

## Insects and other invertebrates in Glasgow Botanic Gardens, Scotland: 2025 update

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### ABSTRACT

This paper is the latest in a series providing accounts of the status of the animals, plants and other organisms living wild in Glasgow Botanic Gardens, Scotland. It lists new species of invertebrates that have been found in the gardens over the past five years, together with earlier records that have come to light over the same period. The majority of these additions are insects, though also included are some records of spiders, mites, ticks and harvestmen (Arachnida), woodlice (Isopoda), millipedes (Diplopoda) and snails (Gastropoda).

### INTRODUCTION

The first account of the invertebrates of Glasgow Botanic Gardens, Scotland (GBG) was provided by Hancock (1999). This was subsequently updated in a series of papers by Weddle (2019a,b; 2021a-d), Cathrine (2022) and Cathrine *et al.* (2022). In the last five years, around 240 additional species of invertebrates have been recorded in GBG and these are the subject of the present contribution. Most (167) of these new records are from the moth trap that is run in GBG as regularly as possible during the warmer months. The total includes some older records that came to light among records added retrospectively to online recording systems such as iRecord and iNaturalist. Any such records with a restricted licence have been excluded, as it would have been impracticable to acknowledge all the observers. However, this restriction has little effect on the list as a whole. Other records are the author's own field records.

Species that have been the topic of earlier short notes by the author in this journal are also included. Those found in the moth trap are marked with an asterisk in the list below. The common names of micro-moths are those given in Sterling (2023). Although this account is only an update, the full list of species found in GBG, including the Kelvin Walkway and wooded slopes to the north, can be found at [www.gnhs.org.uk/biodiversity/GBG\\_splist.pdf](http://www.gnhs.org.uk/biodiversity/GBG_splist.pdf), which shows the years when each species was first and last recorded. This list is updated regularly.

### INSECTA

#### Ephemeroptera (mayflies)

Baetidae: \**Procloeon bifidum* (pale evening dun), 05/12/2025, first Glasgow record; \**P. pennulatum* (tiny sulphur dun), 18/08/2025, first Glasgow record.

Ephemeridae: \**Ephemera danica* (green drake), 22/06/2023.

Heptageniidae: \**Ecdyonurus dispar* (autumn dun), 23/07/2021, first Glasgow record; \**Electrogena lateralis* (dark dun), 22/06/2023.

#### Plecoptera (stoneflies)

Nemouridae: \**Nemoura cinerea*, 20/06/2025.

Perlodidae: \**Isoperla grammatica* (common yellow sally), 20/06/2025.

#### Psocoptera (bark-lice)

Caeciliusidae: *Epicaecilius pilipennis*, 20/09/1998, first Glasgow record, though found shortly afterwards at Garscadden Wood; \**Valenzuela flavidus*, 23/10/2024, third Glasgow record in 2024, the first two being joint first in "Clyde" since those at Cadder Wilderness (East Dunbartonshire) and other locations listed by King (1910).

Ectopsocidae: \**Ectopsocus axillaris*, 15/10/2023; \**E. briggsi/petersi/meridionalis* agg., 23/10/2024.

Elipsocidae: \**Elipsocus hyalinus*, 06/05/2025, second Glasgow record, though also listed at Cadder Wilderness (East Dunbartonshire) by King (1910); \**Reuterella helvimacula*, 13/08/2024.

Mesopsocidae: \**Mesopsocus unipunctatus* s.l., 20/06/2025, first Glasgow record.

Stenopsocidae: \**Graphopsocus cruciatus*, 19/05/2024, first Glasgow record.

#### Hemiptera (true-bugs)

Acanthosomatidae: *Elasmucha grisea* (parent bug), 22/09/2018, one of the commoner shieldbugs, present in this area since at least the 19th century (Weddle, 2026), so surprising that it had not been recorded in GBG earlier.

Lygaeidae: *Kleidocerys resedae* (birch catkin bug), 26/04/2023.

Miridae: \**Blepharidopterus angulatus* (black-kneed apple capsid), 25/09/2023; \**Camptozygum aequale*, 20/06/2025, first record for Clyde, though probably under-recorded; \**Deraeocoris flavilinea*, 28/07/2024; *Heterocordylus tibialis*, 01/06/2021; \**Phylus melanocephalus*, 28/07/2024, first Glasgow record; \**Phytocoris dimidiatus*, 25/09/2023, first Glasgow record; \**Plagiognathus arbustorum*, 27/08/2021; \**Psallus* sp., 25/09/2023; \**Stenotus binotatus* (timothy grassbug), 09/07/2021.

Corixidae: \**Corixa affinis*, 09/07/2025, first Glasgow record.

Aphididae: *Tetraneura ulmi* (fig gall), 06/06/2023, first Glasgow record; \**Drepanosiphum platanoidis*, 10/10/2025, first Glasgow record.

Cicadellidae: *Aphrodes bicincta*, 23/09/2000, first Glasgow record; \**Edwardsiana alnicola*, 12/08/2020, first Glasgow record, see Weddle (2021b); \**Eupteryx decemnotata*, 05/06/2025, first record for south-west Scotland; \**Eurhadina concinna*, 28/07/2024, first Glasgow record.

Pseudococcidae: *Pseudococcus calceolariae*, 29/08/2011, first record for south-west Scotland.

#### **Neuroptera** (lacewings and waxflies)

Chrysopidae (green lacewings): \**Chrysoperla carnea* s.s., 31/03/2025; \**Cunctochrysa albolineata*, 31/08/2022. Previously these had been recorded as "Chrysopidae sp.".

Coniopterygidae (waxflies): \**Conwentzia* sp., 12/05/2025.

Hemerobiidae (brown lacewings): \**Hemerobius humulinus*, 18/08/2025; \**H. stigma*, 10/03/2024, first Glasgow record (see Weddle, 2025); \**Wesmaelius nervosus*, 23/10/2024.

#### **Trichoptera** (caddis-flies)

As mentioned in Weddle (2021a), the caddis-flies often outnumber the moths in summer. The notes on Scottish status are from Wallace (2016).

Brachyceridae: \**Brachycentrus subnubilus*, 31/05/2021.

Glossosomatidae: \**Agapetus delicatulus*, 07/09/2021; \**Glossosoma conformis*, 21/09/2024.

Hydropsychidae: \**Hydropsyche contubernalis*, 20/09/2022, scarce in Scotland; \**H. instabilis*, 08/03/2023.

Hydroptilidae: \**Hydroptila vectis*, 19/06/2024; \**H. tineoides*, 23/07/2025, first Glasgow record.

Leptoceridae: \**Athripsodes cinereus*, 07/12/2023; \**Ceraclea dissimilis*, 23/07/2021; \**Leptocerus tineiformis*, 08/03/2023, absent from Scotland until recent years, regionally notable; \**Mystacides azurea*, 07/09/2021; \**Oecetis ochracea*, 28/07/2024; \**O. testacea*, 09/07/2025, first modern Glasgow record.

Limnephilidae: \**Halesus digitatus*, 15/10/2023; \**Limnephilus binotatus*, 16/05/2024, nationally scarce, though of "least concern" on IUCN (International Union for Conservation of Nature) list; \**L. hirsutus*, 23/07/2021, nationally scarce, though of "least concern" on IUCN list.

Phryganeidae: \**Agrypnia pagetana*, 23/07/2021, locally common in southern Scotland.

Polycentropodidae: \**Cyrnus trimaculatus*, 08/03/2023.

Psychomyiidae: \**Tinodes waeneri*, 25/09/2023.

Sericostomatidae: \**Sericostoma personatum*, 07/09/2021.

#### **Coleoptera** (beetles)

Cantharidae (soldier beetles): \**Cantharis paludosa*, 20/06/2025, first Glasgow record, though there are a couple of records from the Milngavie area; \**C. rufa*,

20/06/2025; \**Rhagonycha lignosa*, 21/06/2022; \**R. testacea*, 19/05/2022.

Cerambycidae (longhorn beetles): *Clytus arietis* (wasp beetle), 16/08/2015; *Grammoptera ruficornis*, 06/01/2021.

Coccinellidae (ladybirds): *Aphidecta obliterate* (larch ladybird), 26/04/2023; \**Harmonia axyridis* (harlequin ladybird), 19/09/2021. It is perhaps surprising that it was 11 years from the first sighting of the harlequin ladybird in Glasgow before it was recorded in GBG. However, there had been only sporadic records in the interim. Though there has been a marked population expansion in the Glasgow area since 2021 (pers. obs.) and it is frequently seen around GBG, it has not yet displaced the other ladybird species, as has happened in some other parts of the U.K.

Curculionidae (weevils): \**Otiorhynchus sulcatus* (vine weevil), 05/02/2021; a very common species, it is surprising that it had not been found in GBG previously.

Dermestidae: \**Dermestes peruvianus* (Peruvian larder beetle), 23/07/2021; well known in Glasgow tenements.

Elateridae (click beetles): *Agriotes pallidulus*, 05/12/2023; \**Athous bicolor*, 21/06/2022; *A. haemorrhoidalis*, 03/02/2020.

Kateretidae: \**Brachypterus glaber*, 21/05/2025; a tiny pollen beetle typically found on nettles, often with *B. urticae*, though the latter has not yet been recorded in GBG.

Melandryidae: *Orchesia undulata*, 05/12/2023.

Nitidulidae: \**Epuraea* sp., 07/09/2025.

Oedemeridae: *Oedemera lurida*, 14/07/2024. This species was first recorded in Glasgow by the author in Ruchill Park in 2022, and now seems to be almost as common as *O. virescens*, which was first recorded in Glasgow in 2011 and was considered remarkable at the time as it was regarded as rare in the U.K., though it had by then become locally common in south-west Scotland (Philp, 2021). Both species are described as local in south-west Scotland (Duff, 2020).

Ptinidae: \**Dryophilus pusillus*, 16/05/2024, first Glasgow record.

Scriptiidae: \**Anaspis maculata*, 06/01/2021.

Staphylinidae (rove beetles): \**Anotylus rugosus*, 20/06/2025; \**Bisnius fimetarius*, 31/05/2021; \**Bledius opacus*, 26/06/2025, first Glasgow record; \**Carpelimus similis*, 26/06/2025, first Glasgow record; \**Pseudomedon obscurellus*, 26/06/2025, first Glasgow record.

#### **Lepidoptera** (butterflies and moths)

##### **Butterflies**

Lycaenidae: *Favonius quercus* (purple hairstreak), 13/08/2022; probably locally common in Glasgow, though under-recorded due to its preference for frequenting the tops of oak trees. *Celastrina argiolus* (holly blue) has been recorded in the adjoining Kirklee allotments in July 2024, but not yet in GBG.

Nymphalidae: *Pararge aegeria* (speckled wood), 10/02/2024; first seen in the city in 2019, one of the most recent butterflies to have spread into the Glasgow area.

## Moths

Glasgow Museums Biological Records Centre possesses a list of moths recorded “in Glasgow” in the last two decades of the 20th century. Some of these will have been from GBG, and others may be only from other vice-counties, as the city boundary straddles four vice-counties. This means that some of the “new” species listed below, while undoubtedly additions to the species list for GBG, may not actually be the first records, pending the outcome of ongoing research. Unless otherwise specified, the species were recorded as adults. Bucculatricidae: \**Bucculatrix thoracella* (lime tuft), 21/05/2025.

Cosmopterigidae: \**Limnaecia phragmitella* (bulrush down moth), 07/09/2025.

Crambidae: \**Anania coronata* (spotted magpie), 07/09/2021; \**A. crocealis* (ochreous pearl), 23/07/2025, first VC77 and Glasgow record. \**Catoptria falsella* (chequered grass-moth), 07/12/2022, first Glasgow record; \**Evergestis pallidata* (chequered pearl), 28/07/2024.

Drepanidae: \**Thyatira batis* (peach blossom), 07/09/2025.

Gelechiidae: \**Bryotropha domestica* (house moss-moth), 28/07/2024; \**Carpatolechia fugitivella* (elm grey), 14/07/2024.

Geometridae: \**Chloroclystis v-ata* (v-pug), 07/12/2022; \**Colotois pennaria* (feathered thorn) 09/09/2023; \**Cyclophora linearia* (clay triple-lines), 19/06/2024, first Glasgow and VC77 record; \**Eupithecia intricata* (Freyer's /Edinburgh pug), 06/05/2023; \**E. subfuscata* (grey pug), 07/09/2025; \**E. tenuiata* (slender pug), 14/07/2024; \**Lobophora halterata* (seraphim), 21/05/2025; \**Lomasplilis marginata* (clouded border), 07/09/2021; \**Orthonama vittata* (oblique carpet), 18/08/2025; \**Pasiphila chloerata* (sloe pug), 07/09/2021, first VC77 record; \**Perizoma bifaciata* (barred rivulet), 30/07/2022; \**Petrophora chlorosata* (brown silver-line), 19/05/2024.

Gracillariidae: *Cameraria ohridella* (horse-chestnut leaf-miner) leaf-mines, 09/10/2022, first record in VC77 and Glasgow, though it has been present in Scotland for at least ten years; \**Phyllonorycter ulmifoliella* (common birch leaf-miner), 23/07/2025.

Lasiocampidae: \**Euthrix potatoria* (drinker), 19/06/2024.

Momphidae: \**Mompha raschkiella* (fireweed mompha), 18/08/2025.

Noctuidae: \**Acronicta alni* (alder moth), 08/09/2022; *A. leporina* (miller), 15/08/2025; *A. psi* (grey dagger), 01/01/2024, larva; the larval form is readily distinguished from *A. tridens* (dark dagger), the lack of larval records of the latter supporting its presumed absence from Scotland (Leverton, 2024); \**Agrotis puta* (shuttle-shaped dart), 12/05/2023, a species first found in west central Scotland only in 2019, having apparently spread from the east, though there were also records from the Solway coast; \**Anorthoa munda* (twin-spotted quaker), 16/03/2025; \**Apamea lithoxylaea* (light arches), 30/07/2022; \**Ceramica pisi* (broom moth), 19/06/2024; \**Colocasia coryli* (nut-tree tussock), 09/07/2025; *Cucullia chamomillae* (chamomile shark), 15/07/2022; \**Lateroligia ophiogramma* (double lobed),

28/07/2024; \**Lithophane leautieri* (Blair's shoulder-knot), 10/10/2022; \**L. socia* (pale pinion), 21/05/2025; \**Lycophotia porphyrea* (true lover's knot), 23/07/2021; \**Mythimna ferrago* (clay), 28/07/2024; \**Oligia latruncula* (tawny marbled minor), 14/07/2024; \**Plusia putnami gracilis* (Lempke's gold spot), 28/07/2024; \**Polia nebulosa* (grey arches), 20/06/2025; \**Rusina ferruginea* (brown rustic), 21/06/2022; \**Sunira circellaris* (brick), 10/10/2022; \**Tiliacea citrago* (orange swallow), 31/08/2022.

Nolidae: \**Pseudoips prasinana* (green silver-lines), 09/06/2022.

Notodontidae: \**Furcula furcula* (sallow kitten), 01/06/2022; \**Phalera bucephala* (buff-tip), 22/06/2023.

Parametriotidae: \**Blastodacna hellerella* (hawthorn berry moth), 09/07/2025.

Praydidae: \**Prays ruficeps* (cryptic ash bud moth), 18/08/2025, first VC77 record, though the second for Glasgow as there is a 2017 record from Cathcart (VC76).

Pterophoridae: \**Platyptilia gonodactyla* (triangle plume), 31/05/2021.

Pyralidae: \**Acrobasis advenella* (grey knot-horn), 12/07/2023.

Sphingidae: \**Deilephila elpenor* (elephant hawk-moth), 09/06/2022; *Macroglossum stellatarum* (humming-bird hawk-moth), 01/08/2022. It seems only a matter of time before *Mimas tiliae* (lime hawk-moth) is recorded in GBG, as it has been present in the vicinity for several years (Weddle, 2023), and has since been spreading more widely.

Tortricidae: \**Acleris bergmanniana* (yellow rose tortrix), 09/07/2021; \**A. laterana* (dark-marked tortrix), 27/08/2025; \**Clepsis consimilana* (rufous tortrix), 28/07/2024; \**Cochylichroa atricapitana* (black-fronted straw), 18/08/2025; \**Cydia fagiglandana* (beech mast piercer), 28/07/2024, first VC77 and Glasgow record, there being few other Scottish records; \**Epinotia ramella* (black-marked tortrix), 31/08/2022; \**E. tedella* (common spruce tortrix), 21/06/2022; \**E. tenerana* (nut bud moth), 09/07/2025; \**Eucosma campoliliana* (pied tortrix), 12/07/2022; \**E. cana* (hoary tortrix), 22/06/2023; \**Gypsonoma dealbana* (common cloaked tortrix), 09/07/2025; \**Notocelia trimaculana* (hawthorn shoot moth), 22/06/2023; \**N. uddmanniana* (bramble shoot moth), 14/07/2024.

Yponomeutidae: \**Paraswammerdamia* sp., 14/07/2024.

Ypsolophidae: \**Ypsolopha parenthesella* (white-shouldered ochre), 21/09/2024.

## Diptera (true flies)

In this group few “first record” comments have been added as, with the exception of hoverflies, soldierflies and craneflies, this group is generally under-recorded in the Clyde area. In addition, many may well be the first modern records since Robert Henderson's surveys one hundred or more years ago (Henderson, 1899-1927).

Athericidae: *Atherix ibis* (yellow-legged water-snipefly), 28/05/2023.

Cecidomyiidae: *Dasineura urticae*, 19/06/2022; *Hartigiola annulipes*, 28/10/2024.

Ceratopogonidae: \**Culicoides pulicaris*, 23/04/2021.

Chaoboridae: \**Chaoborus flavicans*, 23/07/2025.

Chironomidae: \**Psectrotanypus varius*, 13/08/2024; there are often large numbers of Chironomidae in the moth trap, and this is one of the few species that are readily identifiable.

Conopidae: *Conops quadrifasciatus* (four-banded bee-grabber), 05/08/2019; *Sicus ferrugineus* (ferruginous bee-grabber), 30/07/2022. Both these species pounce on bumblebee workers and inject an egg into the abdomen.

Culicidae: \**Culiseta annulata* (banded mosquito), 16/10/2020.

Empididae: \**Empis grisea*, 12/05/2025; \**E. trigramma*, 16/05/2024; \**Rhamphomyia pilifer*, 13/05/2021.

Fanniidae: \**Fannia serena*, 18/08/2025.

Heleomyzidae: \**Heteromyza rotundicornis*, 30/07/2022.

Lauxaniidae: \**Pseudolyciella* sp., 23/10/2024; \**Minettia inusta*, 10/10/2025.

Limoniiidae: \**Antocha vitripennis*, 27/08/2021; \**Cheilotrichia cinerascens*, 23/04/2021; \**Erioptera lutea*, 27/08/2021; \**Orimarga virgo*, 09/07/2021, nationally rare, first Glasgow record; as the larvae are associated with seepages on steep slopes, particularly limestone, this specimen may be associated with the nearby exposures of the “limestone coal formation” in the Kelvin gorge (Whitbread, 2013).

Micropezidae: *Neria cibaria*, 24/05/2025.

Muscidae: *Phaonia subventa*, 23/03/2023.

Mycetophilidae: \**Mycetophilidae* sp., 23/10/2024.

Pallopteridae: \**Palloptera scutellata*, 03/10/2024.

Psychodidae: \**Psychoda* sp., (moth flies) 23/04/2021; \**Telmatoscopus* sp., 23/04/2021

Scathophagidae: \**Scathophaga stercoraria* (yellow dung-fly), 19/05/2024.

Simuliidae: \**Simulium ornatum* complex, 23/04/2021.

Stratiomyidae (soldierflies): \**Beris fuscipes* (short-horned black legionnaire), 20/06/2025; *Chloromyia formosa*, broad centurion, 30/06/2024; *Chorisops nagatomii* (bright four-spined legionnaire), 13/08/2023; first Glasgow record of a recent arrival in south-west Scotland (Weddle, 2024).

Syrphidae (hoverflies): *Dasyphyrus albostriatus* (stripe-backed fleckwing), 11/09/2018; *Eristalis arbustorum* (plain-faced dronefly), 05/08/2019; *E. horticola* (stripe-winged dronefly), 05/08/2019; *Eupeodes latifasciatus* (meadow field syrph), 23/08/2018; *Meliscaeva cinctella* (banded meliscaeva), 11/09/2018; *Scaeva pyrastri* (pied hoverfly), 05/08/2019; *Sericomyia silentis* (yellow-barred peat hoverfly), 11/09/2018; *Sphaerophoria* sp., 05/08/2019; *Syritta pipiens* (thick-legged hoverfly), 05/08/2019; *Xylota sylvarum* (golden-tailed leafwalker), 08/06/2025.

Tachinidae: *Gymnocheta viridis*, 19/04/2020; \**Phasia hemiptera*, 05/08/2019; *Tachina ursina*, 19/04/2020.

Tephritidae: *Anomoia purmunda*, 05/08/2019;

*Chaetostomella cylindrica*, 30/07/2022; *Tephritis vespertina*, 30/07/2022.

Tipulidae (craneflies): \**Nephrotoma quadrifaria*, 22/06/2023.

**Hymenoptera** (bees, wasps, ants, ichneumons and sawflies))

**Bees**

Andrenidae: *Andrena clarkei* (Clarke's mining bee),

24/02/2019, one of the more commonly recorded mining bees in Glasgow; *A. denticulata* (grey-banded mining bee), 08/05/2019, only the second Glasgow record, though probably under-recorded; *A. haemorrhoa* (orange-tailed mining bee), 29/05/2019, another of the more commonly recorded mining bees in Glasgow.

Apidae: *Anthophora furcata* (fork-tailed flower bee), 27/06/2019, at the time, only the third record in Glasgow; *A. plumipes* (hairy-footed flower bee), 29/02/2024, the first Glasgow record, there being a further 11 sightings in Glasgow the same year, two of them in GBG; *Bombus bohemicus* (gypsy cuckoo bee), 10/05/2024; *B. sylvestris* (forest cuckoo bee), 29/05/2019; *Nomada marshamella* (Marsham's nomad bee), 29/05/2019.

Halictidae: *Lasioglossum albipes* (bloomed furrow bee), 08/05/2019; *L. leucopus* (white-footed furrow bee), 08/05/2019; *L. smethmanellum* (Smeathman's furrow bee), 27/04/2025.

Megachilidae: *Megachile centuncularis* (patchwork leafcutter bee), 29/05/2019; *M. willughbiella* (Willughby's leafcutter bee), 08/05/2019.

## Wasps

Cynipidae: *Andricus kollari* (marble gall), galls, 08/10/2025.

## Ants

Formicidae: *Linepithema iniquum*, 14/04/2010; *Plagiolepis alluaudi*, 10/01/2023. Both are non-native species found in the glasshouses.

## Ichneumons

Braconidae: \**Braconidae* sp., 18/08/2025.

Ichneumonidae: \**Netelia inedita*, 10/03/2024; \**Ophion slaviceki*, 14/07/2024.

Ichneumons are not uncommon in the moth-trap in summer and autumn, *N. inedita* and *O. slaviceki* being among the larger species found.

## Sawflies

Tenthredinidae: *Euura proxima*, willow bean-galler, 06/05/2023; it is surprising that this very common gall had not been noted before.

## ARACHNIDA

### Acari (mites and ticks)

Eriophyidae: *Acalitus brevitarsus*, 29/05/2023, galls; *Aceria macrorhyncha*, galls, 28/04/2024; *A. pseudoplatani*, galls, 06/11/2022.

Cepheidae: \*Unidentified sp. (thought to be *Cepheus dentatus*), 23/04/2021.

Ixodidae: *Ixodes ricinus* (castor bean tick), 28/04/2024.

\*Unidentified oribatid sp., 23/04/2021.

### Araneae (spiders)

Spiders, particularly relatively small species, are frequently found in the moth trap, though they are not usually kept for identification, mainly because of the need to keep them apart from the collected insects.

Agelenidae: \**Eratigena* sp., 16/05/2024; one of the large “house” spiders.

Clubionidae: *Clubiona comta*, 07/04/2023.

Salticidae: *Hasarius adansoni*, 02/10/2019; \**Salticus scenicus*, 23/07/2025  
Uloboridae: *Uloborus plumipes*, 04/12/2024.

### Opiliones (harvestmen)

Phalangiidae: \**Nelima gothica*, 07/09/2021. Strangely, *Nemastoma bimaculatum*, a common epigean harvestman, has yet to be found in GBG.

## CRUSTACEA

### Isopoda (woodlice)

Armadillidiidae: *Reductoniscus costulatus*, 06/05/2013, in the Palm House, first record for Scotland.

Trichoniscidae: *Haplophthalmus danicus*, 17/04/2013, first recorded in Glasgow at locations including Springburn Park in 1906, and more recently at The Hidden Gardens, Pollokshields.

## MYRIAPODA

### Chilopoda (centipedes)

Mecistocephalidae: *Tygarup javanicus*, 17/04/2013, in a glasshouse, first Scottish record.

### Diplopoda (millipedes)

Blaniulidae: *Proteriulus fuscus*, 17/04/2013, in a glasshouse, previously recorded in Glasgow at The Hidden Gardens in 2021.

Julidae: *Cylindroiulus caeruleocinctus*, 28/04/2024, in a glasshouse, first Glasgow record, though there is a 2008 record from Paisley Moss Local Nature Reserve.

Pyrgodesmidae: *Poratia digitata*, 17/04/2013, in a glasshouse, first Scottish record.

## MOLLUSCA

### Gastropoda (snails and slugs)

Clausiliidae: *Balea sarsii*, 18/03/2023, first Glasgow record, though there are records from Rouken Glen (East Renfrewshire), Mugdock Country Park (Stirlingshire) and other parts of the Clyde area. It is perhaps rather unexpected in Glasgow as it is very sensitive to pollution (A. Sumner, pers. comm.), and so perhaps its presence indicates improving pollution levels.

## DISCUSSION

That so many new species have been found in the moth trap is due partly to the arrival of new moth species in the Glasgow area, possibly as a result of climate change. It may also reflect an increased effort to identify them, which has been greatly facilitated in recent years by easier access to identification keys, particularly online, and by recent field guides to the smaller moths (Micro-lepidoptera) such as Sterling (2023) and Langmaid *et al.* (2025).

Other additions to the GBG list will no doubt include smaller species that had been previously overlooked, although the most significant factor may be the availability of online recording systems such as iRecord and iNaturalist and the increasing number of “citizen scientists” who are now using these to record what they see in the field. There have also been several bioblitzes organised by RSPB in the years since the last major update (Weddle, 2021a), though, as mentioned in that

paper, there still remains scope for recording and identifying more of the leaf-mines and galls, to which should be added the smaller Hemiptera, and Diptera large and small. The Ichneumonidae are also likely to be under-recorded; though some of the larger species can now potentially be identified using online resources such as dedicated Facebook groups, most of the smaller species are best tackled by rearing them from the larval stages that they parasitise, which would be a very worthwhile project for anyone inclined to tackle it.

The new species from the glasshouses are non-native and have been introduced on exotic plant material.

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