



### Welcome!

Welcome to the sixth issue of Scottish Invertebrate News!

Hopefully you've all managed to get out bug hunting this summer. It's been a particularly difficult year for many invertebrates due to the cold, wet and windy conditions

with numbers of bees, butterflies and other pollinators noticeably down on last year.

Slugs, snails and invertebrates with aquatic life stages may have done better.

In addition to some exciting new finds, we report on this year's Scottish Entomologist Gathering, that was

held in Fife; bug hunting on Scottish SSSIs, and various bug projects.

Our monthly e-news Scottish Invertebrate Update was launched earlier this year and you can follow us online at:

[www.twitter.com/buzz\\_dont\\_tweet](http://www.twitter.com/buzz_dont_tweet) and [www.facebook.com/pages/Buglife-The-Invertebrate-Conservation-Trust/](http://www.facebook.com/pages/Buglife-The-Invertebrate-Conservation-Trust/)

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## Leggy American found hanging out in Glaswegian Cemetery

A story fit for Halloween broke during the summer, following the discovery of a new species of spider for the UK (and Europe) in the Necropolis in the middle of Glasgow.

British arachnologists were unable to identify the tiny spider and it was sent to an expert in Innsbruck who recognised it as a North American species *Rugathodes sexpunctatus*, a member of the Theridiidae or comb-footed spiders. It is normally found in conifer woods and has not previously been seen in Europe, outside Russia. Its closest Scottish relative is found under rocks in mountain scree and quarry spoil-heaps.

This tiny spider is a distant relative of the black widow, but is totally harmless to humans, being only just over 2mm long. It was found living among ivy growing over walls and rock faces at the Glasgow Necropolis. The female carries her tiny egg sac around with her to protect it.

Mike Davidson, of the British Arachnological

Society who found the colony while sheltering from the rain, said; "This is an exciting find of a species which has been able to establish itself a long way from its native land. We have no idea how or when it

arrived but it may have been here for many years, judging by the size of the colony. Although it was probably accidentally introduced with imports from North America it is possible that it arrived under its own steam ballooning on a silk thread, high in the atmosphere on a favourable wind". Coincidentally this American spider was first found here on the 4<sup>th</sup> of July!

The Necropolis is well known for its wildlife and is home to a number of rare and important species. According to Richard

Weddle of the Friends of the Glasgow Necropolis, "This is the second-largest green space in the centre of Glasgow, and its wooded areas, sandy slopes, and ivy-covered quarry-face, as well as some unmown flowery corners provide a great diversity of habitats for wildlife.

Scott Shanks, *Buglife*



Six-spot comb-footed spider (*Rugathodes sexpunctatus*) © Mike Davidson

## Scottish Invertebrate Discoveries

Every year new invertebrate discoveries are made in Scotland. From amazing ecology, to records of species new to Scotland or science, this section highlights just a handful of these fascinating discoveries!

### Three-toothed Moss snail found in Scottish Borders

The Three-toothed moss snail, *Azeca goodalli* is a rarity in Scotland, with only one known recent record, from Kippenrait Glen near Bridge of Allan in Stirlingshire. Due to its rarity, the species is listed on the Scottish Biodiversity List of species of principal importance for biodiversity conservation. A second site for this species was recently found at Denholm Dean in Roxburghshire in the course of a survey of the site by The Wildlife Information Centre (TWIC) in May this year. Several specimens were found in leaf litter from a restricted area of this wooded valley.



Three-toothed moss snail (*Azeca goodalli*)  
© Adrian T. Sumner

*Azeca goodalli* has a smallish shell, between 5.5 mm and 7.0 mm in height when adult. The shell is very glossy, with three teeth in the mouth, as the name implies. The species occurs locally amongst moss, herbage and ground litter in woodlands, hedgerows and scrub, usually though not always on calcareous soils and it prefers light shade (Ellis, 1969, *British Snails*, Oxford University Press; Kerney, 1999, *Atlas of the Land and Freshwater Molluscs of Britain and Ireland*, Harley Books).

Adrian T. Sumner

### Back issues of Scottish Invertebrate News can be found at:

<http://www.buglife.org.uk/conservation/Scotland/Scottish+Invertebrate+News>

## Micro moth bonanza following release of new ID book



Red-clover case-bearer moth (*Coleophora deauratella*) found during identification workshop. © Henry Ekholm

This year saw the publication of a number of new books on micro-moth identification, including the 'Field Guide to the Micro-moths of Great Britain and Ireland' by Sterling, P. & Parsons, M., illustrated by Richard Lewington. These books have encouraged a flurry of micro-moth recording and new finds from around the country!

Previously, due to the cost and technical terminology of the specialist books required for their identification, micro-moths were either passed to experts or often released without being noted.

In July, a micro-moth identification workshop was held in Glasgow. The workshop, lead by moth expert Dr Mark Young of Aberdeen University was a great success, and during the day attendees discovered a micro that had only been found once before in Scotland – the Red clover case-bearer (*Coleophora deauratella*).

Scott Shanks , *Buglife*

### The Pink Prowler strikes again!

No, not an international diamond thief, but a tiny pink spider, *Oonops domesticus*. Another new site for this under-recorded species was discovered in Yorkhill, Glasgow by Buglife's Scott Shanks. Keep a look out for this nocturnal wandering species in your home or workplace (if working very late!).

Scott Shanks, *Buglife*



Pink prowler (*Oonops domesticus*) © Scott Shanks

## The Girdled snail (*Hygromia cinctella*) in Scotland

The Girdled snail, *Hygromia cinctella*, is a Mediterranean species that was first recorded in Britain in 1950 at Paignton in Devon, and for many years remained restricted to the south-west of England. More recently it has appeared in South Wales, and has started spreading north. The National Museum of Wales has set up a project called Snail Search to monitor the spread of this species, and results can be seen on their website ([www.museumwales.ac.uk/en/scan/snails/](http://www.museumwales.ac.uk/en/scan/snails/)).

The first Girdled snail in Scotland was recorded by



Girdled snail (*Hygromia cinctella*) © Adrian T. Sumner

## Scottish Invertebrate Discoveries Cont.

Richard Weddle in Glasgow in 2008. Since then there have been no further Scottish records of this species until this year, when I found them at Livingston in West Lothian, in Edinburgh, and at St Andrews in Fife. It looks as if this species is really beginning to spread in Scotland.

The Girdled snail is quite distinctive and generally easy to identify. The shell is conical, with a distinct keel which is whitish. The ground colour of the shell is brown, usually quite a rich medium shade of brown, but not infrequently paler. The adult shell is about 10–12 mm in diameter. Look out for it on waste ground, roadsides, gardens and similar habitats, where it may be found under debris such as pieces of wood, or on walls. Records may be sent to the Conchological Society Non-marine Recording Scheme ([nonmarine@conchsoc.org](mailto:nonmarine@conchsoc.org)), and I would be happy to look at any specimens or photos if you are doubtful about identification ([adriantsumner@btinternet.com](mailto:adriantsumner@btinternet.com)). It will be interesting to record the spread of this snail across Scotland; maybe it is already present in your area!

Adrian T. Sumner

## Scottish Entomologists' Gathering 2012 –Field trips in Fife

The weekend of the 13th to the 15th of June saw 25 invertebrate enthusiasts meet at Elmwood College in Cupar, Fife for the 2012 Scottish Entomologists' Gathering (SEG). The annual field meeting sees invertebrate experts and amateurs from all over Scotland (and further afield) get together to explore a different under-recorded area of Scotland each year, network and socialise with fellow bug hunters.

After settling in to our accommodation, Gordon Corbet, local bug expert and the convener of the fantastic SWT Dumbarrie Links reserve set the scene with a superb introduction and historical review of bug hunting within the Kingdom of Fife.

One of the highlights of the SEG is heading out for a night of 'mothing' with the likes of moth gurus Roy Leverton and Butterfly Conservation's Tom Prescott. Nine light traps were set in Tentsmuir

forest and dunes on Friday the 13th in the hopes of attracting a Lunar yellow underwing (*Noctua orbona*). Tentsmuir is the only known Scottish site with recent records of this species. However, despite returning for a second night of trapping at Tentsmuir and an impressive haul of over 70 macro-moth species, the Lunar yellow underwing didn't make an appearance.



Blue-banded hoverfly (*Leucozona glauca*) © Steven Falk

Field trips to Tentsmuir NNR, SWT Fleece Faulds, SWT Craig Hall Den and SWT Dumbarrie Links were enjoyed by the posse of Arachnologists, Dipterists, Coleopterists, Lepidopterists and Hymenopterists in spite of persistent rain on the Saturday. A summary of records from the weekend will be passed round attendees and anyone interested.

The 2013 SEG will likely take place in the wild and beautiful north west Highlands. Look out for more information in the New Year.

Scott Shanks, *Buglife*

## Bug hunting on Scottish Sites of Special Scientific Interest

### Taynish National Nature Reserve, Argyll - May 2012

Taynish National Nature Reserve, in Knapdale was the setting for a bugwalk and expert bug hunt in early May. The reserve is part of a peninsula covered in ancient oak woodland, with areas of species-rich grassland, heath, saltmarsh, pebbly shoreline, and an abundance of wildlife.

Taynish Woods are designated as a Special Area of Conservation (SAC) and a Site of Special Scientific Interest (SSSI) due to the presence of Marsh fritillaries (*Euphydryas aurinia*) and important assemblages of other invertebrates including dragonflies, moths, beetles and flies.

As part of the survey moth traps were used overnight on the 11th and 12th of May, however only 13 species of macro moth were recorded due to wet and windy weather. The highlight was an



Gold-spotted rove beetle (*Staphylinus erythropterus*) © Scott Shanks

early-emerged Grey scalloped bar (*Dyscia fagaria*) that was a new 10 km square record for that species. A pair of sleepy Poplar hawkmoths (*Laothoe populi*), proved very popular with everyone on the public bug hunt too.

Luckily the sun came out for the public bugwalk, and as always, the children that attended were the best at bug-spotting! Before we'd even left the reserve carpark everyone was passing round pots containing electric blue Dor beetles, a Knotgrass leaf beetle (*Chrysolina polita*) and Gold-spotted rove beetles (*Staphylinus erythropterus*). A great day was had by all and a good range of species were found on the expert survey too.

Taynish is well worth a visit, and a caravan is available for anyone interested in spending a day or two helping to increase the list of invertebrate species recorded on the reserve.

Scott Shanks, *Buglife*

### Isle of May survey – August 2012

The beautiful Isle of May in the Firth of Forth is renowned for its birds, seals, and scarce marine habitats; indeed they have earned it a collection of national and international designations; but it has been relatively under-recorded in terms of invertebrates since the 1950s. So, a team headed over for a few days in August to help put that right, with the varied knowledge of: Craig, Suzie and Nicole from Buglife; Therese and Niall from St Cyrus NNR; and myself from the National Trust for Scotland.

We were made welcome by David the Reserve Manager and his assistant Lucie, who guided us to the best areas for the habitats that we wanted to sample and advised us how to avoid damaging the fragile island ecosystem. They also ran moth



Green carpet (*Colostygia pectinataria*)  
First record for Island © Craig Macadam

traps and demonstrated how they were monitoring the birds. For our part we carried out pitfall trapping, dipped in the numerous ponds scattered around the island, sweep-netted, and generally ferreted around searching for anything without a backbone.

When we were not busy sampling we explored the island and its wildlife in the (mostly) wonderful weather that saw some of us swimming with the seals. Therese had previously been the Reserve Manager so she and David were fonts of fascinating information - as were the whole team whose company I greatly enjoyed. The specimens that we collected are now in the hands of relevant experts for identification, so time will tell how well we did to fill that invertebrate recording gap.

Mike Beard, *National Trust for Scotland*

Despite overcast conditions on Sunday 10<sup>th</sup> June, 23 members of the public attended a bugwalk on the beautiful St Cyrus NNR, and 9 invertebrate enthusiasts helped with an expert bug survey of the dune grasslands and scrubby areas on the reserve.

A number of moth traps had been run the previous night, and much fun was had opening the traps (kids with butterfly nets at the ready) to record a bumper catch of moth species before the bugwalk.

Entomologist David Pryce brought along his



Brown-lipped snail (*Cepaea nemoralis*)  
© Roger Key

BugVac to find invertebrates hiding deep in grass tussocks, and impressed everyone with his bug hoovering skills.

A list of invertebrates collected during the expert survey is still being compiled. Snails, particularly Brown-lipped snails (*Cepaea nemoralis*) were the most frequently potted finds on the day, and there was a bit of competition over who could find the biggest. Wolf spiders

(*Pardosa spp.*) and 7-spot ladybird (*Coccinella septempunctata*) larvae were also abundant in the dune vegetation.

Scott Shanks, *Buglife*

### Portmahomack Bughunt with Dr Bug!



No stone left unturned for bugs in Portmahomack  
© Shona Turnbull

stuck into a range of insect related activities, including making walking spiders and butterfly badges, colouring competitions and using the microscopes to discover the wonder of bugs. The adults also got stuck in and one keen fellow sent in insect photos the next day for Dr Bug to identify!

The Royal Entomological Society supplied some insect week freebies. This was supplemented with goody bags, certificates and prizes. All in all, I think everyone had a 'grand day out' as Wallace would say!

Check out some more of our photos at:

[www.nationalinsectweek.co.uk/](http://www.nationalinsectweek.co.uk/)

Shona Turnbull

As part of National Insect Week in June 2012, the Portmahomack citizens were treated to a Bug Hunt with Dr Bug.

A dozen or so attentive children and adults from as far away as Ardersier and Inverness, along with four enthusiastic local kids, took part.

Starting with a slow walk along the Braes, turning over stones, seaweed and even cow dung, along with sweeping the grass with nets, an interesting range of beasties were found.

As the rain started, we made our way back to Carnegie Hall to identify our finds. The kids got



Getting a closer look using microscopes  
© Shona Turnbull

## Calling all soil sifters and stone-lifters for a 2-pronged bristletail hunt!



2-pronged bristletail (*Campodea* spp.) © Andy Keay

Can you help with a project to disentangle our 2-pronged Bristletail fauna? Andy Keay, the national recorder for these creatures, also called Diplurans, is planning a review of the UK specimens held in the Natural History Museum, but it's expected that many of these will be in poor condition, and newly collected material from around the UK is needed.

In case you've never met one, Diplura are elegant, little (~4-5 mm long), wingless, 6-legged creatures with 2 appendages at their rear end. They are found in soil, litter and under stones, logs, plant pots or other dampish, sheltered places. It's reckoned there are only 12 species of Diplurans in the UK, but this is based on very little information and, as is so often the case with soil fauna, the taxonomy probably needs work! All of our species look a lot like the white one shown (*Campodea* spp.), although there are others in Europe that are bigger (1cm) with pincer-like tails (like the brown

*Japyx* spp.). If it has 3 tails, or wings/wing cases, it's definitely something else!

If you are out an about with a pooter, or processing samples from soil extractions, please could you pick out any diplurans, pop them into a small sample vial with a little bit of 70-80% industrial methanol (denatured alcohol) or ethanol and send them to Andy, remembering to include details of the collector, determiner (ID by), grid reference, date, and a very brief description of the habitat and micro habitat from which they were collected (eg. woodland, under log).

Please seal the vials carefully, wrap up all sample vials in clingfilm or similar, and seal into a plastic bag before sending them to Andy in a jiffy bag. Andy's address is: Andy Keay, 37 Merrymeet, Woodmansterne, Banstead, Surrey, SM7 3HX Thanks in advance for keeping an eye out for these interesting little creatures.

Matthew Shepherd, *Natural England*



2-pronged bristletail (*Japyx* spp.) © Andy Keay

## New spider group for South East Scotland

The British Arachnological Society in Scotland has informally formed four regional groups. The Grampian group has been active for some time, but now there is also (or soon should be) a Highland, South West and South East Group.

The South East Group covers the Borders, Lothian and Fife, though anybody is welcome to join. We hope to arrange field and indoor meetings across the region to bring together anybody who is interested in the study of spiders and other arachnids. There is also scope for reaching out to the wider public, but we have only just started up and how things progress depends to some extent on people and resources.

Anybody from complete novice to experienced arachnologist is welcome to come along to our

meetings. We have a facebook group page <https://www.facebook.com/groups/SEscotspiders/>, or folk can email me [kattybaird@gmail.com](mailto:kattybaird@gmail.com) to sign up, or for more information.

Katty Baird, *SE Scotland Spider group*



Garden cross spider (*Araneus diadematus*)  
© Nigel Jones

## Inner Forth Bugs in the Spotlight

Hi, I'm Niall the new TCV Urban Biodiversity Natural Talent Apprentice. Over the next 12 months I will be looking at brownfield sites and some other aspects of urban ecology, working with Buglife in Stirling.

I have just come from a seasonal job at St Cyrus National Nature Reserve, which is a great site for bugs. It also attracts many enthusiastic recorders who introduced me to some of the interesting invertebrate groups, which helped lead to this great opportunity.

We may think of urban areas as being a uniform grey and concrete human environment, with no space for other living things. Actually this is far from the truth. In Scotland almost 80% of urban land is open green space or un-developed. Brownfield sites are becoming increasingly important refuges for species that are struggling in



Niall (centre top) with the Buglife Isle of May invertebrate survey team © Mike Beard

the wider countryside. These sites can have much greater biodiversity than neighbouring green fields and are estimated to harbour 15% of all Britain's red data book and nationally scarce insects. Urban areas actually include an incredible variety of different types of land use and habitats, all with their own special creatures. So there will be no shortage of potential for

my new apprenticeship.

I will be working in the Inner Forth area, identifying and assessing the biodiversity value of brownfield sites. I will then start surveying for invertebrates at a few of these sites. I'm looking forward to starting my initial site visits and gaining some identification skills over the next few weeks.

Niall Currie, *TCV Natural Talent Apprentice*

## Species Spotlight—The Winter moth (*Operophtera brumata*)

As its name suggests this moth flies from late autumn through to early January. The male has pale brown wings with darker cross-bands, and can often be seen in the glare of car head lights when driving past woodland or hedgerows in winter. The female is flightless with tiny dark-striped wings. This is a widespread species, often abundant in woodland and can be found in gardens too.

Look for the males resting on tree trunks during the day. The female generally spends the day at the base of trees and climbs up at dusk to attract a mate and lay eggs. The female can be carried by the male if disturbed during mating.

The female will lay groups of eggs on a wide range of broad leaved trees and shrubs including oak, birches, hawthorn and heather. The eggs are laid on the tips of twigs or in cracks in bark, and hatch in the spring. The white-striped green caterpillars can produce silken thread that they



Winter moth (*Operophtera brumata*)  
© Roger Key

can use to 'balloon' on the breeze to another food plant.

Winter moth caterpillars that escape being fed to nests of tits and other insectivorous birds during the spring will feed until mid-summer, before dropping to the ground to pupate.

There are a couple of similar species including the Northern winter moth (*Operophtera fagata*), the male of which tends

to have paler, shinier wings than the winter moth, and the hind wings often peak-out from under the forewings. The female Northern winter moth is again flightless but has longer wings than the female Winter moth (at least half the length of the abdomen).

While walking in woodlands during winter, look out for mixed flocks of tits and treecreepers. There is often a trail of winter moth wings scattered at the base of trees once the flock has passed by.

Scott Shanks, *Buglife*

## Habitat Creation for Invertebrates in Scotland

### Buzzing with excitement in Glasgow's Parks



Bee bank in Hogganfield Park © Suzanne Bairner

This summer a bee bank was created within the wildflower meadows at Hogganfield Park Local Nature Reserve in Glasgow as part of the Glasgow's Buzzing project led by Buglife and Glasgow City Council.

Bee banks are raised mounds of low-nutrient sandy soil that provide vital habitat for ground

nesting invertebrates such as solitary bees and ground beetles. Areas of bare ground such as bee banks or rock piles are a useful addition to any wildlife site, as they warm rapidly and will be utilised as a basking site or nesting site by warmth-loving invertebrates and reptiles.

The Hogganfield bee bank was designed using a base of aggregate (recycled building rubble could be used) that was covered in fine sand at varying depths and with varying slopes, hollows and angles that are suitable for different solitary bee species. A range of wildflowers were planted around the bee bank including Red clover, Meadow crane's-bill and Devil's-bit scabious. The bee bank was created with the help of The Conservation Volunteers (TCV) and took only a day to complete.

Buglife will be surveying this area throughout the Glasgow Buzzing project to record any invertebrates found to be using the bank and the adjacent wildflower meadow.

Suzanne Bairner, *Buglife*

### Yellow meadow ants protected by Highland estate

Yellow meadow ants (*Lasius flavus*) live in a social colony with a queen, a few males and workers. Occasionally the ants make raised nest mounds with a series of underground tunnels.

The mounds host many thousands of worker ants and queens that can live for more than 20 years. The ants live almost entirely underground and feed on the aphids found on plant roots. These large nest mounds are indicators of undisturbed biodiversity-rich grasslands.

Although Yellow meadow ants are found widely across the UK, in the north of Scotland, this species generally forms small colonies under stones and mosses and only occasionally form large colony mounds.

The colonies on the Glenmoriston Estate are of great local importance because of the size of the



Yellow meadow ant (*Lasius flavus*) nest mounds © The Glenmoriston Estate

nest mounds and the density of the ant colonies.

In 2010, Buglife member, and local naturalist Jane Bowman spotted that the mounds were being damaged by the density of game birds on the Estate. It's thought the birds may have been feeding on the ant's brood or using the fine soil of the mounds for dust-bathing to keep their feathers in good condition.

Following advice from Buglife and Scottish Hymenoptera expert Murdo Macdonald, the

Glenmoriston Estate used chicken wire to cover the nest mounds (including one nicknamed 'The Millenium Dome'), protecting them from pheasant and partridge damage.

This work has shown that fencing nest mounds is a simple, low-cost way to protect and conserve this locally important species.

Scott Shanks, *Buglife*



## Volunteering for Bugs

### New butterfly transects take flight in Glasgow

Hogganfield Park and Cardowan Moss Local Nature Reserves have been surveyed for butterflies this year. The transects were created in partnership with Glasgow City Council's Countryside Ranger Service and Biodiversity & Ecology Department. A wealth of data has been gathered by the Seven Lochs Volunteers which will help inform the Biodiversity Action Plan (BAP) for Glasgow.



Volunteers on the butterfly ID workshop © Lucy Tozer

The following butterflies have been recorded by eight volunteers at Hogganfield: Green-veined white (*Pieris napi*), Large white (*Pieris brassicae*), Small white (*Pieris rapae*), Orange-tip (*Anthocharis cardamines*), Small copper (*Lycaena phlaeas*), Small tortoiseshell (*Aglais urticae*), Peacock (*Inachis io*), Meadow brown (*Maniola jurtina*) and Ringlet (*Aphantopus hyperantus*). The majority of these have been whites, Ringlets and Meadow browns.

When more volunteers asked to join the team a second transect was established at Cardowan Moss, a neighbouring nature reserve. Cardowan Moss has four volunteers and they have recorded Large white, Small white, Common blue (*Polyommatus icarus*), Small tortoiseshell, Peacock, Meadow brown and Ringlet. Ringlets and Meadow browns can be found in large numbers whilst the Common blue is present in only one part of the reserve.

Scott Shanks of Buglife led a butterfly and day-flying moth workshop for the team in July to enhance the volunteers' knowledge and ID skills. After the presentations the group caught and identified butterflies in a nearby reserve. The

volunteers were delighted to have had some training and are now more confident in the field.

Hogganfield Park, Cardowan Moss and an existing butterfly transect at Commonhead Moss LNR are situated within the boundary of the proposed Seven Lochs Wetland Park. The new transects are coordinated by Lucy Tozer, a TCV Natural Communities Trainee. She is on a placement with GCV Green Network Partnership, working on an exciting project to engage communities with a proposed park which spans the Glasgow and North Lanarkshire boundary. Part of the engagement strategy includes forming a volunteer group and the butterfly surveys have proved a successful way to attract volunteers.



Common blue (*Polyommatus icarus*) © Lucy Tozer

As the close of the season approaches the volunteer group is looking to be involved in more projects to improve their local greenspaces. To meet this need Lucy is putting together an autumn programme with support from partners to run a variety of volunteer task days. If you want to join the practical conservation taskforce email/phone Lucy Tozer, [sevenlochs@gmail.com](mailto:sevenlochs@gmail.com) or 0141 229 7746.

Volunteers from the Friends of Kelvingrove Park were also out recording butterflies this year after setting up a new transect with the help of Helen Simmons, another TCV Natural Communities Trainee, based with Glasgow City Council.

Please visit [www.sevenlochs.org](http://www.sevenlochs.org) for more information on the proposed Seven Lochs Wetland Park and to find out how you can be involved.

Lucy Tozer, TCV Natural Communities Trainee

## Invertebrate Talks Programme

**From the beginner to the expert, there are events for everyone!** This section pulls together many invertebrate events into a single calendar.

If you have an event you would like to publicise in Scottish Invertebrate News please send the details to [scott.shanks@buglife.org.uk](mailto:scott.shanks@buglife.org.uk)

Date	Talk	Location	Further Information
13/11/12	'Bugs and the Victorians' by John Clark, University of St. Andrews	Aberdeen	<a href="mailto:Jenni.stockan@hutton.ac.uk">Jenni.stockan@hutton.ac.uk</a> Or Tel. 01224 395239
21/11/12	'Life on the Links: the invertebrate fauna of Dumbarnie Links SWT reserve' by Gordon Corbet	Edinburgh	<a href="http://www.edinentclub.org.uk">http://www.edinentclub.org.uk</a> Or Tel. 01316 677013
11/12/12	'Conservation of rare Burnet moths ( <i>Zygaenidae</i> ) in Scotland' by Mark Young, University of Aberdeen	Aberdeen	<a href="mailto:Jenni.stockan@hutton.ac.uk">Jenni.stockan@hutton.ac.uk</a> Or Tel. 01224 395239
12/12/12	'Butterfly Conservation in South West Scotland' by Scott Shanks, Butterfly Conservation	Edinburgh	<a href="http://www.edinentclub.org.uk">http://www.edinentclub.org.uk</a> Or Tel. 01316 677013
08/01/13	'Spiders as indicators of environmental change' by Mike Davidson, British Arachnological Society	Aberdeen	<a href="mailto:Jenni.stockan@hutton.ac.uk">Jenni.stockan@hutton.ac.uk</a> Or Tel. 01224 395239
16/01/13	'Alien Invasions– are pollinators under threat?' by Cathy Horsley	Edinburgh	<a href="http://www.edinentclub.org.uk">http://www.edinentclub.org.uk</a> Or Tel. 01316 677013
12/02/13	'Glasgow's Buzzing' by Suzanne Bairner, Buglife	Aberdeen	<a href="mailto:Jenni.stockan@hutton.ac.uk">Jenni.stockan@hutton.ac.uk</a> Or Tel. 01224 395239
21/02/13	'Insects in upland land use research' by Nick Littlewood, John Hutton Institute	Edinburgh	<a href="http://www.edinentclub.org.uk">http://www.edinentclub.org.uk</a> Or Tel. 01316 677013
12/03/13	'Upland Insects' by Nick Littlewood, John Hutton Institute	Aberdeen	<a href="mailto:Jenni.stockan@hutton.ac.uk">Jenni.stockan@hutton.ac.uk</a> Or Tel. 01224 395239
20/03/13	'Oil Beetles ( <i>Meloidae</i> ) in the UK' by Andrew Whitehouse, Buglife	Edinburgh	<a href="http://www.edinentclub.org.uk">http://www.edinentclub.org.uk</a> Or Tel. 01316 677013
17/04/13	'Bugs and the Victorians' by John Clark, University of St. Andrews	Edinburgh	<a href="http://www.edinentclub.org.uk">http://www.edinentclub.org.uk</a> Or Tel. 01316 677013
15/05/13	AGM, ISI reports and update on conservation strategy	Edinburgh	<a href="http://www.edinentclub.org.uk">http://www.edinentclub.org.uk</a> Or Tel. 01316 677013
June 2013	Scottish Entomologists' Gathering 2013. Dates and locations to be arranged.	North-west Scotland	<a href="mailto:scotland@buglife.org.uk">scotland@buglife.org.uk</a>
4–6/09/13	The Royal Entomological Society's 'Ento' 13' International Symposium and Science Meeting .	St Andrews	<a href="http://www.royensoc.co.uk/content/ento-13-4-6-september-2013">http://www.royensoc.co.uk/content/ento-13-4-6-september-2013</a>

### Credits and Information

If you would like to write an article for **Scottish Invertebrate News**, suggest a topic to be discussed, or would like any further information, please contact:

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