 23.v.2007, RA; Derryadd Lough (H911606), in *Piptoporus* on *Betula*, 11.v.2012, RA. **H38** Down: Rostrevor, Forest (J1817) 15.iv.1974, CAMR; Rostrevor Oakwood NNR (J185174), 2000 (Anderson, Simms and Nelson, 2000); Tollymore Park (J347313), 6.iv.2011, MDB; Donard Park (J372298), 9.i.2012, RA. **H39** Antrim: Shane's Castle (J1188), September 1902, C. W. Buckle (Halbert, 1910); under bark of fallen firs, June, 1923, O. E. Janson (1924); Rea's Wood, Antrim (J1485), 17.iv.1974, CAMR.

STAPHYLINIDAE SUBFAMILY TACHYPORINAE

Sepedophilus littoreus (Linnaeus, 1758) – Scarce

A mycetophagous species, feeding on fungal hyphae, not fruiting bodies, and rarely away from dead and decaying wood of some kind; occasionally found amongst leaf and other vegetable litter. Generally distributed in Britain, largely in ancient woodlands. Although not known prior to 1977, it seems probable that the species is an old woodland relict in Ireland (Anderson, 1978). **H33** Fermanagh: near Inishteige, Upper Lough Macnean (H024422), female from roadside grass cuttings bordering freshly felled scrub woodland, 12.iv.1977, RA (Anderson, 1978); Inisherk, Crom (H357243), FIT, vi-vii.1992, APF. **H38** Down: Tollymore Forest (J343318), under piled up Douglas fir bark, 9.iv.1993, RA; Murlough House (J414351), in wood pile and leaf litter, garden, RG; Mount Stewart (J566692), in rotten fungi, 23.x.2017, MDB. **H39** Antrim: near Portmore Lough (J119686), pair from under bark around fruiting fungus *Phlebia merismoides* on a rotting alder log in marginal old alder woodland, 24.xi.1984, RA (Anderson, 1985); Bucklebrook House, Upper Ballinderry (J138668), 31.iii.2011, MDB. **H40** Londonderry: by Toneduff Bridge, R. Faughan (C517075), male in basidiomycete fungi on *Fagus* logs, 31.x.1977, RA (Anderson, 1978).

Sepedophilus lusitanicus Hammond, 1973 - Rare

In Britain this species is said to occur under *Pinus* logs or in pine litter (Alexander, 2002). This description of habitat does not tally well with details of the two Irish records for Co. Down and North Kerry, both in broadleaf woodland. Added to the Irish list on the basis of specimens collected in Co. Down in 2015 (Anderson and Bryan, in press). The Co. Kerry records are for singletons in *Inonotus dryadeus* on *Quercus* and in *Hypholoma fasciculare* on *Fagus* in Killarney National Park, 2021. **H38** Down: Seaforde Estate (J404435), 2 in *Rhodocollybia* under *Olearia* shrubbery, 1.vi.2015, MDB.

STAPHYLINIDAE Subfamily ALEOCHARINAE slender rove beetles

Aleocharini

***Alaobia pallidicornis* (Thomson, C.G., 1856) – Widespread**

At sap, bracket fungi, and under fungoid bark in forest trees. Local and mainly south-eastern in Britain, but more generally distributed in Ireland. Possibly not an obligate saproxylic. **H33** Fermanagh: Rossyvullan Hill, Castle Coole (H264430), under fungoid bark on *Quercus* limb, 28.v.2010, RA; Castle Archdale (H178583), in *Piptoporus* on *Betula*, 2.x.2014, RA; Rossergole, Castle Caldwell (H031208), in *Piptoporus* on *Betula*, 22.iv.2017, MDB; Crom Castle (H358247), fungussed *Betula*, 3.ix.2014, MDB. **H36** Tyrone: Glenmore Wood ASSI (H656607), in *Piptoporus* on *Betula*, 18.x.2014, MDB; Parkanaur (H739614), bark of *Castanea*, 30.vi.2020, MDB. **H37** Armagh: Tynan Abbey Estate (H755414), in *Polyporus squamosus* on *Betula*, 26.vii.2011, RA; Tynan Abbey (H754415), in *Trametes* on ash, 17.viii.2011, RA; Peatlands Park (H904618), in *Trametes* on *Betula*, 20.vi.2020, MDB; Loughgall Forest (H910517), in *Piptoporus* on *Betula*, 5.ix.2017, MDB. **H38** Down: Hydebank Woods (J339678), under fungoid bark of *Acer pseudoplatanus* log, 25.x.2007, RA; Mount Stewart (J550699), in *Russula* under *Fagus*, 11.viii.2010, RA; Dundrum Castle (J406371), a pair in fungi on dead wood, 14.iii.2012, MDB; Lackan Bog (J242370), in *Piptoporus* on *Betula*, 27.vi.2016, RA; Cairn Wood (J452770), in *Piptoporus* on *Betula*, 27.ii.2013, MDB; Seaforde Demesne (J404435), in rotting *Armillaria*, 1.ix.2015, MDB; Stormont Estate (J399751), in *Trametes versicolor* on *Fagus*, 14.vi.2019, RA; Mount Stewart (J559696), *Armillaria* on *Fagus*, 23.x.2017, MDB; Castlewellan Forest (J336374), in *Hericium serratum* on *Fagus*, 19.viii.2017, MDB; Castleward House (J569491), fungus on *Fagus*, 20.v.2015. **H39** Antrim: Glenarm Nature Reserve (D300101), in *Piptoporus* on *Betula*, 8.vi.2011, RA.

***Alaobia subglabra* (Sharp, 1869) – Rare**

In Britain recorded from rotten wood of *Ulmus* and *Fraxinus*. First recorded in Ireland in 2012 but now known from Tomies Wood, Killarney, Co. Kerry (JAG, pers. comm.). **H37** Armagh: Loughgall Country park (H909513), in grass heap, 3.v.2012, MDB, det. RA.

***Alaobia taxiceroides* Munster, 1932 – Rare**

In the nests of birds or mammals in hollow trees. Rare and local in north and central Europe. **H36** Tyrone: Glenmore Wood ASSI (H656607), in *Piptoporus betulinus* on *Betula*, 21.vi.2014, MDB det. RA.

***Atheta aeneicollis* (Sharp, 1869) – Widespread**

Found on a variety of fungi including brackets on dead broadleaf wood and in a bird's nest. **H33** Fermanagh: Inisherik (H361247), in *Inonotus dryadeus* on *Quercus*, 12.vii.2012, MDB; Castle Caldwell (H020606), *Armillaria mellea* under *Fagus*, 19.x.2015, MDB. **H36** Tyrone: Edenderry near Omagh (H492693), on *Tricholoma atroscamosum*, hedgerow, 15.ix.2007, RA; Parkanaur Forest (H739616), in *Armillaria mellea* under *Prunus laurocerasus*, 21.ix.2013,

MDB; Seskinore Forest (H485664), agarics under *Fagus*, 13.viii.2015, MDB; Pomeroy Forest (H721706), *Rhodocollybia maculata* under *Picea*, 15.viii.2015, MDB. **H37** Armagh: Derrymore House (J053282), in *Polyporus squamosus* on *Acer pseudoplatanus*, 8.vii.2013, MDB; Benburb Heritage Centre (H809517), in *Armillaria mellea* on *Alnus* by towpath, 27.ix.2013, MDB; Ardress House (H917561), in *Agrocybe rivulosa* on wood chips, 1.ix.2017, MDB. **H38** Down: Temple of the Winds (J557693), in decaying *Armillaria mellea*, 5.x.201, RA; Downshire Bridge, Dundrum (J402354), grass heap, 31.viii.2011, MDB; Hollymount NNR (J459432), grass heap; 28.vi.2011, MDB; Dundrum Castle (J406369), beaten off *Trametes versicolor* on *Fagus* log, 29.viii.2013, MDB. **H39** Antrim: Portmore Graveyard (J117682), in *Agaricus angustus*, old graveyard, 29.ix.2009, RA; Bucklebrook House (J138668), in wood pigeon's nest, 31.i.2012, MDB; Laryybane Quarry (D049450), moss litter, 10.vii.2012, MDB; Breesha Plantation, Fair Head (D193417), mossy flush, 17.v.2017, RA/AH. **H40** Londonderry: Springhill House (H868827), in dead rook, 24.ix.2011, RA; (H870828), in *Polyporus squamosus*, 8.x.2012, MDB; Ballynahone More Bog (H865973), agarics under sphagnum *Betula*, 25.x.2017, MDB.

***Atheta aquatica* (Thomson, C.G., 1852) – Uncommon**

A species often found in gilled fungi but also in wood-rotting brackets on dead wood. **H33** Fermanagh: Finlane, Florencecourt (H173327), in *Inonotus radiatus* on *Alnus glutinosa*, 16.iii.2011, MDB; Crom Castle (H358427), on fungussed *Betula*, 3.ix.2014, MDB; Necarne, Irvinestown (H232570), in *Meripilus giganteus* on *Fagus*, 9.ix.2015, MDB. **H36** Tyrone: Parkanaur (H739614), under bark of *Castanea*, 30.vi.2020, MDB; Loughry College (H818746), in *Rhodocollybia* under *Fagus*, 9.vii.2017, MDB. **H37** Armagh: Mullinure, Armagh (H8846), Grange Blundel (H8850) 1888-1892, WFJ (Johnson and Halbert, 1902); Clare Glen (J018431), in *Pseudotrametes gibbosa* on *Prunus laurocerasus*, 27.viii.2014, RA. **H38** Down: Rostrevor Oakwood NNR (J187173), in *Inonotus dryadeus* on *Quercus*, 7.iii.2011, MDB; Shooter's Island (J494471), on deer faeces in oakwood; 23.ii.2012, RA; Dundrum Castle (J404371), in *Polyporus squamosus* on fallen *Aesculus*, 23.vi.2014, MDB. **H39** Antrim: Linford Water (D312080), moss by stream, 21.iv.2008, RA; Bucklebrook House (J138668), under bark on log, 31.iii.2011, MDB.

***Atheta aquatilis* (Thomson, C.G., 1887) – Widespread**

Habitat preferences a little less clear than those of the previous species but a mixture of riparian, patch and wood rot fungi. **H33, H36, H37, H38, H39, H40.**

***Atheta autumnalis* (Erichson, 1839) – Rare**

Added to the Irish list by Anderson (2018) from a site on the west shore of Lough Neagh. Generally rare in Britain and recorded mainly from the south-west under bark of riparian trees by fast-flowing streams. A second Irish site on the east shore of Lough Derg, North Tipperary is now known (17.x.2021, RA). **H36** Tyrone: Brookend NR (H952724), a male and female under

bark of cut *Alnus glutinosa* stems, lakeshore fen, 30.iv.2018, RA.

***Atheta basicornis* (Mulsant and Rey, 1852) – Scarce**

Under bark on periodically inundated dead branches and trunks in wet places or and riparian habitats; feeds on fungal material. **H33** Fermanagh: Rossyvullan Hill, Castle Coole (H264430), under fungoid bark of *Quercus*, 28.v.2010; Munilly Bridge, Old Ulster Canal (H490245), under *Salix* bark, 19.vii.2011, RA. **H37** Armagh: Oxford Island (J047621), in fungus on willow, 25.iii.2012, MDB; Loughgall Country Park (H909512), reed litter under alder/willow, 8.i.2014, RA. **H38** Down: Murlough NNR (J413345), in *Agaricus campestris*, dunes, 23.ix.2006, RA. **H39** Antrim: RSPB, Portmore Lough (J145688), under bark of *Salix* and *Alnus glutinosa*, 19.vi.2009, 26.vi.2009, RA; Portmore Estate (J121668), moss on *Salix* branches, 8.x.2009, RA.

***Atheta britanniae* (Bernhauer and Scheerpeltz, 1926) – Widespread and common**

A member of the *Atheta crassicornis* group of species which have strong associations with decaying gilled fungi such as *Russula* but also species such as *Armillaria* and wood rot fungi such as *Polyporus squamosus* and *Polyporus betulinus*. About 50 sites recorded in Northern Ireland. **H33, H36, H37, H38, H39, H40.**

***Atheta castanoptera* (Mannerheim, 1830) - Widespread and common**

A rather similar profile to that of *Atheta britanniae* but with about 50% more site records in Northern Ireland and found on a wider range of wood-rot fungi. **H33, H36, H37, H38, H39, H40.**

***Atheta crassicornis* (Fabricius, 1792) - Widespread and common**

Very similar profile and abundance to that of *Atheta castanoptera*. **H33, H36, H37, H38, H39, H40.**

***Atheta paracrassicornis* Brundin, 1954 – Uncommon**

First recorded in Ireland by A. P. Foster at Crom Castle, Co. Fermanagh in 1992 (Anderson and Foster, 2011). Now known from a number of sites, mainly west of the River Bann in Northern Ireland. Like other species in the *Atheta crassicornis* group (*A. britanniae*, *A. crassicornis*) there is a strong association with gilled fungi but it is also found on wood-rot fungi and mainly in old growth forests. There is only a single record for Britain but it has been recorded from 13 sites in Northern Ireland and two in southern Ireland. Northern in Europe – mainly Scandinavia. **H33** Fermanagh: Inishfendra (H373237), FIT, 5.vii.1993 – 4.viii.1993, APF; Florencecourt (H181346), in *Boletus chrysenteron* under *Quercus*, 31.vii.2010, RA; Derrykerrib, Upper Lough Erne (H422212), shoreline vegetation, 2.viii.2011, RA; Inisherk Island (H362246), *Inonotus dryadeus* on *Quercus*, 12.vii.2012, MDB; Old Crom Castle (H366240), *Inonotus dryadeus* on *Quercus*, 12.vii.2012, MDB; Colebrooke (H408450), agaric on *Quercus*, 25.x.2012, MDB; Crom Castle (H357246), *Entoloma sinuatum* under *Quercus*, 3.ix.2014, MDB; Castle Archdale (H175584), on *Armillaria* under *Quercus*, 2.x.2014, MDB; Ely Lodge Forest (H172519), fungi under *Fagus*, 5.ix.2015, MDB. **H36** Tyrone: Parkanaur

Forest (H736615), *Armillaria on Fagus*, 21.ix.2013, MDB; Glenmore Wood ASSI (H655618), *Rhodocollybia* under *Fagus/Corylus*, 18.ix.2013, MDB; Fardross Forest (H521486), fungi in mixed wood, 9.ix.2015, MDB. **H37** Armagh: Loughgall Forest (H910513), *Piptoporus* on *Betula*, 14.v.2014, MDB.

***Atheta pilicornis* (Thomson, 1852) – Rare**

Chiefly subcortical, often with scolytids; adults also reported from wood-decay and terricolous fungi, moss and among dead leaves, but larval habits not known; damp woodlands. **H37** Armagh: Glebe Hill, Tandragee (J033453), 1 male in badger latrine, hedgerow, 25.ix.2018, RA. **H38** Down: Belvoir Forest (J339696), 1 male in bolete *Xerocomus chrysenteron* under *Quercus*, 11.ix.1997, RA; Dundrum Castle woods (J404370), 1 female on *Polyporus squamosus* on horse chestnut, 20.vii.2009, RA.

***Bessobia fungivora* (Thomson, 1867) – Rare/doubtful**

In rotting fungi or on fungoid wood in forests; probably not an obligate saproxylic. Historically known only from a record of R. E. Dillon for Clonbrock, a specimen having been determined by J. N. Halbert (Johnson and Halbert, 1902). Dillon has become notorious for some of the outlandish records claimed for Clonbrock. There is a modern record for a female from Co. Down but, although published, is slightly uncertain. No male of this species has been found. **H38** Down: Hollymount NNR (J465440), in *Stereum* bracket fungi on *Fagus* logs, 18.i.2011, RA (Anderson, 2011).

***Dinaraea aequata* (Erichson, 1837) – Common and widespread**

Under bark of various trees, usually near fungoid growths. **H33, H36, H37, H38, H39, H40.**

***Dinaraea linearis* (Gravenhorst, 1802) – Rare old growth species**

Under bark. **H37** Armagh: Derryadd Lough (H911606), in *Piptoporus* on *Betula*, 11.v.2012, RA; Loughgall Country Park (H909513), under bark, dead alder, 3.v.2012, MDB; Washing Bay, Lough Neagh (H902658), under alder bark, 31.i.2013, RA. **H39** Antrim: Rea's Wood NNR (J139851), moss on alder stumps, 16.xii.2014, MDB.

***Microdota benickiella* Brundin, 1948 – Widespread**

Recorded infrequently from the gills of agaric fungi in woodlands. May be particularly associated with *Clitocybe* species, but also found with *Polyporus squamosus* and *Piptoporus betulinus* on rotting wood. **H33, H36, H37, H38, H39.**

***Traumoecia picipes* (Thomson, 1856) – Uncommon**

In fruit bodies of wood-decay fungi such as *Piptoporus betulinus*, *Meripilus giganteus* and *Hypholoma* as well as numerous mycorrhizal species; overwinters in tussocks, moss, compost, etc. Identified as an indicator species of “well-developed woodland habitat” (Good and Butler, 1995). The very closely related *Atheta olbrichi* Scheerpeltz, 1947 has been recorded from southern counties of Ireland (Good and Anderson, 2017) but not so far, from Northern Ireland. Its taxonomic position and validity as a separate species are uncertain. It may be a form of

Traumoecia picipes. **H33** Fermanagh: Inisherk Island (H357423), 31.iii.1997, RA; (H362246), 12.vii.2012, MDB; Finlane, Florencecourt (H173327), 16.iii.2011, RA; Colebrooke Park (H406447), 25.x.2012, MDB. **H36** Tyrone: Baronscourt Estate (C355826), 16.v.2006, RA; Parkanaur Forest (H739614), 30.vi.2020, RA; Brantry Lough (H750539), 28.viii.2012, MDB; Parkanaur Forest (H736617), 6.ii.2013; (H739614), 30.vi.2020, RA; Knockmany Forest (H543558), 25.x.2014, MDB. **H37** Armagh: Tynan Abbey (H755414), 26.vii.2011; (H760426), 17.viii.2011, RA; Slieve Gullion Forest (J037194), 8.iii.2012, RA; Derrymore House (J056280), 8.viii.2012, MDB; (H053281), 8.ix.2015, MDB; Clare Glen (J019440), 17.v.2014, RA; The Argory (H870574), 26.iv.2011, MDB. **H38** Down: Barnett's Demesne (J321687), 12.x.1996; (J318685), 4.ii.2018, RA; Belvoir Forest (J346694), 16.iv.2004; Mount Stewart (J552695), 13.ix.2003, 17.x.2009, 13.viii.2010, RA; Killynether Wood (J472722), 11.viii.2007, RA; Helen's Tower (J489772), 26.vii.2008, 10.ii.2011, RA; Rostrevor Oakwood NNR (J187173), 7.iii.2011, MDB; Cairn wood (J452770), 22.vii.2013, MDB; Seaforde Demesne (J404435), i.ix.2015, MDB; Castlewellan Forest (J336374), 19.viii.2017; (H336374), 19.vii.2017, MDB; Castleward House (J571503), 23.viii.2011; (J578495), 17.x.2014, RA; Dundrum Castle (J406369), 29.viii.2013, MDB; Tollymore Forest (J335324), 10.viii.2012, MDB; Cairn Wood (J452770), 22.vii.2013, RA; Seaforde Estate (J404435), 1.vii.2015, MDB. **H39** Antrim: near Lough Neagh (O'Mahony, 1929); Shane's Castle (J1188), vi.1902, CWB (Halbert, 1910b); Belfast Castle (J327793), 11.vii.2004, Ballylough Bog (C946371), 29.ix.2017, RA; Carnfunnock Country Park (D3806), 10.ix.2011, MDB.

***Bolitochara obliqua* Erichson, 1837 – Common and widespread**

Under bark of dead wood of various deciduous trees, especially associated with the small bracket fungus *Trametes versicolor*; adult is a fungal feeder, larvae also feeding on phloem and dead larvae. Common in Britain and Ireland. **H33, H34, H36, H37, H38, H39.**

***Bolitochara tecta* Assing, 2014 nec *lucida* (Gravenhorst, 1802) – Scarce**

Mainly found in fleshy fungi on old stumps. It has undoubtedly increased in the period 2010-2021 from very localised and rare previously. **H36** Tyrone: Parkanaur Forest (H736614), in *Armillaria*, 21.ix.2013, MDB; Glenmore Wood (H656607), in *Piptoporus* on *Betula*, 21.vi.2014, MDB; Drum Manor (H760783), in *Hypholoma* under *Cupressus*, 13.ix.2019, MDB; Fardross Forest (H522489), in fungi under *Fagus*, 9.ix.2015, MDB. **H37** Armagh: Peatlands Park (H904618), in *Trametes versicolor* on *Betula*, 20.vi.2020, MDB; Ardress House (H917561), in *Agrocybe rivulosa* on wood chips, 1.ix.2017, MDB. **H38** Down: Stormont Estate (J399751), in *Trametes versicolor* on *Fagus*, 14.vi.2019, RA. **H39** Antrim: Fair Head and Murlough Bay (D2041), 15.vi.1992, KNAA.

***Leptusa fumida* (Erichson, 1839) – Common and widespread**

Found under bark on dead wood of various trees, also in rot holes. Feeds mostly on detritus and fungi, but will eat insect larvae and eggs. Widespread in Ireland. **H33, H36, H37, H38,**

H39, H40.

***Leptusa norvegica* Strand, A., 1941 – Established introduction – rare**

Lives under bark in the runs of ambrosia beetles, etc, on conifer logs. **H39** Antrim: Portglenone Forest (C976031), in *Tomicus* burrows on *Pinus sylvestris*, SC (Anderson and Clawson, 2004).

***Leptusa pulchella* (Mannerheim, 1830) – Widespread**

Under dead bark on a wide variety of tree species. Mainly in ancient woodlands in Britain, especially where wet. Listed as '*Leptusa analis*' in Johnson and Halbert (1902). mainly reported from northern counties of Ireland, where it is widespread. **H33** Fermanagh: Finlane Florencecourt (H17330), under bark, *Fagus* log, 16.iii.2011, RA; Castle Archdale (H183169), *Armillaria* under *Fagus*, 2.x.2014, MDB. **H36** Tyrone: Caledon Deer Park (H7543), 16.viii.2006, KNAA. **H38** Down: Rostrevor Oakwood NNR (H185174), under bark of *Quercus* logs, 13.v.2000 (Anderson, Simms and Nelson, 2000); Murlough NNR (J411351), under dying elm bark, 15.xi.2010; Hollymount Wood NNR (J465440), in *Trametes versicolor*, ash log, 18.i.2011, RA; The Drinns, Tollymore Forest (J317314), under bark, 6.iv.2011, MDB; Mallard plantation, Castleward (J555490), under bark of *Pseudotsuga* log, 21.viii.2010, RA; Shooter's Island, Quoile (J494470), 1 in deer dung (!), 23.ii.2012, MDB; Tullyframe Wood, Mourne Park (J264169), under bark on *Fagus*, 27.iii.2012, RA; Dundrum Castle woods (J406369), under bark, log, 29.viii.2013, MDB; Lackan Bog (J242370), *Piptoporus betulinus* on *Betula*, 27.vi.2016, RA. **H39** Antrim: Murlough Bay (D2041), one under bark, ix.1901, GWC det. JNH; Great Deer Park, Glenarm (D2911), 20.v.2006, KNAA; Glenarm Nature Reserve (D301101), under bark of *Quercus* log, 8.vi.2011, (D300100), 14.vi.2011, in *Piptoporus* on *Betula*, both RA; Ballylough Bog (C946371), *Piptoporus betulinus* on *Betula*, 29.ix.2017, RA. **H40** Londonderry: Altnaheglish Forest (C720018), Banagher, *Picea sitchensis* stump, 6.viii.2005, RA.

***Leptusa ruficollis* (Erichson, 1839) – Recent arrival**

Found under bark on deadwood; favours thin barked woody plants notably *Tilia*. Occurs in ancient woodlands in Britain and appears to be a recent arrival in Ireland, known only from the Ards Peninsula in Co. Down. Appears to have arrived in this area at about the same time as the rare bracket fungus *Hericium cirrhatum*, new to Ireland, on *Fagus*. **H38** Down: Mount Stewart Estate (J554694), 1 in rotting *Russula* under *Fagus*, 13.viii.2010, RA; Temple of the Winds, Mount Stewart (J557693), 1 under fresh bark on fallen *Fagus* bough, 5.x.2010, RA.

Autaliini

***Autalia impressa* (Olivier, 1795) – Widespread and common**

Often abundant in gilled fungi such as *Russula* but also *Armillaria* and wood rot fungi such as *Polyporus squamosus*, *Fistulina hepatica* and *Piptoporus betulinus*. **H33, H36, H37, H38,**

H39, H40.

***Autalia longicornis* Scheerpeltz, 1947 – Recent immigrant, rare**

A fairly recent arrival in Ireland and, while spreading, still a much less frequent species than the last. **H37** Armagh: Derrymore House (J054823), in *Meripilus giganteus* on *Fagus*, 8.ix.2015, MDB. **H38** Down: Huntley Park, Banbridge in *Rhodocollybia* under *Fagus*, (J118474), 15.viii.2017, MDB; Seaforde Estate (J404435), *Rhodocollybia* under *Olearia*, 1.ix.2015, MDB. **H39** Antrim: Portmore Graveyard (J117684), in *Pholiota alnicola* on *Alnus glutinosa*, 29.ix 2009, RA.

Gyrophaeini

These beetles are all very small and associated with fungal fruiting bodies, generally wood decay fungi but not exclusively so. The larvae are spore-feeders.

***Agaricochara latissima* (Stephens, 1832) – Common and widespread**

One of the commonest species (37 sites). **H33, H36, H37, H38, H39, H40.**

***Gyrophæna affinis* Mannerheim, 1830 – Common and widespread**

The commonest *Gyrophæna* (41 sites). **H33, H36, H37, H38, H39, H40.**

***Gyrophæna bihamata* Thomson, C.G., 1867 – Scarce**

On a variety of agarics and bracket fungi in predominantly wet broadleaved woodland. **H33** Fermanagh: Crom Castle Estate (H360247), agarics growing under mature *Fagus*, 16.ix.2016, MDB. **H36** Tyrone: Seskinore Forest (H484645), on *Paxillus involutus* under *Betula*, 13.viii.2014, MDB; Pomeroy Forest (H701726), on *Rhodocollybia maculata* under conifers, 15.viii.2015, MDB. **H37** Armagh: Derrymore House (J053282), on *Polyporus squamosus* on sycamore, 8.vii.2013, MDB. **H39** Antrim: Shane's Castle (J126875), in *Hirneola* on sycamore, 3.vii.2004, RA; Rea's Wood NNR (J140851), in *Mycena inclinata* on *Salix*, 11.x.2013, RA; in *Clitocybe* under *Picea*, 30.vi.1986, RCW (Welch, 1986). **H40** Londonderry: Somerset Forest (C85263016), on agarics under *Fraxinus*, 4.ix.2014, MDB; (C853302), fungi on split *Fraxinus*, 4.ix.2014, MDB; Ballynahone More Bog (H865973), on agarics in sphagnum under *Betula*, 25.x.2017.

***Gyrophæna congrua* Erichson, 1837 – Uncommon**

Almost entirely associated with small agarics such as *Rhodocollybia maculata* in wet broadleaf woods. Very easy to overlook. But certainly not as rare in Northern Ireland as in Britain. First recorded (in Ireland) on 1.viii.2013 from Ardress House, Co. Armagh. **H33** Fermanagh: Crom Castle Estate (H360247), on agarics under *Fagus*, 16.ix.2015, MDB; Castle Caldwell (H020606), *Armillaria* under *Fagus*, 19.x.2015, MDB; Rossergole, Castle Caldwell (H023606), agarics under *Alnus/Salix*, 17.viii.2015, MDB. **H36** Tyrone: Glenmore Woods ASSI (H656608), on *Mycena* under *Corylus*, 18.x.2014, MDB; Seskinore Forest (H484645), on *Paxillus* under *Betula*, 13.viii.2015, MDB; Parkanaur Forest (H737615), on *Rhodocollybia*

under mixed woods, 18.viii.2019, MDB; Drumcairne Forest (H877707), in *Mycena* under *Quercus*, 11.ix.2019, MDB; Knockmany Forest NR (H541552), on *Rhodocollybia* under conifers, 31.vii.2017, MDB. **H37** Armagh: Ardress House (H918558), on agarics under *Fagus* and *Quercus*, 1.viii.2013, MDB. **H39** Antrim: Rea's Wood NNR (J140851), in *Mycena inclinata* on *Salix*, 11.x.2013, MDB. **H40** Londonderry: Somerset Forest (C846304), 8.ix.2014, on agarics under *Fraxinus*, 8.iv.2014, MDB; Springhill Estate (H868827), on *Clitocybe nebulosa* under *Fagus*, 10.x.2017, MDB; Ballynahone More Bog (H865973), on agarics in sphagnum under *Betula*, 25.x.2017, MDB.

***Gyrophæna fasciata* (Marsham, 1802) – Common and widespread**

Another common species (35 sites). **H33, H36, H37, H38, H39, H40.**

***Gyrophæna gentilis* Erichson, 1839 – Common and widespread**

Another common species (31 sites). **H33, H36, H37, H38, H39, H40.**

***Gyrophæna hanseni* Strand, A., 1946 – Rare**

H33 Fermanagh: Inisherk Island (H361247), on *Inonotus dryadeus* at base of oak, 12.vii.2012, MDB; Crom Castle Estate (H360247), on agarics under *Fagus* and under young oak, 16.ix.2015, MDB.

***Gyrophæna joyi* Wendeler, 1924 – Uncommon**

Commonest on small agarics but hosts include honey fungus *Armillaria* in western areas. **H33** Fermanagh: Inishfendra (H373237), FIT, 15.vii.- 24.viii.1993, APF; Inisherk Island (H361247), fungus on *Quercus*, 12.vii.2012, MDB; Crom Castle (H358247), on *Armillaria* under *Quercus/Corylus*, 3.ix.2014, MDB; Castle Caldwell Forest (H020606), *Armillaria* under *Fagus*, 19.x.2015, MDB; (H018606) on small pink fungi under *Alnus/Salix*, 17.viii.2015, MDB; Florencecourt (H176331), *Rhodocollybia* in mixed woods, 17.vii.2019; Ely Lodge Forest (H175916), fungi on log, 5.ix. 2015, MDB. **H36** Tyrone: Parkanaur Forest (H738611), small agarics under *Betula*, 29.xii.2014, MDB. **H37** Armagh: Benburb Heritage Centre (H804515), on *Rhodocollybia* under *Fagus*, 27.ix.2013, MDB; Loughgall Country Park (H903516), *Marasmius oreades* ring under *Fagus*, 9.v.2015, MDB. **H38** Down: Clandeboye Estate (J4977), on small agarics, 10.viii.1972, CAMR. **H39** Antrim: Rea's Wood NNR (J142853), *Pluteus cervinus* on *Salix*, 12.ix.2007, RA; (J143855), *Armillaria mellea* on *Salix*, 11.x.2013, MDB.

***Gyrophæna manca* Erichson, 1839 – Scarce**

The larvae feed especially on spores of *Polyporus squamosus* and it is rarely found away from this species. Roadside *Fraxinus* sporting large *P. squamosus* fruitbodies can have this species. Invariably on *P. squamosus* on *Sambucus*, *Fagus*, *Acer pseudoplatanus*. A Palaearctic species, widespread in Europe, but rather local in Britain and Ireland. First recorded here by Good (1997) as *G. angustata*. **H33** Fermanagh: Crom Castle (H358247), 3.ix.2014, MDB. **H36** Tyrone: Parkanaur Forest (H739616), 21.ix.2013, MDB; Knockmany Forest NR (H543553), 31.vii.2017, MDB. **H37** Armagh: Tynan Abbey Estate (H755414), 26.vii.2011, RA/MDB;

Derrymore House (J053282), 8.vii.2013, MDB; Loughgall Forest (H913516), on *Rhodocollybia* under *Fagus* (!), 5.ix.2017, MDB. **H38** Down: Killynether Wood (J475722), 29.vi.2012, RA; Dundrum Castle Woods (J404371), 23.vi.2014, MDB; Ballymenoch Park, Holywood (J408794), 19.vi.2018, RA; Scrabo Road, Newtownards (J481729), 21.vi.2018, RA; Murlough House Woods (J414352), RA; Huntley Park, Banbridge (J118474), 11.viii.2017, MDB. **H39** Antrim: Bucklebrook House (J138669), 16.iv.2011, MDB. **H40** Londonderry: Springhill House (H870828), 8.x.2012, MDB.

***Gyrophana minima* Erichson, 1837 – Uncommon**

Particularly associated with sulphur tuft *Hypholoma fasciculare* on conifer wood. Can be very common on this species at some of the sites listed. **H33** Fermanagh: Necarne, Irvinestown (H239569), *Hypholoma* on *Quercus*, 9.ix.2015, MDB. **H36** Tyrone: Parkanaur (H737610), in rotting *Armillaria*, mixed wood, 29.xii.2014, MDB; (H738613) in *Hypholoma fasciculare* on conifer wood, 18.viii.2019, MDB; Drum Manor (H760783), in *H. fasciculare* under *Cupressus*, 13.ix.2019, MDB; Drumcairne Forest (H877707), on *H. fasciculare* in broadleaf woods, 11.ix.2019, MDB; Knockmany Forest (H941552), on *Rhodocollybia* under conifers, 31.vii.2017, MDB. **H37** Armagh: Peatlands Country Park (H904618), on *Trametes versicolor* on *Betula*, 20.vi.2020, MDB. **H38** Down: Belvoir Forest, in *Stereum hirsutum* on a *Prunus laurocerasus* log, 1.ix.1997, RA; Castlewellan Forest (J335378), *H. fasciculare* on dead conifer wood, 20.viii.2017, MDB; Huntley Park, Banbridge (J118474), *H. fasciculare* under *Quercus*, 15.viii.2017, MDB. **H39** Antrim: Ballycastle, GWC, det. JNH (Johnson and Halbert, 1902).

***Gyropohaena munsteri* Strand, A., 1935 – Uncommon**

Mainly on mycorrhizal agarics such as *Armillaria mellea*, *Clitocybe geotropa*, *C. nebularis*, *Entoloma sinuatum*, *Rhodocollybia butyracea*. First recorded for Ireland at Rea's Wood in Antrim on 11.x.2013. **H33** Fermanagh: Inisherke Island (H3561247), 12.vii.2012, MDB; Crom Castle Estate (H358247), 3.ix.2014, MDB; Florencecourt (H178334), 1.x.2014, MDB; Castle Archdale (H183589), 12.x.2014, MDB; Crom Castle Estate (H360247), 16.ix.2015, MDB; Castle Caldwell Forest (H020606), 19.x.2015, MDB; Ely Lodge Forest (H184510), 5.ix.2015, MDB. **H36** Tyrone: Drum Manor (H764776), 6.ix.2014, MDB; Parkanaur Forest (H738611), 29.xii.2014, MDB; Glenmore Wood (H656608), 18.x.2014, MDB. **H37** Armagh: Loughgall Country Park (H902515), 26.ix.2012, MDB; Loughgall Forest (H912513), 28.viii.2013, MDB; Derrymore House (J053282), 8.vii.2013, MDB; Benburb Heritage Centre (H804515), 27.ix.2013, MDB. **H39** Antrim: Rea's Wood NNR (J140851), 11.x.2013, MDB. **H40** Londonderry: Springhill Estate (H868827), 10.x.2017, MDB.

***Gyrophana poweri* Crotch, 1867 – Rare**

Known only from wet riparian woods around Lower Lough Erne, Fermanagh at present. **H33** Fermanagh: Castle Caldwell Forest (H020606), in *Armillaria* under *Fagus*, 19.x.2015, MDB;

Rossergole (H027608), in *Armillaria*, shoreline wood, 17.viii.2015, MDB; Ely Lodge (H184510), brown fungus under *Fagus*, 5.ix.2015, MDB.

***Gyrophaena pulchella* Heer, 1839 – Widespread**

Widespread and therefore much less rare than in Britain (22 sites). Mainly in the west and on mycorrhizal agarics such as *Armillaria mellea*, *Clitocybe geotropa*, *C. nebularis*, *Entoloma sinuatum*, *Rhodocollybia butyracea*, *Marasmius wynnei*. **H33** Fermanagh: Crom Castle Estate (H357426), 3.ix.2014, MDB; Florencecourt (H178334), 1.x.2014, MDB; Castle Caldwell Forest (H020606), 19.x.2015, MDB; Rossergole (H023606), 17.viii.2015, MDB; Ely Lodge Forest (H172519), 5.ix.2015, MDB. **H36** Tyrone: Drum Manor (H756777), 18.x.2010, MDB; Knockmany Forest (H553560), 30.viii.2017, RA; Parkanaur Forest (H736608), 28.ix. 2015, MDB; Glenmore Wood ASSI (H652609), 19.ix.2019, RA; Knockmany Forest NR (H543553), 31.vii.2017, MDB; Loughry Agricultural College (H818746), 9.vii.2017, MDB; Fardross Forest (H521486), 9.ix.2015, MDB. **H37** Armagh: Loughgall Forest (H911517), 26.ix.2012, MDB; Annagariff NNR (H903116), 3.ix.2013, MDB; Benburb Heritage Centre (H804155), 27.ix.2013, MDB; Loughgall Forest (H913516), 5.ix.2017, MDB; Ardress House (H917561), 1.ix.2017, MDB; Loughgall Country Park (H903516), 9.v.2015, MDB. **H38** Down: Belvoir Forest (J332692), 27.x.1993, RA; Dromantine College (J077361), 5.x.2012, RA; Castleward House (J5678495), 17.x.2014, RA; Castlewellan Forest Park (J327364), 31.viii.2014, MDB. **H39** Antrim: Rea's Wood NNR (J143855), 11.x.2013, MDB.

***Anomognathus cuspidatus* (Erichson, 1839) – Scarce**

Under fungoid bark of dead *Fagus*, *Quercus*, etc. **H33** Fermanagh: Colebrooke Park (H405445), under bark, *Quercus* limb, 25.x.2012, RA. **H36** Tyrone: Parkanaur Forest (H733612), under bark dead oak, 1.vi.2020, MDB. **H37** Armagh: Tynan Abbey Estate (H761428) under bark, *Quercus* limb, 21.vi.2011, RA; Loughgall Country Park (H910518), *Piptoporus* on *Betula*, 9.v.2015, MDB. **H38** Down: Morelands Meadow, Belvoir (J337697), 18.xi.1992, 15.iv.2004, RA; Stormont Estate (J397746), 7.v.1994, 13.v.1994, RA; Hydebank Woods (J342677), 25.x.2007, RA; Mount Stewart (J555694), 16.viii.2010, RA; Temple of the Winds (J557693), 5.x.2010, RA. **H39** Antrim: Lagan Meadows, Belfast (J334699), decaying *Bjerkandera adusta* bracket fungi on an *Acer pseudoplatanus* stump, 11.iv.1993, RA (Anderson, 1995); Portmore Lough, RSPB Reserve (J108685), 19.vi.2009, RA; Moss Plantation, Randalstown (J093893), 16.vii.2010, RA.

***Homalota plana* (Gyllenhal, 1810) – Uncommon**

Under bark on dead *Fagus* etc; adult feeds on detritus and fungi. **H36** Tyrone: Parkanaur Forest (H737616), under bark *Pinus* log, 6.ii.2013, RA/MDB. **H37** Armagh: Annagariff NNR (H902616), *Acer pseudoplatanus* bark, 9.v.2000, RA; Tynan Abbey Estate (H755414), bark of *Fagus*, 26.vii.2011, RA. **H38** Down: Morelands Meadow (J337697), *Fagus* logs, 18.xi.1992,

RA; Belvoir Forest (J341695), bark of *Pinus sylvestris*, 11.iv.1995, RA; Hydebank woods (J342677), bark, sycamore, 25.x.2007, RA; Mount Stewart (J550699), in rotting *Russula*, 11.viii.2010, RA; Castleward (J572502), bark, ash, 19.iii.2011, RA; Shooter's Island, Quoile (J494471), under *Acer pseudoplatanus* bark, 23.ii.2012, RA; Castlewellan Forest (J339373), under bark, felled conifer, 29.vii.2020, MDB. **H39** Antrim: Farr's Bay NNR (J089870), bark, *Picea* log, 4.vii.1986, RCW (Welch, 1986); Belfast Castle (J327793), fungoid bark on *Fagus*, 11.vii.2004, RA; Moss Plantation, Shane's Castle (J094893), bark, *Quercus*, 20.viii.2010, RA; Bucklebrook House (J13768), baited trap, sugared wine, 21.vii.2020, MDB.

***Cypha seminulum* (Erichson, 1839) – Extinct**

In rotting wood, fungi, under bark and in moss; elm and sycamore. Ireland (Haliday collection). **H40** Londonderry: Foyle District, CWB (Buckle, 1900; Johnson and Halbert, 1902).

***Oligota apicata* (Erichson, 1837) – Rare**

Occurs in bracket fungi on trees: reported from *Stereum hirsutum*, *Polyporus squamosus*, *Trametes versicolor*; possibly preys on *Cis* beetle larvae; also recorded in leaf litter inside a hollow *Quercus*, under *Fagus* bark, etc. **H36** Tyrone: Derrygorry Brook, Favour Royal Forest (H624519), in a grass heap, 8.x.2015, MDB. **H37** Armagh: Loughgall Country Park (H904112), in rotting *Armillaria mellea* on *Aesculus*, 9.v.2015, MDB. **H38** Down: Helen's Tower, Clandeboye (J488774), in rotting *Trametes/Bjerkandera* on *Fagus* logs, 10.ii.2011, RA. **H39** Antrim: Shane's Castle Demesne (J1288), Lough Neagh, two sifted from debris, vi.1923, OEJ (Janson, 1924).

Oxypodini

***Ischnoglossa prolixa* (Gravenhorst, 1802,) – Rare**

Found beneath bark on freshly dead timber; widespread on the Continent. **H37** Armagh: Slieve Gullion Forest Park (J037194), 1 under bark of dead standing *Pinus sylvestris*, 8.iii.2012, RA; Loughgall (H909513), under bark of dead alder, 3.v.2012, MDB. **H38** Down: Belvoir Forest (J342694), in *Bjerkandera adusta* on *Quercus* stump, 23.iv.2004, RA; Leitrim Lodge (J223256), under bark of dead standing *Pinus contorta*, 29.ii.2012, RA, (H227251), under bark, *Pinus sylvestris* log, 29.ii.2012, RA.

***Phloeopora testacea* (Mannerheim, 1830) – Uncommon**

Predatory, beneath bark on deadwood of various broad-leaved trees. *Phloeopora reptans* (synonym) reported from Ireland by Haliday and there are Irish-taken specimens in his collection (Johnson and Halbert, 1902). **H33** Fermanagh: Florencecourt (H181346), 31.vii.2010, RA.; Colebrooke Park (H407449), 25.x.2012, RA. **H36** Tyrone: Drumcairne Forest (H877707), 9.ix.2019, MDB. **H37** Armagh: Annagarraiff NNR (H902616), 29.v.2000, RA; Tynan Abbey (H757427), 29.ix.2011, RA. **H38** Down: Belvoir Forest (J332692), 28.ix.1993; (J341695), 12.iv.1995, RA; Redburn Country Park (J401774), 6.ix.2006, RA; Hydebank Woods (J342677), 25.x.2007, RA; Castle Espie (J495672), 26.viii.2009, RA. **H39** Antrim: Barnett's

Park (J321687), 19.v.1994, RA; Belfast Castle (J327793), 11.vii.2004, RA; Ram's Island, Lough Neagh (J098721), 4.vi.2005, RA; Shane's Castle Estate (J194881), 1.vii.2010, RA; Moss Plantation, Randalstown (J092893), 16.vii.2010, RA; Lady Dixon Park, Belfast (J305676), in soft-rotted dead *Acer pseudoplatanus*, 1.xii.2015, RA. **H40** Londonderry: Leganannon Pot (C752123), 4.iv.1999, RA.

***Oxypoda vittata* Märkel, 1842 – Doubtful**

H39 Antrim: 'Ballyclare' (J2891), CWB (Johnson and Halbert, 1902).

Phytosini

***Placusa tachyporoides* (Waltl, 1838) – Rare**

Added to the Irish List by Anderson and Bryan (2023). In Britain found in southern England as far north as the south Midlands mainly at sap on *Quercus* and *Castanea* (Alexander, 2002). They are also said to inhabit the galleries of bark beetles (Scolytinae) but examination of stomach contents shows that they feed on fungal hyphae and spores (Klimaszewski *et al.*, 2001). **H36** Tyrone: Parkanaur Forest (H732612), 10, in sugared red wine bait trap, 12.vi.2021, MDB; Glenmore ASSI (H653611), 2, in sugared red wine bait trap, 7.vii.2021, MDB. **H39** Antrim: Rea's Wood (J13938502), one, in sugared red wine bait trap, 9.vii.2021, MDB.

STAPHYLINIDAE SUBFAMILY SCAPHIDIINAE – shining fungus beetles

***Scaphisoma agaricinum* (Linnaeus, 1758) – Uncommon**

Amongst decaying wood and at fungal fruit bodies. **H33** Fermanagh: Inishfendra, Crom, FIT, 15.vii.1993-24.viii.1993, APF; Molly Mountain, 23.vi.1995, RA; Castle Coole Park, 2.vi.1992 and 18.v.2006, KNAA; Colebrooke Park (H406446), under bark, *Quercus* branch, 25.x.2012, RA. **H36** Tyrone: Caledon Park, 16.viii.2006, KNAA; Brookend NR, Lough Neagh, 8.v.2007, RA. **H37** Armagh: Lowry's Lough, sweeping gorse, WFJ (Johnson, 1892a; Johnson and Halbert, 1902); Derryadd Lough (H914609), in old *Piptoporus*, 11.v.2012, MDB; Derrymore House (J056280), on *Bjerkandera*, *Fagus* stump, 8.viii.2012, MDB; Ardress House (H914560), on agarics under *Fagus*, 31.viii.2013, MDB. **H38** Down: Dundrum Castle (J406371), in fungi on dead wood, 14.iii.2012, MDB; Murlough NNR (J415352), in *Polyporus squamosus* on *Acer pseudoplatanus*, 11.vi.2020, RA. **H39** Antrim: Shane's Castle Demesne, Lough Neagh, June 1923, OEJ (Janson, 1924). Great Deer Park, Glenarm, 28.vii. and 19.viii.2006, KNAA; Lady Dixon Park, Belfast (J302679), in slime mould *Enteridium* under bark of *Alnus*, 14.v.2020, RA. **H40** Londonderry: Ness Wood ASSI (C524113), under bark, *Corylus*, 31.v.2017, MDB.

***Scaphisoma boleti* (Panzer, 1793) – Scarce**

Similar habits to the last. **H33** Fermanagh: Summerhill Lough, xii.1905, WFJ (Johnson, 1906); Florencecourt, 21.vi.2010, RA; Filbert Hill, Castle Coole, 26.vi.2010, RA. **H37** Armagh: Tynan Abbey, 1.vii.2011, RA. **H38** Down: Castlewellan Forest (J327364), in agarics, mixed

woods, 31.viii.2014, MDB; Murlough House Woods (J414351), in *Polyporus squamosus* on *Fraxinus*, 16.vii.2018, RA. **H39** Antrim: Rea's Wood, Antrim, 30.vi.1986, RCW (Welch, 1986).

STAPHYLINIDAE SUBFAMILY PIESTINAE

Siagonium quadricorne Kirby, 1815 – Scarce

Saprophagous beneath moist sappy bark on the freshly dead wood of various broad-leaved trees, especially elm. Old records from southern counties, where still present; recently appeared in northern counties. **H37** Armagh: Tynan Abbey (H755414), in *Polyporus squamosus* on *Sambucus*, 26.vii.2011, RA; (H757427) under *Quercus* bark among lumber, 29.ix.2011, RA. **H38** Down: Hydebank Woods (J342677), Belfast, under bark of *Acer pseudoplatanus* log with *Quedius lyszkowskii*, 25.x.2007, RA; Murlough NNR (J411351), under bark of dead elm, 15.xi.2010, RA; Temple Water, Castleward (J572502), under ash bark, 19.iii.2011, RA; Shooter's Island (J580493), under bark of dead standing *Acer pseudoplatanus* (32 on a single tree), 23.ii.2012, RA.

STAPHYLINIDAE SUBFAMILY STAPHYLININAE

Atrecus affinis (Paykull, 1789) – Common and widespread

Under dead bark and in rotten wood of various trees, conifers and broad-leaved trees. Widespread and locally common throughout Ireland. *Baptolinus alternans* in Johnson and Halbert (1902). **H33, H36, H37, H38, H39, H40.**

Gabrius splendidulus (Gravenhorst, 1802) – Unclear, probably very localised/rare

Under dead bark, especially of *Fagus*. The Mount Stewart record has been verified and suggests a recent arrival in the north of Ireland. **H38** Down: Mount Stewart (J555701), 19.v.1992, APF.

Bisnius subuliformis (Gravenhorst, 1802) – Rare

A species associated with bird nests in trees. Added to the Irish list in 2012. **H37** Armagh: Loughgall Country Park (H902516), in bird nest material removed from plastic nest box, 27.xi.2012, RA.

Quedius brevicornis (Thomson, 1860) – Rare

Lives within nests of birds inside tree cavities; also found in tree rot holes and fungi. **H39** Antrim: Colin Glen (J270720), no data, 6.ix.2002, KNAA.

Quedius lyszkowskii Lott, 2010 – Scarce

A recently described species, previously overlooked within *Quedius aetolicus* Kraatz by modern workers and historically with *Q. puncticollis* in Irish collections (Lott, 2010). So far known only from Scotland and Ireland; may be endemic to the British Isles. Of the historical Irish records of '*Q. puncticollis*' only material from Killarney and Portmarnock have so far been

examined. Summer and autumn records are typically associated with decaying wood, but one winter record is from atypical habitat and may have been a dispersing individual. **H36** Tyrone: Baronscourt Park (H3682), under dead bark on veteran *Fagus*, 12.ix.2006, KNAA. **H38** Down: Hydebank Woods (J342677), under fungoid *Acer pseudoplatanus* bark, 25.x.2007, RA. **H39** Antrim: Barnett's Park (J320688), under *Acer pseudoplatanus* bark, 12.xii.1979, RA; Belfast Castle (J327793), under fungoid bark on *Fagus*, 11.vii.2004, RA; Bucklebrook House, Upper Ballinderry (J138668), in hen litter, 6.xi.2010, MDB. **H40** Londonderry: Roe Valley Country Park (C672208), under bark of stacked conifer logs, 16.vii.2011, RA.

***Nudobius lentus* (Gravenhorst, 1806) - Recent arrival**

Nudobius lentus is a central and northern species in Europe having spread south in recent decades. It has expanded its range in Britain since World War II from the highland pine woods of north-east Scotland to plantation pinewoods across most of the land area. There is no record of it occurring in Ireland (Good and Anderson, 2017). A single adult identified as this species was collected by AM under bark of dead *Pinus* sp. at the upper end of conifer plantings on Thomas Mountain (J36902991), Mourne Mountains Co. Down, on 28 August 2022 (Anderson and Mantell, 2023). It is likely more widespread than this.

FAMILY TROGIDAE

***Trox scaber* (L., 1767) – Rare**

H39 Antrim: Bucklebrook House (J138668), in poultry shed, 4.vi.2015, MDB.

FAMILY LUCANIDAE stag beetles

***Sinodendron cylindricum* (Linnaeus, 1758) rhinoceros beetle – Widespread (Plate 2)**

Bores in decaying heartwood of large broad-leaved trees, and also pine, including stumps. Irish hosts include alder, *Betula*, *Quercus* and *Castanea sativa* (Speight, 1985). Has been reported from floating timber in both freshwater and seawater. **H33** Fermanagh: Tempo, C. Langham (Langham, 1897; Johnson and Halbert 1902); Marble Arch (H1235), 24.vi.1988, DAL; Inishfendra, Corlatt Wood, Reilly Wood, etc, Crom Castle Estate (H360240), 1992, KNAA and APF, 4.xi.2002 and 6.vii.2007, KNAA; Castle Coole Estate (H2643), 2.vi.1992, KNAA; many dates, 2006, KNAA; Filbert Hill, Castle Coole (H258437), 26.vi.2010, RA; Rossyvullan Hill, Castle Coole (H264430), 28.v.2010, RA; Florencecourt (H183343), 21.vi.2010, RA; Finlane, Florencecourt (J171325), 20.vii.2012, RA; Inishcreagh (H283337), 22.x.2012, RA. **H36** Tyrone: Caledon Deer Park (H7543), many dates, 2006, KNAA; Brantry Lough (H750537), 26.i.2012, RA. **H37** Armagh: Tynan Abbey Estate (H761427), 21.vi.2011, 1.vii.2011, 26.vii.2011, RA. **H39** Antrim: Bucklebrook House (J138665), 12.vii.2005, MDB; Portmore Lough (J121688), 8.x.2009, RA; Shane's Castle (J185885), 1.vii.2010, RA; Portmore Graveyard (J187883), 9.x.2014, AM.

FAMILY CLAMBIDAE

Clambus pallidulus Reitter, 1911 – Rare

Has been reported in Britain from a hollow apple tree, in debris in a rotten elm stump, and from moss among rotten logs, implying a saproxylic association. **H36** Tyrone: Drumcairne Forest (H880704), in grass heap by path, 17.viii.2017, MDB.

Clambus punctulum (Beck, 1817) – Rare

H33 Fermanagh: Inishfendra (H373237), FIT, 16.vi.-15.vii.1993, APF.

FAMILY SCIRTIDAE

Prionocyphon serricornis (Müller, P.W.J., 1821) – Widespread

Develops in water-logged hollows in old trees, especially *Fagus*, and including external hollows amongst roots; larvae aquatic, feed on detritus from dead leaves; adults active fliers, short-lived. “Appears to be common on *Fagus* trees just about everywhere here but has been completely overlooked (by me) until now. I have now looked in six locations and found it in five.” (RA, January 2008). These latter finds (also below) refer to larvae only, although adults are relatively easy to rear. **H33** Fermanagh: Finlane, Florencecourt (H173330), 6.iii.2011, BN, GNF, MDB, RA. **H36** Tyrone: Drum Manor (H757776), 19.i.2008, RA (Anderson, 2008a); Parkanaur (H74106168), 16.iii.2024. **H37** Armagh: Slieve Gullion Forest (J039195), 8.iii.2012, MDB/RA; Clare Glen (J018442), 17.v.2014, RA. **H38** Down: Minnowburn Beeches (J326686), 10.xii.2007, RA, (Anderson, 2008a); Killynether Wood (J472722), 2.ii.2008, RA; Temple of the Winds, Mount Stewart (J557693), 8.iii.2008, RA; Donard Demesne (J373302), 31.xii.2011, RA; Blackwood Walk (J469778), 15.v.2014, RA; Redburn Country Park (J400771), 30.i.2018, RA; Montalto Demesne (J366516), 10.xi.2018, RA. **H39** Antrim: Barnett’s Park (J323686), 16.xii.2007, RA (Anderson, 2008a); Lady Dixon Park, Belfast (J303678), 17.i.2008, RA; Deramore (J333699), 10.i.2017, RA. **H40** Londonderry: Springhill Estate (H866824), several colonies on mature *Fagus*, 17.xii.2007, RA (Anderson, 2008a).

FAMILY ELATERIDAE click beetles

Denticollis linearis (Linnaeus, 1758) – Widespread

Larvae develop under bark on dead wood and in decaying heartwood; broad-leaved trees and pine; omnivorous, feeding on live larvae as well as dead phloem tissues, etc. Also develops on moorlands, where larvae are active in the upper peat and moss layers. ‘Very local’ in Ireland (Johnson and Halbert, 1902) although more widespread than then appreciated once the larvae are recognised. **H33, H36, H38, H39, H40.**

Hemicrepidius hirtus (Herbst, 1784) – Widespread

The larvae of this species are reported from deadwood habitat. Adults are not uncommon by sweeping in woodland. **H37, H38, H39, H40.**

***Ampedus pomorum* (Herbst, 1784) – Uncommon**

Larvae develop in decayed timber of *Quercus*, *Betula*, pine and probably other trees; primarily associated with *Betula* around peatlands, but also in areas of ancient wood pasture. **H34/H40** East Donegal and Londonderry: Kilderry, CWB (Buckle, 1900; Johnson and Halbert, 1902). **H37** Armagh: Churchill (H8961), 1887, WFJ (Johnson, 1888a; Johnson and Halbert, 1902); Derryadd, Peatlands Park (H915604), 18.v.1992, 21.v.2007, 15.iv.2010, RA; Peatlands Park (H903610), 21.v.2007, RA; Argory Moss (H877575), 26.iv.2012, MDB; Brackagh Moss NNR (J021513), 2.ii.2016, MDB. **H39** Antrim: Garry Bog (C9430), two off sallow bush at edge raised bog, 7.vi.1992, KNAA; Great Deer Park, Glenarm (D2911), in dead *Quercus* branch, 20.v. and 13.vi.2006, KNAA. **H40** Londonderry: Iniscarn Forest, Moyola Park (H925945), 17.v.1985, RA; Kennedy's Quarry, Macosquin (H814277), 6.vi.1992, RA; Ballynahone More Bog (H865979), 28.v.2007, RA.

***Melanotus castanipes* (Paykull, 1800) – Widespread**

Larvae most frequently develop in red-rotted heartwood, but also in decaying wood generally. The adult flies after dark and is attracted to light. Included within *Melanotus villosus* (Fourcroy, 1785) in Britain and Ireland until separated by Mendel (2004) who comments he has *M. castanipes* from the west of Ireland while *M. villosus* predominates in SE England. **H33, H36, H37, H38, H38, H39, H40.**

FAMILY CANTHARIDAE soldier beetles

Larvae of Malthininae are thought to develop in decaying branchwood or heartwood, although the larvae of some *Malthodes* have been found as active predators over branch and trunk surfaces of living trees.

***Malthinus flaveolus* (Herbst, 1786) – Widespread**

Widespread in broad-leaved woodland and hedgerows. The lack of records from the southern counties is peculiar, but it does appear much more localised than it does in Britain. **H33** Fermanagh: Portora, Enniskillen (H2244), 19.v.1946, UM (collector unknown). Castle Coole Park (H2643), 17.vi.2006, KNAA. **H37** Armagh: Mullinure, Armagh (H8846), WFJ (Johnson, 1892a); Argory Moss (H881578), 1.vii.1992, KNAA; Peatlands Park (H896603), 16.vi.2020, MDB. **H38** Down: Greencastle Townland. (J21), 31.viii.1946, UM (coll. unknown); Belvoir Forest (J346694), 5.vii.1993, RA; Shimna River, Newcastle (J370315), 29.vii.1995, RA; Rostrevor *Quercus* wood NNR (J186173), two swept, 11.vii.2007, KNAA; Castleward Demesne (J5649), 20.viii.2006, KNAA. **H39** Antrim: Farr's Bay NR, Randalstown (J089870), 4.vii.1986, RCW (Welch, 1986); Newforge, Belfast (J330697), 15.vi.1994, RA; Breen Wood NNR (D128334), 13.vii.2005, RA; Shane's Castle Estate (J117884), 1.vii.2010, RA; Crewe Football Club (J177714), 15.vii.2021, RA. **H40** Londonderry: The Umbra NR, Magilligan (C725357), 5.vii.2005, RA. Ness Wood ASSI (C528118), 7.vii.2007, KNAA.

***Malthinus seriepunctatus* Kiesenwetter, 1852 – Uncommon**

Common in the south-east of Ireland (Johnson and Halbert, 1902), and widespread but local elsewhere; becomes more coastal in distribution in the north, as it does in Britain. **H33** Fermanagh: Correl Glen (H075545), 5.viii.1993, RA. **H36** Tyrone: Drumcairne Forest (H877907), 2.vii.2020, MDB. **H38** Down: Castlewellan Forest (J324374), 24.vi.2006, RA; Shimna River, Newcastle (J370315), Rostrevor *Quercus* wood NNR (J186170), swept in numbers, 11.vii.2007, KNAA; Dundrum Coastal Path (J416387), 30.vi.2009, RA; Mount Stewart (J563691), 11.viii.2010, RA. **H39** Antrim: Glenarm NR (D314118), 14.vi.2011, RA. **H40** Londonderry: The Umbra (C725357), 5.vii.2005, RA; Banagher Glen (C671046), 14.vii.2005, RA; Tamlaght Wood (C603300), 20.vi.2008, RA.

***Malthodes flavoguttatus* Kiesenwetter – Uncommon**

Most frequent in acidic *Quercus* and *Betula* woodlands of hill country districts. **H33** Fermanagh: Carrickreagh Bay, Lough Erne (H1751), 11.vi.1941, anon., UM. **H37** Armagh: Peatlands Park (H894612), 20.vi.2020, MDB. **H38** Down: Slieve Donard (J3529), 8.vii.1992, KNAA; Altataggart Mountain (J222237), 9.vii.2005, RA. **H39** Antrim: Carr's Glen (J3178), CWB det. JNH (Johnson and Halbert, 1902); Murlough Bay (D1941), 15.vi.1992, KNAA.

***Malthodes fuscus* (Waltl, 1838) – Uncommon**

Most frequent in acidic *Quercus* and *Betula* woodlands in hill country districts. '*Malthodes pellucidus*' in Johnson and Halbert (1902). **H33** Fermanagh: Florencecourt (H168345), 21.vi.2010, RA. **H37** Armagh: Peatlands Park (H896605), 20.vi.2020, MDB. **H38** Down: Rostrevor *Quercus* wood NNR (J186170), 11.vii.2007, KNAA. **H39** Antrim: Carr's Glen (J3178), CWB, det. JNH (Johnson and Halbert, 1902); Clare Forest, Ballycastle (D0641), 1.vii.1986, RCW; Breen Wood (D121337), 7.vi.1992 and 9.vii.2007, KNAA; Fair Head (D1843), 11.vi.1992, KNAA; Murlough Bay (D1941), 16.vi.1992, KNAA; Colin Glen (J2672), vii.1992, TD. **H40** Londonderry: Ness Wood ASSI (C528118), 7 and 8.vii.2007, KNAA.

***Malthodes guttifer* Kiesenwetter, 1852 – Uncommon**

First recorded in Ireland by Johnson and Halbert (1902) as *Malthodes mysticus* (see Halbert, 1937) then later by O'Mahony (1935a); now known to be relatively widespread. In damp woodland. **H33** Fermanagh: Brougher Mountain (H346523), 9.vi.2006, RA; Correl Glen NNR (H075545), RA; 5.vii.2007, KNAA; Rossyvullan Hill, Castle Coole (H265429), 28.v.2010, RA; Largalunny ASSI (H073537), 5.vii.2007, KNAA. **H38** Down: Slieve Donard, lower slopes (J357277), 9.vii.1992, KNAA; Belvoir Park (J346694), 4.vii.1993, RA; Rostrevor *Quercus*wood NNR (J186173), 11.vii.2007, KNAA. **H39** Antrim: Shane's Castle (J130874), 3.vi.1995, RA; Farr's Bay NNR (J089870), 4.vii.1986, RCW (Welch, 1986); Breen Wood (D128334), 13.vii.2005, RA and 9.vii.2007, KNAA; Glenarm Great Deer Park (D2911), 29.vii.2006, KNAA; Glenarm NR (D315110), 14.vi.2011, RA. **H40** Londonderry: Banagher

Glen (C671046), 14.vii.2005, RA and 8.vii.2007, KNAA; Ness Wood ASSI (C528118), 8.vii.2007, KNAA; The Umbra (H724357), 1.vi.2011, RA.

***Malthodes marginatus* (Latreille, 1806) – Common and widespread (Plate 2)**

Larvae develop in decaying wood or beneath bark on dead timber; mainly predatory on insect larvae including dead ones, but will also feed on decaying timber to some extent. Common in Ireland (Johnson and Halbert, 1902). **H33, H36, H37, H38, H39, H40.**

[*Malthodes minimus* (Linnaeus, 1758) – Doubtful

H38 Down: near Belfast, Haliday (1885) (Johnson and Halbert, 1902).]

***Malthodes pumilus* (Brébisson, 1835) – Uncommon**

Usually found by sweeping tall grasses beneath mature and older trees, in open parkland as well as closed canopy high forest. *Malthodes atomus* (Johnson and Halbert, 1902). **H33** Fermanagh: Inishfendra, Crom, FIT (H373237), 1992, APF. Castle Coole Park (H2643), 17.vi.2006, KNAA. **H36** Tyrone: Baronscourt Park (H3682), 15.vi.2006, KNAA; Pomeroy Forest (H728724), 14.vi.2020, MDB. **H37** Armagh: Peatlands Park (H896605), 20.vi.2020, MDB. **H38** Down: (Johnson and Halbert, 1902); Ballymacormick Point (J5283), 21.v.2007, MGT. **H39** Antrim: (Johnson and Halbert, 1902); Great Deer Park, Glenarm (D3011), 13.vi.2006, KNAA. **H40** Londonderry: Foyle District (Buckle, 1900) (Johnson and Halbert, 1902); Drenagh Estate (C6923), 14.vi.2006, KNAA; Derrynoyd Forest (H764963); 5.vi.2020, MDB.

FAMILY ANOBIIDAE wood worm beetles

***Ptinus fur* (L., 1758) – Rare**

Associated with veteran trees feeding in fungi and rotting heart wood. **H38** Down: Belvoir Forest (J336695), found with *Ptinus subpilosus* under flaking bark of *Acer pseudoplatanus* on a veteran tree, 25.xi.1993, RA.

***Ptinus subpilosus* Sturm, 1837 – Rare old growth species**

Lives in old hollow trees and under loose flaking dead bark on tree trunks, mainly of *Quercus*, but also old pines in Scottish Highlands. Occasionally found as a scavenger in bird nests. Relict old forest species in Britain; in Ireland it may have a similar status surviving in a few historic demesnes e.g. Belvoir Park and Pollnaknockaun Forest, Southeast Galway (AM). **H39** Down: Belvoir Park Forest (J336695), a female from under flaking bark of an old sycamore, 25.xi.1992, RA; same locality, 2 males 2 females on 2.iii and 5.iii.2007, RA (Anderson, 1994); same locality, 10 in dry crevices with spider webs, 7.ii.2012, MDB/RA.

***Grynobius planus* (Fabricius, 1787) – Common and widespread**

Develops in dead heartwood of various broad-leaved trees. Locally common in old trees. **H33, H36, H37, H38, H39, H40.**

***Dryophilus pusillus* (Gyllenhal, 1808) – Established introduction**

In wood and debris of pine and larch; locally common on conifers and evidently extending its range in Ireland (Halbert, 1937). **H33, H37, H38, H39.**

***Ochina ptinoides* (Marsham, 1802) – Uncommon**

Develops in dead thick stems of ivy on trees in forests and in gardens. **H33** Fermanagh: Castle Coole Park (H2643), 17.vi.2006, KNAA; Crom Castle Estate (H360240), 6.vii.2007, KNAA; Cullagh's Wood (H372274), 12.vii.2012. MDB. **H37** Armagh: Loughgall Forest (H9152), 1884-1892, WFJ; Peatlands Park (H896603), 16.vi.2020, MDB. **H38** Down: Cairnshill, Belfast (J355687), [town garden] 23.vii.1987, RA; Rostrevor Forest (J186172), 9.vii.2005, RA; 11.vii.2007, KNAA. **H39** Antrim: Farr's Bay NR (J089870), 4.vii.1986, RCW; Newforge, Belfast (J330697), 15.vi.2004, RA. **H40** Londonderry: Drenagh Estate (C6923), 14.vi.2006, KNAA.

***Xestobium rufovillosum* (De Geer, 1774) deathwatch beetle – Established introduction**

Bores in hard dead heartwood of several hardwood species where damp and fungal decay is present - in building timbers one fungus in particular *Donkioporia expansa* may be especially important; larval period anything between 1 and 13 years, usually 3-7; wings well-developed, but flight very rarely recorded, and unlikely to colonise buildings naturally. Flight occurs only when temperatures exceed 17°C and flying beetles are attracted to light. Very rare in Ireland (Hickin, 1952) and only known from building timbers. **H38** Down: Cregagh, Belfast (J3673), 31.iii.1994, in the wooden handle of a corkscrew originally from Germany, "the loud ticking was, as might be imagined, mysterious", Robert Nash, UM.

***Ernobius mollis* (Linnaeus, 1758) – Established introduction**

Develops in dead branches of softwoods, larvae consuming the bark but scoring sapwood, i.e. a cambium feeder. Indigenous to North Temperate regions, being common in northern Europe, especially in Scandinavia; widespread in Britain and Ireland; introduction in many parts of the World. **H38** Down: Altataggart Mountain, Mourne (J222237), on *Pinus sylvestris* in red bog, 9.vii.2005, RA. **H39** Antrim: Greenmount Agricultural College (J1584), in dying *Picea abies* by pond, 30.vi.1986, RCW (Welch, 1986). **H40** Londonderry: The Umbra (C724357), swept off *Pinus nigra*, 5.vii.2005, RA.

***Anobium inexpectatum* Lohse, 1954 – Rare, possibly overlooked**

Develops in dead ivy stems. Very similar to *Anobium punctatum* but the aedeagus and ovipositor styles differ and only recently distinguished. Several recent Irish records suggests that it is an overlooked native. **H39** Antrim: Belfast City Cemetery (J307730), 22.vii.2016, RA.

***Anobium punctatum* (De Geer, 1774) Furniture Beetle – Widespread**

Eggs laid in a crack or groove in exposed dead sapwood of living and dead trees. Larvae bore primarily within sapwood, and pupate just beneath outer surface. *Anobium domesticum* is 'common in old houses: Ulster, Connaught, Leinster, Munster' (Johnson and Halbert, 1902) –

few reports of wild-living beetles. Subfossil remains have been found in Viking Dublin (Reilly 2003). **H33** Fermanagh: Castle Coole Park (H2643), 2.vi.1992 and 26.vii.2006, KNAA. **H36** Tyrone: Baronscourt Park (H3682), 25.vii.2006; Caledon Deer Park (H7543), 26.vii. and 16.viii.2006, KNAA. **H37** Armagh: Tynan Abbey Estate (H755414), under fungoid bark on *Fagus*, RA; Derrymore House, Bessbrook (J0528), 6.vii.1992, KNAA; Derrymore House (J054281), 8.viii.2012, MDB. **H38** Down: Belfast Docks, corn stores (J3676), 1942-1946, AFO (O'Farrell and Butler, 1948); Copeland Bird Observatory Island (J597859), 1971-1973, CAMR; Terrace Hill, Ballynahatty (J322681), swept off winter barley, 7.viii.2006, RA; Hillsborough Forest (J247578), swept off *Pseudotsuga menziesii*, 3.viii.2006, RA; Castleward Park (J5649), 30.vii. and 20.viii.2006, KNAA. **H39** Antrim: Whitepark Bay ASSI (D2044), on walls of hostel, 27.vi.2007, MGT. **H40** Londonderry: Drenagh Estate (C6923), 28.vii.2006, KNAA.

***Ptilinus pectinicornis* (Linnaeus, 1758) – Uncommon**

Bores in exposed dry heartwood of old broad-leaved trees, making small pinholes; especially in *Fagus*, but also in most other species. **H33** Fermanagh: Tempo (H3528), C. Langham (Langham, 1897; Johnson and Halbert, 1902). Castle Coole Park (H2643), 17.vi and 27.vii.2006, KNAA. **H36** Tyrone: Baronscourt Park (H3682), on dead *Fagus*, various dates, 2006; Caledon Deer Park (H7543), vi. and vii.2006, KNAA; Drumcairne Forest (H867707), 2.vii.2020, MDB. **H37** Armagh: Tynan Abbey Estate (H761421), dead *Fagus*, 1.vii.2011, RA; Derrymore House Park, Bessbrook (J0528), 6.vii.1992, KNAA. **H38** Down: Belvoir Forest (J332692), on *Fagus* trunk, 19.vi.1984, RA; Portulla Wood, Quoile (J485464), on *Fagus* trunk, 20.vi.1984, RA; Mount Stewart Estate (J555701), 19.v.1992, APF; Mount Stewart (J559694), galleries in *Fagus*, 13.viii.2010, RA. **H39** Antrim: Deerpark Hotel, Antrim (J1485), on scarred *Quercus* (J1484), 30.vi.1986, RCW; Farr's Bay NNR (J089870), in partially dead *Fagus*, 4.vii.1986, RCW (Welch, 1986); Shane's Castle (J114885), at *Tilia* flowers, 1.vii.2010, RA. **H40** Londonderry: Drenagh Estate (C6923), on dead *Fagus*, 14.vi.2006, KNAA.

***Dorcatoma dresdensis* Herbst, 1792 – Rare old growth species**

In Ireland has only been found developing in the dead, persistent annual brackets of *Inonotus dryadeus* on veteran *Quercus* trees and *I. radiatus* on dead alder stems, but in Britain it favours dead hard perennial bracket fungi on broad-leaved trees, including *Ganoderma* and *Phellinus* spp. Although discovered very recently it is most likely an overlooked native. Alexander (2009) notes emergence holes in *I. dryadeus* almost certainly of this species at a number of historic parkland sites across Northern Ireland, but with confirmation from only Crom. **H33** Fermanagh: Inisherik, Crom Castle (H357248), occupied *I. dryadeus* bracket on old parkland *Quercus*, 6.vii.2007, confirmed by rearing, KNAA (Alexander, 2009), also 6.vii.2010, MDB.

FAMILY PHLOIOPHILIDAE

***Phloiophilus edwardsii* Stephens, 1830 – Rare old growth species**

Develops in the fungus *Peniophora quercina* which fruits on the aerial dead lower boughs of various mature open-grown broad-leaved trees and shrubs, but especially *Quercus*; generally in old wood pasture and parkland situations; adults active in autumn only. **H33** Fermanagh: Castle Coole Park (H2643), from dead branches on two mature parkland *Quercus* in Front Park, 14.ix. and 30.x.2006, KNAA (Alexander, 2010). **H36** Tyrone: Baronscourt Park (H3682), one in FIT hung on veteran parkland *Quercus*, 2006, KNAA (Alexander, 2010).

FAMILY CLERIDAE chequered beetles

***Korynetes caeruleus* (De Geer, 1775) – Casual introduction**

H39 Antrim: Dublin Road, Belfast (J337733), caught in furniture shop, 10.vi.2006, RN/RA (Nash and Anderson, 2007).

FAMILY MALACHIIDAE malachite beetles

***Malachius bipustulatus* (Linnaeus, 1758) – Doubtful**

Larvae partly predatory in galleries of wood-borers, partly feeding on their excreta and larval skins; adults sun-loving and feed on pollen, also seen to attack and eat the beetle *Dasytes aeratus* in Britain. Very local in Ireland (Johnson and Halbert, 1902) and mainly southern but appears to have reached Cos Cavan and Fermanagh in a northerly movement of recent years. The Rathlin record of Hardy is highly suspect. **H39** Antrim: Rathlin (D15), JRH (Hardy, 1897; Johnson and Halbert, 1902). **H33** Fermanagh: Old Crom Castle (H36012411), 6.vi.2021 (AH).

FAMILY ASPIDIPHORIDAE

All of the known Aspidiphoridae breed exclusively in slime fungus spore bodies.

***Aspidiphorus orbiculatus* (Gyllenhal, 1808) – Rare old growth species**

H37 Armagh: Brackagh Bog NNR (J018512), in moss on the bog surface, 20.i.2014, MDB; Loughgall Country Park (H907513), in moss on limestone lakeshore, 6.i.2015, MDB.

FAMILY NITIDULIDAE sap or blossom beetles

A number of species are attracted to sap flows, especially during fermentation; at freshly cut stumps, dying trees attracting the attention of bark beetles and the ambrosia beetle *Hylecoetus*, as well as exudations caused by the wood-boring larva of the goat moth *Cossus*. Dispersing adults may also feed casually on other moist decaying organic matter.

***Epuraea aestiva* (Linnaeus, 1758) – Common and widespread**

Adults at flowers of trees and shrubs, e.g. rowan and gorse; larval habits unknown but assumed to be sap beetles. Common in Ireland. **H33, H37, H38, H39, H40.**

***Epuraea angustula* Sturm, 1844 – Rare old growth species**

Associated with the borings of *Trypodendron* bark beetles in freshly dead trunks and boughs, especially of *Betula*, *Quercus* and *Fagus*. **H33** Fermanagh: Portora, Enniskillen (H2244), 3 specimens, 1.vi.1941, anon., UM. **H39** Antrim: Deramore (J332696), 1 male under bark on wind-thrown *Quercus* bough, 6.iii.1996, RA.

***Epuraea biguttata* agg. – Uncommon**

At sappy *Betula* and *Quercus* stumps, and bracket fungi; also may develop in compost where conditions suitable. There is some controversy about the distinction between *Epuraea biguttata* (Thunberg, 1784) and the closely similar *E. unicolor* (Olivier, 1790) formerly synonymised with it (as in Alexander and Anderson, 2012). Dissection of the male reproductive organs is required to confirm determinations. At present there is no evidence that the true *E. biguttata* is present in Ireland, so all older records are listed here under *E. biguttata* agg. (*E. biguttata/unicolor*). Those modern captures that have been confirmed by dissection are listed under *E. unicolor* (below). **H33** Fermanagh: Rossyvullan Hill, Castle Coole (H264430), in *Polyporus squamosus* on *Acer pseudoplatanus*, 20.vii.2010, RA; Inisherk Island (H357243), FIT, 1.vii.1992, APF. **H36** Tyrone: Baronscourt Park (H3682), beneath bark on sappy fallen branch, 12.ix.2006, KNAA; Parkanaur Forest (H739619), swept, 20.vi.2014, MDB. **H37** Armagh: Derrymore House (J053282), on *Polyporus squamosus* on *Acer pseudoplatanus*, 8.vii.2013, MDB; Annagarriff NNR (H903606), in fungus on birch, 3.ix.2013, MDB. **H38** Down: Castlewella (J3264), as *E. obsoleta* (Patterson, 1885) (Johnson and Halbert, 1902); Inch Abbey (J4745), swept off *Crataegus* blossom, hedge, 22.v.1995, RA; Killynether Wood (J475722), in *Polyporus squamosus* on fallen *Acer pseudoplatanus*, 29.vi.2012, MDB/RA; Castlewella Forest (J327364), on agarics in mixed woods, 31.viii.2014, MDB. **H39** Antrim: Shane's Castle (J1188), as *E. obsoleta*, vi.1902, JNH (Halbert, 1910b); Langford Lodge (J088749), under sappy bark on windthrown *Quercus* bough, 28.v.2012, RA; Victoria College Belfast (J325714), under bark, conifer stump, 18.iv.2005, RA; Cranny Falls, Carnlough (D278185), on *Polyporus squamosus* on *Ulmus glabra*, streambank, 26.vi.2013, RA; Bucklebrook House (J137668), sugared red wine bait trap, 21.vii.2020, MDB. **H40** Londonderry: Ness Wood ASSI (C528118), beneath sappy bark of fallen and sawn *Quercus* trunk, 8.vii.2007, KNAA.

***Epuraea distincta* (Grimmer, 1841) – Recent arrival**

Associated with fruit bodies of the bracket fungus *Daedaleopsis confragosa* which decays dead stems of *Salix* and *Betula*. First noted in 2007 and now widely known across north-east Ireland. **H36** Tyrone: Coalisland Canal, Cranebrook (H858649), 24.iv.2010, MDB; Cullentra Lough (H476476), 17.i.2014, MDB. **H37** Armagh: Derryadd Lough (H917603), 21.v.2007, RA (Anderson, 2007a), (H914604), 11.v.2012, RA; Brackagh Moss NNR (J021517), 14.iv.2010, MDB, (J019512), 20.i.2014, MDB; Brackagh Moss NNR (J020515), 8.vii.2020, MDB. **H38** Down: Rostrevor *Quercus* wood NNR (J186170), one in FIT, 11.vii.2007, KNAA. **H39** Antrim:

Portmore Lough. RSPB Reserve (J117684), 10.vii.2009, RA, Portmore Graveyard (J118685), 9.x.2014, RA; Rea's Wood NNR (J141852), 25.ii.2014, MDB.

***Epuraea longula* Erichson, 1845 – Scarce**

Adults have been found at goat moth *Cossus* burrows, but are more regularly found at woodland flowers; also reported from rotten elm; larval habitat not known. **H33** Fermanagh: Inisherke, Crom (H357243), in *Inonotus dryadeus* on *Quercus*, 31.iii.1997, RA. **H37** Armagh: Loughgall Country Park (H902515), in *Polyporus squamosus* on veteran *Fraxinus*, 26.viii.2008, RA. **H38** Down: Tollymore Forest (J343318), under piled up *Pseudotsuga menziesii* bark, 9.x.1993, RA. **H40** Londonderry: Foyle District, CWB (Buckle, 1900; Johnson and Halbert, 1902).

***Epuraea marseuli* Reitter, 1872 syn. *E. pusilla* (Illiger, 1798) – Uncommon**

Feed on the eggs and larvae of scolytid bark beetles under sappy bark, although also considered by some authors to be fungivores or scavengers; colonise freshly dead wood once colonised by scolytids - attracted by scolytid pheromones; conifers and broadleaves. Adults also found at blossom and in tree fungi. Under fir bark (Johnson and Halbert, 1902). **H36** Tyrone: Caledon Deer Park (H7543), off *Quercus* foliage, 17.v.2006, KNAA; Baronscourt Park (H3682), under bark on sappy fallen branch 12.ix.2006, KNAA. **H37** Armagh: Peatlands Park (H898603), 29.v.2000, RA (Anderson, Simms and Nelson, 2000). **H38** Down: Tollymore Forest (J343318), *Pseudotsuga menziesii* bark, 9.x.1993, RA. **H39** Antrim: Shane's Castle Demesne (J1188), under bark of fallen firs, vi.1923, OEJ (Janson, 1924). **H40** Londonderry: Foyle District, CWB (Buckle, 1900; Johnson and Halbert, 1902).

***Epuraea melanocephala* (Marsham, 1802) – Common and widespread**

Larval habits unknown; adults found at flowers of trees and shrubs, and amongst foliage; overwinter in leaf litter. Added to the Irish list by Irwin (1975) – but see O'Mahony (1934). Probably widespread but overlooked. **H33, H37, H38, H39.**

***Epuraea melina* Erichson, 1843 – Rare**

Adults usually found at flowers; larval habitat unknown. A curious miscellany of reports, mostly old. There is some doubt about the records determined by T. Delaney who was not an expert in the group. One modern record by MDB in west Fermanagh, det. RA. **H33** Fermanagh: Portora, 17.v.1946, anon., det. T. Delaney, UM; Farnamullan (H298394), 19.v.1946, anon., det. T. Delaney, UM; Castle Caldwell (H030628), moss on shoreline, 22.iv.2015, MDB. **H38** Down: Conlig, near Bangor, JJW (Walker, 1895; Johnson and Halbert, 1902); Greencastle, Carlingford Lough, 8.vi.1945, anon., det. T. Delaney.

***Epuraea pallescens* (Stephens, 1835) syn. *E. florea* Erichson, 1845 – Scarce**

At flowers and tree-sap; also in fungi. 'Probably common, but there are few records' (Johnson and Halbert, 1902). **H36** Tyrone: Baronscourt Park (H3682), knocked from aerial dead

branches on *Tilia*, 2.vii.2006, KNAA. **H37** Armagh: Mullinure (H8846), Armagh, WFJ (Johnson, 1892a); Derrymore House (J054280), on bark of freshly split *Quercus*, 8.vii.2013, MDB. **H39** Antrim: Ballycastle (D1140), ix.1901, GWC (Chaster and Tomlin, 1902); Langford lodge (J088749), sappy bark of windthrown *Quercus* bough, 28.v.2012, RA.

***Epuraea rufomarginata* (Stephens, 1830) – Rare**

Amongst borings of the beetle *Trypodendron domesticus* in a cut bough; also under dead spruce bark and in *Quercus* faggots; and in *Daldinia* fungus on ash. **H38** Down: Stormont (J396743), under bark of *Acer platanoides* faggots, 7.v.1994, RA. **H39** Antrim: Moss Plantation, Shane's Castle (J092893), under bark of freshly thrown *Quercus* branch, 16.vii.2010, RA.

***Epuraea silacea* (Herbst, 1783) syn. *E. deleta* Sturm, 1844 – Uncommon**

At flowers, under sappy bark on dead wood, and in bracket fungi. Very rare in mid-Europe. Bullock (1930) is credited with the first Irish record in Anderson *et al.* (1997). Locally common in fungi (Johnson and Halbert, 1902). **H33** Fermanagh; Largalinny ASSI, Correl Glen (H053357), 17.vii.2007, KNAA. **H37** Armagh: Armagh City (H8745), WFJ, *Epuraea deleta* (Johnson and Halbert, 1902); Tynan Abbey Estate (H755414), 26.vii.2011, RA. **H38** Down: Comber (J46), CWB *E. deleta* (Johnson and Halbert, 1902); Murlough Dunes (J415350), 20.v.1992, KNAA, (J415352), 11.vi.2020, MDB; Drumlea, Quoile (J474457), on haw flowers, 22.v.1995, RA. **H40** Londonderry: Drenagh Estate (C6923), 14.vi.2006; Banagher Glen (C672045), under bark, 20.v.2007, KNAA.

***Epuraea terminalis* (Mannerheim, 1843) syn. *E. adumbrata* Mannerheim, 1852 – Rare old growth species**

Under bark of sappy dead *Quercus*, *Betula* and pine timber. **H39** Antrim: Moss Plantation, Shane's Castle (J092893), 2 males on splintered, fresh-thrown *Quercus* branch, 16.vii.2010, RA.

***Epuraea thoracica* Tournier, 1872 – Established introduction**

Under bark on deadwood and on resinous stumps and planks of conifers; generally with scolytids; mainly Scottish in Britain, but appears to have spread with conifer forestry. **H40** Londonderry: Foyle District, *Epuraea oblonga*, CWB (Buckle, 1900; Johnson and Halbert, 1902).

***Epuraea unicolor* (Olivier, 1790) – Probably widespread**

H38 Down: Dundrum Castle (J404371), in *Polyporus squamosus* on *Aesculus*, 23.vi.2014, MDB; Murlough House (J413352), on *Polyporus squamosus* on *Acer pseudoplatanus*, 11.vi.2020, MDB. **H39** Antrim: Bucklebrook House (J137668), in sugared red wine trap, 9.viii.2020, MDB.

***Soronia grisea* (Linnaeus, 1758) – Uncommon**

Develop in sap-flows from injured broadleaved trees of many species; widespread in the

Quercus-wood areas of Scotland although Speight (1989) suggests primarily associated with ash in Ireland. **H33** Fermanagh: Inisherk, Crom, FIT (H3524), 4.ix-5.x.1992, APF. **H38** Down: near Belfast, AHH (Haliday, 1885); Ballintogher, Downpatrick, 1 swept in grain field, 17.viii.2006, RA. **H39** Antrim: Cranmore, Belfast (J3270), R. Templeton (Johnson and Halbert, 1902); Ballycastle, BT (Johnson and Halbert, 1902, Supplementary List); Lough Neagh (near Gawley's gate?), 1 only, 3-4.ix.1935, EO (Crawford and O'Mahony, 1935; Speight, 1989); Rea's Wood (J140850), 1 on ash trunk during flood, 10.xii.1999, RA; Great Deer Park, Glenarm (D2911), three from soggy bracket of *Fistulina* on old *Quercus*, 16.ix.2006, KNAA.

***Soronia punctatissima* (Illiger, 1794) – Rare**

Associated with *Fraxinus* in Ireland (Speight, 1989) but more with *Quercus* elsewhere. 'An Irish-taken specimen in Dublin Museum, which had been for many years in the Trinity College collection' (Johnson and Halbert, 1902). **H33** Fermanagh: Inisherk, Crom (H357243), in FIT 1.vi.-7.vii.1992, APF. **H39** Antrim: Bucklebrook House (J137668), in sugared red wine trap, 9.viii.2020, MDB.

***Glischrochilus quadriguttatus* (Fabricius, 1777) – Rare**

Known recently from Muckcross, Killarney (Speight, 1988) and Bellurgan near Dundalk (RA/MDB) but only from Rea's Wood within Northern Ireland. **H39** Antrim: Rea's Wood (J139850), one in sugared wine baited trap, 9.vii.2021, MDB.

***Glischrochilus quadripunctatus* (Linnaeus, 1758) – Casual introduction?**

On conifers. Just a single old record for NI, maybe a chance introduction. **H36** Tyrone: Dungannon (H7962), with *Ips quadripustulata*, Haliday ms (Johnson and Halbert, 1902).

***Glischrochilus hortensis* (Geoffroy in Fourcroy, 1785) – Uncommon**

Like others of this group, often associated with sap flows. Recorded widely in southern counties by MC (Cork, Laois, Kildare, Waterford, Wexford,) in recent decades but only a single record for the north. **H37** Armagh: Loughgall Country Park (H902515), 26.viii.2008, RA.

***Pityophagus ferrugineus* (Linnaeus, 1758) – Established introduction**

Usually under bark of conifers. **H36** Tyrone: Ballyard, Trillick (H339587), on silver fir, 3.vi.1998, SC. **H38** Down: Rostrevor Forest (J1918), mixed spruce and pines, vi.2023, FS.

FAMILY MONOTOMIDAE

Larvae feed on larvae of other small beetles, including certain scolytid bark beetles; in damp conditions where there is mould or sap, especially beneath bark on freshly dead wood.

***Rhizophagus cribratus* Gyllenhal, 1827 – Scarce**

H36 Tyrone: Caledon Forest (H7553), WFJ (Johnson, 1896). **H37** Armagh: Armagh City (H8745), WFJ (Johnson, 1891); Palace Grounds, in moss, WFJ (Johnson, 1892a); Loughgilly (J0135), WFJ (Johnson and Halbert, 1902).

***Rhizophagus depressus* (Fabricius, 1793) – Established introduction**

Under bark of dead pine. **H33** Fermanagh: Ballyard, Trillick (H339587), 3.vi.1998, SC. **H37** Armagh: Acton Glebe, Poyntzpass (J0540), WFJ (Johnson, 1900; Johnson and Halbert, 1902); Peatlands Park (H898603), under *Pinus sylvestris* bark, abundant, 29.v.2000, RA. **H39** Antrim: Shane's Castle (J1188), Lough Neagh, under bark of fallen firs, June 1923, OEJ (Janson, 1924); Portgenone Forest (H976031), 10.vi.2004, SC. **H40** Londonderry: Foyle district, CWB (Buckle, 1900; Johnson and Halbert, 1902).

***Rhizophagus dispar* (Paykull, 1800) – Common and widespread**

Under bark of most dead broad-leaved trees, and in bracket fungi, also on plantation conifers. Common, often abundant in Ireland. **H33, H36, H37, H38, H39, H40.**

***Rhizophagus ferrugineus* (Paykull, 1800) – Uncommon**

Under bark on dead pines, also occasionally *Quercus*; not uncommon. **H33:** Fermanagh: Inisherik (H357248), Crom Castle, vii.2007, KNAA. **H36** Tyrone: Davagh Bridge, Davagh Forest (H694862), 2.vi.1998, SC. **H38** Down: Hillsborough Forest (J247579), 28.viii.1993, RA; Audley's Castle (J577507), 20.ii.2008, RA; Leitrim Lodge (J223256), 29.ii.2012, RA; Tollymore Forest (J335324), 10.viii.2012, MDB. **H39** Antrim: Breen Wood NNR (D128334), 13.vii.2005, RA, 9.vii.2007, KNAA.

***Rhizophagus parallelocolis* Gyllenhal, 1827 – Established introduction**

Only known from synanthropic sites in Ireland but native in Britain. **H37** Armagh Cathedral Grammar School (H8745), one in room, WFJ (Johnson, 1892a). **H39** Antrim: Armoy Churchyard (D0632), in numbers on tombstones, ix.1901, GWC (Chaster and Tomlin, 1902).

***Rhizophagus perforatus* Erichson, 1845 – Rare**

Under bark on dead broad-leaved trees. Only modern record from Rostrevor. **H37** Armagh: Palace Demesne (H8744), in moss, WFJ (Johnson, 1892a). **H38** Down: Rostrevor Oakwood (J185174), under bark on *Quercus* logs, 13.v.2000, RA. **H39** Antrim: Ballycastle (D1140), BT (Johnson and Halbert, 1902, Supplementary List).

FAMILY CRYPTOPHAGIDAE silken fungus beetles
CRYPTOPHAGIDAE SUBFAMILY CRYPTOPHAGINAE

***Henoticus serratus* (Gyllenhal, 1808) – Rare**

Added to the Irish list in 1923, but not reported since despite searches at Donard Park. Adults often attracted to spring flowers. **H33** Fermanagh: Jones Memorial Primary School, Drumgallan (H22234226), singleton swept from silage field, 24.v.2022 (Anderson and Hart, 2023). **H38** Down: Donard Demesne, Newcastle (H373301), two under bark of felled *Fagus*, vi.1923, OEJ (Janson, 1924).

***Cryptophagus dentatus* (Herbst, 1793) – Common and widespread**

Occupies a great variety of niches in woodland, including saproxylic fungi. Common. **H33, H36, H37, H38, H39, H40.**

***Cryptophagus intermedius* Bruce, 1934 – Rare**

Known from borings of the bark beetle *Hylesinus varius* under *Fraxinus* bark and at *Acer pseudoplatanus* sap. The only Irish record relates to a non-saproxylic context. **H38** Down: Deramore (J331696), 2 in abandoned grass bale, 26.iv.1995 (Anderson, Simms and Nelson, 2000).

***Cryptophagus denticulatus* Heer, 1841 – Rare**

Known in Ireland from gathered hay and under fungoid bark on trees; ecology poorly understood and only recognised as distinct from *Cryptophagus dentatus* in the 1950s. **H38** Down: Morelands Meadow, Belvoir (J337697), 1 under bark on slender part of a fallen *Fagus* branch in parkland, 18.xi.1992, RA. **H39** Antrim: Shane's Castle (J114881), 1 under fungoid bark of a large *Quercus* log, 1.vii.2010, RA.

***Cryptophagus pubescens* Sturm, 1845 – Rare**

Known in Ireland from old records for Powerscourt Co. Wicklow and Shane's Castle Co. Antrim. There is a somewhat doubtful modern record for a pitfall set in conifer-planted upland bog at the head of Glenariff, Co. Antrim (1992, AC det RA). A single specimen was collected in a pool trap at Bucklebrook, Upper Ballinderry (J13686681), 29-31.viii.2023 (MDB, det RA).

***Cryptophagus ruficornis* Stephens, 1830 – Recent arrival**

Often said to be associated with the fungus *Daldinia concentrica* fruiting on deadwood of ash but also on *Polyporus squamosus* in Northern Ireland. Added to the Irish list in 1992 from sites in Northern Ireland. While conceivably an overlooked native, it is more likely a recent colonist from Scotland, especially in view of the host, *Daldinia concentrica*, being rare and coastal in Northern Ireland, with no records of this beetle from the south of Ireland. **H37** Armagh: Loughgall Country Park (H903513), frequent in *Polyporus squamosus* on veteran *Fraxinus*, 26.viii.2008, RA. **H38** Down: Belvoir Forest (J336693), in rotted *Fistulina* on veteran *Quercus*, 12.x.2003, RA; Hillsborough Forest (J247579), in pitfall under *Pseudotsuga menziesii*, 29.vi.2005, RA; Mount Stewart, Sea Plantation (J552695), in fungoid bark on *Fagus*, 13.ix.2003, RA. **H39** Antrim: Ballyskeagh (J280671), one under loose dry bark of a splintered, burnt *Fraxinus* stump, 8.xii.1992, RA; Mountsandel Wood, Coleraine (C854305), in old chaffinch nest in tree hole, 9.ii.2008, RA. **H40** Londonderry: Drenagh Estate (C6923), plentiful on old *Acer pseudoplatanus* with *Daldinia*, 14.vi.2006, KNAA.

***Cryptophagus scanicus* (L., 1758) – Widespread and common**

Common under bark, occasionally in fungi on trees. **H33, H36, H37, H38, H39, H40.**

***Micrambe bimaculata* (Panzer, 1798) – Scarce**

This species is associated with *Pinus* deadwood in northern Britain but in Ireland is uniquely

associated with fine sand beaches on Lough Neagh where it appears to forage in washed up litter and carcasses. An enigmatic species. **H39** Antrim: Shane's Castle (J1387), bed of rushes, vi.1902, CWB (Johnson and Halbert, 1902); (J132871), beaten from sedge litter at top of sandy beach, 22.iii.1978, RA; (J122878), strandline litter, sandy shore, 16.v.2004, RA; Ram's Island (J103732), strandline litter, 4.vi.2005, RA; 3.v.2007, strandline litter, RA. **H40** Londonderry: Moyola Waterfoot (H970902), in grass litter with *Myrmica* ants at top of beach, 9.v.1998, RA; strandline litter, 22.v.2004, RA; Traad Point (H957870), strandline litter, 5.v.2007, RA; Ballinderry, Waterfoot (H954812), 9, under calf carcass, 10.iv.2012, RA; Moyola Riverbank (H964894), 2, under buzzard carcass, 27.iv.2012, RA/MDB.

CRYPTOPHAGIDAE SUBFAMILY ATOMARIINAE

Adults and larvae of most species probably feed on fungal hyphae and moulds. With the present state of knowledge, individual species are particularly difficult to allocate to the decaying wood category with confidence when individuals have been found in leaf litter or flood refuse (both including decaying twigs), as well as more distinct decaying wood habitats. *Atomaria vespertina* Erichson, 1846 syn. *A. pulchra* Erichson, 1846 – Established introduction?

Associated with decaying conifer wood. **H36** Tyrone: Glenmore ASSI (H654609), 19.i.2017, MDB. **H38** Down: Rostrevor Forest (J189184), one male in *Ips typographus* pheromone trap in *Picea sitchensis* stand, 27.vii.2006, SC (Anderson and Clawson, 2006); Shooter's Island, Quoile Estuary (J494470) 23.ii.2012, MDB.

Atomaria umbrina (Gyllenhal, 1827) – Rare

Associated with *Armillaria mellea* and *Pholiota* spp, on decaying wood in woodlands. Adults also taken in grass heaps. **H37** Armagh: Armagh (H84), WFJ det. C. Johnson; Mullinure (H9946), Loughry's Lough (H9144), WFJ (Johnson, 1892a). **H38** Down: Derryleckagh Fen (J119523), in pitfall, v-vi. 2007, BN det. RA.

FAMILY EROTYLIDAE

Dacne bipustulata (Thunberg, 1781) – Uncommon

Associated with *Laetiporus sulphureus*, *Piptoporus betulinus* and *Pleurotus ostreatus* on broadleaf trees. Widespread in northern counties, but surprisingly, just one report from the south. First recorded as Irish by Stelfox (1952). **H33** Fermanagh: Castle Coole Park (H2643), from *Bjerkandera adusta* on *Fagus*, 18.v. and 27.vii.2006, KNAA; Crom Castle Park (H3624), at very fresh *Laetiporus sulphureus* on standing dead *Quercus*, 18.v.2007, KNAA; Rossyvullan Hill, Castle Coole (H264430), in *Polyporus squamosus* on *Acer pseudoplatanus*, 20.vii.2010, RA. **H36** Tyrone: Caledon Deer Park (H7543), one at *Bjerkandera adusta* on old *Acer pseudoplatanus*, 16.vi.2006, and teneral on *P. squamosus*, 16.viii.2006, KNAA. **H37** Armagh:

Loughgall Country Park (H903513), abundant in *Polyporus squamosus* on veteran *Fraxinus*, including several entirely pale (rufous) specimens, 26.viii.2008, RA; Tynan Abbey Estate, in *Polyporus squamosus* on *Sambucus nigra*, 26.vii.2011, RA; Loughgall Country park (H912515), on rotting brown fungus (some pale specimens), 26.ix.2012, MDB. **H38** Down: Hillsborough Forest (H251583), *Bjerkandera adusta* on *Fagus* logs, 24.iii.2003, RA; Lady Dixon Park (J302679), in mature slime mould under *Alnus* bark, 14.v.2020, RA. **H39** Antrim: Lagan Meadows, Belfast (J334700), several from decaying *Bjerkandera adusta* on an *Acer pseudoplatanus* stump, 9.iii.1993, RA (Anderson, 1995); Newforge Lane, Belfast (J326692), in *Gymnopilus* on *Pinus sylvestris*, 9.vii.2008, RA; Shane's Castle (J112884), in *Bjerkandera adusta* on *Fagus* log, 1.vii.2010, RA. **H40** Londonderry: Springhill House (H8683), mixed woodland, 25.vi.1992, KNAA.

FAMILY CERYLONIDAE

Feed on fungal hyphae and spores.

***Cerylon fagi* Brisout de Barneville, 1867 – Rare old growth species**

Generally under bark, especially of *Quercus*, but also on *Fagus* and *Fraxinus*. Very localised in Europe. **H33** Fermanagh: Dell near Marble Arch caves (D121344), under bark on fallen *Fagus*, 10.vi.2017, RA.

***Cerylon ferrugineum* Stephens, 1830 – Uncommon old growth species**

Fairly widespread in Co. Fermanagh, mainly under bark of *Quercus* and *Fraxinus*, much rarer elsewhere. **H33** Fermanagh: Knocknabragh (H368240), 26.v.1992; Corlatt Wood (H355234), 27.v.1992; Reilly Wood (H339242), 28.v.1992; Killy Upper (H374245), 7.vii.1992, all Crom Castle Estate, KNAA; Castle Archdale carpark (H175586), 11.v.1997, RA; Castle Coole Park (H2643), 2.vi.1992, 18.v. and 17.viii.2006, KNAA; Florencecourt (H183343), under bark on *Quercus*, 21.vi.2010, RA; Rossyvullan Hill, Castle Coole (H264430), fungoid *Quercus* bark, 26.vi.2010, RA; Wattle Bridge (H427201), under bark on hedgerow *Fraxinus*, 11.viii.2011; Colebrooke Park (H406446), 25.x.2012, RA; Inisherkin Island (H361247), 12.vii.2012, MDB. **H36** Tyrone: Baronscourt Park (H355826), beneath bark on fallen *Quercus* branches, 16.v.2006, RA and KNAA; 25.vii and 12.ix.2006, KNAA. **H37** Armagh: Peatlands Park (H896612), under bark on dead *Betula*, 23.x.1993, RA; Tynan Abbey Estate (H761428), under fungoid bark on *Quercus*, 21.vi.2011, RA. **H39** Antrim: Rea's Wood NNR (J140851), 11.x.2013, MDB.

***Cerylon histeroides* (Fabricius, 1793) – Uncommon old growth species**

Under bark on dead broad-leaved timber. Generally distributed. **H33** Fermanagh: Castle Coole Park (H2643), 17.vi.2006, KNAA; Knockninny ASSI (H272303), 1.vi.2007, RA; Rossyvullan Hill, Castle Coole (H264430), 20.vii.2010, RA. **H36** Tyrone: Caledon Park (H7543), 17.v.2006, KNAA; Brookend ASSI (H945727), 8.v.2007, RA. **H37** Armagh:

Peatlands Park (H896612), 23.x.1993, RA; Annagarraiff NNR (H904614), in *Formica aquilonia* nest, 3.iv.2007, RA; The Argory (H867580), 29.iii.2011, RA; Tynan Abbey Estate (H761427), 21.vi.2011, RA; Derrymore House (J056280), 8.viii.2012, MDB. **H38** Down: Minnowburn Beeches (J326685), 29.i.1994; Rostrevor Oakwood NNR (J185174), 13.v.2000, RA. **H39** Antrim: Belvoir Park (J3469), RS (Johnson and Halbert, 1902); Deramore (J332696), 11.xi.1992, RA; Rea's Wood (J143853), 20.iv.1995, RA; Farr's Bay NNR (H089870), 4.vii.1986, RA; Moss Plantation, Shane's Castle (J093893), 16.vii.2010, RA; Lady Dixon Park (J302679), 14.v.2020, RA. **H40** Londonderry: Scab Island, Lough Beg (H973952), 6.xii.1975, RA.

FAMILY ENDOMYCHIDAE false ladybirds

***Endomychus coccineus* (Linnaeus, 1758) – Recent arrival (Plate 1)**

Lives gregariously with its larvae on or around fungoid bark especially on *Salix* and *Fagus*, but also on *Malus*, *Aesculus* and *Betula*. Most often seen in wet woodland but can occur in gardens. First noted in Ireland in 1976 and has since spread throughout north-eastern counties. **H33** Fermanagh: Rossyvullan Hill, Castle Coole (H266429), 24.viii.2010, RA. **H36** Tyrone: Brantry Lough (H748534), under bark of dead standing *Fagus*, 26.i.2012, MDB/RA. **H37** Armagh: Derrycarne Road, Portadown (J008576), seen on several occasions between 1990 and 2012 in rural garden/orchard, most recently 12.v.2012, BN; Tynan Abbey Estate (H755414), 26.vii.2011, RA; Loughgall Country park (H911517), 26.ix.2012, MDB; Derrymore House (J052282), 8.ix.2015, RA. **H38** Down: Morelands Meadow, Belvoir (J337697), 1.xi.1992, RA; Belvoir Forest (J345695), 1.ix.1997, RA; Killynether Wood (J473720), 2.ii.2008, RA; Newtownbreda Village (J350696), urban garden, Belfast, 30.iii.2008; Shooter's Island (J494470), under bark of dead standing sycamore, 23.ii.2012, MDB/RA; Edenderry (J324685), 10.iv.2013, RA; Murlough House Woods (J414352), 5.i.2013, RG; Stormont Estate (J396745), 21.iii.2018, RA. **H39** Antrim: Rea's Wood (J138849), 1st record - seven clinging to dry bark under a pile of fresh wind-felled *Salix* boughs in native alder woodland, on juvenile fruiting bodies of *Trametes*, 2.x.1976, RA (Anderson, 1977); Rea's Wood (J1582), 3.xii.1994, RA; Clement Wilson Park, Lagan Valley (J325695), 8.i.1992, RA (Anderson, 1992); Lady Dixon Park (J303676), 28.ii.2005, RA; Belfast Castle (J326793), 12.ii.2007, RA; Toome Weir, Lough Neagh (H988902), 3.v.2007; Quarterland, Dundrod (J220749), rural garden, 5.xi.2011, RA; Belfast City Cemetery (J309703), 22.vi.2016, RA. **H40** Londonderry: Springhill House (H867829), 26.iv.2003, RA; The Umbra (C724357), 2.i.2004, RA.

***Mycetaea subterranea* (Fabricius, 1801) – Rare**

H36 Tyrone: Parkanaur Forest (H738714), old hay, deer paddock, 29.vii.2015, MDB. **H38** Down: Tyrella Beach (J469363), grass heap on beach, 18.vii.2017, MDB. **H39** Antrim: Belfast docks (J3676), 1942-1946, AFO (O'Farrell and Butler, 1948).

FAMILY LATRIDIIDAE brown scavenger or plaster beetles

Most species in this group are mould feeders, under bark etc.

***Enicmus testaceus* (Stephens, 1830) – Rare**

The sites for this species in Northern Ireland do not, in the main, fit a saproxylic species! Requires further study. **H33** Fermanagh: Molly Mountain (H233282), one from *Inonotus radiatus* brackets on *Acer pseudoplatanus* in open pastureland, 23.vi.1995, RA (Anderson, 1998). **H36** Tyrone: Blessingbourne Wood (H487446), lakeshore debris, 12.iii.2014, MDB. **H38** Down: Hollymount NNR (J459432), in grass clippings, 31.v.2011, MDB; Turmennan Fen (J485505), by a small spring, 12.ix.2018, RA; Slieve Martin (J203169), roots of upland grass, 28.iii.2019, MDB.

***Lithostygnus serripennis* Broun, 1914 – Recent arrival**

This species is native to New Zealand and is a mould feeder. It can be found in stored food products, in mouldy wood, and occurs in leaf litter under *Quercus*. **H38** Down: East Twin, Belfast Docks (J3676), 1942-1946 (O'Farrell and Butler, 1948). **H37** Tynan Abbey (H760425), in rotting *Armillaria* under a dead *Quercus*, 29.ix.2011, RA.

FAMILY MYCETOPHAGIDAE Hairy Fungus Beetles

The species in this group are associated with decaying bark and wood.

***Litargus connexus* (Geoffroy in Fourcroy, 1785) – Rare**

Only recently discovered in Northern Ireland (Anderson, 1993). A likely host on *Betula* is the pyrenomycete *Daldinia loculata*, which can be common on fire-damaged *Betula* on the margins of raised bog. Possibly native as it has been found in west Fermanagh. **H33** Fermanagh: Castle Caldwell Forest (H030607), bred from white rot on *Quercus*, lakeshore, 3.viii.2020, MDB. **H37** Armagh: Derryadd Lough (H915604), 3 under loose bark in fire-damaged *Betula* stumps extensively affected by red rot, on cutover peat, 18.v.1992, RA (Anderson, 1993); Derryadd (H911606), 1 in *Piptoporus* on *Betula*, 11.v.2012, MDB/RA. **H39** Antrim: Montiaghs Moss ASSI (092649), in red-rot *Betula*, 12.viii.2020, AH det. RA.

***Mycetophagus multipunctatus* Fabricius, 1793 – Scarce**

Found in association with bracket fungi on *Salix*, *Quercus* and *Alnus* in riparian habitats at its Northern Ireland localities. Originally thought to be a recent arrival but recent discovery of colonies in west Fermanagh suggest it is a rare and overlooked native. **H33** Fermanagh: Castle Caldwell Forest (H030607), bred from white rot on *Quercus*, lakeshore, 3.viii.2020, MDB. **H37** Armagh: Derrytrask School Lands (H885643), in old *Piptoporus* on *Betula*, 21.ix.2020, RA. **H38** Antrim: Rea's Wood (J143583), 8 adults and 4 larvae in *Polyporus* on *Salix fragilis*, 12.iv.2007, RA (Anderson, 2007b); Portmore Lough, RSPB Reserve (J122688), 3 in *Daedaleopsis confragosa* on *Salix caprea*, willow carr, 8.x.2009, RA/MDB; Shane's Castle (J115885), 1 dead under fungoid bark on *Quercus*, 1.vii.2010, RA; Portmore Estate (J121688),

in *Daedaleopsis confragosa* on *Salix*, 23.x.2014.

***Typhaea stercorea* (L., 1758) – Uncommon**

A mould feeder which can turn up in and under bark on trees. **H33** Fermanagh: Marble Arch NNR (H1235), 24.vi.1988, MM/DAL. **H37** Armagh: Mullinure (H8846), swept, 1884-1892, WFJ.; Acton Glebe (J0540), hay stack, 1900, WHP. **H38** Down: Tollymore Forest (J343318), in piled-up *Pseudotsuga menziesii* bark in forest, 9.x.1993, RA; Hillsborough Forest (J247579), farm dunghill, 17.viii.1993, RA. **H39** Antrim: Farr's Bay NR (089871), beaten off *Cirsium* flower, 28.vii.1995, RA; Half Umry, Lough Neagh (J132869), beach litter, 27.viii.2019, RA. **H40** Londonderry: Black Glen, Downhill (C760363), in old hay bale, 26.iii.2012, MDB.

FAMILY CIIDAE minute tree fungus beetles

Adults and larvae often found gregariously in small and large bracket fungi on trees. Under-recorded but several species are common.

***Octotemnus glabriculus* (Gyllenhal, 1827) – Common and widespread**

Chiefly found in *Trametes versicolor*, *Pseudotrametes gibbosa*, *Stereum hirsutum*, *Bjerkandera adusta* and *Polyporus squamosus* in descending order of frequency, and often on *Fagus* in Northern Ireland. **H33, H36, H37, H38, H39, H40.**

***Orthocis alni* (Gyllenhal, 1813) – Scarce**

Reputedly associated with jelly ear fungus *Auricularia auricula-judae*, mainly on dead stems of elder, but also regularly knocked from aerial dead branches on open-grown *Quercus* trees; larvae develop in the soft fungoid sapwood of the colonised dead host tissues. The record for Phoenix Park (Halbert, 1893) is to be deleted (Johnson and Halbert, 1902). For many years only known from a few old records, but recently shown to be more widespread on veteran open-grown parkland trees in historic demesnes. **H33** Fermanagh: Castle Coole Park (H260430), aerial dead branches on *Quercus*, 2.vi.1992 and 17.vi.2006, KNAA; Crom Castle (H362240), beaten from *Ganoderma* on *Quercus*, 21.viii.2004, RA. **H36** Tyrone: Baronscourt Park (H3682), beaten from aerial dead branches on parkland *Quercus*, 12.ix.2006, KNAA. **H37** Armagh: Loughgall Country Park (H903513), in *Polyporus squamosus* on *Acer pseudoplatanus*, 26.viii.2008, RA; Tynan Abbey Estate (H761424), in *Inonotus dryadeus* on *Quercus*, 1.vii.2011, RA. **H39** Antrim: Ballycastle (D1140), Tomlin coll., NMW, Cardiff; Barnett's Park, Belfast (J317686), in *Inonotus radiatus* on alder with larvae, 11.i.2011, RA; *Polyporus squamosus* on *Sambucus nigra*, 26.vii.2011, RA.

***Cis bidentatus* (Olivier, 1790) – Common and widespread**

Recorded from *Bjerkandera adusta*, *Ganoderma australe*, *Ganoderma resinaceum*, *Inonotus dryadeus*, *Inonotus radiatus*, *Laetiporus sulphureus*, *Piptoporus betulinus*, *Polyporus squamosus*, *Ridigidiporus ulmarius*, *Stereum hirsutum*, *Trametes versicolor* in Northern Ireland. Probably commonest on small brackets such as *Trametes* and *Stereum*. **H33, H36, H37, H38,**

H39, H40.

***Cis bilamellatus* Wood, 1884 – Established introduction**

First recorded in Ireland in 2003, in Northern Ireland in 2004. **H36** Tyrone: Brookend NNR (H951724), *Daedaleopsis confragosa* on *Salix*, 21.viii.2018, RA. **H37** Armagh: Derrytrask School Lands (H885643), *Piptoporus* on *Betula*, 21.ix.2020, RA. **H38** Down: Belvoir Forest (J342694), *Bjerkandera adusta* on *Quercus* stump, 15.iv, 23.iv.2004, RA; Rostrevor Oakwood (J186173), from *Stereum gausapatum* on fallen *Quercus* bough 23.v.2007, KNAA; Helen's Tower, Clondeboye (J488774), *Trametes versicolor* on *Fagus*, 10.ii.2011, RA; Portaferry House (J596531), *Trametes versicolor* on *Fagus*, 30.xi.2011, RA; Leitrim Lodge (J223256), under bark on dead *Pinus contortus*, 29.ii.2012, RA; Ballymenoch Park (J408794), *Polyporus squamosus* on *Fagus*, 19.vi.2018, RA; Lackan Bog (J238377), *Piptoporus* on *Betula*, 26.vi.2019, RA. **H39** Antrim: Portmore Lough, RSPB Reserve (J122618), *Daedaleopsis* on *Salix*, 8.x.2009, RA; Barnett's Park (J317686), *Inonotus radiatus* on *Alnus glutinosa*, 11.i.2011, RA; Lady Dixon Park (J375606), in soft rot *Acer pseudoplatanus* heartwood, 26.xi.2015, RA.

***Cis boleti* (Scopoli, 1763) – Common and widespread**

Common on small brackets such as *Trametes versicolor*, *Stereum hirsutum*, *Trametes suaveolens*, *Pseudotrametes gibbosa*, *Bjerkandera adusta*, *Piptoporus betulinus*, *Daedaleopsis confragosa*. Mostly on *Trametes*. **H33, H36, H37, H38, H39, H40.**

***Cis festivus* (Panzer, 1793) – Uncommon**

Usually recorded from *Stereum* brackets, often on *Quercus* in this part of Ireland. **H33** Fermanagh: Inisherk, Crom (J355242), 27.vi.2000, RA; Castle Coole Park (H2643), aerial dead branch on *Quercus*, 17.vi.2006, KNAA. **H36** Tyrone: Baronscourt Park (H3682), 15.vi.2006, KNAA. **H37** Armagh: Peatlands Park (H895607), 12.viii.2000, RA. **H38** Down: Rostrevor Oakwood NNR (J185174), 13.v.2000, RA; Morelands Meadow (J337697), 15.iv.2004, RA; Castle Ward Park (J5649), 20.viii.2006 and 28.x.2006, KNAA; Shooter's Island (J494470), 23.ii.2012, RA. **H39** Antrim: Newforge Plots (J332695), 11.xi.1992, RA; Great Deer Park, Glenarm (D2911), 22.v. and 24.x.2007, KNAA; Glenarm Nature Reserve (J301099), 1.xi.2011, RA. **H40** Londonderry: Banagher Glen (C670045), 25.v.2007, KNAA.

***Cis nitidus* (Fabricius, 1792) – Widespread**

Develops in the brackets of *Ganoderma australe* in particular; the larvae have particularly heavily developed mandibles for chewing this exceptionally woody fungus; can also develop in *Piptoporus betulinus*. Most often found in old parklands or wood pastures. **H33** Fermanagh: Castle Coole Park (H2643), on *Ganoderma australe*, 2.vi.1992, 18.v. and 27.vii.2006; Crom Castle Park (H32), 7.vii.1992, KNAA. **H36** Tyrone: Baronscourt Park (H3682), on *Ganoderma australe*, 25.vii.2006; Caledon Park (H7543), 17.v.2006, KNAA. **H37** Armagh: Slieve Gullion Forest (J037194), 8.iii.2012, RA. **H38** Down: near Belfast, AHH (Haliday, 1885; Johnson and

Halbert, 1902); Castleward Park (J5649), 9.vii.1992 and 14.vi.2006, KNAA; Mount Stewart (J5570), 27.vi.1992, KNAA; 11.viii.2010, RA; Stormont Estate (J399751), 20.v.1994, RA; Belvoir Forest, 16.xii.1993, 15.iv.2004, RA; Murlough NNR (J403355), 15.xi.2010, RA; Portaferry Estate (J596531), 30.xi.2011, RA. **H39** Antrim: Barnett's Park, 16.xi.1993, RA; Collin Glen (J270720), 6.ix.2002, KNAA; Great Deer Park, Glenarm (D2911), iii.2006, KNAA; Moss Plantation, Shane's Castle, 16.vii.2010, RA; Langford Lodge (J088749), 28.v.2012, RA. **H40** Londonderry: Springhill Estate (H8683), 25.vi.1992, KNAA; Drenagh Estate (C6923), *G. australe*, 14.vi.2006, KNAA; Roe Valley Country Park, 16.vii.2011, RA.

***Cis vestitus* Mellié, 1849 – Scarce**

Mainly on aerial dead branches on open-grown *Quercus* trees, generally with the fungus *Peniophora quercina*. **H33** Fermanagh: Castle Coole Park (H2643), aerial dead branches on parkland *Quercus*, v-x.2006, KNAA; Crom Castle Park (H3624), aerial dead branches on parkland *Quercus*, 6.vii.2007, KNAA. **H36** Tyrone: Baronscourt Park (H3682), v-x.2006, Caledon Deer Park (H7543), vi. vii. and ix. 2006, KNAA. **H38** Down: Castle Ward Park (J5649), aerial dead branches on parkland *Quercus* and *Tilia*, v-ix.2006; also from *Laetiporus sulphureus*, 17.ix.2006, KNAA. **H39** Antrim: Great Deer Park, Glenarm (D2911), vi-xii.2006 and 22.v.2007, KNAA; Langford Lodge (J088749), in crevices in splintered *Quercus* bough, 28.v.2012, RA. **H40** Londonderry: Drenagh Estate (C6923), *Quercus* and common lime, 16.vii, 26.vii, 13.xi.2006, KNAA; Banagher Glen (C670045), aerial dead branch with *Stereum rugosum* on *Corylus*, 8.vii.2007, KNAA.

FAMILY TETRATOMIDAE

Associated with bracket fungi.

***Tetratoma ancora* Fabricius, 1791 – Rare old growth species**

Larvae under encrusting fungal fruiting bodies on dead and decaying standing stems of hazel and other broadleaved trees, generally in deep shade; ancient woodlands. First reported in Ireland in 1939, but recently demonstrated to be more widespread than previously appreciated. A reliable marker of old growth (Crowson, 1987). **H36** Tyrone: Parkanaur Forest (H733612), 1, under bark of dead *Quercus*, 1.vi.2020, MDB. **H38** Down: Rostrevor (J2019), one under bark of a dead Scots pine, viii.1939, CTG (Gimingham, 1942); Rostrevor Oakwood NNR (J186173), two knocked from aerial dead hazel poles, 11.vii.2007, KNAA. **H40** Londonderry: Ness Wood ASSI (C5211), one in flight trap, 7.vii.2007, KNAA. Banagher Glen (C670045), two knocked from aerial dead hazel poles, 8.vii.2007, KNAA.

***Tetratoma fungorum* Fabricius, 1790 – Recent arrival**

This species develops successfully, and most commonly, in fruiting bodies of *Piptoporus betulinus* on *Betula*; and has been found in Britain developing in *Pleurotus cornucopiae*, *P. ostreatus*, *Flammulina velutipes*, *Fistulina hepatica* and *Paxillus panuoides*; adults have also

been taken on *Inonotus cuticularis*, *Bjerkandera adusta* and *Polyporus squamosus*. The first Irish record was in 1992, but it has been found a number of times since, suggesting an expanding population. **H36** Tyrone: Brantry Lough (H748534), in fallen *Piptoporus* under *Betula*, 26.i.2012, MDB/RA; Washing Bay, Lough Neagh (H902658), under bark of standing *Alnus glutinosa*, 31.1.2013, RA. **H37** Armagh: Peatlands Park (H914605), 2 + several larvae in *Piptoporus betulinus* on dead *Betula*, 15.iv.2010, RA; Ballymoyer Wood (H974311), larvae in *Piptoporus* on *Betula*, 2.ii.2012, MDB/RA; Loughgall Forest (H911516), *Piptoporus* on *Betula*, 8.i.2014, MDB. **H38** Down: Carrowdore Castle (J584732), teneral in *Hericium cirrhatum* on *Fagus* stump, 23.x.2002; Belvoir Forest (J342694), three in decaying *Bjerkandera adusta* on *Quercus* stump, 23.iv.2004, RA (Anderson, 2006); Murlough NNR (J411351), 2 under bark in dead elm, 15.xi.2010, RA; Shooter's Island (J494471), in *Flammulina velutipes* on sycamore, 23.ii.2012, MDB/RA; Delamont House (J510507), *Armillaria* on *Fagus*, 20.x.2012, MDB; Castleward House (J579496), *Armillaria* on *Acer pseudoplatanus*, 17.x.2014, MDB. **H39** Antrim: Murlough Bay (D189425), off *Betula* polypore in *Betula* woodland, 16.vi.1992, KNAA (Alexander and Foster, 1995); Belfast Castle (J326794), adults and larvae in *Flammulina velutipes* on wych elm, 13.iii.2005, RA (Anderson, 2006); Belfast Castle (J326796), 8 larvae in *Pleurotus cornucopiae* on dead wych elm, 9.iii.2008, RA; Bucklebrook House (J138668). *Polyporus squamosus* on *Fraxinus*, 28.x.2009, MDB. **H40** Londonderry: Banagher Glen (C672047), bracket on *Quercus*, 26.ix.2010, MDB.

FAMILY MELANDRYIDAE false darkling beetles

***Orchesia micans* (Panzer, 1793) – Scarce old growth species**

Develops in a variety of large polypore fungi: in lowland Britain especially *Inonotus hispidus* fruiting from standing live mature and older ash trees, but in the west primarily in *I. radiatus* on standing dead alder and *Betula* stems; has also been reported from *Fistulina hepatica* on live *Quercus*; mainly but possibly not exclusively in ancient woodland and wood pasture. All Irish records come from *I. radiatus* brackets. **H33** Fermanagh: Correl Glen NNR (H074546), adult knocked from old *I. radiatus* on alder snag by Sillees River, 5.vii.2007, KNAA; Florencecourt (H178344), several reared from *I. radiatus* on alder, 16.iii.2011, MDB det. RA; Finlane, upper Florencecourt (H171325), 2 in *I. radiatus* on alder, hedgerow, 20.vii.2012, RA. **H36** Tyrone: Round Lough (H444483), frequent in *I. radiatus* on alder, 22.vii.2011, RA; Cullentra Lough (H474475), in *I. radiatus* on alder, MDB. **H39** Antrim: Great Deer Park, Glenarm (D2911), adult and larvae with old *I. radiatus* brackets on alder, 20.v.2006; Glenarm Woods ASSI (D3010), reared from larvae collected 22.v.2007, parasitic wasps hatched as well, KNAA.

***Orchesia minor* Walker, 1836 – Rare old growth species**

Develops in the fruiting bodies of a variety of wood-decay polypore fungi and possibly certain Ascomycetes, mainly on aerial dead branches; especially in permanently damp

woodlands, in carr or gorge situations. Most often found in ancient woodland and wood pasture. Long only known in Ireland from Co. Kerry, but recently shown to be more widespread. **H33** Fermanagh: Correl Glen NNR (H074537), one knocked from dead boughs of up-ended hazel stool, 17.v.2007, KNAA. **H38** Down: Rostrevor Oakwood NNR (J186173), two knocked from aerial dead hazel poles and another swept from *Luzula*, 11.vii.2007, KNAA. **H39** Antrim: Great Deer Park, Glenarm (D2911), 1 knocked from dead branch in lower canopy of old open-grown *Quercus*, 27.x.2006, and 1 from FIT on edge of hazel thicket; Glenarm Woods, ASSI (D3011), 2 knocked from aerial dead hazel poles, 10.vii.2007, KNAA.

***Orchesia undulata* Kraatz, 1853 – Widespread**

Develops in decaying aerial dead branches of *Quercus* trees; also reported from other broad-leaved trees to some extent. Adults are relatively mobile and occasionally turn up in association with the dead wood of a wider variety of tree species outside of the period June/July, and these may have been attracted to fruiting wood-decay fungi for feeding (particularly in May) or be merely sheltering between periods of activity, especially while over-wintering. Adults are occasionally found at hawthorn and umbel blossom. Rare and threatened in central Europe. **H33** Fermanagh: Inisherk, Crom (H353244), one in FIT within ancient woodland, 7.vii. – 4.ix.1992, APF (Alexander, 1997b); Culliagh Wood (H370244), Crom, in *Stereum hirsutum* on *Quercus*, 21.viii.2004, RA; Castle Coole Park (H2643), 17.viii. and 14.ix.2006, KNAA; Rossyvullan Hill, Castle Coole (H266429), under bark on *Fagus* log, 24.viii.2010, RA; Castle Coole (H257429), fungus on *Quercus*, 22.xi.2011, MDB; Colebrooke Park (H409450), under dead aerial branch, *Quercus*, 25.x.2012, RA. **H36** Tyrone: Baronscourt Park (H3682), 2 dead beneath bark on fallen bough beneath open-grown parkland *Quercus*, 16.v.2006; one swept under ancient *Quercus*, 15.vi.2006, KNAA. Caledon Deer Park (H7543), vi., vii. and viii.2006, KNAA; Drumcairne Forest (H876707), under bark of *Quercus* logs, 2.vii.2020, RA; Parkanaur Forest (H733612), 1.vi.2020, MDB. **H37** Armagh: Tynan Abbey Estate (H761421), 2 under tight *Fagus* bark, 1 under *Castanea* bark, 1.vii.2011, RA; Brackagh Bog (J020515), in bracket on dead *Salix*; (J022509), by sweeping, both 8.vii.2020, MDB. **H38** Down: Belvoir Forest, Belfast (J336696) under bark of fallen bough of veteran *Quercus*, 7.ii.2012, MDB/RA; Leitrim Lodge (J223256), 1 under bark of dead upright *Pinus contorta*, 29.ii.2012, MDB. **H39** Antrim: Shane's Castle (J115885), under bark of splintered *Quercus*, 1.vii.2010, RA; Glenarm NR (D301101), under bark on fallen *Quercus*, i.xi.2011, MDB. **H40** Londonderry: Drenagh Estate (C6923), aerial dead lime branch with *Peniophora* sp., 5.ix.2006, KNAA.

***Abdera flexuosa* (Paykull, 1799) – Uncommon old growth species**

Mainly develops in the small brackets of the wood-decay fungus *Inonotus radiatus* which decays dead standing stems of *Alnus*, *Salix* and *Betula*. Also found on *I. dryadeus* fruiting on *Quercus* in Co. Fermanagh and *Phellinus pini* in Aberdeenshire. The Co. Leitrim records from pine may suggest development in the dead persistent annual brackets of *Phaeolus schweinitzii*

which have the same soft fibrous consistency as *Inonotus* spp. Most records are from ancient woodlands and wood pastures. Currently only known in Ireland from Cos Fermanagh (where widespread), Tyrone and Leitrim. **H33** Fermanagh: Inisherke, Crom (H357243), four on bracket fungus of *Inonotus dryadeus* on parkland *Quercus*, 1.vi.1992, APF (Alexander and Foster, 1995); Crom Park (H32), knocked from *I. radiatus* on dead alder stem in open by Lough Nalughoge, 18.v.2007, KNAA; Molly Mountain (H233282), two from *I. radiatus* brackets on *Acer pseudoplatanus* in open pastureland, 23.vi.1995, RA (Anderson, 1998); Castle Coole Park, knocked from *I. radiatus* brackets on alders, 18.v.2006, KNAA; Correl Glen NNR (H074537), knocked from *I. radiatus* brackets on alders, 17.v.2007; one swept, 5.vii.2007, KNAA. **H36** Tyrone: Caledon Deer Park (H7543), numerous on old *I. radiatus* brackets on alder, 16.vi.2006, KNAA; Cullentra Lough (H474475), in *I. radiatus* on alder, 22.vii.2011, MDB det. RA; Brantry Lough (H746534), reared from *I. radiatus* brackets on alder, collected 26.i.2012, MDB/RA; Wood Lough (H762603), 1, climbing upright decorticate *Alnus* pole, 24.v.2012, RA. **H39** Antrim: Deramore, Belfast (J333697), reared from *I. radiatus* brackets on alder, collected 7.ii.2012, RA/MDB.

FAMILY RIPHIPHORIDAE

***Metoecus paradoxus* (L., 1761) – Rare**

A parasite of wasps *Vespula* which deposits its eggs in rotted deadwood which the wasps excavate to get pulp for nest building and thus transport the parasite to the nest. **H38** Down: Lady Dixon Park (J303676), beaten from *Alnus viridis* in a wet meadow, 18.viii.2007, RA.

FAMILY COLYDIIDAE cylindrical bark beetles or ironclad beetles

Mostly predatory.

***Pycnomerus angulatus* (Broun, 1893) – Established introduction (Plate 3)**

An import from New Zealand, not recorded elsewhere in the Northern Hemisphere. Under bark and in soft heartwood of dead, mainly coniferous, wood (Alexander and Anderson, 2012). **H38** Down: Mount Stewart House (J554695), 1 under bark of *Pinus radiata* logs in carpark, 26.x.2002, RA; Sea Plantation, Mount Stewart (J552695), 17 in white-rot debarked logs of *Picea abies* in *Euophryum* galleries, 26.vii.2003, RA det. PMH; (J551695), 1 under *Picea* log, 15.vii.2006; (J551695), 3 under *Acer pseudoplatanus* log, 12.x.2011, RA.

***Pycnomerus fuliginosus* Erichson, 1842 – Established introduction**

An import from Australia. Under bark of broadleaved trees. First noted in Ireland in south Down in 1981. **H37** Armagh: Derrymore House (J058277), under bark on dead *Fagus*, 6.vii.1992, KNAA; Ballymoyer Wood (National Trust) (H970311), in powdery frass from *Euophryum confine* on upright dead *Picea abies*, 2.ii.2012, MDB/RA; Slieve Gullion Forest (J040196), under bark of *Fraxinus* log, 8.iii.2012, MDB/RA; Derrymore House (J052282),

under bark, dead *Acer pseudoplatanus*, 8.ix.2015, RA. **H38** Down: Maghera south of Mourne Park (J268152), two under bark of a partly decayed alder on a gravelly river bank (J268151), 9.v.1981, RA (O'Connor *et al.*, 1983); Rostrevor Oakwood NNR (J186173), on *Quercus* logs, 13.v.2000, RA (Anderson, Simms and Nelson, 2000); on *Quercus*, 28.vi.1992, 23.v.2007, KNAA; Derryleckagh Wood ASSI (J121253), in powdery rotten *Quercus* wood with *Euophryum confine*, 17.ii.2012, MDB/RA; Tullyframe, Mourne Park (J265168), in soft white-rot ash, 27.iii.2012, MDB/RA.

***Synchita humeralis* (Fabricius, 1792) – Doubtful**

Feeds on fungus-colonised sappy bark or timber, of *Betula*, *Crataegus*, *Alnus*, *Corylus* and especially *Fagus*; has been reared from *Daldinia* in long-established *Betula* woods. Not included as Irish in Anderson *et al.* (1997). **H38** Down: near Belfast, AHH (Haliday, 1885), '*Monotoma juglandis*' in this reference; the specimens cannot be traced (Johnson and Halbert, 1902).

FAMILY TENEBRIONIDAE darkling beetles

***Alphitobius diaperinus* (Panzer, 1796) – Casual introduction**

Usually brought in mealworm cultures to feed captive reptiles etc., but may semi-naturalise in woodland. **H39** Antrim: TACT Wildlife Centre, Crumlin (J154766), 2 in animal forage and litter, 26.vii.2013, RA.

***Tenebrio molitor* Linnaeus, 1758 mealworm beetle – Established introduction**

In stored-products and a domestic pest; also develops in bird nests and in bat roosts where larvae are scavengers; occasionally found in decaying timber. In flour stores and houses (Johnson and Halbert, 1902). **H39** Antrim: Belfast, in timber yard (J37), CWB (Johnson and Halbert, 1902); Belfast docks (J3676), 1942-1946, AFO/PMB (O'Farrell and Butler, 1948).

***Palorus ratzeburgi* (Wissmann, 1848) – Established introduction**

Associated with wood borers (Scolytidae and Bostrychidae) in its natural habitat, but predominantly found in stored cereal products and other commodities in Ireland, particularly in mouldy grain residues previously attacked by grain weevils; occasionally on imports, more frequently in flour and provender mills, grain stores, maltings, etc; widely distributed in Europe. Has been found in decaying wood and bracket fungi in Britain in recent years, perhaps responding to climate change. **H39** Antrim: Belfast docks (J3676), 1942-1946, AFO (O'Farrell and Butler, 1948).

***Nalassus laevis* (Goeze, 1777) – Common across Ireland but scarce in Northern Ireland**

Develops in decaying timber in ancient woodlands and wood pastures; also in peaty soils of heaths. Larvae feed indiscriminately on organic material. Adults nocturnal, feeding on algae encrusting timber or lichens on heaths. Mostly short-winged, but with occasional reports of

flying individuals. As *Helops striatus* “common on heather on high ground, and under fir bark”, Almost confined in our area to the coast around Dundrum Bay/Murlough NNR in Co. Down where it is common. **H38**.

***Gonodera luperus* (Herbst, 1783) – Rare (Plate 3)**

Records for Northern Ireland are restricted to sand dunes of the Magilligan area of Co. Londonderry where relict woods comprising *Juniperus/Taxus/Prunus spinosa* scrub survived until the 19th century. Currently both *Taxus* and *Juniperus* have become extinct in the area. **H40** Londonderry: Magilligan Sands (C63), “one *Cistela luperus* found in a sand-pocket during a strong wind”, CWB (Buckle, 1900; Johnson and Halbert, 1902); Ballymaclary Dunes, Magilligan (C694367), one swept off marram grass in grey dunes, 18.vi.2017, AM.

FAMILY OEDEMERIDAE false blister beetles

***Nacerdes melanura* (Linnaeus, 1758) wharf borer – Established introduction**

A species associated with waterlogged timber in coastal sites or in pilings and wharves on estuarine river banks. Mainly in softwood. **H38** Down: Benderg Bay, Killard NNR (J606431), under a stone, sheltered sandy bay, 12.vi.1978, RA; Belfast Harbour Estate, D3 lagoon (J376784), under sodden planks by saltwater lagoon, 21.viii.1998, RA; Murlough NNR (J452317), under driftwood, sandy shore, 5.vii.2013, RG. **H39** Antrim: Sand Quay, Belfast (J3475), CWB (Johnson and Halbert, 1902, Supplementary List).

FAMILY SALPINGIDAE narrow-waisted bark beetles

The species in this family are principally associated with subcortical habitats on living trees but several species are also associated with finer twigs and branches and/or where fire-damage has occurred.

***Rabocerus gabrieli* Gerhardt, 1901 – Rare**

In dead wood. **H39** Antrim: Rea’s Wood, Antrim (J1385), ix.1936, OE (O’Mahony, 1938). Has been looked for at this site in recent years but without success.

***Sphaeriestes ater* (Paykull, 1798) – Rare, Unclear**

In burnt twigs. Status of early records unclear due to confusion in identification of the genus (Anderson, 2009b) – ‘may prove to be widespread in eastern Ireland’. **H38** Down: Dundrum Bay (J3935), vi.1923, OEJ (Janson, 1924).

***Sphaeriestes castaneus* (Panzer, 1796) – Established introduction**

On conifers, in dead and dying branches. No modern reports. **H37** Armagh: Little Castledillon (H9048), WFJ (mistakenly det. as *Sphaeriestes aeratus*) (Johnson and Halbert, 1902); Dean’s Hill, Armagh (H8846), unknown date, WFJ; Poyntzpass (J0539), date unknown, WFJ (Johnson and Halbert, 1902). **H40** Londonderry: Foyle district, CWB (Buckle, 1900; Johnson and Halbert, 1902).

***Sphaeriestes reyi* (Abeille, 1874) – Rare**

In burnt twigs. Referred to as *Salpingus aeratus* in Johnson and Halbert (1902). Status of early records are unclear due to confused identification in this group (Anderson, 2009b). **H38** Down: Bloody Bridge, Mourne Mountains (J380272), one swept off burnt *Ulex gallii*, 14.v.2007, RA (Anderson, 2009b); Slieve Donard, Mourne (J35662746), 1 under stones, summit heath, 6.vi.2022, AM. **H39** Antrim: Cave Hill (J3179), CWB det. GCC (Johnson and Halbert, 1902).

***Vincenzellus ruficollis* (Panzer, 1794) – Uncommon**

Under bark of broad-leaved trees, especially hawthorn and *Fagus*. **H33** Fermanagh: Inisherk Island, Crom (H3524), FIT 4.ix-5.x.1992, APF. **H37** Armagh: Derrymore House (J056280), 6.vii.1992, KNAA. **H38** Down: Newtownards (J489732), 1 swept from saltmarsh grassland, 24.vi.1998, RA; Castleward Park (J5649), 21.v.2006, KNAA. **H39** Antrim: Newforge, Lagan Canal (J328692), under bark of *Nothofagus*, 20.x.1992, RA; Deramore (J332695), in *Stereum hirsutum* on *Fagus* log, 11.xi.1992, RA; Lagan Meadows (J334700), under fungoid bark of *Fagus* logs, 27.xi.1992, RA; Lady Dixon Park (J303676), 11 under bark with *Stereum* on *Fagus* logs, 11.i.2005, RA. **H40** Londonderry: Foyle district, CWB (Buckle, 1900; Johnson and Halbert, 1902).

***Salpingus planirostris* (Fabricius, 1787) – Common and widespread**

Under bark on various broad-leaved trees in early stages of decay; normally saprophagous, but will also feed on insect larvae. Widespread and common, at least in northern counties of Ireland. **H33, H36, H38, H39, H40**.

***Salpingus ruficollis* (Linnaeus, 1761) – Widespread**

As the previous, seemingly more common in northern counties. **H33** Fermanagh: Belleisle (H2935) (Porter, 1898; Johnson and Halbert, 1902); Inisherk, Crom (H357243), FIT 4.ix-5.x.1992, APF. Castle Coole Park (H2643), FIT, 25.x.2006, KNAA. **H36** Tyrone: Baronscourt Park (H3682), FITs, various dates, 2006, KNAA. **H37** Armagh: Palace Grounds, Dean's Hill (H8744), WFJ (Johnson, 1888b, 1892a; Johnson and Halbert, 1902). **H38** Down: Tollymore Park (J3531) (Patterson, 1885); Lough Neagh, Haliday ms. (Johnson and Halbert, 1902); Newforge, HLO det. WFJ (Johnson, 1914); Kircassock (J139567), under *Acer pseudoplatanus* bark flakes, 27.xi.1976; Derrymore House (J0528), 6.vii.1992, KNAA; Tollymore Forest (J347323), in a small *Piptoporus* on *Betula*, 9.x.1993, RA; Ballyskeagh (J280671), under bark of *Tilia*, 8.xii.1992, RA; Giant's Ring, Edenderry (J325674), under *Acer pseudoplatanus* flakes, 24.x.1992, RA; Castle Ward Park (J5649), 28.x.2006, KNAA; Dundrum Castle (J404370), under fungoid bark on *Aesculus*, 20.xvii.2009, RA; Shooter's Island (J494470), 23.ii.2012, RA. **H39** Antrim: Ballycastle, BT (Johnson and Halbert, 1902); Newforge Lagan Canal (J328692), under bark of *Nothofagus*, 20.x.1992; Belfast Castle (J327793), under fungoid *Fagus* bark, 11.vii.2004, RA; Lady Dixon Park (J303676), under fungoid *Fagus* bark with *Stereum*,

11.i.2005, RA; Great Deer Park, Glenarm (D2911), 16.ix.2006, KNAA; Breen Wood (D121337), FIT, 9.vii.2007, KNAA. **H40** Londonderry: Drenagh Estate (C6923), 19.v. and 15.ix.2006, KNAA.

FAMILY SCRAPTIIDAE tumbling flower beetles

Adults of this group are often found at flowers such as *Crataegus*. Larvae tend to live in deadwood.

***Anaspis fasciata* (Forster, 1771) syn. *A. humeralis* (Fabricius, 1775) – Rare**

Only a single record. **H33** Fermanagh: Lough Yoan, Castle Coole (H2542), 2.vi.1992, KNAA.

***Anaspis frontalis* (Linnaeus, 1758) – Uncommon**

Adults are occasionally in numbers at *Crataegus* blossom. Widespread but uncommon in Northern Ireland. **H37** Armagh: Dean's Hill, Armagh (H8846), WFJ (Johnson, 1892a); Peatlands Park (H896612), at *Crataegus* lowers, 29.v.2000, RA (Anderson, Simms and Nelson, 2000); Derryinver, Lough Neagh (H972641), sweeping *Filipendula*, 14.viii.1996, RA; Derrymagowan, Argory (H874573), *Crataegus* flowers, 4.v.1996, RA; Loughgall Forest (H909517), on *Quercus* foliage, 14.v.2005, RA. **H39** Antrim: Rea's Wood (J1584), beating *Cotoneaster*, 30.vi.1986, RCW (Welch, 1986); Shane's Castle (J114885), at *Tilia* flowers, 1.vii.2010, RA. **H40** Londonderry: Banagher Glen (C670045), on flowers, 20.v.2007, KNAA.

***Anaspis garneysi* Fowler, 1889 – Uncommon**

Found rather widely but sparingly in Northern Ireland. **H33** Fermanagh: Crom Castle Park (H3624), hawthorn blossom, 18.v.2005, and Inisherk (H357248), FIT, 23.v.2007, KNAA; Old Crom Castle (H364239), swept, 24.v.2012, KAB. **H37** Armagh: Loughgall Forest (H909517), on *Crataegus* flowers, 14.v.2005, RA. **H38** Down: Rostrevor, Oakwood NNR, on *Acer pseudoplatanus* foliage, 21.v.2005, RA; Rostrevor, Oakwood NNR (J1817), 23.v.2007, and FIT, 11.vii.2007, KNAA. **H39** Antrim: Great Deer Park, Glenarm (D2911), 13.vi.2007; Glenarm Woods ASSI (D3010), 10.vii.2007, KNAA. **H40** Londonderry: Ness Wood ASSI (C5211), 7.vii.2007; Banagher Glen (C670045), FIT, 8.vii.2007, KNAA.

***Anaspis lurida* Stephens, 1832 – Rare**

Like other species, the adults attracted to blossom, including that of *Sambucus nigra*. **H39** Antrim: Cullybacky (D0505), WFJ (Johnson, 1891) '*A. subtestacea*' (Johnson and Halbert, 1902); Rea's Wood, Antrim (J1485), sweeping carr, 30.vi.1986, RCW (Welch, 1986).

***Anaspis maculata* (Geoffroy in Fourcroy, 1785) – Common and widespread**

Very frequent at *Crataegus* and other blossom. Common. **H33, H36, H37, H38, H39, H40.**

***Anaspis regimbarti* Schilsky, 1895 – Common and widespread**

Common across Northern Ireland. **H33, H36, H37, H38, H39, H40.**

***Anaspis rufilabris* (Gyllenhal, 1827) – Common and widespread**

Common at blossom across Northern Ireland. **H33** Fermanagh: Molly Mountain (H237279), 23.vi.1995, RA; Inisherk (H357243), 27.vi.2000, RA; Castle Coole Park (H2643), 2.vi.1992, 17.vi.2006 and 18.v.2007; Correl Glen (H074537), 17.v.2007, KNAA; Crom Castle Park (H3624), 18.v.2007, KNAA; Knockninny NR (H275303), 13.v.2008, RA; Finlane, Florencecourt (H172324), 28.v.2010, RA. **H36** Tyrone: Ballybriest, Lough Fea (H762867), 5.vi.1994, RA; Baronscourt Park (H3682), 15.vi. and 25.vii.2006, KNAA; Wood Lough (H762603), 24.v.2012, RA; Parkanaur Forest (H739614), 30.vi.2020, MDB. **H37** Armagh: WFJ det. GCC (Johnson and Halbert, 1902); Peatlands Park (H897613), 11.vi.2012, KAB; Derryadd Lough (H905605), 21.v.2007, RA; Annagarraiff NNR (H900616). 22.v.2007, RA; Tynan Abbey (H761425), 1.vii.2011, RA. **H38** Down: Bohill Breagah (J397461), 2.vii.1986, RCW (Welch, 1986); Rostrevor, Oakwood NNR (J1817), 23.v.2007, KNAA; Belvoir Forest (J3469), 3.vii.1986, RCW (Welch, 1986); Leitrim Lodge (J225254), 21.v.2005, RA; Altataggart (J222237), 9.vii.2005, RA. **H39** Antrim: Lagan Canal near Lisburn (J2663), coll. CWB det. GCC (Johnson and Halbert, 1902); Rea's Wood (J1485), 30.vi.1986, RCW (Welch, 1986); Farr's Bay (J089870), 4.vii.1986, RCW (Welch, 1986); Rea's Wood NNR (J1587), 16.vi.1999, RSK; Feystown (D315104), 4.v.1996, UIWT; Great Deer Park, Glenarm (D2911), 13.vi.2006; Glenarm Woods ASSI (D2911), 22.v. and 10.vii.2007, KNAA; Breen Wood (D1233), 21.v.2007, KNAA; Belfast Castle (J327788), 23.v.2004, RA; River Lagan, Newforge (J330697), 15.vi.2004, RA; Colin Glen (J267721), 15.v.2005, RA; Shane's Castle Estate (J113884), 1.vii.2010, RA. **H40** Londonderry: Umbra (C728355), 17.vii.1995; Springhill Park (H8683), 25.vi.1992, KNAA; Banagher Glen (C670045), 20.v. and 8.vii.2007, KNAA; Ness Wood ASSI (C528118), 2.vii.2007, KNAA; Drumlamph Wood (C835034), 10.vi.2001, RA.

FAMILY CERAMBYCIDAE longhorn beetles

Very poorly represented in the saproxylic fauna of Northern Ireland, probably because many members of this group are thermophilic and climatic conditions here are largely unsuitable.

***Rhagium bifasciatum* Fabricius, 1775 – Common and widespread**

Found living in 2000 year old pine stumps exposed from beneath bogs (Speight, 1988) and more generally on pine and other conifers in modern plantations. Also occasionally in dead broadleaf wood. **H33, H36, H37, H38, H39, H40.**

***Rhagium mordax* (De Geer, 1775) – Widespread**

Most often found in *Quercus* stumps, and, much less commonly, on a range of other broadleaf trees. Usually only in old growth oak woods. **H33** Fermanagh: Ballinamallard (H2652) (Johnson and Halbert, 1902); Correl Glen (H075545), 1988, RA; Castle Caldwell NR (H0260), 1992, KNAA; Crom Castle Estate (H32), 1992, 2002, KNAA; Crom Castle (H360240), 18.v.2007, KNAA; Reilly Wood (H339242), 28.v.1992, KNAA; Corlatt Wood

(H358236), 27.v.1992, KNAA; Isle Namanfin (H160560), 1993, RA; Florencecourt (H175344), 1997; (H183343), 2010, RA; Inisherk Island (H355242), 2000, RA; Castle Coole Park (H2643), 2006, KNAA; Rossyvullan, Castle Coole (H264430), 28.vii.2010, RA. **H36** Tyrone: W. F. de V. Kane (Fowler, 1891; Johnson and Halbert, 1902). Caledon Deer Park (H7543), 2006, KNAA. **H37** Armagh: Tynan Abbey Estate (H762420), 1.vii.2011, RA. **H38** Down: Tollymore Park, WFJ (Johnson and Halbert, 1902). **H39** Antrim: Shane's Castle Oakwood (J093881), 22.xi.1988, RA; Great Deer Park, Glenarm (D2911), 2006, KNAA; Glenarm Woods ASSI (D3011), 2007, KNAA; Moss Plantation, Shane's Castle (J093893), 2010, RA; Glenarm NR (D3091142), 8.vi.2011, RA. **H40** Londonderry: Walworth Wood (C6220), CWB (Buckle, 1900; Johnson and Halbert, 1902). Ness Wood ASSI (C528118), 2007, KNAA.

***Grammoptera abdominalis* (Stephens, 1831) syn. *G. variegata* (Germar, 1824) – Doubtful**

The Murlough, Co. Down, record given in Alexander and Anderson (2012) is now considered incorrect. **H38** Down: near Belfast, 1885, Haliday – “an Irish specimen [of *Grammoptera analis*] in Haliday collection” (Johnson and Halbert, 1902).

***Grammoptera ruficornis* (Fabricius, 1781) – Common and widespread**

This species is “Common in Ireland” (Johnson and Halbert, 1902). In northern counties, it is the most widely dispersed and common longhorn found easily in most places feeding at *Crataegus* blossom. **H33, H36, H37, H38, H39, H40.**

***Stictoleptura rubra* (L., 1758) red longhorn – Recent arrival (Plate 4)**

The female of this species is a large and eye-catchingly red insect which has attracted some interest in Irish social media. It feeds within dead wood and the stumps of coniferous trees (*Picea*, *Pinus*, *Abies*, *Larix*) and has a life span of 2-3 years. It has been seen in recent years across Ireland, from The Raven in Co. Wexford to Thornhill Park, Upper Newtownards Road, Belfast where a female was observed by CM flying lazily about in the early evening of 7 August 2020, and photographed on a windowsill where it landed. **H38** Down: Upper Newtownards Rd., Belfast (J39287374), one in flight, urban garden, 7.viii.2020, CM (Anderson *et al.*, 2021).

***Alosterna tabacicolor* (De Geer, 1775) – Rare**

Larvae develop in old damp rotten stumps of hazel, hornbeam, maple, pine, etc, often boring deeply into sapwood; adults attracted to blossom. Local in Ireland (Johnson and Halbert, 1902); possibly a relict ancient woodland species (Alexander, 1997a). **H33** Fermanagh: Reilly Wood, Crom (H337253), 28.v.1992; Gole Wood, Crom (H333252), 1.vi.1992, KNAA (Alexander, 1997a). **H38** Down: near Belfast, AHH (Haliday, 1885; Johnson and Halbert, 1902). **H39** Antrim: Great Deer Park, Glenarm (D2911), 13.vi.2006; Glenarm NR (D3010), 22.v.2007, KNAA; (D304108), (D304117), 14.vi.2011, (D301100), 20.vi.2012, RA. **H40** Londonderry: Ness Wood (C524113) common on flowers etc., 31.v.2017, MDB.

***Rutpela maculata* (Poda, 1761) – Rare**

Associated with both broadleaf and coniferous trees but particularly *Betula*. Adults are

attracted to blossom, particularly Umbelliferae. Rare and declining in Northern Ireland but apparently stable elsewhere in Ireland. Now absent from its former stronghold in Tollymore Forest, Co. Down. Status in Co. Fermanagh uncertain. **H33** Fermanagh: Inishdivann, Lough Erne (H1853), 9.viii.1936, anon., UM. **H38** Down: near Belfast, 1885, AHH (Johnson and Halbert, 1902); Tollymore Forest (J353324), 9.vii.1976, 16.viii.1985, 6.viii.1986, RA.

***Asemum striatum* (Linnaeus, 1758) – Established introduction**

Mainly in or around *Pinus* stumps and exposed roots. Found very sparingly in plantation forests. **H40** Londonderry: Umbra NR (C724357), several emerging from *Pinus contorta* roots, 1.vi.2011, RA/MDB.

***Aromia moschata* (Linnaeus, 1758) musk beetle – Rare**

The headquarters of this species in Ireland are the Killarney and Glengarriff districts in Cos Cork and Kerry, and it is “very rare or absent from most districts in the north and east of Ireland” (Stelfox, 1959). No records subsequent to the report for Seaforde Demesne. **H38** Down: near Belfast, AHH (Haliday, 1885; Johnson and Halbert, 1902); Seaforde Estate (J4043), female reared from insect bored willow trunk material, coll. 11.viii.1988, emerged 2.ii.1989, RN (Nash, 1989).

***Phymatodes testaceus* (Linnaeus, 1758) – Established introduction**

Known to be transported in oak logs and unknown in Ireland until the records given here for Tynan Abbey. **H37** Armagh: Tynan Abbey Estate (H760425), 3 specimens and numerous exit holes, under tight bark on the underside of a sundered *Quercus* branch, about 2m above the ground, veteran parkland *Quercus*, 1.vii.2011, MDB/RA (Bryan and Anderson, 2011); (H761416), 1 specimen with 14 exit holes in a *Quercus* limb jammed against a trunk, 26.vii.2011, RA/MDB.

***Clytus arietis* (Linnaeus, 1758) wasp beetle –Casual introduction**

Very rare in Ireland if indeed it is at all autochthonous. Occasionally imported with timber products (O'Connor and Nash, 1981). In Northern Ireland known only from timber imports. **H38** Down: Castlereagh, Belfast (J3771), one emerged from timber imported from Scandinavia, 18.iii.1980, T. Hedley (O'Connor and Nash, 1981). **H39** Antrim: Cranmore, Belfast (J3271), one in coll. of Belfast Natural History and Philosophical Society, taken by R. Templeton. **H40** Londonderry: Magherafelt (H8990), emerged into house living space, from (?) furniture or roof timbers, 2.ii.1984, RN.

***Pogonocherus hispidulus* (Piller and Mitterpacher, 1783) – Rare**

Larvae under bark of recently dead branches or thin stems of broadleaves; especially hazel and apple. Ireland (1885, Haliday). ‘*P. bidentatus*’ in Johnson and Halbert (1902). May be confined to ancient woodlands. **H37** Armagh: Loughgall Manor (H9152), one found in grounds by Mrs Johnson (Johnson, 1892a). **H38** Down: Rostrevor Oakwood NNR (J1817), 1 in moth trap, 8.vi.1999, R. Thompson det. BN (Anderson, Simms and Nelson, 2000). **H39** Antrim:

Great Deer Park, Glenarm (D2911), one in FIT in old hazel stand, 6.vi.2006, KNAA.

***Pogonocherus hispidus* (Linnaeus, 1758) – Rare**

Occurs in association with a variety of broadleaf trees, but rare in Northern Ireland. **H33** Fermanagh: Inishfendra, Crom (H3623), 28.v.1992, APF (Alexander, 1997a). **H37** Armagh: Derrycarne Road, Portadown (J008576), beaten off apple tree in orchard, 8.ix.1998, BN. **H39** Antrim: Bucklebrook House (J138668), on a domestic washing line, 14.vii.2013, KAB. **H40** Londonderry: Carndaisy Glen (H833857), fallen off *Corylus* branch, 5.x.2013, DN/RA; (H827859), on dead twig of standing *Ilex*, 4.iv.2017, RA.

***Leiopus nebulosus* (Linnaeus, 1758) – Scarce**

Very local in Northern Ireland on *Quercus*, *Fagus* and *Castanea*. **H33** Fermanagh: Crom Castle Park (H359246), 1 from aerial twigs of fallen *Quercus* branch, 6.vii.2007, KNAA. **H36** Tyrone: Caledon Deer Park (H7543), 26.vii.2006, KNAA; Parkanaur (H733612), under bark of dead oak, 1.vi.2020, MDB. **H37** Armagh: Tandragee Castle (J0246), 7.v.1896, WFJ (Johnson, 1896); Tynan Abbey Estate (H7612421), 1 dead under tight bark of standing dead *Fagus*, 1.vii.2011, RA/MDB; (H761423), 9 adults on lower branches of large *Castanea sativa*, 1.vii.2011, MDB/RA. **H38** Down: near Belfast, AHH (Haliday, 1885; Johnson and Halbert, 1902).

FAMILY CURCULIONIDAE weevils

Saproxyllic weevils generally live in dead wood and bore galleries in the wood where they shelter and feed.

***Rhopalomesites tardyi* (Curtis, 1825) holly weevil – Common and widespread (Plate 4)**

In Northern Ireland the relatively large galleries of this species, which can form a honeycomb structure in well-rotted heartwood of broadleaf trees, is a familiar sight. Probably commonest on *Acer pseudoplatanus* but also on *Ilex* and other broadleaves. Ireland appears to have most of the world population of this species and it is much rarer and largely coastal in western Britain. “Locally abundant in wooded districts throughout Ireland” (Johnson and Halbert, 1902). **H33, H36, H37, H38, H39, H40.**

***Pseudophloeophagus aeneopiceus* (Boheman, 1845) – Rare**

In damp rotten timber of various broad-leaved trees, in coastal woods and other coastal situations; also in driftwood; rare in buildings. *Caulotrypis* in Johnson and Halbert (1902). **H38** Down: Killard NNR (J6043), in driftwood, 24.iv.2007, MGT.

***Euophryum confine* (Broun, 1881) – Widespread established introduction**

This species is an immigrant from New Zealand and has become spectacularly abundant in dead wood where conditions, damp, well-rotted, suit it. Dense galleries are often formed under bark of both coniferous and broadleaf trees leading to the abundant accumulation of fine woody debris. First recorded by Hickin (1952) but Anderson (1984) has summarised Irish records, with

others added by McClenaghan (1987). **H33, H36, H37, H38, H39, H40.**

***Pentarthrum huttoni* Wollaston, 1854 – Established introduction**

Rare introduction which bores in household furniture and wooden structures. **H39** Antrim: Belfast Docks (J3676), 1942-1946, AFO (O’Farrell and Butler, 1948); Larne (D4002), in hardwood panelling in a Council building, 24.xi.1985, RA.

***Cryptorhynchus lapathi* (Linnaeus, 1758) – Scarce**

Bores into dead trunks of *Alnus*, *Populus*, *Salix* and *Betula*, occasionally “in some numbers on bark of willows” (Johnson and Halbert, 1902). **H37** Armagh: Coney Island (H9364), Lough Neagh, WFJ (Johnson, 1895; Johnson and Halbert, 1902); Brackagh Moss NNR (J0251), 16.vi.1999, R. Key. **H39** Antrim: near Gawley’s Gate (H9985), Lough Neagh, two beaten from osiers, ix.1935, WMC (Crawford and O’Mahony, 1935); Montiagh Moss ASSI (J092655), 16.vi.1999, A. P. Fowles; Divis Mountain (J267742), 17.vi.2010, RA.

***Acalles misellus* Boheman, 1844 syn *A. turbatus* nec Boheman, 1844 – Scarce**

A species found in trees and shrubs in hedgerows and may bore into *Hedera* stems. Widespread and not uncommon. **H33** Fermanagh: Inisherk, Crom (H353244), in tray below FIT, 8.viii. – 4.ix.1992, APF (Alexander, 1997c); Crom Castle Park (H359246), 6.vii.2007, KNAA. **H38** Down: Hillsborough Forest (J247579), pitfall, 28.v.1993, RA (Alexander, 1997c); Belvoir Forest (J346694), 27.viii.1993, RA; Donard Demesne (J373299), 31.xii.2011, RA, (J372298), 9.i.2012, RA. **H39** Antrim: Ballycastle (D1140), BT (Johnson and Halbert, 1902); Craigagh Wood (D227323), one under bark on fallen *Fagus* branch, 17.vi.1992, KNAA (Alexander, 1997c). **H40** Londonderry: Foyle district, CWB (Buckle, 1900; Johnson and Halbert, 1902)

***Acalles ptinoides* (Marshall, 1802) – Rare old growth species**

Develops in dead twigs on trees; litter layer of lowland *Quercus* woods; ancient woodland and old heathland; a reliable marker of old growth (Crowson 1987). Only three modern localities known. **H38** Down: Murlough NNR (J400342), in moss on dunes, 16.vii.2013, RG.

***Xenosacalles irlandikos* Stüben *et al.* (2024) – Alien introduction of unknown origin**

Little is known of the feeding habits or life history of this species which has been recorded from northern counties since 2011, with most records for the greater Belfast area where it has been detected on fence posts and under bark in wooded areas. The two earliest records were for sub-cortical niches on fallen silver fir in Donard Park, Newcastle, Co. Down, RA. From 2023 to 2024 a number of specimens were collected on softwood fence posts in Crawfordsburn Park, Glenlyon, Holywood, Belvoir Park Forest, Co. Down and Colin Glen Forest, Co. Antrim, JS and SR. The genus and species are novel and it does not appear closely related to taxa within the Western Palaearctic (Stüben *et al.*, 2024).

***Magdalis armigera* (Fourcroy, 1785) – Rare**

Mostly boring in stems of *Ulmus glabra* in Ireland. **H33** Fermanagh: Castle Coole Park

(H251429), abundant on re-growth from base of dead *Ulmus*, 2.vi.1992, KNAA (Alexander, 1997c).

***Magdalis carbonaria* (Linnaeus, 1758) – Rare**

Found boring into *Betula*, possibly *Corylus*. **H39** Antrim: Glenarm Nature Reserve (D304110), 2 swept off sprouting *Corylus*, RA. **H40** Londonderry: Banagher Glen (C672045), 8.vii.2007, KNAA.

***Hylobius abietis* (Linnaeus, 1758) – Established introduction**

Associated with *Pinus sylvestris*. “Locally common about fir plantations” (Johnson and Halbert, 1902). A common conifer pest (Morris, 1993, 1997). **H33, H36, H37, H38, H39, H40.**

***Pissodes pini* (Linnaeus, 1758) – Recent Introduction**

An imported pest species which bores into the stems and roots of *Pinus* spp. **H33** Fermanagh: Ely Lodge Forest (H172522), larvae and adults at base of *Pinus sylvestris*, 22.iv.1997, SC (Clawson and Anderson, 2006).

Family CURCULIONIDAE Subfamily SCOLYTINAE bark beetles

Bark beetles develop in living and dead phloem and cambium tissue of a wide range of trees and are important pests of commercially grown timber. *Scolytus scolytus* the elm bark beetle is well known as a vector of Dutch elm disease, which has caused the widespread destruction of elms in Britain and Ireland. Other genera and species of bark beetle infest and damage diseased or weakened specimens of many of the coniferous trees used in commercial forestry and a constant watch is kept for their appearance in this country. Yet other species are associated more with dead timber and are of less commercial importance.

***Scolytus rugulosus* (Müller, P.W.J., 1818) small fruit tree bark beetle – Rare**

Mainly on apple trees in orchards. Known only from a single specimen captured in a small orchard on Inisherk Island, Crom Castle, Co. Fermanagh, 24.v.2009 (Foster, 2011). **H33** Fermanagh: Inisherk, Crom (H357241), beaten from an old apple tree in an abandoned orchard, 24.v.2009, APF.

***Scolytus scolytus* (Fabricius, 1775) common elm bark beetle – Widespread**

Mainly on *Ulmus*, although also on other broad-leaved trees. First found in Ireland in 1943 (Quirke, 1943) although probably widespread and well established. Has had a catastrophic effect on populations of mature *Ulmus* but particularly the English elm in Ireland. The native wych elm *Ulmus glabra* has been able to persist in most areas but mature individuals have become rare. Young trees are less affected because the beetle is unable to establish on narrower stems, but once large enough, most trees succumb. **H33** Fermanagh: Crom Castle Park (H32), 1.vi.1992; Castle Coole Park (H2643), 2.vi.1992 and 30.iii.2006, KNAA. **H38** Down: Mount Stewart Demesne (J5570), 18.viii.1992; Rowallane Estate (J409575), 22.ix.2004; Castleward Park (J5649), 2.iv.2006, KNAA. **H39** Antrim: Collin Glen (J270720), 19.v.1992; Great Deer

Park, Glenarm (D2911), galleries widely, 2006, KNAA. **H40** Londonderry: Springhill (H8683), 25.vi.1992, KNAA.

***Dryocoetes autographus* (Ratzeburg, 1837) – Established introduction**

In dead and dying conifers. Until recently, reported in Ireland only as imports (O'Mahony, 1935b; O'Connor *et al.*, 1991). **H36** Tyrone: Ballyard, Trillick (H3458), on silver fir, 1.vii.1997, SC; Pomeroy Forest (H7072), on silver fir, 2.vi.1998, SC. **H37** Armagh: Camlough Wood (J0524), under bark at base of *Picea abies*, 7.vi.2004, SC; Slieve Gullion Forest (J038196), bred from *Picea sitchensis* bark, MDB det. RA; Ballymoyer Wood (H974311), reared from *Tsuga heterophylla* wood, 2.ii.2012, MDB det. RA. **H38** Down: Hillsborough Forest (J2558), adults emerging from bark on *Picea abies* thinnings, 11.iv.1995, RA. **H39** Antrim: Farr's Bay NNR (J0887), in *Picea* logs, 4.vii.1986, RCW (Welch, 1986); Randalstown Forest (J0888), on *Picea sitchensis*, 8.ix.1993, SC.

***Dryocoetes villosus* (Fabricius, 1793) – Uncommon**

Develops in relatively thick bark of freshly dead *Quercus* boughs and trunks; also known from *Castanea*, *Fagus* and *Tilia*. **H33** Fermanagh: Reilly Wood, Crom (H3624), in thick bark of live open-grown *Quercus* outside wood edge, 28.v.1992 (Alexander, 1997d); Inisherk Island (H353244), FIT, 1.vi.–7.vii.1992, APF (Alexander, 1997d) and FIT, 6.vii.2007, KNAA; Castle Coole Park (H2643), 19.v and 17.vi.2006, KNAA. **H36** Tyrone: Caledon Deer Park (H7543), various dates, 2006, KNAA. **H37** Armagh: Slieve Gullion Forest (J038193), on *Quercus*, 8.iii.2012, RA. **H38** Down: Rostrevor Oakwood NNR (J1817), 28.vi.1992 and 11.vii.2007, KNAA (Alexander, 1997d); Castleward Park (J5649), 23.viii.1998, KNAA; Tullyframe, Mourne Park (J265168), on *Quercus* bark, 27.iii.2012, MDB/RA. **H39** Antrim: Great Deer Park, Glenarm (D2911), various dates, 2006, KNAA. **H40** Londonderry: Walworth Wood (C6221), July, CWB (Johnson and Halbert, 1902).

***Orthotomicus laricis* (Fabricius, 1792) lesser larch bark beetle – Established introduction**

Develops under bark and can kill weakened conifers, chiefly *Pinus*. First noted in Ireland by O'Mahony (1934). **H33** Fermanagh: Rosslea Wood (H545315), on *Pinus sylvestris*, 15.iii.1993, SC.

***Pityogenes bidentatus* (Herbst, 1783) two-toothed pine beetle – Established introduction**

Attacks the branches mainly of *Pinus sylvestris*. Rare in Northern Ireland. **H37** Armagh: Armagh (H84), in a garden, WFJ (Johnson, 1892a). **H38** Down: Belvoir Forest (J3469), galleries under bark of dismasted larch, 16.v.1996, RA. **H39** Antrim: Shane's Castle (J1188), vi.1902, JNH (Halbert, 1910b); vi.1923, OEJ (Janson, 1924).

***Pityogenes trepanatus* (Nördlinger, 1848) – trepanned bark beetle – Established introduction**

A single female specimen of *Pityogenes trepanatus* (Nördlinger, 1848) was caught in a cross-

vane (flight interception) trap placed in a compartment of Lodgepole Pine (*Pinus contorta* Douglas ex Loudon) in Crocknagrally Forest (H482430) in Co. Fermanagh, from 6-23 June 2023. This was part of a Protected Zone quarantine pests study in Northern Ireland, FS, AFBI. The species is new to Ireland and is a minor pest of pine trees (Spaans *et al.*, in press).

***Trypodendron domesticum* (Linnaeus, 1758) ambrosia beetle – Uncommon old growth species**

An ambrosia beetle, developing in the sapwood of a wide range of freshly dead broadleaf timber including *Quercus*, *Acer*, *Alnus*, *Fagus*, *Betula* and *Fraxinus*. Adults excavate deep galleries in sappy timber and consume fungi cultivated in them. **H33** Fermanagh: Castle Coole Park (H260430), fragments in decaying *Quercus* branch, 2.vi.1992, KNAA (Alexander, 1997d); Inisherik, Crom (H353244), two in FIT, 1.vi.–7.vii.1992 and another 5.viii.–4.ix.1992, APF (Alexander, 1997d); Lough Yoan (H2542), 2.vi.1992, KNAA; Correl Glen (H074545), FIT, 5.vii.2007, KNAA; Colebrooke Park (H406446), 25.x.2012, under bark, *Quercus* limb, RA; Florencecourt (H179335), under bark *Fraxinus* log 18.iv.2014, MDB. **H38** Down: Morelands Meadow (J337697), under bark, *Fagus* logs, 18.xi.1992, RA (J338698), under bark of *Quercus* limb, 7.ii.2012, RA. **H39** Antrim: Great Deer Park, Glenarm, FITs, 20.v.2006, KNAA; Carr's Glen (J313788), under bark on *Corylus*, 23.iii.2010, RA; Rea's Wood (J138849), under burnt bark of *Acer pseudoplatanus*, RA; Barnett's Park (J328687), Belfast, under bark on *Quercus* branch, 25.iii.1982, RA. **H40** Londonderry: Drenagh Demesne (C6923), 14.vi.2006, KNAA.

***Trypodendron lineatum* (Olivier, 1795) conifer ambrosia beetle – Established introduction**

Dead wood of pine, spruce, larch, and fir. **H37** Armagh: Slieve Gullion Forest (J040196), hibernating under *Fraxinus* bark (!), 8.iii.2012, RA. **H39** Antrim: Farr's Bay NNR (J089870), attacking *Picea* stumps, 4.vii.1986, RCW (Welch, 1986).

***Hylesinus crenatus* (Fabricius, 1787) large ash bark beetle – Scarce**

Chiefly in large old dying ash, very local. **H33** Fermanagh: Old Crom Castle (H364239), swept near lakeshore, 24.v.2012, KAB. **H39** Antrim: Bucklebrook House (J137668), sugared red wine bait trap, 12.vi.2020, MDB.

***Hylesinus varius* (Fabricius, 1775) common ash bark beetle – Widespread**

Found on fallen *Fraxinus* limbs, widespread but uncommon. **H33** Fermanagh: Crom Castle Park (H3524), 26.v.1992, KNAA. **H36** Tyrone: Caledon Deer Park (H7543), 17.v.2006, KNAA. **H37** Armagh: Jerrettspass (J0633), 13.xii.1912, WFJ (Johnson, 1912); Loughgall Country Park (H911516), 15.iv.2008, RA; Glebe Hill, Tandragee (J033452), 25.ix.2018, RA. **H38** Down: Belfast (J37), 28.x.1986, Forest Service Collection (O'Connor *et al.*, 1991); Castleward Park (J5649), 21.v.2006, KNAA. **H39** Antrim: Moss Plantation, Shane's Castle (J092893), 16.vii.2010, RA.

***Hylastes brunneus* Erichson, 1836 – Established introduction**

Attacks diseased or dying *Pinus* spp. across Ireland can be a serious pest in forestry

plantations. **H36, H37, H38, H40.**

***Hylastes cunicularius* Erichson, 1836 – Established introduction**

Widespread in commercial spruce plantations across Northern Ireland. **H36, H37, H38, H39, H40.**

***Hylurgops palliatus* (Gyllenhal, 1813) – Established introduction**

Widespread and common under bark of dead conifer timber (O'Connor *et al.*, 1991). **H33, H36, H37, H38, H39, H40.**

***Polygraphus poligraphus* (L., 1758)- Established introduction**

Recently found by cross-vane trap in commercial Conifer plantations at Crocknagrally, Beaghs Mountain. Also known from sites in **H33, H36, H38, H39.**

***Tomicus piniperda* (Linnaeus, 1758) pine shoot beetle – Established introduction**

On both dead and living *Pinus sylvestris* in plantation, leaving tell-tale yellow resin spots where it burrows through bark. Widespread in Ireland (O'Connor *et al.*, 1991). **H36, H37, H38, H39, H40.**

Analysis

A total of 243 species are represented above. The main differences between the all-Ireland (Alexander and Anderson, 2012) and the current Northern Ireland list relates to a number of thermophilic species which are absent from northern counties in Ireland. Conspicuous among the absentees are species of the family Cerambycidae or longhorn beetles. The family in Ireland has a total of 22 species whereas Northern Ireland has only 14 species one of which (*Rutpela maculata*) may now be extinct. There is also a group of species not usually regarded as saproxylic and which were not included in the all-Ireland list. These belong to the Staphylinidae, Aleocharinae, genus *Atheta* and allies which occur frequently in forest fungi, both gilled fungi and wood-rotting bracket fungi. Whatever their affinities, saproxylic or non-saproxylic, they are included here because of their sheer abundance in the forest biome and close relationship with wood-rotting fungi.

The saproxylic Coleoptera as a group has been growing in number of species in Ireland, particularly in recent years as climate warming has ameliorated the climate. There seems to be two main routes of entry for natural colonisation, across the northern Irish Sea and North Channel from southern Scotland and northern England to Co. Antrim, and across the southern Irish Sea to south-eastern counties of Ireland. A number of species which entered Co. Antrim in this way are still making their way southwards across Ireland. Species which have entered by the southern route are spreading north and some have not yet reached Northern Ireland. One that has and has spread across Ireland with extraordinary speed is the red longhorn beetle *Stictoleptura rubra* which was first seen in a garden in Dublin in July 2016 but had reached Belfast by 2021.

The species listed below have been added to the fauna of saproxylic Coleoptera in Ireland since the publication of Alexander and Anderson in 2012. At least one of these may not be fully naturalised and is therefore of uncertain status i.e. *Prionus coriarius*. The rest are assumed to be established and/or are overlooked natives. *Alaobia subglabra*: H37; *Alaobia taxiceroides*: H36; *Anisotoma castanea*: H36; *Atheta autumnalis*: H36; *Bisnius subuliformis*: H37; *Gyrophana congrua*: H18, H33, H36, H37, H39, H40; *Gyrophana munsteri*: H18, H33, H36, H37, H39, H40; *Prionus coriarius*: H22; *Scolytus laevis*: H8; *Sepedophilus lusitanicus*: H2, H38; *Stictoleptura rubra*: H12, H14, H15, H21, H38.

It seems worthwhile to list the better sites for saproxylic Coleoptera in Northern Ireland (Table 1). This has been done twice before but much progress in recording fauna has been made in recent years. No attempt has been made to score individual species in this exercise as was attempted previously. The Irish fauna is still insufficiently known to ascribe rarity indices with any confidence. Instead, only the totals of saproxylic species recorded at each site are given with rare species appended opposite the site name.

TABLE 1. Species totals for recorded sites with list of rare species

Site	Species total	‘Rare’ species
Crom Castle Estate	40	<i>Gyrophæna hanseni</i> , <i>Alosterna tabacicolor</i>
Castle Coole	38	<i>Hapalæraea pygmaea</i> , <i>Euplectus infirmus</i> , <i>E. karstenii</i> , <i>E. piceus</i> , <i>Phloiophilus edwardsii</i> , <i>Magdalis armigera</i>
Belvoir Forest/Morelands	31	<i>Atheta pilicornis</i> , <i>Ischnoglossa prolixa</i> , <i>Cryptophagus denticulatus</i>
Inisherck Island	30	<i>Anisotoma orbicularis</i> , <i>Gyrophæna hanseni</i> , <i>Dorcatoma dresdensis</i> , <i>Soronia punctatissima</i> , <i>Scolytus rugulosus</i>
Shane’s Castle	30	<i>Oligota apicata</i> , <i>Epuræa rufomarginata</i> , <i>Epuræa terminalis</i> , <i>Cryptophagus denticulatus</i>
Glenarm Deerpark/NR	29	<i>Orchesia minor</i> , <i>Alosterna tabacicolor</i> , <i>Pogonocherus hispidulus</i> , <i>Magdalis carabonaria</i>
Loughgall	28	<i>Alaobia taxiceroides</i> , <i>Dinaraea linearis</i> , <i>Ischnoglossa prolixa</i> , <i>Bisnius subuliformis</i> , <i>Aspidiphorus orbiculatus</i> , <i>Pogonocherus hispidulus</i>
Parkanaur Forest	26	<i>Anisotoma castanea</i> , <i>Placusa tachyporoides</i> , <i>Agathidium confusum</i> , <i>Placusa tachyporoides</i> , <i>Mycetæa subterranea</i> , <i>Tetratoma ancora</i>
Peatlands Park/Derryadd	24	<i>Dinaraea linearis</i> , <i>Litargus connexus</i>
Tynan Abbey	24	<i>Hapalæraea pygmaea</i>
Rostrevor Oakwood NNR	22	<i>Rhizophagus perforates</i> , <i>Tetratoma ancora</i> , <i>Orchesia minor</i> , <i>Pogonocherus hispidulus</i>
Rea’s Wood NNR	21	<i>Dinaraea lineari</i> , <i>Rhabocerus gabrieli</i> , <i>Anaspis lurida</i>
Baronscourt Demesne	20	<i>Phloiophilus edwardsii</i>
Florencecourt	19	<i>Agathidium confusum</i>
Derrymore House	18	<i>Hapalæraea pygmaea</i> , <i>Autalia longicornis</i>
Caledon Deer Park	17	
Bucklebrook House	15	<i>Soronia punctatissima</i> , <i>Gnathoncus nannetanus</i> , <i>Trox scaber</i> , <i>Pogonocherus hispidus</i>

TABLE 1 (Continued).

Mount Stewart Estate	15	<i>Abraeus perpusillus</i>
Lady Dixon Park	15	<i>Metoecus pardoxus</i>
Murlough Co Down	15	<i>Sphaeriestes ater</i>
Banagher Forest	14	<i>Acrulia inflata</i> , <i>Tetratoma ancora</i> , <i>Magdalis carbonaria</i>
Belfast Castle/Cave Hill	14	<i>Gnathoncus nannetensis</i> , <i>Ptinus fur</i> , <i>P. subpilosus</i>
Slieve Gullion Forest	13	<i>Xylostiba monilicornis</i> , <i>Ischnoglossa prolixa</i>
Castle Caldwell Forest	12	<i>Gyrophæna poweri</i> , <i>Epuraea melina</i> , <i>Litargus connexus</i>
Tollymore Forest	13	<i>Rutpela maculata</i>
Castleward Park	12	<i>Gyrophæna poweri</i>
Drenagh Estate	12	
Colebrook Park	11	<i>Agathidium confusum</i> , <i>Hapalaræa pygmaea</i>
Donard Park	11	<i>Xylostiba monilicornis</i> , <i>Henoticus serratus</i>
Glenmore Wood ASSI	11	<i>Acrulia inflata</i> , <i>Alaobia subglabra</i> , <i>Placusa tachyporoides</i>
Ness Wood NR	11	<i>Tetratoma ancora</i>
Barnett's Park, Belfast	10	
Farr's Bay NR	11	
Dundrum Castle	10	<i>Atheta pilicornis</i>
Springhill	10	
Correl Glen	9	<i>Anisotoma orbicularis</i> , <i>Agathidium confusum</i> , <i>Orchesia minor</i>
Inishfendra	9	<i>Biblopectus bicolor</i> , <i>Clambus punctulum</i> , <i>Pogonocherus hispidus</i>
Portmore Reserve/Estate	9	<i>Autalia longicornis</i>
Stormont	9	<i>Epuraea rufomarginata</i>
Magilligan/The Umbra	8	<i>Gonoderus luperus</i>
Breen Wood NNR	7	<i>Agathidium rotundatum</i>
Drumcairne Forest	7	
Knockmany Forest	7	<i>Euplectus mutator</i>
Deramore	6	<i>Cryptophagus intermedius</i>
Ely Lodge Forest	6	<i>Gyrophæna poweri</i>
Hydebank Woods	6	

TABLE 1 (Continued).

Mourne Park	6	
Brackagh Bog	5	<i>Aspidiphorus orbiculatus</i>
Bantry Lough	5	
Brookend NNR	5	<i>Atheta autumnalis</i>
Drum Manor	5	
Hollymount NNR	5	<i>Enicmus testaceus</i>
Murlough, Co Antrim	5	<i>Gnathoncus nannetensis</i> , <i>Agathidium rotundatum</i> , <i>Acalles ptinoides</i>
Seaforde Estate	5	<i>Sepedophilus lusitanicus</i> , <i>Autalia longicornis</i> , <i>Aromia moschata</i>
Seskinore Forest	5	<i>Enicmus testaceus</i> , <i>Gnathoncus nannetanus</i>
The Argory	5	
Clandeboyne	4	<i>Oligota apicata</i>
Edenderry, Belfast	3	<i>Euplectus mutator</i>
Fardross Forest	3	
Colin Glen	2	
Drumlamph Wood	2	<i>Acrulia inflata</i>
Favour Royal Forest	2	<i>Euplectus mutator</i> , <i>Oligota apicata</i>
Blessingbourne	1	<i>Enicmus testaceus</i>

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Appendix 1. Recorders and list of abbreviations.

The following are the abbreviations used for recorders in the species accounts AC Alastair Cameron; AFO A.F. O'Farrell; AGI A.G. Irwin; AHH A.H. Haliday; AM Adam Mantell; APF A.P. Foster; ARF A.R. Furlong; ARH A.R. Hogan; AWS A.W. Stelfox; BN B. Nelson; BT B. Tomlin; CAMR C.A.M. Reid; CJ C. Johnson; CTG C.T. Gimingham; CWB C.W. Buckle; DAL D.A. Lot; DN D. Nelson; EFB E.F. Bullock; EO E. O'Mahony; FS Florentine Spaans; GCC G.C. Champion; GHC G.H. Carpenter; GMO G.M. Orledge; GNF G.N. Foster; GWC G.W. Chaster; GWN G.W. Nicholson; IM I. McClenaghan; JC Joshua Clarke; JAG J.A. Good; JAO J.A. Owen; JAP J.A. Power; JJW J.J. Walker; JMB J.M. Browne; JNH J.N. Halbert; JPOC J.P. O'Connor; JRH J.R. Hardy; KAB K.A. Bryan; KNAA K.N.A. Alexander; MC M. Cawley; MCDS M.C.D. Speight; MDB M.D. Bryan; MGM M.G. Morris; MGT M.G. Telfer; MM M. Meharg; NMI National Museum of Ireland; OEJ O.E. Janson; PJH P.J. Hodge RA R. Anderson; RCF R.C. Faris; RCW R.C. Welch; RG R. Gamsa; RM R. Martin; RN R. Nash; SC S. Clawson; SM S. McCormack; SR Stewart Rosell; TD Tom Delaney; TG T. Gittings; TVW T.V. Wollaston; UM Ulster Museum; WES W.E. Sharp.



PLATE 1. Left: *Endomychus coccineus* with larvae, Dixon Park, Belfast, Co. Antrim. Right: *Ocys tachysoides*, Belvoir Park, Belfast, Co. Down. Photographs: R. Anderson.



PLATE 2. Left: *Sinodendron cylindricum*, Portmore Lough, Co Antrim. Right: *Malthodes marginatus*, on *Pinus*, Leitrim Lodge, Mourne, Co. Down. Photographs: R. Anderson.



PLATE 3. Left: *Pycnomerus angulatus*, Mount Stewart, Co. Down. Right: *Gonodera luperus*, Ballymaclary NR, Magilligan, Co. Londonderry. Photographs: R. Anderson.



PLATE 4. Left: *Stictoleptura rubra*, garden, Terenure, Dublin City. Right: *Rhopalomesites tardyi*, Belfast Castle, Co. Antrim. Photographs: R. Anderson.