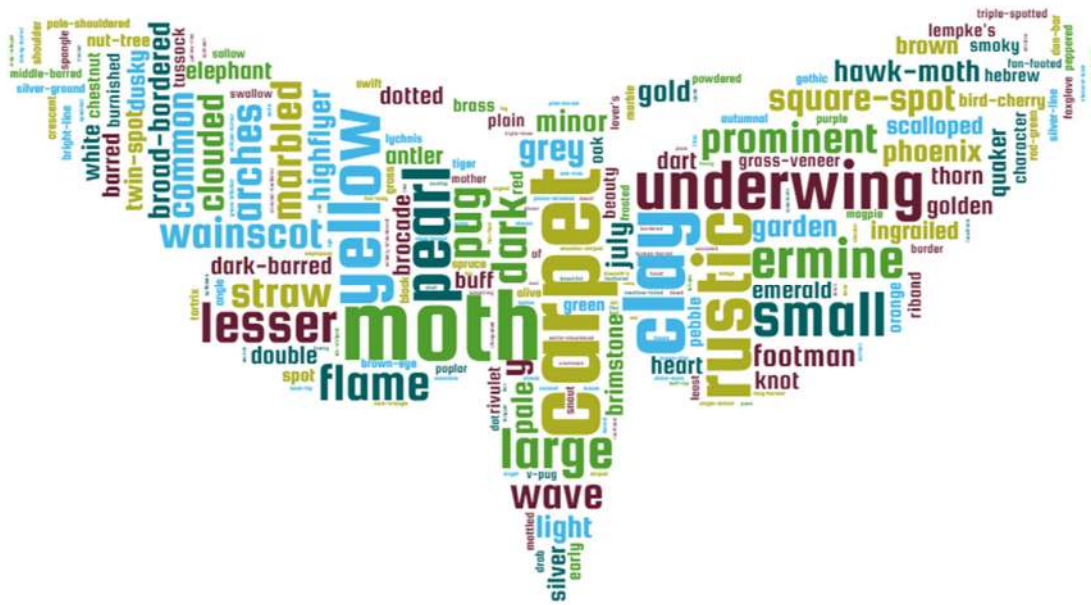


Moths at Home

Final Report



by

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South West Scotland Environmental Information Centre

for

Butterfly Conservation Glasgow & South West Scotland Branch

October 2019



Saving butterflies, moths and our environment

**Butterfly
Conservation
Scotland**



**South West Scotland
Environmental
Information
Centre**



GALLOWAY GLENS
Landscape Partnership



**HERITAGE
FUND**



**Dumfries
& Galloway**

Background

Early in 2019, the Glasgow & South West Scotland Branch of Butterfly Conservation (BC) received confirmation from Galloway Glens Landscape Partnership (GGLP) that their application for a small grant for a project entitled Moths at Home had been successful.

Moths at Home - purpose

The agreed purpose of Moths at Home was to demonstrate to members of local communities the beauty and diversity of moths that live in their own gardens. The project will also explain the ecological importance of moths, how gardens can be managed for their benefit, and how recording moths can benefit their conservation, whilst being fun to do.

A total of £3500 was awarded by GGLP to the Moths at Home project (total value £8000) and consent to start was granted on 23 April 2019. South West Scotland Environmental Information Centre (SWSEIC) was appointed to run the community moth-trapping elements of the project, for which BC purchased new light traps and associated equipment.



Top left: Clouded Silver, right: Burnished Brass. Bottom left: Swallow-tailed, right: Drinker

Project outputs

On 2 May 2019, South West Scotland Environmental Information Centre (SWSEIC) was contracted by Butterfly Conservation to provide the following outputs for the project:

Moths at Home – SWSEIC outputs

- To organise 6 community events in Galloway.
- Establish contact with relevant groups/individuals in communities in the Galloway Glens area.
- Ensure wide geographical spread.
- Agree dates and locations with communities for 6 community moth-trapping events.
- Recruit volunteer moth recorders for each event (c3 per event).
- Co-ordinate 6 events, including health and safety risk assessments.
- Collate all moth records from the events and send validated, verified data to local and national databases (National Moth Recording Scheme).
- Feedback results to all participants and communities after the events.
- Reports due end of June and September 2019.
- Ensure due recognition of Butterfly Conservation in publicity and communications.
- Arrange project launch and co-ordinate publicity with Paul Kirkland (BC).

With the benefit of experience of several other community moth-trapping events in Dumfries and Galloway, and a network of existing community representatives, the aim of SWSEIC was that a significant proportion of participants should be new to moth and/or wildlife recording.

Project activities

Project launch

A photo opportunity at SWSEIC offices, Kirkgunzeon, was arranged for 4 June 2019, attended by Jude Crooks (GGLP), Paul Kirkland (BC), Mark Pollitt (SWSEIC) and Peter Norman (SWSEIC). A press release was prepared by GGLP with assistance from SWSEIC and input from BC. As a result, an article was published in the Galloway News on 13 June 2019 (see below).



Contact with communities

During the summer, contact was established with 7 community groups or community representatives in the Galloway Glens area. Meetings were arranged and attended with representatives from 2 of these communities; otherwise all communication was via email. The project was described and explained to each community and agreements were made to progress the project with all 7, though one community did not progress as far as finalising an event, due to failure to find a suitable date and/or participants.

The events

Dates and locations were agreed for moth-trapping events within 6 communities, geographically spread throughout the Galloway Glens area. The ideal number of traps for each community was considered to be 5-6, which would allow identification of the catch to be completed within a reasonable time period.

Moths at Home – events

- 15-16 May. **Carsphairn** (in conjunction with Carsphairn Community Woodland Ltd) at Muirdrochwood.
- 20-21 June. **Kirkcudbright** (in conjunction with Kirkcudbright Development Trust) at Barhill Community Wood.
- 26-27 July. **St John's Town of Dalry** (in conjunction with Dalry Community Council) at Dalry Town Hall.
- 16-17 August. **New Galloway** at CatStrand Arts Centre.
- 19-20 September. **Mossdale** (in conjunction with Mossdale Village Hall Committee) at Village Hall.
- 23-24 September. **Crossmichael** (in conjunction with Crossmichael Community Council) at Crossmichael Primary School.



The dates of each event, the participating community group (where applicable), and the central venue where the event was based are shown below.

Health and safety risk assessments were prepared for each event. The Mossdale event was originally planned for 8-9th August, but had to be postponed due to adverse weather conditions.

Landowner permission for the placing of traps was not usually required since most traps were set on land owned by event participants, though permission was sought to use a central venue within each community, where the catch could be observed and identified. At Carsphairn where some traps were placed on land managed by Forest and Land Scotland (FLS), SWSEIC was required to complete detailed paperwork.

SWSEIC met with community participants at a pre-arranged location prior to setting traps. This enabled the background to the project, the project partners and the ecological importance of moths to be described; traps to be allocated and their locations noted; trap-setting demonstrated; health and safety instructions delivered; and advice given on how to close up and transport traps. Participants then took the traps away and set them overnight in their gardens or other community greenspaces. In a few locations, SWSEIC staff set traps in conjunction with participants. A total of 35 traps were set.

Prior to trapping at Crossmichael, SWSEIC also delivered a classroom-based talk on moths to P3-5 pupils.

The following morning, participants brought their traps to the central venue where SWSEIC staff and volunteers identified the catch. Several of these identification sessions were advertised as open to the public. Events generally ran from 9.30am to lunchtime, though most participants only stayed for part of this time.

Event publicity

Participants were mainly recruited to events through personal contact via community representatives. This enabled people to participate without the need to divulge their contact details to the project organisers, a fact that encouraged several people with no previous experience of moth-trapping or membership of conservation organisations to participate.

In addition, flyers (produced by SWSEIC, shown right) were circulated by communities at Kirkcudbright and Dalry. The events were also promoted at the SWSEIC annual conference in March and advertised through the SWSEIC monthly newsletter and social media posts. A small number of additional participants made contact via these channels.



Volunteer moth recorders

Volunteers to assist with moth identification and liaison with the public were recruited via existing SWSEIC contacts. Five different volunteers assisted, with an average of 2.5 volunteers per event. One volunteer also identified difficult species at home, in addition to attending events. A number of other volunteers assisted with other tasks at the events.

SWSEIC kept a record of volunteer moth recorder hours and authorised claims for travel expenses prior to forwarding to BC.

Feedback to communities

Within 5-10 days of the completion of each event, species lists for each trap and a summary of all traps in the community were prepared and circulated, either directly to participants or via the community representatives. Details of useful websites, organisations and 'how to get more involved' were provided at the same time. At the final two events, Mossdale and Crossmichael, photos of some of the species caught were also provided to participants.

In addition, all results (omitting personal addresses) were posted on the SWSEIC website at <https://swseic.org.uk/projects/moths-at-home/> after each event. At the conclusion of the project, infographics were added to this website to illustrate the overall results (see below).

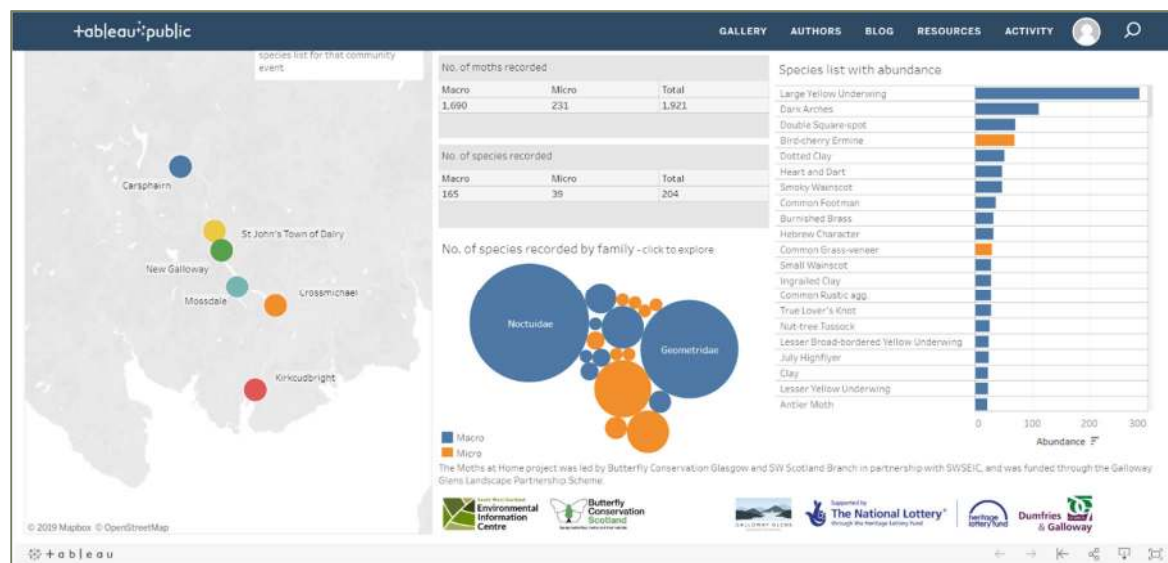


Figure 1. Interactive map and charts on the Moths at Home web page showing the survey results.



Moths sketches by Crossmichael Primary School

Project results

People

A total of 34 different people from the 6 communities participated by setting traps in their gardens or community greenspaces. Of these, 2 participants owned moth traps but did not consider themselves as regular trappers; 4 participants had experience of moth-trapping at another public event; the remaining 28 participants experienced moth-trapping for the first time as a result of the project.

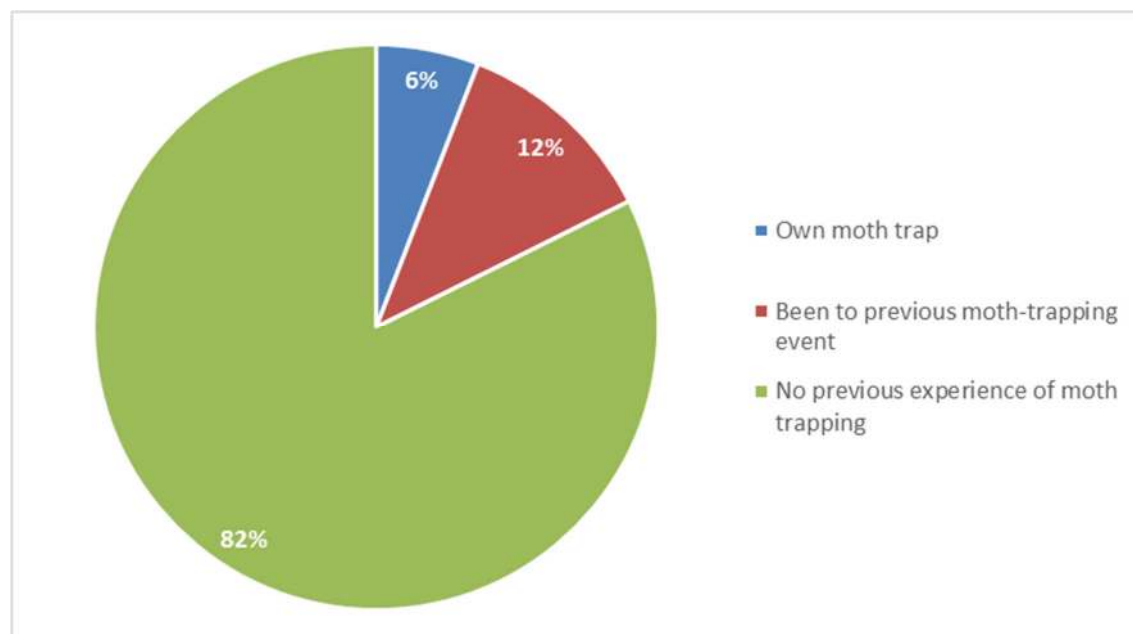


Figure 2. Previous experience of Moths at Home participants

Five different expert volunteer moth recorders helped with the identification sessions, most of them at more than one session, giving 16 volunteer sessions with a total of 63 hours and 55 minutes (equivalent to 8 working days) of voluntary work.

Approximately 120 other people attended the events, in addition to participants (trap setters) and expert volunteers. This included around 45 pupils from Crossmichael Primary School.

No formal feedback from participants was requested by SWSEIC, but the following comments were received:

“absolutely fascinating information and we can’t thank the three of you enough for the time and trouble that you went to”

“a really interesting morning seeing them identified”

“Thank you for the well-organised and efficiently run event. I was amazed and impressed with the number caught in a small battery-powered trap”

“We certainly enjoyed the experience and appreciate the help from you in doing the IDs and providing other interesting snippets!”

“Thanks so much for organising the moth trapping. The children were all very enthusiastic and really enjoyed being able to sketch the moths.”



Photographs of activities, participants and moths caught during the project.

Moths

From all 6 community events, 1921 moths were caught and 204 different species were identified. Every community caught species that were not recorded by other communities and records covered 19 different 1km squares in the Galloway Glens area.

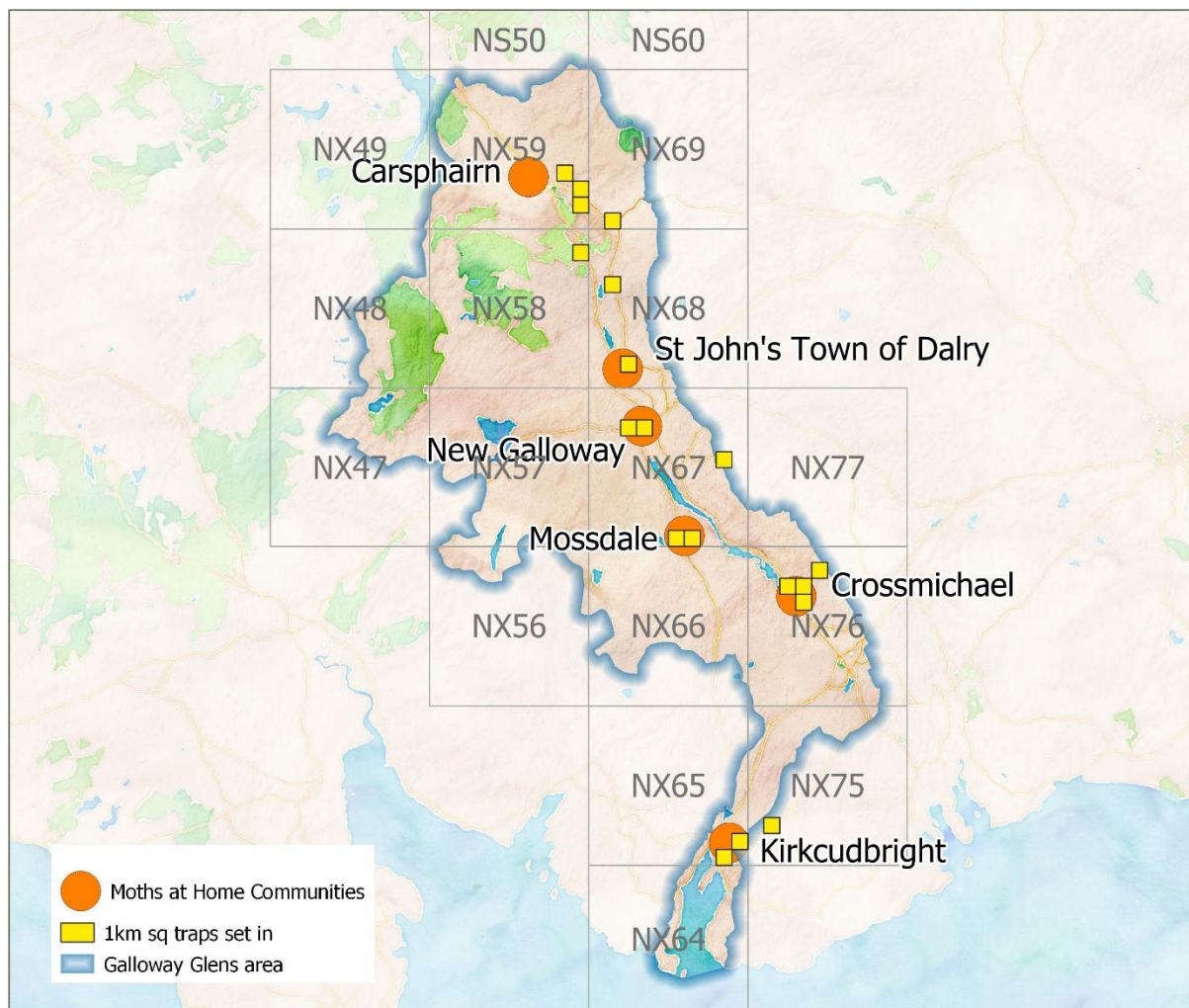


Figure 3. Communities involved in Moths at Home, and 1km squares where moth traps were set.

The variation in catch size was mainly a factor of overnight weather conditions and time of year, the Dalry event being particularly favoured with good conditions. The low numbers of moths caught during the spring and autumn events, were compensated by species being caught that were not recorded during the summer.

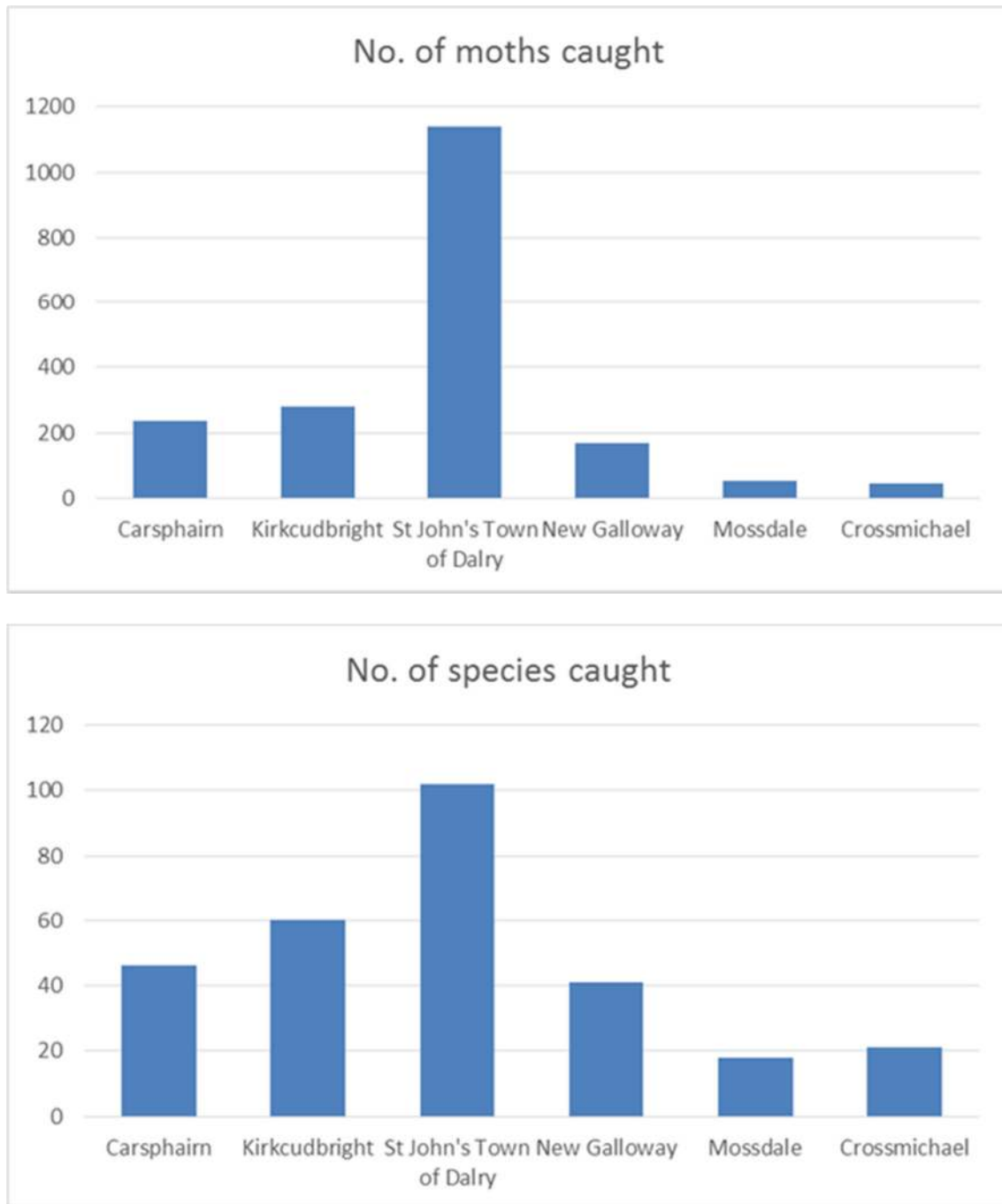


Figure 4. Number of moths and different species recorded at each Moths at Home event.

Moths caught included the following highlights:

Large and/or colourful species:

- Puss Moth (top right)
- Elephant Hawk-moth
- Poplar Hawk-moth
- Garden Tiger (middle right)
- Fox Moth

Scarce species in Scotland:

- Clay Triple-lines (bottom right)
- Devon Carpet
- August Thorn

Migrant species:

- Vestal



Trap by trap analysis has shown that a large number of species at each event were recorded from only a single trap, demonstrating the value of setting multiple traps in each community. Even traps that caught a very low number of moths, often caught species that were not found in other traps.

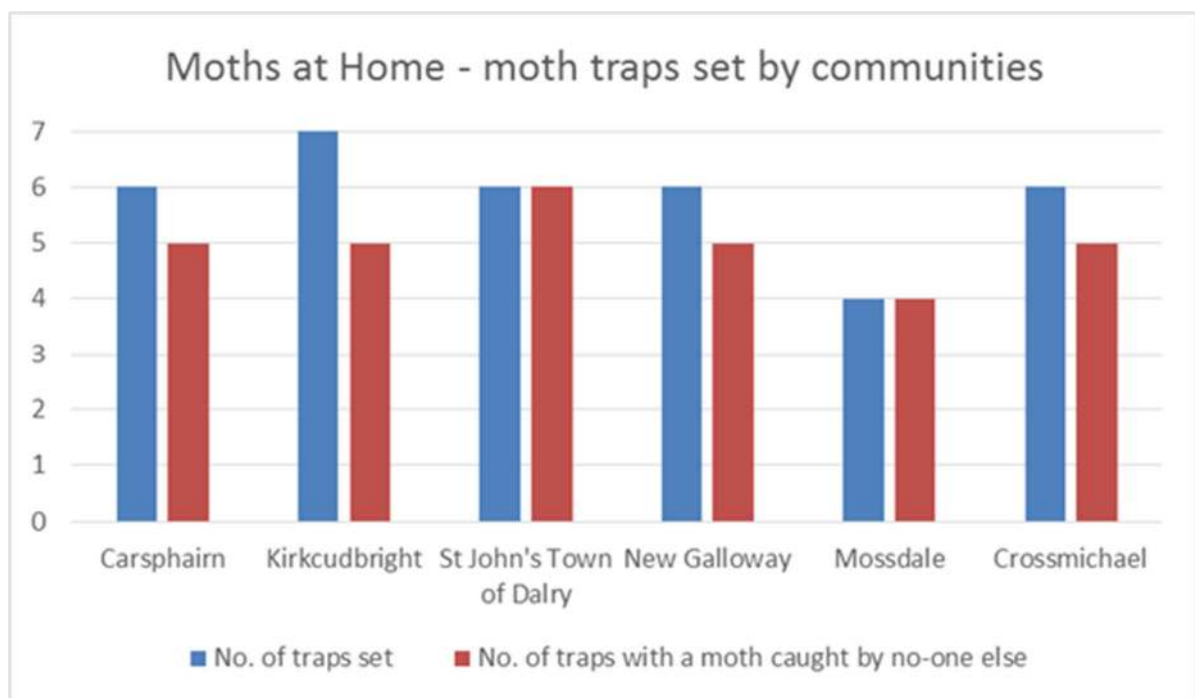


Figure 5. Traps catching one or more unique species per event.

A full list of species recorded and the summary results from each event is given in the appendices. All results were forwarded to the County Moth Recorder for inclusion in national datasets.

Conclusion

The Moths at Home project was successfully completed, fulfilling its stated outputs and reaching the agreed purpose.

The results of the project can be summarised in the following statistics:

- 6 communities engaged
- 34 people actively involved
- Another 120 people attended events
- 5 expert volunteer moth recorders
- 8 days' worth of expert volunteer assistance
- 35 traps set
- 1921 moths caught
- 204 moth species identified and recorded

Outcomes

The benefits of the project can be summarised as follows:

- People from local communities experienced the enjoyment of recording moths.
- People were introduced to the beauty, diversity and ecological importance of moths for the first time.
- The value of private gardens and community greenspaces within the Galloway Glens area for moths and other wildlife was demonstrated.
- Moth records were collected for the Galloway Glens area, which will be available to support education, monitoring and conservation activities in the future.

Recommendations for future activities

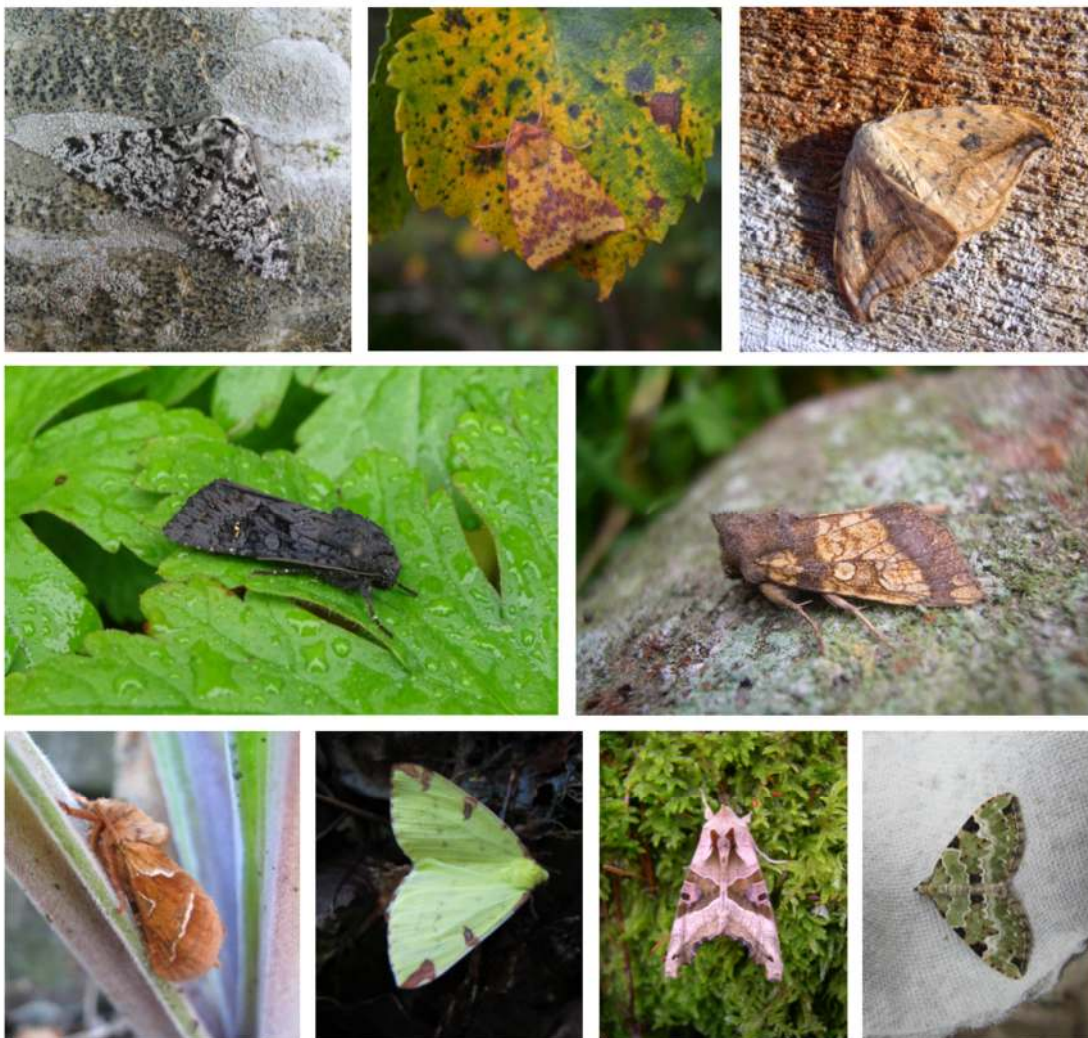
- BC and SWSEIC should consider how best to continue engagement with participants from Moths at Home. Two communities and several participants have already expressed an interest in repeating the events.
- BC and SWSEIC should consider whether the principles of Moths at Home can continue to be applied more widely (community moth-trapping events have already been held during summer 2019 at Kirkgunzeon, Lochmaben and Glencaple using Moths at Home principles).
- GGLP should consider whether the principles of Moths at Home can be applied to other species groups in the Galloway Glens area.
- FLS should review their requirement for a detailed application for permission to run small-scale and low-risk activities events of this type on land that they manage.

Acknowledgements

Special thanks to the community representatives, without whom the project could not have been completed: Wendy Fenton (Carsphairn), Rob Asbridge (Kirkcudbright), Andrew Bielinski (Dalry), Joan Howie (New Galloway), John Houfe (Mosssdale), Richard Middleton (Crossmichael) and Kate Adamson (Crossmichael).

Special thanks to the project volunteer moth experts: David Foreman, Anna White, Keith Naylor, Alastair Sommerville and especially Alison Robertson who confirmed the identification of 'difficult to ID' species. Thanks also to Janet Foreman, Callum White, Marilyn Naylor and the staff of Crossmichael Primary School for other assistance at events.

Thanks to the staff of GGLP, especially Jude Crooks, McNabb Laurie and Helen Keron.



Left to right, top row: Peppered Moth, Pink-barred Sallow, Pebble Hook-tip. Middle row: Black Rustic, Frosted Orange. Bottom row: Orange Swift, Brimstone, Angle Shades, Green Carpet.

Appendix 1 – Overall summary of results

Moths at Home

Community moth trapping results - summary by event

No. of community trapping sessions:	6
No. of traps set:	35
No. of moths caught	1921
No. of species recorded:	204
No. of monads (1km squares) recorded in:	19

Species list				Community					
				Carsphairn	Kirkcudbright	St John's Town of Dalry	New Galloway	Mossdale	Crossmichael
Macro/micro	ABH	Common Name	Taxon						
Micro	-	Epiblema sp.	<i>Epiblema</i>	✓					
Micro	-	Eudonia/Scoparia sp.	<i>Scopariinae</i>			✓			
Micro	-	Yponomeuta sp.	<i>Yponomeuta</i>			✓	✓		
Micro	16.001	Bird-cherry Ermine	<i>Yponomeuta evonymella</i>			✓	✓		
Micro	16.020	Hawthorn Ermine	<i>Paraswammerdamia nebulella</i>			✓			
Micro	18.001	Diamond-back Moth	<i>Plutella xylostella</i>		✓				
Micro	20.012	Golden Argent	<i>Argyresthia goedartella</i>			✓			
Micro	28.009	White-shouldered House Moth	<i>Endrosis sarcitrella</i>	✓					
Micro	31.001	Long-horned Flat-body	<i>Carcina quercana</i>			✓			
Micro	35.038	House Neb	<i>Bryotropha domestica</i>				✓		
Micro	35.040	Cinereous Neb	<i>Bryotropha terrella</i>			✓			
Micro	41.003	London Dowd	<i>Blastobasis lacticolella</i>			✓			
Micro	49.028	Dark-barred Tortrix	<i>Syndemis musculana</i>	✓					
Micro	49.029	Large Ivy Tortrix	<i>Lozotaenia forsterana</i>		✓				
Micro	49.039	Light Brown Apple Moth	<i>Epiphyas postvittana</i>		✓				
Micro	49.051	Flax Tortrix	<i>Cnephasia asseclana</i>				✓		
Micro	49.066	Dark-triangle Button	<i>Acleris laterana</i>				✓		
Micro	49.157	Plum Tortrix	<i>Hedya pruniana</i>		✓				
Micro	49.166	Common Marble	<i>Celypha lacunana</i>			✓			
Micro	49.255	Grey Poplar Bell	<i>Epinotia nisella</i>				✓		
Micro	49.259	Spruce Bud Moth	<i>Zeiraphera ratzeburgiana</i>				✓		
Micro	49.265	Hoary Bell	<i>Eucosma cana</i>			✓			
Micro	62.001	Bee Moth	<i>Aphomia sociella</i>		✓				
Micro	63.005	Staw-barred Pearl	<i>Pyrausta despicata</i>			✓			
Micro	63.007	Common Purple & Gold	<i>Pyrausta purpuralis</i>			✓			
Micro	63.025	Small Magpie	<i>Anania hortulata</i>		✓				
Micro	63.033	Pale Straw Pearl	<i>Udea lutealis</i>			✓	✓		
Micro	63.034	Dusky Pearl	<i>Udea prunalis</i>			✓			
Micro	63.037	Olive Pearl	<i>Udea olivalis</i>		✓				
Micro	63.038	Mother of Pearl	<i>Pleuroptya ruralis</i>			✓	✓		
Micro	63.060	Chequered Pearl	<i>Evergestis pallidata</i>			✓	✓		
Micro	63.064	Common Grey	<i>Scoparia ambigualis</i>		✓				
Micro	63.067	Little Grey	<i>Eudonia lacustrata</i>			✓			
Micro	63.073	Ground-moss Grey	<i>Eudonia truncicolella</i>				✓		
Micro	63.074	Small Grey	<i>Eudonia mercurella</i>			✓			
Micro	63.080	Garden Grass-veneer	<i>Chrysoteuchia culmella</i>		✓	✓			
Micro	63.088	Satin Grass-veneer	<i>Crambus perlella</i>			✓			
Micro	63.089	Common Grass-veneer	<i>Agriphila tristella</i>			✓	✓		
Micro	63.090	Barred Grass-veneer	<i>Agriphila inquinatella</i>			✓			
Micro	63.093	Straw Grass-veneer	<i>Agriphila stramineella</i>			✓			
Micro	63.099	Pearl Grass-veneer	<i>Catoptria pinella</i>		✓	✓			
Micro	63.114	Brown China-mark	<i>Elophila nymphaeata</i>			✓			
Macro	-	Amphipoea sp.	<i>Amphipoea</i>			✓			
Macro	-	Common/Dark Marbled Carpet agg.	<i>Dysstroma truncata/citrata</i>					✓	
Macro	-	Pug sp.	<i>Eupithecia</i> sp.			✓			
Macro	3.001	Orange Swift	<i>Triodia sylvina</i>			✓			
Macro	3.003	Map-winged Swift	<i>Korscheltellus fuscinebulosa</i>		✓				
Macro	65.005	Pebble Hook-tip	<i>Drepana falcatoria</i>	✓					
Macro	65.013	Common Lutestring	<i>Ochropacha duplaris</i>		✓				
Macro	66.008	Fox Moth	<i>Macrothylacia rubi</i>	✓					
Macro	69.003	Poplar Hawk-moth	<i>Laothoe populi</i>	✓	✓				
Macro	69.016	Elephant Hawk-moth	<i>Deilephila elpenor</i>	✓	✓	✓			
Macro	69.017	Small Elephant Hawk-moth	<i>Deilephila porcellus</i>	✓	✓				
Macro	70.011	Single-dotted Wave	<i>Idaea dimidiata</i>			✓			
Macro	70.013	Small Fan-footed Wave	<i>Idaea biselata</i>			✓			
Macro	70.016	Riband Wave	<i>Idaea aversata</i>		✓	✓			
Macro	70.037	Clay Triple-lines	<i>Cyclophora linearia</i>		✓				
Macro	70.038	Vestal	<i>Rhodometra sacraria</i>						✓
Macro	70.049	Garden Carpet	<i>Xanthorhoe fluctuata</i>		✓		✓		
Macro	70.052	Dark-barred Twin-spot Carpet	<i>Xanthorhoe ferrugata</i>	✓		✓	✓		

Macro/micro	ABH	Common Name	Taxon	Carsphairn	Kirkcudbright	St John's Town of Dalry	New Galloway	Mossdale	Crossmichael
Macro	70.053	Flame Carpet	<i>Xanthorhoe designata</i>	✓	✓	✓	✓		
Macro	70.054	Silver-ground Carpet	<i>Xanthorhoe montanata</i>		✓				
Macro	70.061	Common Carpet	<i>Epirhoe alternata</i>			✓			
Macro	70.074	July Highflyer	<i>Hydriomena furcata</i>			✓	✓	✓	✓
Macro	70.079	Spruce Carpet	<i>Thera britannica</i>	✓				✓	
Macro	70.086	Broken-barred Carpet	<i>Electrophaes corylata</i>		✓				
Macro	70.087	Purple Bar	<i>Cosmorhoe ocellata</i>			✓			
Macro	70.091	Northern Spinach	<i>Eulithis populata</i>			✓			
Macro	70.093	Barred Straw	<i>Gandaritis pyraliata</i>			✓			
Macro	70.094	Small Phoenix	<i>Ecliptopera silaceata</i>	✓		✓	✓		
Macro	70.095	Red-green Carpet	<i>Chloroclysta siterata</i>	✓					✓
Macro	70.097	Common Marbled Carpet	<i>Dysstroma truncata</i>		✓			✓	✓
Macro	70.098	Dark Marbled Carpet	<i>Dysstroma citrata</i>			✓	✓		
Macro	70.100	Green Carpet	<i>Colostygia pectinataria</i>		✓	✓		✓	
Macro	70.102	Striped Twin-spot Carpet	<i>Nebula salicata</i>	✓					
Macro	70.103	Water Carpet	<i>Lampropteryx suffumata</i>		✓				
Macro	70.104	Devon Carpet	<i>Lampropteryx otregiata</i>				✓		
Macro	70.121	Scallop Shell	<i>Hydria undulata</i>			✓			
Macro	70.132	Rivulet	<i>Perizoma affinitata</i>			✓			
Macro	70.133	Small Rivulet	<i>Perizoma alchemillata</i>			✓			
Macro	70.142	V-Pug	<i>Chloroclystis v-ata</i>			✓			
Macro	70.147	Slender Pug	<i>Eupithecia tenuiata</i>			✓			
Macro	70.151	Foxglove Pug	<i>Eupithecia pulchellata</i>	✓	✓				
Macro	70.157	Oak-tree Pug	<i>Eupithecia dodoneata</i>	✓					
Macro	70.162	Dwarf Pug	<i>Eupithecia tantillaria</i>	✓					
Macro	70.182	Currant Pug	<i>Eupithecia assimilata</i>	✓					
Macro	70.183	Common Pug	<i>Eupithecia vulgata</i>	✓	✓				
Macro	70.187	Tawny Speckled Pug	<i>Eupithecia icterata</i>			✓			
Macro	70.195	Streak	<i>Chesias legatella</i>					✓	
Macro	70.206	Clouded Magpie	<i>Abraxas sylvata</i>		✓				
Macro	70.207	Clouded Border	<i>Lomaspilis marginata</i>			✓			
Macro	70.214	Tawny-barred Angle	<i>Macaria liturata</i>	✓					
Macro	70.222	Brown Silver-line	<i>Petrophora chlorosata</i>	✓					
Macro	70.226	Brimstone Moth	<i>Opisthograptis luteolata</i>		✓	✓			
Macro	70.227	Bordered Beauty	<i>Epione repandaria</i>				✓		
Macro	70.233	August Thorn	<i>Ennomos quercinaria</i>						✓
Macro	70.234	Canary-shouldered Thorn	<i>Ennomos alniaria</i>					✓	
Macro	70.237	Early Thorn	<i>Selenia dentaria</i>	✓		✓			
Macro	70.238	Lunar Thorn	<i>Selenia lunularia</i>	✓					
Macro	70.240	Scalloped Hazel	<i>Odontopera bidentata</i>	✓					
Macro	70.241	Scalloped Oak	<i>Crocallis elinguaris</i>			✓			
Macro	70.243	Swallow-tailed Moth	<i>Ourapteryx sambucaria</i>			✓			
Macro	70.252	Peppered Moth	<i>Biston betularia</i>	✓	✓				
Macro	70.265	Mottled Beauty	<i>Alcis repandata</i>		✓				
Macro	70.274	Grey Birch	<i>Aethalura punctulata</i>	✓					
Macro	70.277	Common White Wave	<i>Cabera pusaria</i>		✓				
Macro	70.278	Common Wave	<i>Cabera exanthemata</i>			✓			
Macro	70.280	Clouded Silver	<i>Lomographa temerata</i>	✓					
Macro	70.283	Light Emerald	<i>Campaea margaritaria</i>		✓	✓			
Macro	70.284	Barred Red	<i>Hylaea fasciaria</i>			✓			
Macro	71.003	Puss Moth	<i>Cerura vinula</i>	✓					
Macro	71.013	Pebble Prominent	<i>Notodonta ziczac</i>	✓		✓			
Macro	71.018	Lesser Swallow Prominent	<i>Pheosia gnoma</i>	✓			✓		
Macro	71.020	Pale Prominent	<i>Pterostoma palpina</i>	✓			✓		
Macro	71.021	Coxcomb Prominent	<i>Ptilodon capucina</i>	✓		✓			
Macro	71.025	Buff-tip	<i>Phalera bucephala</i>		✓	✓			
Macro	72.001	Herald	<i>Scoliopteryx libatrix</i>	✓					
Macro	72.002	Straw Dot	<i>Rivula sericealis</i>			✓			
Macro	72.003	Snout	<i>Hypena proboscidalis</i>		✓	✓			✓
Macro	72.019	Buff Ermine	<i>Spilosoma lutea</i>		✓				
Macro	72.020	White Ermine	<i>Spilosoma lubricipeda</i>	✓	✓				
Macro	72.026	Garden Tiger	<i>Arctia caja</i>			✓			
Macro	72.043	Buff Footman	<i>Eilema depressa</i>			✓	✓		
Macro	72.045	Common Footman	<i>Eilema lurideola</i>			✓	✓		
Macro	72.053	Fan-foot	<i>Herminia tarsipennalis</i>			✓			
Macro	72.060	Marsh Oblique-barred	<i>Hypenodes humidalis</i>			✓			
Macro	72.061	Pinion-streaked Snout	<i>Schrankia costaeistrigalis</i>			✓			
Macro	73.001	Spectacle	<i>Abrostola tripartita</i>		✓				
Macro	73.012	Burnished Brass	<i>Diachrysis chrysis</i>			✓			
Macro	73.015	Silver Y	<i>Autographa gamma</i>			✓		✓	✓
Macro	73.016	Beautiful Golden Y	<i>Autographa pulchrina</i>		✓	✓			
Macro	73.017	Plain Golden Y	<i>Autographa jota</i>			✓	✓		

Macro/micro	ABH	Common Name	Taxon	Carsphairn	Kirkcudbright	St John's Town of Dalry	New Galloway	Mossdale	Crossmichael
Macro	73.018	Gold Spangle	<i>Autographa bractea</i>			✓	✓		
Macro	73.023	Lempke's Gold Spot	<i>Plusia putnami</i>			✓			
Macro	73.032	Nut-tree Tussock	<i>Colocasia coryli</i>	✓	✓				
Macro	73.0381	Dark/Grey Dagger agg.	<i>Acronicta tridens/psi</i>			✓			
Macro	73.042	Light Knot Grass	<i>Acronicta menyanthidis</i>	✓					
Macro	73.045	Knot Grass	<i>Acronicta rumicis</i>	✓					
Macro	73.068	Green-brindled Crescent	<i>Allophyes oxyacanthae</i>					✓	✓
Macro	73.096	Uncertain	<i>Hoplodrina octogenaria</i>			✓			
Macro	73.0961	Uncertain/Rustic agg.	<i>Hoplodrina octogenaria/blanda</i>			✓			
Macro	73.097	Rustic	<i>Hoplodrina blanda</i>			✓			
Macro	73.102	Brown Rustic	<i>Rusina ferruginea</i>		✓				
Macro	73.113	Angle Shades	<i>Phlogophora meticulosa</i>						✓
Macro	73.114	Small Angle Shades	<i>Euplexia lucipara</i>		✓				
Macro	73.118	Haworth's Minor	<i>Celaena haworthii</i>			✓			
Macro	73.119	Crescent	<i>Helotropa leucostigma</i>				✓		
Macro	73.121	Frosted Orange	<i>Gortyna flavago</i>					✓	✓
Macro	73.123	Rosy Rustic	<i>Hydraecia micacea</i>				✓		
Macro	73.127	Large Ear	<i>Amphipoea lucens</i>					✓	
Macro	73.1281	Ear moth agg.	<i>Amphipoea oculea agg.</i>					✓	
Macro	73.134	Large Wainscot	<i>Rhizedra lutosa</i>					✓	
Macro	73.144	Small Wainscot	<i>Denticucullus pygmina</i>			✓			✓
Macro	73.154	Dusky Brocade	<i>Apamea remissa</i>		✓	✓			
Macro	73.156	Clouded-bordered Brindle	<i>Apamea crenata</i>		✓				
Macro	73.160	Slender Brindle	<i>Apamea scolopacina</i>			✓			
Macro	73.162	Dark Arches	<i>Apamea monoglypha</i>		✓	✓	✓		
Macro	73.163	Light Arches	<i>Apamea lithoxylaea</i>			✓			
Macro	73.169	Common Rustic	<i>Mesapamea secalis</i>			✓			
Macro	73.1691	Common Rustic agg.	<i>Mesapamea secalis agg.</i>			✓	✓		
Macro	73.171	Rosy Minor	<i>Litologia literosa</i>			✓			
Macro	73.1731	Marbled Minor agg.	<i>Oligia strigilis agg.</i>		✓	✓			
Macro	73.176	Middle-barred Minor	<i>Oligia fasciuncula</i>		✓				
Macro	73.181	Pink-barred Sallow	<i>Xanthia togata</i>					✓	✓
Macro	73.182	Sallow	<i>Cirrhia icteritia</i>				✓		✓
Macro	73.189	Red-line Quaker	<i>Agrochola lota</i>						✓
Macro	73.190	Yellow-line Quaker	<i>Agrochola macilenta</i>					✓	✓
Macro	73.193	Lunar Underwing	<i>Omphaloscelis lunosa</i>						✓
Macro	73.194	Chestnut	<i>Conistra vaccinii</i>						✓
Macro	73.216	Dun-bar	<i>Cosmia trapezina</i>			✓	✓		
Macro	73.228	Grey Chi	<i>Antitype chi</i>				✓		
Macro	73.233	Black Rustic	<i>Aporophyla nigra</i>					✓	✓
Macro	73.242	Clouded Drab	<i>Orthosia incerta</i>	✓					
Macro	73.244	Common Quaker	<i>Orthosia cerasi</i>	✓					
Macro	73.245	Small Quaker	<i>Orthosia cruda</i>	✓					
Macro	73.247	Powdered Quaker	<i>Orthosia gracilis</i>	✓					
Macro	73.249	Hebrew Character	<i>Orthosia gothica</i>	✓					
Macro	73.252	Hedge Rustic	<i>Tholera cespitis</i>					✓	
Macro	73.253	Feathered Gothic	<i>Tholera decimalis</i>				✓		
Macro	73.254	Antler Moth	<i>Cerapteryx graminis</i>			✓	✓		
Macro	73.261	Grey Arches	<i>Polia nebulosa</i>			✓			
Macro	73.264	Pale-shouldered Brocade	<i>Lacanobia thalassina</i>	✓	✓				
Macro	73.267	Bright-line Brown-eye	<i>Lacanobia oleracea</i>		✓	✓			
Macro	73.270	Dot Moth	<i>Melanchra persicariae</i>		✓				
Macro	73.271	Broom Moth	<i>Ceramica pisi</i>	✓					
Macro	73.273	Shears	<i>Hada plebeja</i>		✓				
Macro	73.281	Lychnis	<i>Hadena bicurris</i>	✓	✓				
Macro	73.283	Marbled Coronet	<i>Hadena confusa</i>		✓				
Macro	73.290	Brown-line Bright Eye	<i>Mythimna conigera</i>			✓			
Macro	73.293	Smoky Wainscot	<i>Mythimna impura</i>			✓			
Macro	73.298	Clay	<i>Mythimna ferrago</i>			✓			
Macro	73.301	Shoulder-striped Wainscot	<i>Leucania comma</i>		✓				
Macro	73.317	Heart and Dart	<i>Agrotis exclamationis</i>		✓	✓			
Macro	73.328	Flame	<i>Axyia putris</i>		✓	✓			✓
Macro	73.329	Flame Shoulder	<i>Ochroleuca plecta</i>		✓				
Macro	73.331	Barred Chestnut	<i>Diarsia dahlii</i>			✓	✓		
Macro	73.332	Purple Clay	<i>Diarsia brunnea</i>		✓	✓			
Macro	73.333	Ingrailed Clay	<i>Diarsia mendica</i>		✓	✓			
Macro	73.334	Small Square-spot	<i>Diarsia rubi</i>		✓		✓		
Macro	73.336	Red Chestnut	<i>Cerastis rubricosa</i>	✓					
Macro	73.338	True Lover's Knot	<i>Lycophotia porphyrea</i>			✓			
Macro	73.342	Large Yellow Underwing	<i>Noctua pronuba</i>		✓	✓	✓		
Macro	73.343	Broad-bordered Yellow Underwing	<i>Noctua fimbriata</i>			✓			
Macro	73.345	Lesser Yellow Underwing	<i>Noctua comes</i>			✓	✓	✓	

Macro/micro	ABH	Common Name	Taxon	Carsphairn	Kirkcudbright	St John's Town of Dalry	New Galloway	Mossdale	Crossmichael
Macro	73.346	Least Yellow Underwing	<i>Noctua interjecta</i>			✓	✓		
Macro	73.348	Lesser Broad-bordered Yellow Underwing	<i>Noctua janthe</i>			✓	✓		
Macro	73.353	Dotted Clay	<i>Xestia baja</i>			✓	✓		
Macro	73.357	Square-spot Rustic	<i>Xestia xanthographa</i>				✓	✓	
Macro	73.358	Six-striped Rustic	<i>Xestia sexstrigata</i>			✓			
Macro	73.359	Setaceous Hebrew Character	<i>Xestia c-nigrum</i>						✓
Macro	73.360	Triple-spotted Clay	<i>Xestia ditrapezium</i>			✓			
Macro	73.361	Double Square-spot	<i>Xestia triangulum</i>		✓	✓			
Macro	73.365	Autumnal Rustic	<i>Eugnorisma glareosa</i>					✓	✓
Macro	73.368	Gothic	<i>Naenia typica</i>			✓			
Macro	74.004	Least Black Arches	<i>Nola confusalis</i>	✓					

Appendix 2 – Individual event summaries

Moths at Home

Community moth trapping results - Event summary

Location	Carsphairn
Date	5/16/2019

No. of traps set: 6
 No. of taxa recorded: 47
 No. of species recorded: 46

Macro/micro	ABH	Taxon rank	Common Name	Taxon	Scottish List Status	Abundance	No. of traps recorded from
Micro	-	Genus	Epiblema sp.	<i>Epiblema</i>		1	1
Micro	28.009	Species	White-shouldered House Moth	<i>Endrosis sarcitrella</i>		1	1
Micro	49.028	Species	Dark-barred Tortrix	<i>Syndemis musculana</i>		2	1
Macro	65.005	Species	Pebble Hook-tip	<i>Drepana falcata</i>	Widespread but local	1	1
Macro	66.008	Species	Fox Moth	<i>Macrothylacia rubi</i>	Common	4	2
Macro	69.003	Species	Poplar Hawk-moth	<i>Laotloe populi</i>	Common	1	1
Macro	69.016	Species	Elephant Hawk-moth	<i>Deilephila elpenor</i>	Common after range increase	2	1
Macro	69.017	Species	Small Elephant Hawk-moth	<i>Deilephila porcellus</i>	Widespread, mainly eastern	1	1
Macro	70.052	Species	Dark-barred Twin-spot Carpet	<i>Xanthorhoe ferrugata</i>	Common in W, scarce or absent in E	8	3
Macro	70.053	Species	Flame Carpet	<i>Xanthorhoe designata</i>	Common	4	3
Macro	70.079	Species	Spruce Carpet	<i>Thera britannica</i>	Common after range expansion northwards	1	1
Macro	70.094	Species	Small Phoenix	<i>Ecliptopera silaceata</i>	Common	8	3
Macro	70.095	Species	Red-green Carpet	<i>Chloroclysta siterata</i>	Common	3	3
Macro	70.102	Species	Striped Twin-spot Carpet	<i>Nebula salicata</i>	Widespread but local, apparent decline	1	1
Macro	70.151	Species	Foxglove Pug	<i>Eupithecia pulchellata</i>	Common	1	1
Macro	70.157	Species	Oak-tree Pug	<i>Eupithecia dodoneata</i>	Recent colonist, SW in 2002, now scattered S	1	1
Macro	70.162	Species	Dwarf Pug	<i>Eupithecia tantillaria</i>	Common	3	2
Macro	70.182	Species	Currant Pug	<i>Eupithecia assimolata</i>	Widespread	1	1
Macro	70.183	Species	Common Pug	<i>Eupithecia vulgata</i>	Common	4	3
Macro	70.214	Species	Tawny-barred Angle	<i>Macaria liturata</i>	Common	1	1
Macro	70.222	Species	Brown Silver-line	<i>Petrophora chlorosata</i>	Common	14	4
Macro	70.237	Species	Early Thorn	<i>Selenia dentaria</i>	Common	3	2
Macro	70.238	Species	Lunar Thorn	<i>Selenia lunularia</i>	Common	3	2
Macro	70.240	Species	Scalloped Hazel	<i>Odontopera bidentata</i>	Common	2	2
Macro	70.252	Species	Peppered Moth	<i>Biston betularia</i>	Common	1	1
Macro	70.274	Species	Grey Birch	<i>Aethalura punctulata</i>	Mainly NW & W, local and infrequent; absent E	1	1
Macro	70.280	Species	Clouded Silver	<i>Lomographa temerata</i>	Widespread, but mainly W & Central Belt	9	3
Macro	71.003	Species	Puss Moth	<i>Cerura vinula</i>	Widespread, but becoming infrequent?	7	2
Macro	71.013	Species	Pebble Prominent	<i>Notodonta ziczac</i>	Common	3	2
Macro	71.018	Species	Lesser Swallow Prominent	<i>Pheosia gnoma</i>	Common	3	2
Macro	71.020	Species	Pale Prominent	<i>Pterostoma palpina</i>	Widespread	6	4
Macro	71.021	Species	Coxcomb Prominent	<i>Ptilodon capucina</i>	Common	2	1
Macro	72.001	Species	Herald	<i>Scoliopteryx libatrix</i>	Common	1	1
Macro	72.020	Species	White Ermine	<i>Spilosoma lubricipeda</i>	Common	6	2
Macro	73.032	Species	Nut-tree Tussock	<i>Colocasia coryli</i>	Common	24	4
Macro	73.042	Species	Light Knot Grass	<i>Acrionicta menyanthidis</i>	Widespread Highlands, scarce in S	1	1
Macro	73.045	Species	Knot Grass	<i>Acrionicta rumicis</i>	Common	6	3
Macro	73.242	Species	Clouded Drab	<i>Orthosia incerta</i>	Common	8	4
Macro	73.244	Species	Common Quaker	<i>Orthosia cerasi</i>	Common	8	3
Macro	73.245	Species	Small Quaker	<i>Orthosia cruda</i>	Widespread but local	1	1
Macro	73.247	Species	Powdered Quaker	<i>Orthosia gracilis</i>	Widespread, but scarce or absent NE	19	3
Macro	73.249	Species	Hebrew Character	<i>Orthosia gothica</i>	Common	32	5
Macro	73.264	Species	Pale-shouldered Brocade	<i>Lacanobia thalassina</i>	Common	10	2
Macro	73.271	Species	Broom Moth	<i>Ceramica pisi</i>	Common	1	1
Macro	73.281	Species	Lychnis	<i>Hadena bicruris</i>	Common	2	2
Macro	73.336	Species	Red Chestnut	<i>Cerastis rubricosa</i>	Common	12	4
Macro	74.004	Species	Least Black Arches	<i>Nola confusalis</i>	Widespread after range expansion eastwards	1	1
Grand Total						235	6

Moths at Home

Community moth trapping results - Event summary

Location Kirkcudbright
Date (Multiple Items)

No. of traps set: 7
No. of taxa recorded: 61
No. of species recorded: 60

Macro/micro	ABH	Taxon rank	Common Name	Taxon	Scottish List Status	Abundance	No. of traps recorded from
Micro	18.001	Species	Diamond-back Moth	<i>Plutella xylostella</i>		2	1
Micro	49.029	Species	Large Ivy Tortrix	<i>Lozotaenia forsterana</i>		1	1
Micro	49.039	Species	Light Brown Apple Moth	<i>Epiphyas postvittana</i>		1	1
Micro	49.157	Species	Plum Tortrix	<i>Hedya pruniana</i>		1	1
Micro	62.001	Species	Bee Moth	<i>Aphomia sociella</i>		1	1
Micro	63.025	Species	Small Magpie	<i>Anania hortulata</i>		2	2
Micro	63.037	Species	Olive Pearl	<i>Udea olivalis</i>		10	4
Micro	63.064	Species	Common Grey	<i>Scoparia ambigualis</i>		4	2
Micro	63.080	Species	Garden Grass-veneer	<i>Chrysoteuchia culmella</i>		2	2
Micro	63.099	Species	Pearl Grass-veneer	<i>Catoptria pinella</i>		1	1
Macro	3.003	Species	Map-winged Swift	<i>Korscheltellus fusconebulosa</i>	Common	2	2
Macro	65.013	Species	Common Lutestring	<i>Ochropacha duplaris</i>	Common	3	1
Macro	69.003	Species	Poplar Hawk-moth	<i>Laotoe populi</i>	Common	1	1
Macro	69.016	Species	Elephant Hawk-moth	<i>Deilephila elpenor</i>	Common after range increase	5	2
Macro	69.017	Species	Small Elephant Hawk-moth	<i>Deilephila porcellus</i>	Widespread, mainly eastern	1	1
Macro	70.016	Species	Riband Wave	<i>Idaea aversata</i>	Common	5	1
Macro	70.037	Species	Clay Triple-lines	<i>Cyclophora linearia</i>	One confirmed from VC73 in 2011	1	1
Macro	70.049	Species	Garden Carpet	<i>Xanthorhoe fluctuata</i>	Common	2	2
Macro	70.053	Species	Flame Carpet	<i>Xanthorhoe designata</i>	Common	2	2
Macro	70.054	Species	Silver-ground Carpet	<i>Xanthorhoe montanata</i>	Abundant	9	3
Macro	70.086	Species	Broken-barred Carpet	<i>Electrophaes corylata</i>	Common	1	1
Macro	70.097	Species	Common Marbled Carpet	<i>Dysstroma truncata</i>	Common	3	2
Macro	70.100	Species	Green Carpet	<i>Colostygia pectinataria</i>	Common	3	2
Macro	70.103	Species	Water Carpet	<i>Lampropteryx suffumata</i>	Common	1	1
Macro	70.151	Species	Foxglove Pug	<i>Eupithecia pulchellata</i>	Common	3	2
Macro	70.183	Species	Common Pug	<i>Eupithecia vulgata</i>	Common	1	1
Macro	70.206	Species	Clouded Magpie	<i>Abraxas sylvata</i>	SW only, local and scarce	2	1
Macro	70.226	Species	Brimstone Moth	<i>Opisthograptis luteolata</i>	Common	3	3
Macro	70.252	Species	Peppered Moth	<i>Biston betularia</i>	Common	3	2
Macro	70.265	Species	Mottled Beauty	<i>Alcis repandata</i>	Common	5	4
Macro	70.277	Species	Common White Wave	<i>Cabera pusaria</i>	Common	2	2
Macro	70.283	Species	Light Emerald	<i>Campaea margaritaria</i>	Common	5	4
Macro	71.025	Species	Buff-tip	<i>Phalera bucephala</i>	Common	1	1
Macro	72.003	Species	Snout	<i>Hypena proboscidalis</i>	Common	1	1
Macro	72.019	Species	Buff Ermine	<i>Spilosoma lutea</i>	Common near coast in W, absent E except Borders	16	5
Macro	72.020	Species	White Ermine	<i>Spilosoma lubricipeda</i>	Common	6	3
Macro	73.001	Species	Spectacle	<i>Abrostola tripartita</i>	Common	2	1
Macro	73.016	Species	Beautiful Golden Y	<i>Autographa pulchrina</i>	Common	5	1
Macro	73.032	Species	Nut-tree Tussock	<i>Colocasia coryli</i>	Common	2	2
Macro	73.102	Species	Brown Rustic	<i>Rusina ferruginea</i>	Common	1	1
Macro	73.114	Species	Small Angle Shades	<i>Euplexia lucipara</i>	Common	5	2
Macro	73.154	Species	Dusky Brocade	<i>Apamea remissa</i>	Common	3	2
Macro	73.156	Species	Clouded-bordered Brindle	<i>Apamea crenata</i>	Common	1	1
Macro	73.162	Species	Dark Arches	<i>Apamea monoglypha</i>	Common	18	2
Macro	73.1731	Species aggregate	Marbled Minor agg.	<i>Oligia strigilis</i> agg.		4	2
Macro	73.176	Species	Middle-barred Minor	<i>Oligia fasciuncula</i>	Common	5	4
Macro	73.264	Species	Pale-shouldered Brocade	<i>Lacanobia thalassina</i>	Common	6	1
Macro	73.267	Species	Bright-line Brown-eye	<i>Lacanobia oleracea</i>	Common	6	2
Macro	73.270	Species	Dot Moth	<i>Melanchra persicariae</i>	Scattered and local, S	2	1
Macro	73.273	Species	Shears	<i>Hada plebeja</i>	Common	1	1
Macro	73.281	Species	Lychnis	<i>Hadena bicruris</i>	Common	6	2
Macro	73.283	Species	Marbled Coronet	<i>Hadena confusa</i>	Common; coastal except on Spey shingle	1	1
Macro	73.301	Species	Shoulder-striped Wainscot	<i>Leucania comma</i>	Widespread SW & E, but infrequent; absent most of W	1	1
Macro	73.317	Species	Heart and Dart	<i>Agrotis exclamationis</i>	Widespread at lower altitudes, but not often numerous	46	6
Macro	73.328	Species	Flame	<i>Axylia putris</i>	Widespread S and Central Belt, scarcer northwards	3	3
Macro	73.329	Species	Flame Shoulder	<i>Ochropleura plecta</i>	Common	9	3
Macro	73.332	Species	Purple Clay	<i>Diarsia brunnea</i>	Common	2	1
Macro	73.333	Species	Ingrailed Clay	<i>Diarsia mendica</i>	Common	27	6
Macro	73.334	Species	Small Square-spot	<i>Diarsia rubi</i>	Common	1	1
Macro	73.342	Species	Large Yellow Underwing	<i>Noctua pronuba</i>	Common	5	4
Macro	73.361	Species	Double Square-spot	<i>Xestia triangulum</i>	Common	7	1
Grand Total						281	7

Moths at Home

Community moth trapping results - Event summary

Location	St John's Town of Dalry
Date	7/27/2019

No. of traps set: 6
 No. of taxa recorded: 108
 No. of species recorded: 102

Macro/micro	ABH	Taxon rank	Common Name	Taxon	Scottish List Status	Abundance	No. of traps recorded from
Micro	-	Genus	Yponomeuta sp.	<i>Yponomeuta</i>		16	4
Micro		Sub-family	Eudonia/Scoparia sp.	<i>Scopariinae</i>		9	3
Micro	16.001	Species	Bird-cherry Ermine	<i>Yponomeuta evonymella</i>		65	5
Micro	16.020	Species	Hawthorn Ermine	<i>Paraswammerdamia nebulella</i>		1	1
Micro	20.012	Species	Golden Argent	<i>Argyresthia goedartella</i>		1	1
Micro	31.001	Species	Long-horned Flat-body	<i>Carcina quercana</i>		1	1
Micro	35.040	Species	Cinereous Neb	<i>Bryotropha terrella</i>		1	1
Micro	41.003	Species	London Dowd	<i>Blastobasis lacticolella</i>		1	1
Micro	49.166	Species	Common Marble	<i>Celypha lacunana</i>		8	3
Micro	49.265	Species	Hoary Bell	<i>Eucosma cana</i>		1	1
Micro	63.005	Species	Staw-barred Pearl	<i>Pyrausta despicata</i>		2	1
Micro	63.007	Species	Common Purple & Gold	<i>Pyrausta purpuralis</i>		5	1
Micro	63.033	Species	Pale Straw Pearl	<i>Udea lutealis</i>		2	1
Micro	63.034	Species	Dusky Pearl	<i>Udea prunalis</i>		7	3
Micro	63.038	Species	Mother of Pearl	<i>Pleuroptya ruralis</i>		5	3
Micro	63.060	Species	Chequered Pearl	<i>Evergestis pallidata</i>		1	1
Micro	63.067	Species	Little Grey	<i>Eudonia lacustrata</i>		5	2
Micro	63.074	Species	Small Grey	<i>Eudonia mercurella</i>		1	1
Micro	63.080	Species	Garden Grass-veneer	<i>Chrysoteuchia culmella</i>		1	1
Micro	63.088	Species	Satin Grass-veneer	<i>Crambus perilella</i>		1	1
Micro	63.089	Species	Common Grass-veneer	<i>Agriphila tristella</i>		24	6
Micro	63.090	Species	Barred Grass-veneer	<i>Agriphila inquinatella</i>		1	1
Micro	63.093	Species	Straw Grass-veneer	<i>Agriphila straminella</i>		11	4
Micro	63.099	Species	Pearl Grass-veneer	<i>Catoptria pinella</i>		5	3
Micro	63.114	Species	Brown China-mark	<i>Elophila nymphaeata</i>		1	1
Macro	-	Genus	Amphipoea sp.	<i>Amphipoea</i>		1	1
Macro			Pug sp.	<i>Eupithecia</i> sp.		3	2
Macro	3.001	Species	Orange Swift	<i>Triodia sylvina</i>	Widespread but local	4	2
Macro	69.016	Species	Elephant Hawk-moth	<i>Deilephila elpenor</i>	Common after range increase	2	2
Macro	70.011	Species	Single-dotted Wave	<i>Idaea dimidiata</i>	Widespread in S, mainly coastal.	2	2
Macro	70.013	Species	Small Fan-footed Wave	<i>Idaea biselata</i>	Common	6	4
Macro	70.016	Species	Riband Wave	<i>Idaea aversata</i>	Common	16	4
Macro	70.052	Species	Dark-barred Twin-spot Carpet	<i>Xanthorhoe ferrugata</i>	Common in W, scarce or absent in E	4	3
Macro	70.053	Species	Flame Carpet	<i>Xanthorhoe designata</i>	Common	1	1
Macro	70.061	Species	Common Carpet	<i>Epirrhoe alternata</i>	Common	3	3
Macro	70.074	Species	July Highflyer	<i>Hydriomena furcata</i>	Common	9	4
Macro	70.087	Species	Purple Bar	<i>Cosmorhoe ocellata</i>	Common	2	1
Macro	70.091	Species	Northern Spinach	<i>Eulithis populata</i>	Common	4	1
Macro	70.093	Species	Barred Straw	<i>Gandaritis pyraliata</i>	Common	4	3
Macro	70.094	Species	Small Phoenix	<i>Ecliptopera silaceata</i>	Common	4	3
Macro	70.098	Species	Dark Marbled Carpet	<i>Dysstroma citrata</i>	Abundant	1	1
Macro	70.100	Species	Green Carpet	<i>Colostygia pectinataria</i>	Common	4	3
Macro	70.121	Species	Scallop Shell	<i>Hydrula undulata</i>	Local & scarce, SW; one in VC81, 2014	1	1
Macro	70.132	Species	Rivulet	<i>Perizoma affinitata</i>	Common	1	1
Macro	70.133	Species	Small Rivulet	<i>Perizoma alchemillata</i>	Common	15	5
Macro	70.142	Species	V-Pug	<i>Chloroclystis v-ata</i>	Widespread W and Central Belt, absent from most of E	4	3
Macro	70.147	Species	Slender Pug	<i>Eupithecia tenuiata</i>	Widespread	1	1
Macro	70.187	Species	Tawny Speckled Pug	<i>Eupithecia icterata</i>	Common	1	1
Macro	70.207	Species	Clouded Border	<i>Lomasipilis marginata</i>	Common	6	3
Macro	70.226	Species	Brimstone Moth	<i>Opisthograptis luteolata</i>	Common	5	4
Macro	70.237	Species	Early Thorn	<i>Selenia dentaria</i>	Common	6	3
Macro	70.241	Species	Scalloped Oak	<i>Crocallis elinguaris</i>	Common	11	5
Macro	70.243	Species	Swallow-tailed Moth	<i>Ourapteryx sambucaria</i>	Common S, absent N, but range expanding	1	1
Macro	70.278	Species	Common Wave	<i>Cabera exanthemata</i>	Common	1	1
Macro	70.283	Species	Light Emerald	<i>Campaea margaritaria</i>	Common	3	3
Macro	70.284	Species	Barred Red	<i>Hylaea fasciaria</i>	Common	2	2
Macro	71.013	Species	Pebble Prominent	<i>Notodonta ziczac</i>	Common	4	2
Macro	71.021	Species	Coxcomb Prominent	<i>Ptilodon capucina</i>	Common	1	1
Macro	71.025	Species	Buff-tip	<i>Phalera bucephala</i>	Common	2	1
Macro	72.002	Species	Straw Dot	<i>Rivula sericealis</i>	Common W, scarcer E	8	3
Macro	72.003	Species	Snout	<i>Hypena proboscidalis</i>	Common	3	1
Macro	72.026	Species	Garden Tiger	<i>Arctia caja</i>	Common, no obvious decline in numbers	3	3
Macro	72.043	Species	Buff Footman	<i>Eilema depressa</i>	Arrived SW & SE in 2008 - now up to Central Belt!	13	2
Macro	72.045	Species	Common Footman	<i>Eilema lurideola</i>	Clusters in SW, E coast and inner Moray Firth	36	6
Macro	72.053	Species	Fan-foot	<i>Herminia tarsipennalis</i>	Widespread S & E, absent NW	3	2
Macro	72.060	Species	Marsh Oblique-barred	<i>Hypenodes humidalis</i>	Widely scattered W, increasing and spreading E	1	1
Macro	72.061	Species	Pinion-streaked Snout	<i>Schrankia costaeatrigalis</i>	Widespread W, scarcer in E but spreading	4	2
Macro	73.012	Species	Burnished Brass	<i>Diachrysa chrysis</i>	Common	32	5
Macro	73.015	Species	Silver Y	<i>Autographa gamma</i>	Immigrant, often abundant; breeds annually	3	3
Macro	73.016	Species	Beautiful Golden Y	<i>Autographa pulchrina</i>	Common	1	1
Macro	73.017	Species	Plain Golden Y	<i>Autographa jota</i>	Widespread, but often infrequent	6	4
Macro	73.018	Species	Gold Spangle	<i>Autographa bractea</i>	Common	2	2
Macro	73.023	Species	Lempke's Gold Spot	<i>Plusia putnami</i>	Common after recent increase and spread	14	5
Macro	73.0381	Species aggregate	Dark/Grey Dagger agg.	<i>Acrionicta tridens/psi</i>		1	1
Macro	73.096	Species	Uncertain	<i>Hoplodrina octogenaria</i>	Scattered but local and infrequent	2	1
Macro	73.0961	Species aggregate	Uncertain/Rustic agg.	<i>Hoplodrina octogenaria/blanda</i>		2	1
Macro	73.097	Species	Rustic	<i>Hoplodrina blanda</i>	Widespread on low ground and coast	2	2
Macro	73.118	Species	Haworth's Minor	<i>Celaena haworthii</i>	Common	1	1
Macro	73.144	Species	Small Wainscot	<i>Denticucullus pygmina</i>	Common	28	6

Location: St John's
Date: Town of Dalry
7/27/2019

No. of traps set: 6
No. of taxa recorded: 108
No. of species recorded: 102

Macro/micro	ABH	Taxon rank	Common Name	Taxon	Scottish List Status	Abundance	No. of traps recorded from
Macro	73.154	Species	Dusky Brocade	<i>Apamea remissa</i>	Common	3	2
Macro	73.160	Species	Slender Brindle	<i>Apamea scolopacina</i>	Recent arrival, now widespread S & E to VC106	4	1
Macro	73.162	Species	Dark Arches	<i>Apamea monoglypha</i>	Common	91	6
Macro	73.163	Species	Light Arches	<i>Apamea lithoxyla</i>	Common	1	1
Macro	73.169	Species	Common Rustic	<i>Mesapamea secalis</i>	Common	1	1
Macro	73.1691	Species aggregate	Common Rustic agg.	<i>Mesapamea secalis</i> agg.		22	6
Macro	73.171	Species	Rosy Minor	<i>Litologia literosa</i>	Common SW & E, mainly coastal; scarce in NW	1	1
Macro	73.1731	Species aggregate	Marbled Minor agg.	<i>Oligia strigilis</i> agg.		5	2
Macro	73.216	Species	Dun-bar	<i>Cosmia trapezina</i>	Common, except in NW	6	3
Macro	73.254	Species	Antler Moth	<i>Cerapteryx graminis</i>	Common	17	5
Macro	73.261	Species	Grey Arches	<i>Polia nebulosa</i>	Common W, absent most of E	1	1
Macro	73.267	Species	Bright-line Brown-eye	<i>Lacanobia oleracea</i>	Common	2	1
Macro	73.290	Species	Brown-line Bright Eye	<i>Mythimna conigera</i>	Common SW & E, scarcer in W	3	2
Macro	73.293	Species	Smoky Wainscot	<i>Mythimna impura</i>	Abundant	47	6
Macro	73.298	Species	Clay	<i>Mythimna ferrago</i>	Common	23	6
Macro	73.317	Species	Heart and Dart	<i>Agrotis exclamatoris</i>	Widespread at lower altitudes, but not often numerous	2	2
Macro	73.328	Species	Flame	<i>Axylia putris</i>	Widespread S and Central Belt, scarcer northwards	2	2
Macro	73.331	Species	Barred Chestnut	<i>Diarsia dahlia</i>	Common	1	1
Macro	73.332	Species	Purple Clay	<i>Diarsia brunnea</i>	Common	1	1
Macro	73.333	Species	Ingrailed Clay	<i>Diarsia mendica</i>	Common	2	2
Macro	73.338	Species	True Lover's Knot	<i>Lycophotia porphyrea</i>	Common	28	4
Macro	73.342	Species	Large Yellow Underwing	<i>Noctua pronuba</i>	Common	253	6
Macro	73.343	Species	Broad-bordered Yellow Underwing	<i>Noctua fimbriata</i>	Widespread, but never numerous	1	1
Macro	73.345	Species	Lesser Yellow Underwing	<i>Noctua comes</i>	Common	2	2
Macro	73.346	Species	Least Yellow Underwing	<i>Noctua interjecta</i>	Widespread SW & SE, also confirmed in Outer Hebrides	1	1
Macro	73.348	Species	Lesser Broad-bordered Yellow Underwing	<i>Noctua janthe</i>	Common	17	5
Macro	73.353	Species	Dotted Clay	<i>Xestia baja</i>	Common	51	6
Macro	73.358	Species	Six-striped Rustic	<i>Xestia sexstrigata</i>	Common	1	1
Macro	73.360	Species	Triple-spotted Clay	<i>Xestia ditrapezium</i>	Common W, absent E	8	3
Macro	73.361	Species	Double Square-spot	<i>Xestia triangulum</i>	Common	64	6
Macro	73.368	Species	Gothic	<i>Naenia typica</i>	Widespread but not numerous	4	2
Grand Total						1141	6

Moths at Home

Community moth trapping results - Event summary

Location	New Galloway
Date	8/17/2019

No. of traps set:	6
No. of taxa recorded:	43
No. of species recorded	41

Macro/micro	ABH	Taxon rank	Common Name	Taxon	Scottish List Status	Abundance	No. of traps recorded from
Micro	-	Genus	Yponomeuta sp.	<i>Yponomeuta</i>		1	1
Micro	16.001	Species	Bird-cherry Ermine	<i>Yponomeuta evonymella</i>		5	1
Micro	35.038	Species	House Neb	<i>Bryotropha domestica</i>		1	1
Micro	49.051	Species	Flax Tortrix	<i>Cnephasia asseclana</i>		1	1
Micro	49.066	Species	Dark-triangle Button	<i>Acleris laterana</i>		1	1
Micro	49.255	Species	Grey Poplar Bell	<i>Epinotia nisella</i>		1	1
Micro	49.259	Species	Spruce Bud Moth	<i>Zeiraphera ratzeburgiana</i>		1	1
Micro	63.033	Species	Pale Straw Pearl	<i>Udea lutealis</i>		4	3
Micro	63.038	Species	Mother of Pearl	<i>Pleuroptya ruralis</i>		3	1
Micro	63.060	Species	Chequered Pearl	<i>Evergestis pallidata</i>		1	1
Micro	63.073	Species	Ground-moss Grey	<i>Eudonia truncicolella</i>		1	1
Micro	63.089	Species	Common Grass-veneer	<i>Agriphila tristella</i>		6	3
Macro	70.049	Species	Garden Carpet	<i>Xanthorhoe fluctuata</i>	Common	1	1
Macro	70.052	Species	Dark-barred Twin-spot Carpet	<i>Xanthorhoe ferrugata</i>	Common in W, scarce or absent in E	1	1
Macro	70.053	Species	Flame Carpet	<i>Xanthorhoe designata</i>	Common	1	1
Macro	70.074	Species	July Highflyer	<i>Hydriomena furcata</i>	Common	13	4
Macro	70.094	Species	Small Phoenix	<i>Eclitoptera silaceata</i>	Common	4	3
Macro	70.098	Species	Dark Marbled Carpet	<i>Dysstroma citrata</i>	Abundant	9	3
Macro	70.104	Species	Devon Carpet	<i>Lampropteryx oregiata</i>	Recent colonist, VC73 in 2013	3	2
Macro	70.227	Species	Bordered Beauty	<i>Epione repandaria</i>	Widespread in W; scarce in E	1	1
Macro	71.018	Species	Lesser Swallow Prominent	<i>Pheosia gnoma</i>	Common	1	1
Macro	71.020	Species	Pale Prominent	<i>Pterostoma palpina</i>	Widespread	1	1
Macro	72.043	Species	Buff Footman	<i>Eilema depressa</i>	Arrived SW & SE in 2008 - now up to Central Belt!	1	1
Macro	72.045	Species	Common Footman	<i>Eilema lurideola</i>	Clusters in SW, E coast and inner Moray Firth	1	1
Macro	73.017	Species	Plain Golden Y	<i>Autographa jota</i>	Widespread, but often infrequent	1	1
Macro	73.018	Species	Gold Spangle	<i>Autographa bractea</i>	Common	1	1
Macro	73.119	Species	Crescent	<i>Helotropha leucostigma</i>	Common W, absent or migrant in E	5	2
Macro	73.123	Species	Rosy Rustic	<i>Hydraecia micacea</i>	Common	1	1
Macro	73.162	Species	Dark Arches	<i>Apamea monoglypha</i>	Common	2	2
Macro	73.1691	Species aggregate	Common Rustic agg.	<i>Mesapamea secalis</i> agg.		7	2
Macro	73.182	Species	Sallow	<i>Cirrhia icteritia</i>	Common	4	1
Macro	73.216	Species	Dun-bar	<i>Cosmia trapezina</i>	Common, except in NW	2	1
Macro	73.228	Species	Grey Chi	<i>Antitype chi</i>	Common, but becoming less numerous	1	1
Macro	73.253	Species	Feathered Gothic	<i>Tholera decimalis</i>	Confirmed recent records only from extreme SW & SE	1	1
Macro	73.254	Species	Antler Moth	<i>Cerapteryx graminis</i>	Common	5	3
Macro	73.331	Species	Barred Chestnut	<i>Diarsia dahlia</i>	Common	1	1
Macro	73.334	Species	Small Square-spot	<i>Diarsia rubi</i>	Common	1	1
Macro	73.342	Species	Large Yellow Underwing	<i>Noctua pronuba</i>	Common	29	5
Macro	73.345	Species	Lesser Yellow Underwing	<i>Noctua comes</i>	Common	20	3
Macro	73.346	Species	Least Yellow Underwing	<i>Noctua interjecta</i>	Widespread SW & SE, also confirmed in Outer Hebrides	1	1
Macro	73.348	Species	Lesser Broad-bordered Yellow Underwing	<i>Noctua janthe</i>	Common	8	4
Macro	73.353	Species	Dotted Clay	<i>Xestia baja</i>	Common	1	1
Macro	73.357	Species	Square-spot Rustic	<i>Xestia xanthographa</i>	Abundant	13	2
Grand Total						167	6

Moths at Home

Community moth trapping results - Event summary

Location	Mossdale
Date	9/20/2019

No. of traps set:	4
No. of taxa recorded:	20
No. of species recorded	18

Macro/micro	ABH	Taxon rank	Common Name	Taxon	Scottish List Status	Abundance	No. of traps recorded from
Macro	-	Species aggregate	Common/Dark Marbled Carpet agg.	<i>Dysstroma truncata/citrata</i>		1	1
Macro	70.074	Species	July Hightflyer	<i>Hydriomena furcata</i>	Common	1	1
Macro	70.079	Species	Spruce Carpet	<i>Thera britannica</i>	Common after range expansion northwards	1	1
Macro	70.097	Species	Common Marbled Carpet	<i>Dysstroma truncata</i>	Common	2	2
Macro	70.100	Species	Green Carpet	<i>Colostygia pectinataria</i>	Common	1	1
Macro	70.195	Species	Streak	<i>Chesias legatella</i>	Common	1	1
Macro	70.234	Species	Canary-shouldered Thorn	<i>Ennomos alniaria</i>	Common	2	1
Macro	73.015	Species	Silver Y	<i>Autographa gamma</i>	Immigrant, often abundant; breeds annually	5	1
Macro	73.068	Species	Green-brindled Crescent	<i>Allophyas oxyacanthae</i>	Common	1	1
Macro	73.121	Species	Frosted Orange	<i>Gortyna flavago</i>	Common E & SW, spreading, but still absent W coast	6	3
Macro	73.127	Species	Large Ear	<i>Amphipoea lucens</i>	Common	1	1
Macro	73.1281	Species aggregate	Ear moth agg.	<i>Amphipoea oculate agg.</i>		1	1
Macro	73.134	Species	Large Wainscot	<i>Rhizedra lutosa</i>	Scattered, mainly coastal, perhaps migratory	1	1
Macro	73.181	Species	Pink-barred Sallow	<i>Xanthia togata</i>	Common	6	2
Macro	73.190	Species	Yellow-line Quaker	<i>Agrochola macilenta</i>	Common	2	1
Macro	73.233	Species	Black Rustic	<i>Aporophyla nigra</i>	Common	11	3
Macro	73.252	Species	Hedge Rustic	<i>Tholera cespitis</i>	Widespread on lower ground, recovering from decline	1	1
Macro	73.345	Species	Lesser Yellow Underwing	<i>Noctua comes</i>	Common	1	1
Macro	73.357	Species	Square-spot Rustic	<i>Xestia xanthographa</i>	Abundant	1	1
Macro	73.365	Species	Autumnal Rustic	<i>Eugnorisma glareosa</i>	Common	6	3
Grand Total						52	4

Moths at Home

Community moth trapping results - Event summary

Location	Crossmichael
Date	9/24/2019

No. of traps set:	6
No. of taxa recorded:	21
No. of species recorded	21

Macro/micro	ABH	Taxon rank	Common Name	Taxon	Scottish List Status	Abundance	No. of traps recorded from
Macro	70.038	Species	Vestal	<i>Rhodometra sacraria</i>	Immigrant, infrequent	1	1
Macro	70.074	Species	July Hightflyer	<i>Hydriomena furcata</i>	Common	1	1
Macro	70.095	Species	Red-green Carpet	<i>Chloroclysta siterata</i>	Common	1	1
Macro	70.097	Species	Common Marbled Carpet	<i>Dysstroma truncata</i>	Common	1	1
Macro	70.233	Species	August Thorn	<i>Ennomos quercinaria</i>	Scarce, Dumfries & Galloway; one confirmed in VC106	1	1
Macro	72.003	Species	Snout	<i>Hypena proboscidalis</i>	Common	1	1
Macro	73.015	Species	Silver Y	<i>Autographa gamma</i>	Immigrant, often abundant; breeds annually	5	3
Macro	73.068	Species	Green-brindled Crescent	<i>Allophyes oxyacanthae</i>	Common	13	3
Macro	73.113	Species	Angle Shades	<i>Phlogophora meticulosa</i>	Common, also immigrant	1	1
Macro	73.121	Species	Frosted Orange	<i>Gortyna flavago</i>	Common E & SW, spreading, but still absent W coast	1	1
Macro	73.144	Species	Small Wainscot	<i>Denticucullus pygmina</i>	Common	1	1
Macro	73.181	Species	Pink-barred Sallow	<i>Xanthia togata</i>	Common	2	1
Macro	73.182	Species	Sallow	<i>Cirrhia icteritia</i>	Common	2	2
Macro	73.189	Species	Red-line Quaker	<i>Agrochola lota</i>	Common	4	2
Macro	73.190	Species	Yellow-line Quaker	<i>Agrochola macilenta</i>	Common	1	1
Macro	73.193	Species	Lunar Underwing	<i>Omphaloscelis lunosa</i>	Widespread on or near coast after range expansion	1	1
Macro	73.194	Species	Chestnut	<i>Conistra vaccinii</i>	Common	3	2
Macro	73.233	Species	Black Rustic	<i>Aporophyla nigra</i>	Common	2	1
Macro	73.328	Species	Flame	<i>Axyia putris</i>	Widespread S and Central Belt, scarcer northwards	1	1
Macro	73.359	Species	Setaceous Hebrew Character	<i>Xestia c-nigrum</i>	Common E, much scarcer in W	1	1
Macro	73.365	Species	Autumnal Rustic	<i>Eugnorisma glareosa</i>	Common	1	1
Grand Total						45	6