

BioBlitz—24 hours of wildlife recording fun...

*Engaging more people in wildlife recording is a challenge, and one which DGERC works to promote. This summer, DGERC helped to run two events at sites in the heart of Galloway bringing the public and experts together to survey the wildlife of each one. **Mark Pollitt**, DGERC Manager reports on the results...*

Wildlife recording—it's what DGERC is all about. Gathering records of where different species live in the region, checking them and storing them safely and sharing them for others to use. Most of our information comes not from professional surveys but from volunteers—amateur wildlife enthusiasts (like you!) taking the time to note down the things they see and reporting them, perhaps as part of surveys through national schemes and societies, via a county recorder or simply sent as casual records direct to the Centre.

A current buzz-word amongst funders and politicians is 'citizen science'—the involvement of volunteers in science. And wildlife recording is just that—volunteers collecting wildlife and habitat information to contribute to our knowledge of the natural environment. So if you've submitted sightings to DGERC, you now know you're a citizen scientist! There's no doubt that we'd love to get more people involved in wildlife recording, but how do we do





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it? This year DGERC, in partnership with other local organisations, helped to promote wildlife recording by running two BioBlitz events. Funding for the events was kindly provided by Scottish Natural Heritage, and each one promoted the 'Year of Natural Scotland' theme.

'BioBlitz' is a funny word. As local countryside ranger Keith Kirk put it, "When I first heard the word I thought it was some kind of biodegradable toilet cleaner!" Well, in fact it originated in the USA and simply means an intense period of biological surveying to record the living species within a particular area, and has come to be used for events bringing together experts and beginners, professionals and amateurs, young and old to achieve this. It's a fun wildlife event that anyone can take part in.

Brighouse Bay: Sat 8th June

The event was run in partnership with Scottish Wildlife Trust and Solway Firth Partnership's Making the Most of the Coast project and was timed to take place on World Oceans Day. The sunny coastline of Brighouse Bay proved to be an ideal location, with the Bay's mix of beach, dunes, rocky shore, cliffs, ponds and woodland allowing recorders and experts to explore a variety of different habitats and within easy walking distance of the 'base camp' in the Holiday Park.

Around 50 volunteers took part, starting with the opening of several moth traps which had been set in various locations the night before. Our wildlife experts helped with identification on guided walks throughout the day, culminating in a bat walk at dusk led by Dumfries and Galloway Bat Group.

Notable finds included a the locally scarce **Treble Lines** moth *Charanyca trigrammica* and an early record of the elusive **Northern Brown Argus** *Aricia artaxerxes*, a small, brown grassland butterfly which is often overlooked. With the help of bryophyte expert Liz Kungu many liverworts and mosses were recorded, some for the first time in the area including **Fertile Feather Moss** *Drepanocladus polygamus*, which thrives in coastal locations and had not been recorded in the region for nearly a century. Lobster pots set by a local fisherman provided great views of marine



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creatures found in the bay. A grand total of 1,193 records was gathered of 469 different species across 24 different taxonomic groups.

Barstobrick: Fri 12th/Sat 13th July

The delightful Barstobrick Visitor Centre near Ringford hosted the second event, run in partnership with Scottish Wildlife Trust. The event took flight on Friday evening with a bat walk led by Dumfries and Galloway Bat Group whilst members of the local Butterfly Conservation Group set up moth traps. People enjoyed the aerial antics of **Soprano Pipistrelles** *Pipistrellus pygmaeus* and great views of **Daubenton's Bats** *Myotis daubentonii* hawking over the ponds.

Saturday was a baking hot summers day, the kind of which have been all too scarce in recent summers. Throughout the day local wildlife experts and enthusiasts led guided walks around different habitats, helping to gather lists of wildlife sightings from different parts of the site, bringing records back to the visitor centre for DGERC staff and volunteers to process.

The moth traps were checked in the morning—and on into the afternoon as we caught so many. Over 80 different species were recorded, providing visitors with excellent views of favourites such as **Garden Tiger** *Arctia caja* (pictured above) and **Elephant Hawkmoth** *Deilephila elpenor*. Elsewhere people watched nine different species of dragonflies by the ponds, whilst others helped to record over 180 species of plants and mosses around the site. The three most frequently recorded species were **Ringlet** *Aphantopus hyperantus*, **Foxglove** *Digitalis purpurea* and **Red Kite** *Milvus milvus*, which provided great views for many visitors. By the end of the day over 950 records were gathered of 375 different species. These included 14 which are highlighted as priority species in the Local Biodiversity Action Plan, emphasising the wildlife value of the site.

Each BioBlitz was a great day, made even more successful by the volunteers and experts who gave their time—a *huge* thank you to all who helped, and in particular to Graham Smith of the local SWT group who helped to plan and organise the events. And judging by the feedback it seems that those who joined in enjoyed it too.

Have we enthused some new wildlife recorders? Reinvigorated some existing ones? I certainly hope so.



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Red Squirrels: a brighter future?

Scotland's Red Squirrels continue to face a major threat from their non-native North American cousins. Southwest Scotland Project Officer **Heinz Traut** explains the progress being made to give the Reds a better future...

South Scotland's Red Squirrel conservation project has been running since 2000, then under the banner of Red Squirrels in South Scotland (RSSS), and since 2012 under a national Project, Saving Scotland's Red Squirrels (SSRS). SSRS is a partnership Project between Scottish Wildlife Trust (SWT), Scottish Natural Heritage (SNH), Forestry Commission Scotland (FSC), Scottish Land and Estates (SLE) and the Red Squirrel Survival Trust (RSST).

South Scotland is at the frontline in the defence of the country's remaining **Red Squirrel** *Sciurus vulgaris* population, which

constitutes three quarters of the UK population. The non-native **Grey Squirrel** *Sciurus carolinensis* not only out-competes the Red Squirrel for habitat, but is also a carrier of the Squirrelpox virus, which is lethal to our Reds; thus the main focus of the Project in

the south is to contain the spread of the squirrelpox virus within affected areas. This effort is intended to prevent the transfer of the virus to uninfected Grey Squirrels in the central belt (between Edinburgh and Glasgow) and thereafter to Red Squirrels throughout the Scottish mainland.





sightings, submitted via our website, have also assisted us to monitor the distribution of the two species. To complement this data SSRS set up a network of monitoring tetrads across southern Scotland (during spring 2013) with the aim of detecting large scale changes in the distribution of both Red and Grey Squirrels. With the support and dedication of 80 volunteers we have managed

This is being achieved through a comprehensive Grey Squirrel control and Squirrelepox surveillance network. Targeted, co-ordinated and sustained Grey Squirrel control is delivered through project staff, Forestry Commission Scotland control officers, an extensive network of landowners and a voluntary trap-loan scheme, in which interested members of the public may participate. The Grey Squirrel Control Zone extends across the Borders, Dumfries & Galloway, parts of south and east Ayrshire and south Lanarkshire.

The control programme seems to be working, as trapping results show that Red Squirrels are again plentiful in some areas that have suffered Squirrelepox disease outbreaks and catastrophic declines in the past. Trapping records and public

to survey 102 tetrads. It has been a tremendous achievement, given the scale of the task, and the first survey of its kind in the region. The survey provided evidence that Red Squirrels are still very widespread across Dumfries and Galloway and south-western regions of the Borders. Grey Squirrels were detected at far fewer tetrads overall, although they are clearly established in the central and eastern Borders, much of Ayrshire and in all other counties to the north of Dumfries and Galloway and the Borders. The results, which Scottish Wildlife Trust will share annually with DGERC, will serve to be a valuable baseline against which future changes in squirrel populations may be compared.

To get involved in the project please contact Heinz Traut on htraut@swt.org.uk, 07881 016495 or follow us on www.redsquirrels.org.uk or facebook.com/savingscotlandsredsquirrels



The sounds of summer: crickets and grasshoppers in Dumfries & Galloway



Bog Bush-cricket ©DGERC

Few sounds evoke hot summer days as vividly as the clicking songs of crickets and grasshoppers, which belong to the taxonomic group known as Orthoptera.

In Dumfries and Galloway, 10 of the UK's 27 species of Orthoptera have been recorded since 1990, nine of which are native and support sustained populations [see box on p7]. Three species of crickets occur in our region and nowhere else in Scotland.

Very few wildlife recorders submit records of grasshoppers and crickets and our knowledge of their distribution in the region is far from complete. What is certain is that in order to build up a clearer picture of their distribution locally, we need many more records to be sent in. Records of both common and rare species are important and because we have a relatively small number of Orthoptera species in the region, learning to identify them confidently should not be too daunting an undertaking.

Orthoptera species are predominantly found during summer, except for the **Common Groundhopper** *Tetrix undulata* which are present as adults all year round. Other species overwinter as an egg, emerging as nymphs in spring. Nymphs, which superficially resemble an adult insect, grow through several stages known as 'instars'. Nymphs can be recognised by the lack of wings (present only as short pads behind the pronotum) and the short, thickened antennae. Late summer, from July through to September, is the best time to look for adult grasshoppers whilst bush-



Field Grasshopper ©northeastwildlife.co.uk



crickets may mature a little later, in August and September.

So, what are the basic guidelines for identifying grasshoppers and crickets? In common with several other insect groups, colour is not a reliable indicator, since each species can have a wide variety of colour patterns—the widespread **Common Green Grasshopper** *Omocestus viridula* can occur in an array of green, brown, pink and purple forms. Anatomical structure and calls provide the most reliable means

of identification. Key features to note include overall size, wing length, shape of the keel on the pronotum (the saddle-like structure which protects the thorax) and the shape and size of an ovipositor in female crickets.

Crickets make their 'songs', or stridulations, by rubbing the base of their wings together whereas grasshoppers rub their hind legs against their forewings to produce their characteristic chirping. These songs help to attract a mate and are also used in courtship. Fascinatingly, a cricket's auditory system consists of two ear drums located on its foreleg!

The songs of both grasshoppers and crickets can be extremely helpful in their identification, as each one makes a distinctive sound. Bat detectors are useful for helping to hear some species, for example the high-pitched chirps of the **Speckled Bush-cricket** *Leptophyes*



punctatissima, whose songs are inaudible to most humans, or equally to help locate the rapid stridulating chirps of grasshoppers such as the **Mottled Grasshopper** *Myrmeleotettix maculatus*. Calls are most often heard in warm sunny weather, and only one species, the Common Groundhopper, remains silent.

Habitat type can also help you to look for particular species. Some such as the **Field Grasshopper** *Chorthippus brunneus* favour short dry grassland often in coastal locations though **Meadow Grasshoppers** *Chorthippus parallelus* will tolerate damper grasslands. In Dumfries and Galloway, **Dark Bush-crickets** *Pholidoptera griseoptera* are known only from coastal scrubby slopes whilst others may favour dry sandy dunes, grassland with bare ground or hedgerows. The rare **Bog Bush-cricket** *Metrioptera brachyptera*, as its name suggests, is a lowland heath and bog specialist and is known from only a single site in Scotland, at Aucheninnes Moss near Dalbeattie.

Since the 1980's several Orthoptera species have spread rapidly northwards in the UK, perhaps responding to warmer summer temperatures. In 2011 the **Short-winged Conehead** *Conocephalus dorsalis*, once found only on the south coast of England, was recorded at Rascarrel Bay, near Auchencairn, an exciting discovery. The colony has persisted each year and may well spread to other sites in the region. Keep a look out if your walking at the top of saltmarsh areas on the Solway coast.

We still know so little about our region's Orthoptera, so who knows what an eagle-eyed hopper-spotter might hope to find next in Dumfries and Galloway?

Hilary Parke & Mark Pollitt

Grasshoppers and crickets of Dumfries and Galloway

Dark Bush-cricket

Scarce. Known from only two sites. Scrubby coastal cliff and slope.

Bog Bush-cricket

Rare. Lowland heath and raised bogs. Only known from one site near Dalbeattie

Speckled Bush-cricket

Scarce. Known from three coastal sites. Scrubby coastal cliff and slope.

Short-winged Conehead

Rare. Known from only one site. Coastal, on saltmarshes and sand dunes.

Common Groundhopper

Widespread in central/west, few records in east. Bare ground and short vegetation with moss in both wet and dry locations.

Common Green Grasshopper

Common. Longer grass, particularly in unimproved grasslands.

Field Grasshopper

Common, particularly in dryer habitats with short vegetation. Often coastal.

Meadow Grasshopper

Widespread in a range of habitats, including damp grassland.

Mottled Grasshopper

Widespread, mainly coastal. Short vegetation with bare ground.



Creatures from the edge



Hairy Crab © Nic Coombey

Nic Coombey, coastal ranger for Solway Firth Partnership's Making the Most of the Coast project, looks at some of the Dumfries and Galloway coast's hidden gems and explains why finding out more about them is important...

Where the land meets the sea is a fascinating and dynamic place, one which provides some of the harshest environments for wildlife to survive. Extensive tidal mudflats, rocky bays and promontories, bold rugged cliffs and the raised shingle beaches are all found on the Dumfries and Galloway coast. These marginal places are often unmanaged

Below the waves is a secret world which most of us cannot experience except by peering into rock pools revealed by low tides or searching for clues on the strandline. The coastline is an incredibly rewarding place to explore and identify species which are often under-recorded in Dumfries and Galloway.

The seas are a fluid place where species are freer to move than on terrestrial locations. This means that species can react quickly to changing conditions and are useful for measuring the impact of climate change. The Making the Most of the Coast project is keen to encourage more recording and has teamed up with the Shore Thing project developed by the Marine Biological Association and managed by Fiona Crouch to undertake rocky shore surveys. The Shore Thing shore looking for 22 key species selected because their presence or absence are indicators of changing sea temperatures.

In Dumfries and Galloway the **Honeycomb Worm** *Sabellaria alveolata* is at the northern limits of its range and monitoring its increase of abundance may suggest



warming waters. The **Tortoiseshell Limpet** *Testudinalia testudinalis* which thrives in cooler waters, is another indicator species which has recently been found on the shores of Loch Ryan. Other indicator species include **Dabberlocks** seaweed *Alaria esculenta* and the Purple Top Shell *Gibbula umbilicalis*.

The Shore Thing survey is also searching for non-native species which include the **Pacific Oyster** *Cassostrea gigas*, and **Wireweed** *Sargassum muticum* both recently discovered on the Dumfries and Galloway shoreline.

With such a wide range of habitats recorders don't have to restrict themselves to the 22 Shore Thing species and the more you look the more you find. From skate and ray egg cases on the strandline to the strange and spectacular creatures such as the **Sea Mouse** *Aphrodita aculeata* washed up on the sands or the **Hairy Crab**



Pilumnus hirtellus lurking under stones at the low water mark.

The Making the Most of the Coast project is keen to hear from people who would like to learn out more about our precious wildlife and report their findings to DGERC.

If you want more information visit www.marlin.ac.uk/shore_thing or contact the Solway Firth Partnership Coastal Ranger at nic@solwayfirthpartnership.co.uk or telephone 01387 251991



OTHER NEWS...

New bumblebee confirmed in D&G



Tree Bumblebee © Alison Robertson

Dumfries and Galloway added a new species to its list of wildlife this summer with the first confirmed record of the **Tree Bumblebee** *Bombus hypnorum*.

Tree Bumblebees first colonised Britain only 10 years ago, and have since been spreading rapidly northwards. DGERC had hoped to find evidence of the bee as part of the Bugs in Gardens surveys, which highlighted this species as one to look out for. The distinctive ginger, black and white pattern is unlike most other bumblebees in the UK. Unfortunately, despite possible sightings in 2011 and 2012, we failed to receive confirmed records.

Nonetheless, the raised awareness of the bee was not wasted, as when local recorder Alison Robertson spotted the distinctively-marked bumblebee on flowers in her garden, she soon recognised the newcomer and quickly photographed it as a record of her sighting.

This is one species to look out for next year as it is likely to spread further in the region. Please report sightings, with photographs, to DGERC.

Dolphin sightings off the D&G coast

Recorders are reminded to keep a look out for dolphins off the D&G coast. For the third consecutive year a group of **Bottlenose Dolphins** *Tursiops truncatus* has visited the Kirkcudbrightshire coast for several days during the summer, and this year again in September. At the Mull of Galloway earlier in the summer,

Mark Cavanagh was fortunate enough to watch and film a small group of **Risso's Dolphins** *Grampus griseus* off the headland. These are thought to be the same group spotted off the Isle of Man a few days previously. Porpoises are present off our coast all year round, but dolphins are far less common and are most likely to occur during the summer months. All sightings of whales, dolphins and porpoises should be reported to DGERC. If you are unsure how to recognise different species, why not join one of DGERC's organised watches for the National Whale and Dolphin Watch next year?

New moth for Scotland found on DGERC survey

A wildlife recording event in Wigtownshire discovered a species of moth not recorded previously in Scotland.



Devon Carpet © Keith Naylor

On 27th August 2013 a group of experienced local wildlife recorders gathered at Glassoch, near Newton Stewart, to survey the site. Moth traps were set overnight, and on opening next morning an usual geometrid moth was found.

Reference to the identification guides suggested **Devon Carpet** *Lampropteryx otregiata*, and the experienced moth recorders who attended were aware that it would be new for the region. It's a species which has been spreading northwards but had seldom been recorded much above a line between the Humber and Mersey in England. On the opening of the other traps a further four were found. Specimens were retained and County Moth Recorder Keith Naylor sent a photograph to national moth expert Roy Leverton who confirmed it as the first authenticated Scottish record. The survey also confirmed the presence of the moth's larval food plant, **Marsh Bedstraw** *Galium palustre*, in the ditches around the site. This plant is quite widely distributed in Dumfries and Galloway, so there is potential for this species to occur at other sites in the region—certainly one for moth trappers to look out for in 2014.

National Dragonfly Atlas

DGERC's dragonfly records were shared with the British Dragonfly Society (BDS) for the production of their forthcoming atlas. The atlas is due out in 2014 and BDS are now taking orders of the publication at the special pre-publication price of £25 including p&p. More details available on the BDS website.

Several new species have begun to colonise the region in recent years, including **Migrant Hawker** *Aeshna mixta*, **Southern Hawker** *Aeshna cyanea* and **Emperor** *Anax imperator* and **Keeled Skimmer** *Orthetrum coerulescens*. This summer saw further records of these species and evidence of breeding and attempted breeding. Look out for these in 2014 and perhaps others such as **Brown Hawker** *Aeshna grandis* and **Ruddy Darter** *Sympetrum sanguineum* which have been already been recorded in north Cumbria.



Ovipositing Emperor ©Brian Cox

More bees...



Tawny Mining Bee ©Richard & Barbara Mearns

Spring 2013 saw further records of **Tawny Mining Bee** *Andrena fulva*. This species is a ground-nesting bee and often nests in lawns and short turf. The females have long orange-brown hairs contrasting strongly with black hairs on the head, side of thorax and legs making them very distinctive.

Although widespread further south, they are still very scarce in Scotland. Please send any sightings, with a photograph, to DGERC.

Elsewhere, local recorder John Clark spotted a solitary bee nesting in a discarded snail shell on the coast at Carrick and took several good photos. Suspecting an interesting find, DGERC passed the photos on to a national expert who confirmed them as the rare **Gold-fringed Mason Bee** *Osmia aurulenta*. Whilst locally common in southern England, it was previously known from just one site in Scotland, at Brighthouse Bay just along the Galloway coast. This species is a solitary species and is one of a small number of British bees that uses discarded mollusc shells as nesting sites.



Gold-fringed Mason Bee ©John Clark

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