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The Orkney Naturalist



Bulletin of the Orkney Field Club 2014

Orkney Field Club is a Scottish Charitable Incorporated Organisation (SCIO) SC012459

Orkney Field Club promotes the enjoyment, study and conservation of local wildlife. The Club manages land for wildlife, responds to conservation policy issues, promotes biological recording and runs training events. OFC was a founding partner of the Orkney Biodiversity Records Centre (now known as Orkney Wildlife Information Centre), located in the Orkney Library & Archive. The Centre holds the Orkney's wildlife database – this valuable data on species and sites can be made available to all interested parties. Records are submitted to the Centre either directly, or through a network of County Recorders who encourage everyone to participate in the collection of data.

Subscriptions (2014) are Adults £10, Family £15, Concessionary £6, Student £3.

Membership Secretary is Brian Ribbands, Queenamidda, Rendall, KW17 2PA, tel. 01856 751439 or email queenamidda@waitrose.com.

Walks and Talks. Club nights – normally illustrated talks – are usually held in Kirkwall on the third Friday of each month except in summer. Meetings are advertised on Radio Orkney, in the Outdoor Orkney Calendar – www.outdoororkney.com/calendar – and on the Club's website – www.orkneycommunities.co.uk/fieldclub. Field meetings are held frequently, chiefly during the summer, at a wide range of locations, including the outer isles. Non-members are welcome to all events. For more information, please contact OFC Secretary, Jenny Taylor, email jenny@jtlarch.co.uk.

Newsletters are normally sent out to members three times per year and are also available on the Club's website. They give members news, information and a programme of events.

The Club's Bulletin – *The Orkney Naturalist* – is the main publication of the Orkney Field Club, and it is produced in spring each year. It is free to members. It contains a wide range of articles about Orkney's natural history and it is also the Journal of Record for annual summaries of records from Orkney's County Recorders for various taxonomic groups of wildlife. For enquiries about the Bulletin, including guidelines for those wishing to submit articles, please contact the Editor, John Crossley by emailing flawsjohn@gmail.com.

Resources are made available to members, who have access to the Club's slide collection and a range of reference books and other equipment, including microscopes. Contact the Orkney Wildlife Information Centre for details – www.orkneylibrary.org.uk/obrc

Club Office Holders 2014-15

President:	Peter Slater	Secretary:	Jenny Taylor
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Vice-chair:	John Crossley		Brian Ribbands
Other committee members:	Anne Gascoigne	Trevor Kay	Dave Musson
	Sydney Gauld	Fiona Knox	Katy Norbury
	Marc Herridge	Dick Matson	



Walrus, North Ronaldsay, March 2014 (Gavin Woodbridge)

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The Orkney Naturalist is put together by a sub-committee of Orkney Field Club. Minor amendments to submitted articles are made by the sub-committee, and sometimes more significant changes are suggested; ultimately the content of an article remains the responsibility of the author, and does not necessarily reflect the views or conclusions of the sub-committee.

Members of the Editorial Sub-committee thank all contributors to this issue of *The Orkney Naturalist* and all who have assisted in its publication.

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Placida dentrica (Anne Bignall) – see page 20; 'Houton Slugs'.



Dor Beetle (Brian Ribbands) – see page 40; 'Beetle Report 2013'.

First, I must say how very pleased and flattered I am to be asked to act as President of the Field Club, especially following in the footsteps of two such very well-qualified individuals. Elaine Bullard was the doyenne of Orkney botanists, and a founder member of the Club. Mildred Cuthbert has contributed a tremendous amount to ornithology in Orkney, including being a co-author of "The Birds of Orkney", and to the Club itself, having been both its Secretary and Chairman.

I fear I can claim no such credentials, though I have been spending increasing amounts of time here since retiring from the Chair of Natural History in St Andrews six years ago, and have recently moved permanently to Stromness. But my connection with Orkney goes back much further than this. I am in fact a quarter Orcadian (probably above the average for a Field Club member!), and have been coming to Orkney on holiday every year, maybe excepting 1987, since 1945. Being only two then I had not taken up ornithology yet, but my father's later gift of a bird book (which he probably lived to regret!) and family holidays in Birsay were key factors in setting me on that course. For the past few decades most of my research has been on bird song and, again, it was Orkney that influenced me in that direction. In 1976, my family spent a sabbatical summer staying with my mother, who was living in Finstown at the time. That year I studied the attendance patterns of guillemots on the cliffs of Copinsay and variations in the songs of chaffinches from wood to wood around the islands. The paper I wrote on this was my very first on bird song. So Orkney, and its natural history, have been a huge influence on my life.

Now that we live here permanently, I'm delighted to be able to attend more Field Club events, which are a real pleasure. The list of recorders at the back of the Bulletin gives an indication of the remarkable array of expertise there is in Orkney. This is very impressive for such a small place. Indeed, with the exception of the famous Stronsay monster, which still seems to defy identification, no matter what living organism you find here you can be pretty sure that there will be someone in the Field Club who will be able to tell you what it is. With the natural world under threat in all sorts of different ways, keeping a close eye on it has never been more important, and nurturing the skills involved is critical to this. This is one really important role the Field Club has to play.

Guidelines for Contributors

Contributions to the Bulletin are warmly welcomed. If you are interested in contributing, please contact John Crossley at North Flaws, South Ronaldsay, Orkney KW17 2RW or by emailing flawsjohn@gmail.com.

Articles for the Bulletin follow certain conventions, such as the use of capitals for the English names of species, with this name being emboldened at first use, and the Scientific name being provided with it at that point. More detailed guidelines for contributors are available from John, and it will be a great help to John and his editorial sub-group of the Orkney Field Club if they are followed.

Who's poisoning my food?

Silje Kristen-Jensen



Harbour Seal (Chris Morris)

It's a quiet morning in Orkney. I am looking outside the window at the sunrise. It's a day in mid-summer. Where I come from in Norway the sun never sets at this time of year. Inside the hostel Hannah and I are about to head out and start the day. The ocean tide is at its lowest in a few hours and we need to be ready when the seals haul out. I am here to collect scat samples from **Harbour (Common) Seals** *Phoca vitulina* to study natural

toxins that the seals are exposed to as part of my PhD. Seals are often used as sentinels of ocean health and they are a good indicator of what is going on in the marine food chain in terms of diseases, pollutants and toxins. The natural toxins the seals are exposed to can cause shellfish poisoning, and can induce similar symptoms that humans suffer from after eating contaminated mussels. The seals don't eat mussels, but mostly fish, so how does this work?

The ocean is a vast, mysterious wilderness. From the time the first explorers started investigating the deep until today, many questions have been answered, but so much is still unknown. Many communities depend on the ocean, especially small island groups such as Orkney. The sea surrounds the islands, so to get anywhere you would have to cross it. In the old days it would have been by boat, but now you can fly almost everywhere. The sea is also a source of food, which would not be possible without tiny plant-like organisms called phytoplankton, the *grass of the sea*.

During spring when the light becomes more intense, after winter storms have stirred the water column enriching the surface layers with nutrients, phytoplankton can grow and reproduce forming what are called algal blooms. These blooms can be so intense that they can change the colour of the water. Most of these blooms do not harm people or the marine wildlife, but some of them do. These events are referred to as harmful algal blooms or HABs. They occur worldwide and have been reported to be increasing in frequency and intensity. They are caused by phytoplankton that produce toxin as a by-product. Why? Well as with many areas in the world of science, scientists cannot agree on why this is happening. Some scientists believe it is because these microorganisms are nutritionally stressed and others think it is a defence mechanism against grazing zooplankton (small animals). Once these toxins are produced, they can take months to degrade in the sea, which is why shellfish farms are closed when the toxins are found in the water. Monitoring of these blooms and toxins is essential so that people don't get sick when eating shellfish.

But how are seals affected by these toxic blooms? Since the late 1990s there have been regional declines in Scottish harbour seal populations. Over the last 10 years, the number of harbour seals counted in some regions in the north of Scotland (including Orkney and Shetland) and along the east coast, have dropped by up to 85%. On the west coast of Scotland harbour

General advice on recording

All records are worthwhile. The essential four pieces of information that must accompany **all** records are:

What	Where	When	Who by
SPECIES NAME (& HOW MANY)	PLACE NAME (GRID REF IF POSSIBLE)	DATE	YOUR NAME

Record Cards for some groups can be obtained from the Orkney Wildlife Information Centre (the new name for the Orkney Biodiversity Records Centre). Records, including completed cards, should be sent to the appropriate County Recorder. The use of Record Cards is desirable but not essential.

If no County Recorder is listed, please send your records to the Orkney Wildlife Information Centre (Orkney Biodiversity Record Centre):

**Orkney Wildlife Information Centre,
Orkney Library and Archive,
44 Junction Road,
Kirkwall,
Orkney
KW15 1AG**

Email: biodiversity@orknevlbrary.org.uk

If you want a written reply it would be appreciated if you include a stamped addressed envelope. This is essential when specimens have to be sent away for identification. When collecting specimens please collect only the minimum number needed for purposes of identification. If you need help with identification or if you would like more information about records of a particular species of plants, birds, mammals, invertebrates, etc please ask the appropriate County Recorder.

Both individual County Recorders and the Orkney Wildlife Information Centre hold details of recording schemes for a large assortment of flora and fauna. Many of the organisers welcome and help beginners, so why not "take up" a species or a group to study and record?

To assist with species identification the Orkney Wildlife Information Centre holds a library of reference books and equipment including microscopes.



Left - Meadow Grasshopper (Paul Hollinrake)
Above - Emerald Damselfly (Paul Hollinrake)
See pages 13-15; 'Hoy Dragons'.

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seal populations seem to be more stable. The declines may be the result of multiple factors such as predation from killer whales, infectious diseases, changes in prey availability, increased competition with the bigger grey seal and the ingestion of toxins from toxic phytoplankton.

I have worked together with people from Shapinsay, Sanday and South Ronaldsay to get information about the harbour seals and collect scat samples. I don't think my PhD would have been possible without these collaborations and the kindness shown by the people I have met on my trips to the Orkney. I don't know how to thank everyone for their generosity.

So what about the seals and the toxins? As I mentioned earlier, the seals don't eat mussels, but what I have discovered by studying the scat samples is that the seals do accumulate these toxins. So who is to blame? The Sea Mammal Research Unit have carried out tagging programs to find out where the seals are foraging, I have been part of two trips up to the Eynhallow and Eday where we tagged around 15 seals. The tag sends out information either via a satellite or via GSM¹ mobile phone receivers, so we can map what areas they are using for foraging and where they are resting.

As a PhD student it is interesting for me to see where the seals are foraging, because this information will be linked with what food they are eating. Harbour seals get the water they need and the food they require from the fish that they eat. One way to find out what the seals are eating is to study the scat. After washing away all the organic material bones and other hard parts from the seals prey are left behind. These hard parts can be



Tagged Harbour Seal (Chris Morris)

traced back to the prey, especially otoliths (fish earbones). This is the objective of another PhD study at the Sea Mammal Research Unit. So with this in mind, an additional part of my PhD was to find out which fish species around Scotland are exposed to these toxins I have mentioned. I have been working with several fishermen to collect fish to analyse. All I need is the gut of the fish as this is where the toxin accumulates. Preliminary results from my PhD show several different toxins in different species of fishes such as the demersal benthivores, lemon sole, dab and plaice together with the more pelagic fishes, mackerel, haddock and cod. These are the most likely vectors for transferring these toxins through the fish gut to the seals.

By linking the toxin findings in both the seal and the fish gut together with information on the diet (from an on-going PhD project at the Sea Mammal Research Unit) of the harbour seals and on the areas where they are foraging (by using satellite transmitters), I am now beginning to assess the health risk of these HABs and their toxins to the harbour seal population in Scotland.

At the moment I am finishing my lab work and fieldwork. I am currently not collecting any more data for my PhD. I am hoping to deliver my PhD some time in the autumn.

¹ GSM = Global System for Mobile Communications

Photography and camera handling

Derek Mayes

Apart from me not knowing everything (obviously!), it is impossible for me to write here all there is to know about camera handling or taking better photos; so what follows is just a summary of what I have found to be good practise. It is aimed at anyone interested in Natural History who uses a digital camera.

A more expensive camera does not mean better pictures. All modern digital ones are capable of taking perfect pictures, if handled properly. Choosing a camera is usually is a matter of personal taste or someone's recommendation. Almost any camera nowadays is very versatile but:

- few people use more than 10% of the camera's functions and features;
- even fewer people experiment with settings;
- most people are dissatisfied with their photography.

Good or successful photographers take loads of pictures, carry their camera everywhere and portray unusual things from unusual angles. They know their camera and develop an eye for composition.



You are your best critic, because photography is usually quite personal. But if you want to improve, you will need someone else to offer criticism. The best advice I can give is to think beyond conformity, consider new viewpoints, be highly self-critical and ask for criticism.

Orkney Recorders 2014

(Please see second half of table for contact information)

County Recorders can arrange species identification, either through their own knowledge or by access to the expertise of others; they feed information into local and national recording schemes; and they maintain Definitive Lists. A number of the latter are now available on the Field Club's website, <http://www.orkneycommunities.co.uk/FIELDCLUB/index.asp>. As the Reports in the Bulletin demonstrate, appropriate records of sightings are always welcome.

Algae – marine (seaweeds)	Prof. Martin Wilkinson
Algae – freshwater	Eileen Summers
Amphibians & reptiles	Chris Booth
Bats	Tim Dean
Beetles	Brian Ribbands
Birds	Jim Williams
Bumblebees, solitary bees, wasps and ants	John Crossley
Butterflies & moths	Sydney Gauld
Caddis flies (Trichoptera), mayflies (Ephemeroptera) & stoneflies (Plecoptera)	Ross Andrew
Centipedes & millipedes	Dave Musson
Cetaceans (whales, porpoise & dolphins)	Chris Booth
Cnidaria (sea anemones, jellyfish, hydroids, comb jellies and siphonophores)	Penny Martin
Crustacea (marine)	Anne Bignall
Dragonflies & damselflies	Dick Matson
Earthworms, leeches etc	Keith Fairclough
Echinodermata (sea urchins, starfish, etc)	VACANT
Fish	Chris Booth
Fungi (including slime moulds)	Julian Branscombe
Grasshoppers	Dick Matson
Lichens	Roger Davies
Mammals (excepting bats & cetaceans)	Brian Ribbands
Molluscs (marine – sea slugs, cephalopods, shells etc)	Anne Bignall
Molluscs (terrestrial and freshwater – slugs and snails)	Dave Musson
Mosses, liverworts & hornworts	Rosemary McCance
Sawflies	Jenni Stockan
Spiders, pseudoscorpions & harvestmen	Edward Milner
Stoneworts	Effy Everiss
True bugs (Hemiptera)	Peter Kirby
True flies (Diptera): hoverflies (Syrphidae), parasitic flies (Tachinidae), flesh flies (Sarcophagidae) and blowflies (Calliphoridae)	Ross Andrew
Vascular plants	John Crossley
Woodlice	Dave Musson

Killer Whale *Orcinus orca* Common April to July, uncommon at other times

A good year for sightings, some of which probably refer to the same group of animals.

A pod was reported in Burra Sound on 5th March and five were off the east side of Papa Westray on 27th March. In April three were sighted between Westray and Papa Westray on 11th and a pod was seen in Kirkwall Bay during the month while eight were watched in Warness Sound on 29th. A single was in Eday Sound on 2nd May and six, including an adult male and a juvenile, were in Hoy Sound on 3rd May. A pod was sighted in Scapa Flow on 23rd May and five were seen off Deerness on 27th May. In June three were seen off the lighthouse, North Ronaldsay on 5th and six seen off Black Craig on 20th. On 27th June, five that were sighted off Black Craig were probably the same group seen heading north from Yesnaby on this date. July sightings included a pod off Hoxa Head on 3rd, five off Hoy on 6th, four off Hoxa Head on 11th and probably the same whales were seen close to Hunda, Scapa Flow on 12th. There were five reported off Rendall on 17th, two in Warness Sound on 19th, five were off Bothican, Papa Westray on 22nd, six to eight off the west side of North Hill, Papa Westray on 23rd, four in Warness Sound on 25th when three were seen in Eday Sound. In August four were seen off Black Craig on 1st, one was seen from there on 5th and five on 9th. The last reports for the year were two off Northside, Birsay on 30th October, one in Warness Sound, Eday on 17th November and six, including an adult male and a juvenile, observed off Aukerry on 14th December.

Long-finned Pilot Whale *Globicephala melas* Formerly common, now uncommon

A herd of 27 was seen off Black Craig on 26th June.

Stranding: A dead whale, not fresh, stranded at Westness, North Ronaldsay on 1st December.

Risso's Dolphin *Grampus griseus* Common

Two were seen off Black Craig on 31st January and one on 1st February. No more reports until four off Black Craig on 4th April followed by five off Birsay on 26th May and four off Black Craig on 28th May. The only June sighting was of six off Black Craig on 3rd. All July sightings were from Black Craig with three on 3rd, one on 10th and four on 30th. In September there were four off Black Craig on 9th, one there on 20th and five on 25th, while four were seen in Water Sound, Burray on 26th. Three were seen off Black Craig on 4th and 5th October with a similar number off North Ronaldsay on 12th October. One was in Warness Sound on 21st November and three off Black Craig on 1st December.

Unidentified cetaceans

A number of sightings were reported where identification could not be made with absolute certainty:

From Black Craig – singles on 11th January, 14th and 16th February. In April five on 12th, singles on 19th and 27th. May sightings were of eight on 24th and one on 28th. In August, there was one on 5th, two on 8th, five on 15th, one on 16th and 20th. Singles on 23rd, 25th and 26th September, 14th, 21st October and 4th November.

Acknowledgements

I am very grateful to the following for their records and help:

J Booth, S Brogan, M Brown, M Cockram, J Crossley, T Dodman, A Duncan, J Findlay, A Gascoigne, SV Gauld, D Hourston, J Kakkonen, A Liptrot, H McKenzie, ER Meek, North Ronaldsay Bird Observatory, R Philby, T Probert, JB Ribbands, EJ Rosie, M Spence, D Taylor, R Thorne & M Wilson. A special thanks to Christina Bristow and EMEC for details of sightings from their manned sites.

View others' work and ask yourself why you like or dislike it and always try to improve. Photography requires a little aptitude and a LOT of trial and error.

Better photos

Spend time looking at the subject, use as much time as possible getting the right angle. Of course, most photos are impromptu, with no time to arrange, nor frame up properly. Poor photographs are sometimes really useful IF they illustrate the point you want to make – 'this is the killer whale before it disappeared' or 'this is John leaping off the headland'. But there is no excuse for a bad picture of a snowdrop because there is time to get the best.

Most of the very best photos are taken with great care but some of the greatest photos ever are taken without any preparation at all. Few amateurs can emulate the latter but we can all take great care. My advice is always take plenty, moving to a new angle each time.



The sea slug egg spiral (probably of the nudibranch *Favorinus branchialis*) is one of nine, all good as it happens, but it was a nice day, the eggs stationary in a rock pool (under a stone) and I was in no hurry. What a shame it would be to have only one poor photo.

The marine worm (probably *Cirriformia tentaculata*) is one of ten, the only one without wriggle-blur of some sort – some luck then.

Practise indoors; get to know the camera, its closest focus distance, some of its manual settings and its weaknesses. Spend less and less time zooming, more moving towards, away and around, framing the scene and the subject. Practise different angles and perspectives – join the subject at its own level, rarely towering above it.

Camera shake

The greatest enemy of the potentially good photographer is camera-shake. The result is just like a bad out-of-focus photo – nothing will be clear.

Modern cameras have an anti-shake system called 'Image Stabilization' but it only works to low, easily exceeded, limits. A tiny camera held at arm's length, even up to the eye, is prone to emphasising the normal shake of your hands or body. It is nearly impossible to hold a camera really steadily. Professional camera users know this problem well, which is why they tend to use a tripod or monopod.

Steady yourself, feet apart, pull your elbows into your chest, breathe out and gently squeeze the release. Easy to say! But the most destructive element IS camera shake.

Place the camera against a firm surface – a fence post say, or at least lean your body against a wall. I sometimes spend long moments looking for the view or subject that allows me to do this – the top of a fence post, tall rock or sturdy tree are some of my favourites but I will use anything to hand as a monopod. If it's windy, or I am out of balance, I'll leave it and come back later.



Hands-off pictures are almost always superior in quality. Place the camera away from your hands, on a surface that allows it to stay still. It requires a brave stance, to let the camera take the picture, being certain that the wind won't blow it over. For this you will need to activate the self timer. To position the camera, you will sometimes need to use contortion but most digital camera screens allow for framing without your eyes being very close to the camera. It takes practice. You will often need to 'bed' the camera on a scarf or glove, say, but it is always worth a try. I use a purpose-made bean-bag sometimes, a small bag of dried lentils – it works wonders! Take four – one will be of your hands!

Subject flutter

This is a serious enemy – the flower being blown by the wind or the dog moving its head at the wrong time. There is no easy cure but the closer you are or the greater the zoom, the more magnified this problem becomes.

Sometimes the solution is to take the subject to a more sheltered place, even home! But that is not always possible. When necessary I will try to give the subject some shelter – a rucksack say. Take none or six!

Focus grab

This is a simple enemy – and easy to defeat. All modern cameras have an auto-focus system which is hard, but not impossible, to fool. The camera WILL focus on the subject but you must tell it what subject. Most, though not all, camera settings choose a small area in the centre of the screen to focus on. But cameras have a nasty habit of finding something other than the flower to focus on, often preferring the trees in the backdrop. There is usually no problem when photographing scenes. The problem comes when the flower is near to the camera, so you need to know that the camera has focussed on the flower and not the blade of nearby grass. You need to check using preview on the camera. If focus has grabbed the trees, say, then use a

Whale, Dolphin and Porpoise Report 2013 *Chris Booth*

Humpback Whale *Megaptera novaeangliae* Very rare

One was seen off Black Craig, Stromness on 25th September

Minke Whale *Balaenoptera acutorostrata* Common

The first report was of one off No 2 Barrier on 29th April. Then in May singles were seen off Black Craig on 3rd and 24th, west of Papa Westray on 25th then two off Black Craig on 29th. In June singles were sighted on 4th off Birsay and Black Craig, followed by further singles off Black Craig on 6th, 17th, 21st and 26th and one in Papay Sound on 21st. One was watched feeding off Auskerry on 7th and 8th July with other sightings during the month of singles off Holm of Papa Westray and Black Craig on 10th and Black Craig on 29th. There were reports of singles off Black Craig in August on 24th, 27th and 28th; in September on 6th and 9th and in October on 11th and 14th. The last sighting for the year was of one feeding in Warness Sound on 3rd December.

Stranding: A male, c7 metres in length, at Billia Croo, Stromness on 28th October. Not freshly dead.

Sperm Whale *Physeter macrocephalus* Uncommon

Stranding: The body of an immature male, c11 metres in length, was washed ashore near Stenno, Evie on 10th December. This whale had been dead sometime.

Harbour Porpoise *Phocoena phocoena* Common

Recorded every month except March.

Monthly distribution of sightings 2013

J	F	M	A	M	J	J	A	S	O	N	D
3	4	0	11	10	9	15	17	7	8	5	3

The majority of sightings involved one to four individuals but 13 were seen off the Brough of Birsay on 3rd June, eight off Black Craig on 12th July and six south of Copinsay on 25th August. A juvenile was seen with three adults off Hoxa Head, South Ronaldsay on 29th July and another with two adults in The String on 10th November.

Short-beaked Common Dolphin *Delphinus delphis* Uncommon

Two were seen off Hoxa Head, South Ronaldsay on 26th September.

Bottle-nosed Dolphin *Tursiops truncatus* Rare

Four were reported off Black Craig on 26th April.

Atlantic White-sided Dolphin *Lagenorhynchus acutus* Uncommon

All sightings were from Black Craig with six on 9th April, two on 9th May and 9th August and the last was seven on 11th October.

White-beaked Dolphin *Lagenorhynchus albirostris* Formerly common, now uncommon

A school of 55 was seen in Warness Sound, Eday on 25th July and a school was reported between Westray and Rousay on 23rd August.

Stranding: One, long dead, was found on the beach below Bendigo, St Ola on 14th August. It was c2 metres in length.

Common/Harbour Seal *Phoca vitulina*

Highest reported count was of 36 at Birsay in March. Very few were reported elsewhere, with just one to three at Hunda, Hoy and in the Loch of Stenness at Brodgar. A newly born pup was found on Damsay in June.

Grey Seal *Halichoerus grypus*

Pup counts in November were:
200 Switha (north side of island)
65 Calf of Flotta (south side)
155 Flotta

South Ronaldsay: 110 at Windwick and 60 between Burwick and Green Head.

A count of 97 hauled out at Birsay in October was exceptional; usually there are 10 or less here. The only other haul-out count reported was 12 at Bay of Creekland, Hoy, in September.

Walrus *Odobenus rosmarus*

A sub-adult male was at Bridesness, North Ronaldsay on 3rd March. The same animal was in Norway six days later. It had been in the Faroe Islands earlier and was tracked back there and to Iceland and Svalbard. The only 20th century record was one on Eynhallow in 1986.

Red Deer *Cervus elaphus*

A young animal, less than two years old, was found dead at Billia Croo, Outertown, Stromness on 26th April. No doubt like the Badger found nearby in 2011 it will have died somewhere around the coast of Scotland, fallen into the sea and drifted here. Considering the high numbers of Red Deer in parts of the Highlands it is not surprising that this happens occasionally.

Cattle *Bos taurus*

On 10th July the feral herd on Swona consisted of 20 animals: 13 cows/heifers, five calves and two bulls. This is four more than in 2012 but two cows were found freshly dead on 1st October, bringing the total down to 18.



Swona Cattle (John Crossley)

Acknowledgements

Many thanks to the following contributors of records: CJ & J Booth, A K & JH Johnson, A Leitch, A Forsyth, A Gascoigne, A Bignall, R Simpson, A Upton, D Armstrong, R Matson, E J Rosie, E Meek, I Seator, J Findlay, J Dewar, J Taylor, J Crossley, K McDonald, K Norbury, L Campbell, L Sharp, N Reid, P Hollinrake, R Besant, T Dodman, L Shields, S Spence, J Branscombe, S Sankey, also SNH staff and all who have reported Stoats. Chris Booth again deserves special mention for numerous records of his own and others he has passed on to me. Apologies to anyone missed out.

pencil held near the flower to aid focus (pressing the button half way usually locks the focus), move the pencil away and shoot. Take four – one will be of a pencil!

Depth of focus

Technically known as ‘depth of field’, this mostly applies to close-up photography and is a feature that can be used to advantage but can also ruin otherwise excellent pictures.

All parts of the black guillemot foot are in focus; it has an exquisite and shallow focus zone. This zone is always very shallow in close-ups. You should have regard for what is and what is not properly in focus. Large blurred areas do nothing for photographs. The focus zone is



difficult to estimate and if wrong, you will only discover too late. Note how even the shades are – no harsh sunlight. Sunlight is fine but watch for deep black shadows – it’s just OK on these flowers.

Close-up

The closer you go, the more emphasised is camera shake, subject flutter and the more shallow the focus zone. Good close-ups are as difficult to perfect as bat photography. The subject MUST be in focus, so it is essential that you know how close your camera will successfully go – test it indoors. You should not try to exceed, by even a single millimetre, this closeness. This is the time when the hands-off beanbag becomes almost essential – for camera steadiness. I often rest my camera on my binoculars, placed on the ground as a sturdy base.

Scale

Many people submit excellent photos to nature forums or ask what’s this? Without scale, some things (creatures particularly) cannot easily be identified.

Of course, the picture will be ruined by the presence of a ruler or a coin. So take a few with one showing scale. I favour the 20p coin and it helps with focus grab issues. The perfect flower in a salty meadow is shown for its diminutive size – PENCE is 1cm. (It’s Sea Milkwort.)

Framing

Focal points (the subject) should be obvious generally, like the red foot. Sometimes, of course, it is perfectly acceptable to get the subject off-centre (at the camera club it is preferred). Cropping (enlarging a portion in your computer) may be the best way to get framing right. Try very hard to get what you need in the picture and nothing else. In a finished photo the eye should be drawn immediately to the subject, so it should be strongly lit, crisply focussed and immediately obvious. Again all too easy to write!

Filling the viewfinder

It's the first and most often ignored rule. Make certain the subject takes up most of the frame. In that respect landscapes are easy but the snake may not be. Try to make at least one third of the frame the main subject.



Cropping (enlarging a part of a photo) is by far the best way to get decent close-ups but start with the camera a little further away than its closest distance. One should only crop good quality pictures, as any faults will be enlarged as well. Cropping can only be done via photo software (in a computer). Most picture-editing programmes have straightforward crop tools. A good free programme is Photofiltre – its crop tool is very user-friendly.

The red bird-foot is a crop of a larger picture. However, over-cropping is often the death knell of picture quality.

Flash in Daylight

Most people assume that flash is just for darkness or parties – not so. Well-balanced flash can make a subject stand out from its surroundings or illuminate the faintest detail. It's a difficult task to get just enough light on a subject, yet retaining some detail of the surroundings in the picture (flash often illuminates only the subject, leaving the immediate environment in half-darkness). Most integral flash units are too powerful for close ups but if used well, can give startling results. The Sea Champion shows detail not easy to come by without flash and the shadows are illuminated.

Brown Hare *Lepus europaeus*

Seems to be doing well in Orkney. As usual recorded throughout East and West Mainland in almost every parish. The maximum count in one place was an impressive 23 at Stromness Loons on 25th March. Other high counts were 14 in Sandwick and 12 in Birsay.

Mountain Hare *Lepus timidus*

Almost all reports were from the RSPB Hoy reserve. Most reports were from Ward Hill but they were also recorded from Sui Fea, Stourdale, Moor Fea and Mel Fea. Highest count was 10 in November on Ward Hill. One regular observer considered numbers to be lower than usual in the Nowt Bield in February.

Hedgehog *Erinaceus europaeus*

Recorded from Mainland, Hoy, Eday and Westray. The first report was of a road casualty on 9th March; the last reports of the year were of a small one seen alive on 7th November and it or another found dying nearby on 15th. As usual most reports were of road casualties; a few live sightings around mid-summer and small young animals seen in autumn. More unusual were two photographed together at dawn on 25th April.

Pygmy Shrew *Sorex minutus*

Eight reports mostly of animals found dead in Mainland and Rousay. One was trapped alive in Rendall in September. Nine were caught in mousetraps in a roof space in Costa in autumn and the following winter at a site where usually one or two would be expected. Fewer mice than usual were caught here, so possibly the Shrew numbers were normal and they just got to the traps that would usually have caught mice first.

Otter *Lutra lutra*

Live sightings, of up to four animals together, were reported from Mainland, Shapinsay, Rousay, Eday, Sanday, North Ronaldsay and Papa Westray. Spraints and tracks were found in East and West Mainland, Hoy, Gairsay and Damsay. Females with young were reported at the Brig o' Waithe and Loch of Isbister in West Mainland, in Papay and Sanday. The Otters at Brig o' Waithe at the end of the year seem to have been particularly obliging, seen by many folk. One found near the centre of Kirkwall was taken into care but died later. One road casualty was found in Stenness in March. One was seen raiding a Greylag Goose nest; another was feeding on Eels.

Stoat *Mustela erminea*

About 100 reports is a big increase. One was trapped, two caught by Cats, two by a Dog and three were road casualties. There were three marked concentrations of reports. One was the original area around Wideford Hill and the Old Finstown Road. Another was around Hobbister in Orphir with several sightings of two or three together in this area in July, indicating a family of young animals bred locally. These sites could well be part of the same area as Stoats are unlikely to be seen on the moorland between them. There were fewer reports around the airport but it remains a further centre. Outwith these areas there were a scatter of reports further west in Orphir and Stenness, a few as far as Stromness and north into Harray. In the east there were reports from Deerness. There is an urgent need to monitor Orkney Voles and their specialist predators, Short-eared Owls, which are the most likely to be impacted by Stoats first.

Mammal Report 2013

Brian Ribbands

The Mammal Society is still collecting data for an atlas of British mammals so please record any mammals you find, dead or alive, signs, tracks, etc. Don't assume anyone else has reported what you have found. Otters and Brown Hares are relatively well reported but small mammals are very under-recorded. Anyone who has a cat or sets a mouse trap could make a very valuable contribution by reporting which species they get. Most land mammals cannot readily swim between islands so it is of particular interest which islands have them and which do not. What is needed is data that can be presented as dots on a map to show roughly where they are. There seem to be changes in some of the isles, such as reports of Wood Mice in some islands for the first time fairly recently. There could be other changes; most islands have no recent records. If you record birds, please record signs of mammals as well and if you see a report or photo on Facebook or the like, please tell me, don't assume I am aware of it.

The outstanding mammal record of 2013 is of course the Walrus that visited North Ronaldsay for one day in March. This is the first Orkney record since 1986.

Stoats were reported in increasing numbers with three concentrations and signs of a spread out from these. We need to be monitoring the impact they have on Orkney Voles.

Orkney Vole *Microtus arvalis orcadensis*

Recorded in Harray, Orphir, Stenness, Sandwick and Rendall on Mainland and also on Westray, Rousay and South Ronaldsay. A black one was brought in by a cat in Stenness.

Wood Mouse *Apodemus sylvaticus*

Reported from Harray, Costa and Rendall in Mainland, and Papa Westray. They seem to have been first recorded on that island sometime between 1994 and 1998, before they were known on Westray. One observer reported fewer than usual coming into a house in Costa towards the end of the year.

House Mouse *Mus domesticus*

Reported from Kirkwall, St Ola, Harray and South Ronaldsay. Most were in roof spaces or garages and a couple of reports from gardens.

Brown Rat *Rattus norvegicus*

Reported from West Mainland and South Ronaldsay. On 7th June there were 'plenty of signs of Rats, droppings and holes' on Damsay in the Bay of Firth. Records like this from small islands are particularly valuable; few folk get the chance to visit some islands. Of course the Rats will affect breeding seabirds on these islands.

Rabbit *Oryctolagus cuniculus*

Recorded this year from Mainland, Stronsay, Westray, Rousay, Hoy, South Ronaldsay and Hunda. I first noted small young Rabbits on 6th April in Rendall (13th April in 2011). At the same site a Rabbit was seen carrying grass on 24th March, presumably a female making a breeding nest. Black Rabbits were reported from South Ronaldsay and Harray. Other colours occur; near Stromness in April there was a family of four small young, one normal and three sandy-coloured. Most likely they are descended from an escaped domesticated Rabbit.

I would urge any close-up photographer to try flash because it can subdue camera shake and freeze subject flutter. The flash has to be set for ON, not Auto, so you will need to grasp the settings on your camera. On Auto, the flash will only fire when there is not enough light. To subdue the flash I sometimes hold tissue paper over the flash window and this is well worth trying, even when the lighting is good. You really should experiment with flash in daylight, particularly for flowers – the Mayweed underside is a good example. Sea-slug eggs and the marine worm were both flash-assisted.



Background and backdrop

Good pictures are often ruined by a cluttered, or out of focus, or even focus-grab. Good positioning is required and an eye on overhead cables (for instance) or a telegraph pole growing from the butterfly's wing background – it's a close-run thing in the Tortoiseshell as it is nearly ruined by the backdrop.

A little more

If you have some manual settings on your camera then come away from Auto sometimes. Using Programme or Manual allows you to control some settings. The most valuable will be over- or under-exposing (plus or minus Exposure Value). A dark subject against a light backdrop will need plus; light subjects against dark need minus – sometimes by quite a way. Settings usually come in thirds – two thirds either way is a common requirement. Try to avoid too much zooming, so move your position to get close. Never use the zoom for close-up and almost never set the camera to digital close-up. It is a common misconception that zooming improves close-up photography but, generally, it does not. Digital Zoom is not an optical facility and usually degrades picture quality.

Don't do too much towering over subjects; get down on your knees, even lower sometimes. This is particularly important with small close-to-the-ground subjects, like beetles and tiny plants, mushrooms even. Take some things home to try on the table – say a feather or two. Take these pictures in even, grey window-lighting, avoiding harsh sunlight as much as possible. I sometimes use card for the backdrop. Note a few things about the snowdrops and feather. The subject is not exactly central; it has a neutral backdrop and floor (coloured cards); it is under-exposed by minus three thirds EV; it is a hands-free picture; the feather helped focus grab; no flash is used; the focus zone is exquisite and others like it!

Spend some time in your favourite internet browser, search the web for "how to take photos" – literally! Look hard and see what you like, read how it's done – you don't need me, only a camera.

All photos by the author.

Salmonberry – An Alien Invasion

Jenny Taylor

In Orkney we are understandably very fond of plants that are hardy and grow quickly. However, that means that we occasionally introduce a plant which turns out to be a real menace. Further south, the invasion of *Rhododendron ponticum* and its destructive effects on woodland habitats is well known. In Orkney, we have Salmonberry...



Salmonberry thicket; foliage and flower (Jenny Taylor)

Salmonberry *Rubus spectabilis* forms dense, thorny thickets, growing to a height of approximately 2 metres and has pretty, bright magenta flowers which appear in very early spring and continue until July. They are followed by orange, raspberry-like fruits in late summer. It spreads by a tough network of underground rhizomes and can provide good cover for a variety of birds, but sadly this is outweighed by its invasive qualities.

Salmonberry is native to the north-west of North America, occurring naturally in Washington, Oregon, north-western California and northwards to Alaska. There it can form dense patches within the understory of Douglas Fir, Western Hemlock and amongst Red Alder (and is associated with other species including Thimbleberry, Trailing Blackberry, Tall Oregon Grape, Red Huckleberry, Gooseberry, Deer Fern, Evergreen Huckleberry, Bigleaf Maple, Bitter Cherry and Elderberry). In its native habitat, it is browsed on by many mammals including Deer, Elk, Mountain Goats and Beaver and the fruits eaten by Bear and of course many species of birds – and it is even eaten by native Americans as an indigestion cure! Only where areas of forest are clear-felled do there seem to be problems with Salmonberry spreading and preventing

Amphibia Report 2013

Chris Booth

Common Toad *Bufo bufo* Rare

Records of this species were confined to Hoy and the West Mainland. On 24th June c1000 tadpoles were noted in the pool by the bridge at Rackwick, Hoy (IS, LS) and there were at least 50 in a pool near Sandy Loch, Hoy on 27th June.

Single adult toads were reported on five days between 15th June and 5th August at Hundasaeter, Birsay, the largest of these, found on 5 August, weighed 36gms and was 65.3mms in length (AK & JHJ).

Common Frog *Rana temporaria* Fairly common

The Common Frog continues to expand its range in Orkney. This is partly due to introductions of spawn and tadpoles into garden ponds. Great care should be taken in doing this as there is a danger of bringing disease into the County and only local spawn and tadpoles should be used.

Croaking was heard at Dale, Evie on 26th February (REM) and at The Loons, Stromness on 10th March (RJS). The first reported batch of spawn was at Dale on 4th March (REM), several days later than in the previous two years. There were four batches here on 6th and seven on 7th March. Spawn was noted at Hundasaeter, Birsay on 9th March (AK & JHJ) and at Rinibar South Ronaldsay on 14th March, with further spawnings continuing at this site until 25th March (JRLH). Elsewhere on South Ronaldsay there were approximately 30 batches of spawn at McIvor's quarry on 19th March and 40 batches at hill ponds on Hoxa Head on 1st April, while at Linegar there were 10 batches on 29th March and further spawnings there on 2nd April.

On Eday, during the digging out of a drain on 15th March, a ball of six frogs was found comprising two adult frogs and four immatures (Mark Cockram). There were three batches of spawn in a garden pond at Skail, Eday on 16th March and five in the Kirkyard pond (Mike Cockram).

During March in Stromness single adult frogs were seen in John Street on 15th and Cairston road on 19th (RJS). Away from breeding sites, a juvenile was seen on the path to the Knowes of Trotty on 14th May (ERM) while two adult frogs were found at Hewan, Evie (AG) on 22nd September and one was found dead at the bottom of the Holm branch road, Kirkwall on 20th October (DL). The last sighting of the year was at Hundasaeter, Birsay on 21st December. This frog weighed 36gms and was 67.7mms in length.

Acknowledgements

I am very grateful to the following for their records:

Mark Cockram, Mike Cockram, A Gascoigne (AG), JRL Hogarth (JRLH), AK & JH Johnson (AK & JHJ), D Lea (DL), RE Matson (REM), E R Meek (ERM), I Seator (IS), L Shields (LS), RJ Simpson (RJS).

Fish Report 2013

Chris Booth

Details of some of the more interesting fish reported in 2013 are given below:

Basking shark *Cetorhinus maximus*

The first report was of one in Warness Sound on 9th May followed by sightings of single sharks off Black Craig in May on 13th, 20th, then 21st and 29th in June, then on 24th and 29th July. August records were of singles in Warness Sound on 14th, off Red Head, Eday on 22nd, North Ronaldsay on 24th and Warness Sound on 28th. In September there were singles south of Rapness, Westray on 6th, off Black Craig and Warness Sound on 9th, Warness Sound on 17th, Hoxa Head, South Ronaldsay on 21st, North Ronaldsay on 23rd and Warness Sound on 26th and 27th.

Deal-fish *Trachipterus arcticus*

One was found stranded at Newark Bay, Deerness on 1st March. Length 1.17m.

Lumpsucker *Cyclopterus lumpus*

A male was found dead on the shore at Aikerness, Evie on 30th December.

Sunfish *Mola mola*

One was seen off North Ronaldsay on 25th August. This is the first report of this species since 2008.

Acknowledgements

My thanks to the following for their records:

C Bristow and EMEC, M Cockram, T Dodman, A Duncan, A Johnson, M Peace, North Ronaldsay Bird Observatory, E J Rosie, M Spence.

the regeneration and establishment of tree species. Otherwise it seems to co-exist happily with other native species.

Salmonberry was probably originally brought into Orkney as good game cover (which incidentally was also the reason for much of the planting of Rhododendron in Scotland) and it was planted in woods around some of the large country houses. In many of these places it seemed to co-exist happily with other trees and shrubs for many years. In recent years, however, it has transformed into a bit of a 'monster'. It rampaged, for instance, through every bit of Trumland woods on Rousay, smothering all ground-flora and young trees in its path and leaving the current owners with a serious and ongoing problem. It is spreading steadily and worryingly in Binscarth wood and at Happy Valley, the 'Friends' are undertaking a long battle to eradicate it. It has also spread into a number of areas of native willow carr, for instance along the Old Finstown Road, where it has become so intimately entangled with the willow, that it is now hard to think how it could be removed. (It will be interesting to see whether it eventually smothers out the willow completely). It has found its way onto other sensitive habitats, as at Russadale where new patches are spreading up through the native vegetation. On Rousay, it is spreading onto the RSPB reserve and SSSI below Knitchen Hill and has also appeared near Muckle Water. More and more patches seem to be appearing by roadsides, in woods, ditches, gardens and out in the wilder parts of our countryside. From a relatively few 'hubs' where it was originally planted, the spread is now noticeably increasing every year.

The march of Salmonberry shows the risk we take every time we import an alien plant into a different part of the world. In most other parts of Britain, it seems to be unknown as an invasive plant, but is causing major problems here in Orkney and in Caithness. (If you are travelling south on the bus, you can spot many patches along the way). It has also become established in parts of the Western Isles and there have even been reports of it becoming a nuisance in a Local Nature Reserve at Corstorphine Hill in Edinburgh. Here in Orkney, it is fruiting well and therefore will be spread more and more by birds who will carry the seed to new parts of the county, perching particularly on trees and scrub, amongst which the seed seems able to germinate in deep shade, taking advantage of the shelter to become well established before anyone has even noticed it. It may also be being spread along watercourses, by pieces of vegetative material and/or seed being transported.

In its North American home, Salmonberry is probably kept in check by the hard winter weather knocking it back every year. British nurseries, some of whom promote Salmonberry as a 'garden-worthy plant', also describe it as 'not frost hardy'. Taken out of its native climate, where winters are very harsh and planted here in our relatively 'balmy' maritime climate, there is little to check its growth. So a plant that is not invasive in its natural habitat may behave very differently when transported to a different climate and environment. Unfortunately the Salmonberry 'cat' has already been let out of the bag in Orkney and all we can do now is to try and spot its appearance in new places before it has had time to take a hold and spread.

What methods can we use to control Salmonberry? Unlike in its natural habitat, it will not be eaten by any wild animals, although sheep will graze off short young growth and pigs may be a solution for some larger areas. A small patch in a garden might be dug out. Larger patches require cutting hard back to the ground (burning the cuttings) and then herbiciding when they shoot in the spring... and whenever they shoot again. This may take many years of constant vigilance. We can also help control its spread by dead-heading plants before the fruits can form.

So what incentives are there for people to eradicate Salmonberry? Sadly, very few. Currently grants for removing invasive plants from woodlands or farmland tend to be based on nationally accepted invasive species e.g. Rhododendron, Japanese Knotweed, Himalayan Balsam, all of which are present in Orkney, but not causing any major problems - indeed finding a Rhododendron thriving in Orkney is a rare experience! There is a need, therefore, for national grant schemes to allow (or insist on) the use of locally developed invasive species lists, rather than the national ones (which may be irrelevant to many peripheral locations).

There are of course legal duties under the 'Wildlife and Countryside Act 1981', which states that it is an offence to 'plant or otherwise cause to grow any plant in the wild outwith its native range.' The related Code of Conduct states that actions that may 'cause a plant to grow in the wild' include:

- the planting of a non-native plant in a place other than the wild (such as a garden) with the result that the plant spreads into the wild (such as a native woodland adjacent to the garden);
- failing to take proper steps to prevent a non-native plant, which is growing in a place other than the wild such as a garden, from spreading into the wild (such as a native woodland adjacent to the garden);
- the inappropriate disposal of plant material (fly-tipping), leading to plant growth.

Responsible gardeners and landowners may work hard at removing and controlling Salmonberry from their land, but whilst it is growing unchecked nearby, the risk of re-infection will be there. Tackling the plant effectively in Orkney will require an approach targeted not just at the most valued, or designated, habitats, but at all sites. This is a huge task and we are now perhaps at the pivot point where we have to make a decision about whether we attempt to tackle it comprehensively throughout the County, or whether we accept its presence and the undoubted changes it will bring as it spreads through our native and non-native habitats. This decision needs to be actively made with due regard to all the future consequences of action or non-action. We also need to be lobbying hard to get localised invasive species lists accepted in national grants schemes. Forthcoming discussions with Scottish Natural Heritage and other interested parties will hopefully further air the issue of Salmonberry and start to form a plan.

The story of Salmonberry in Orkney illustrates the great care we all need to take before importing new plants, how vigilant we need to be to stop plants seeding and spreading into the wild and how badly we need localised and targeted incentives / resources to eradicate invasive species as soon as their threat to our valued habitats becomes apparent. Ultimately, however, where invasive aliens are concerned, prevention is much, much better, easier and cheaper, than cure.

References

<http://www.fs.fed.us/database/feis/plants/shrub/rubspe/all.html>

A leaflet about Salmonberry can also be accessed on the Outdoor Orkney website at <http://www.outdoororkney.com/explore-further/orkney-woodland-project-resources>.

Please report all sightings of Salmonberry to me, Jenny Taylor jenny@jtlarch.co.uk

Jenny Taylor is a Landscape Architect and Woodland Advisor

Ribbands); one 11 October, Quooyberstane, St Ola (SV Gauld); and one 11 and 13 October, Bayview, Herston, South Ronaldsay (J & R McCutcheon).

Satellite *Eupsilia transversa* (RI): one taken by trap 13 October, Bayview, Herston, South Ronaldsay (J & R McCutcheon).

Red-line Quaker *Agrochola lota* (V): one taken by trap 29 September, Sea Cottage, Longhope, Hoy (M Harris).

Light Arches *Apamea lithoxylaea* (U): 14 taken by trap: 13 between 24 July and 20 August, Cairston Road, Stromness (B Simpson); and one 10 August, 34 High St, Kirkwall (CJ & J Booth).

Large Wainscot *Rhizodra lutosus* (RI): four taken by trap: one 25 September Bayview, Herston, South Ronaldsay (J & R McCutcheon); one 28 September and 5 October; Cairston Road, Stromness (B Simpson); and one 22 October, Sea Cottage, Longhope, Hoy (M Harris).

Lempke's Gold Spot *Plusia putnami* subsp. *gracilis* (U): three taken by trap, one 17 and 25 July, Gerraquoy, South Ronaldsay (S & S Sankey); and one 25 July, Sea Cottage, Longhope, Hoy (M Harris). These are the first accepted records for Lempke's Gold Spot. There is every possibility that it has been caught in the past but recorded as **Gold Spot** *Plusia festucae*. Lempke's Gold Spot is now common across the north of Scotland.



Lempke's Gold Spot (Mary Harris)

The Herald *Scoliopteryx libatrix* (R): two records, one trapped 9 May, Queenamidda, Rendall (B Ribbands) and one on sugar 11 October, Quooyberstane, St Ola (SV Gauld).

Pinion-streaked Snout *Schrankia costaestrigalis* (R): 10 taken by trap: three between 27 June and 9 August, Sea Cottage, Longhope, Hoy (M Harris); three between 30 July and 9 August, Bayview, Herston, South Ronaldsay (J & R McCutcheon); one 24 July and 27 July, Cairston Road, Stromness (B Simpson); one 23 August, Quooyberstane, St Ola (SV Gauld); and one 28 August, Queenamidda, Rendall (B Ribbands). Pinion-streaked Snout was also recorded on 3 August, Stenaday, Heddle Road, Finstown (SV Gauld).

Acknowledgements

My thanks to everyone who supplied records.

3 August, one 12 July, Quoyberstane, St Ola (SV Gauld); six between 22 July and 6 August Sea Cottage, Longhope, Hoy (M Harris); and one 3 August, Caolilla, Heddle Road, Finstown (SV Gauld).

Barred Straw *Eulithis pyraliata* (C?): one taken by trap 7 August, Bayview, Herston, South Ronaldsay (J & R McCutcheon).

Small Phoenix *Ecliptopera silaceata* (C?): one taken by trap 20 June, Sea Cottage, Longhope, Hoy (M Harris).

Pine Carpet *Thera fermata* (R): three taken by trap: one 6 August, Sea Cottage, Longhope, Hoy (M Harris); one 28 August, Queenamidda, Rendall (B Ribbands); and one 2 September, Gerraquoy, South Ronaldsay (S & S Sankey).

Grey Pine Carpet *Thera obeliscata* (R): one taken by trap 28 July, Cairston Road, Stromness (B Simpson).

The Streak *Chesias legatella* (V): one taken by trap 5 October, Cairston Road, Stromness (B Simpson).

Bordered White *Bupalus piniaria* (R): one seen 24 June, Queenamidda, Rendall (B Ribbands); and two taken by trap, one each 2 July, Queenamidda, Rendall (B Ribbands) and 15 July, Sea Cottage, Longhope, Hoy (M Harris).

Barred Red *Hylaea fasciaria* (R): two taken by trap, one 16 July, Gerraquoy, South Ronaldsay (S & S Sankey) and one 7 August, Sea Cottage, Longhope, Hoy (M Harris).

Convolvulus Hawk-moth *Agrius convolvuli* (I): one caught in a mist-net 3 September, Sanday (R Thorne).

Heart and Dart *Agrotis exclamationis* (U): one taken by trap 15 July, Sea Cottage, Longhope, Hoy (M Harris).

Dark Sword-grass *Agrotis ipsilon* (I): six recorded. Five taken by trap: three between 28 June and 21 October, Sea Cottage, Longhope, Hoy (M Harris); one 10 September, 34 High St, Kirkwall (CJ & J Booth); and one 5 October, Cairston Road, Stromness (B Simpson). One seen in the field, Berstane House, St Ola (N Charlton).

Northern Dart *Xestia alpicola* (U): one taken by trap 13 July, Sea Cottage, Longhope, Hoy (M Harris). Identification was confirmed from a photo by Roy Leverton, who suspects that this was a migrant. This will be the third record for Northern Dart in Orkney: first recorded from Hoy (South, 1985) and the second 15 July 1986, Scorradae, Orphir (RI Lorimer). It is suspected that Northern Dart could be resident on Hoy, but so far all attempts to find larvae have failed.

Double Square-spot *Xestia triangulum* (U): one taken by trap 8 August, Cairston Road, Stromness (B Simpson).

The Gothic *Maenia typica* (R): one taken by trap 2 August, Cairston Road, Stromness (B Simpson).

Common Wainscot *Mythimna pallens* (V): six taken by trap: one 22 July, Sea Cottage, Longhope, Hoy (M Harris); four between 30 July and 5 August, Cairston Road, Stromness (B Simpson); and one 28 August, Queenamidda, Rendall (B Ribbands).

Black Rustic *Aporophylla nigra* (C?): one taken by trap 7 October, Sea Cottage, Longhope, Hoy (M Harris).

Red Sword-grass *Xylena vetusta* (R?): six taken by trap: one 26 September, Gillbreck, South Ronaldsay (L Campbell & N Fairbairn); two 4 – 6 October, Queenamidda, Rendall (B

Hoy Dragons

Dick Matson

Dragonflies and damselflies have been a source of fascination to *Homo sapiens* since we first came on the scene. These insects are often gorgeously and subtly coloured, they are structurally elegant, most are voracious predators, they survive in apparently adverse climates (as experienced in Orkney), they have changed little in evolutionary terms over millions of years and not least we associate them with warm, balmy summer weather.

A small group of Field Club members follow the fortunes of the various species to be found in Orkney and we are fascinated by our findings which have presented us with a number of interesting conundrums: (1) After a lengthy period of apparent population stability, the **Black Darter Dragonfly** *Sympetrum danae* has over the last 15-20 years spread rapidly from Hoy to many parts of Mainland Orkney – why not until now? In the OFC Bulletin of 2011, p36, the Dragonfly Recorder, Keith Fairclough, describes this range expansion and explores possible explanations, suggesting climate change as a likely reason. (2) The **Common Hawker** *Aeshna juncea* is indeed common on Hoy, particularly in the north but is struggling to become established on Mainland Orkney, although there is one promising site in Rendall. Why should this strong, powerful insect not be more successful? (3) The **Common Blue Damsel** *Enallagma cyathigerum* is catholic in its choice of breeding sites in the rest of UK and has a wide tolerance of site pH, but here in Orkney it appears to choose only the fairly acidic pools found on our moorland. Does this point to a different Orkney sub-species? (4) Breeding of the **Four-spotted Chaser Dragonfly** *Libellula quadrimaculata* has only been proved at two adjacent moorland pools (in north Hoy) although there are similar apparently suitable pools in the near vicinity. (5) Although the species is found



Common Blue Damsel (Brian Ribbands)

throughout most of the Scottish Mainland including not-so-far-off Caithness it was only recently that breeding of the **Emerald Damselfly** *Lestes sponsa* was recorded in Orkney – again in north Hoy. In the same 2011 Bulletin, Keith describes the discovery of the species in Orkney and discusses reasons for its northwards progress.

A problem with our monitoring efforts is the unpredictability of the Orkney climate. The ideal conditions for observing most day-flying insects occur when the weather has been warm, settled and with little wind for a period of at least two or three days. Of course this has to coincide with the availability of the would-be watchers. Such a spell occurred at the beginning of August 2013 and Paul Hollinrake and I decided to make the journey to the dragonfly metropolis of northern Hoy. As well as monitoring the half-expected spread of the Emerald Damselfly we hoped to find out a bit more about the breeding sites of the Four-spotted Chaser. In the event we failed to see any of the latter on this expedition – we were almost certainly too late in the season for this species which has a fairly early and brief flight period.

The Emerald Damselfly (a single specimen) was first recorded in Orkney by OFC members on 19th July 2010 at the pools near the Rackwick car-park and then five males were discovered on 2nd September at the pools near the Rackwick road bridge – the so-called Toad Pools. In 2012 the same two members found breeding insects at the car-park pools and at the Toad Pools. It seemed that the species was now firmly established on Hoy and that there was every chance that it had spread further in the north of the island. Excitingly it might even make the short sea crossing to Mainland Orkney and colonise suitable pools here.

Weather for our visit on 5th August was favourable – mild with little wind. Our first stop was at the Rackwick Car-park Pools and here we found every indication that we were in for a really rewarding day. There were at least 60 Black Darters active over the pools or settled on the pondweed and bank-side vegetation. Doubtless there were many more in the vegetation further away from the margins of the pools. Seven Common Hawkers, 30 Common Blue Damsels and six Emerald Damsels were also counted. A move to the Toad Pools near the road bridge yielded six Black Darters, five Common Hawkers, six Common Blue Damsels and six Emerald Damsels.

Leaving Rackwick we followed the road eastwards and stopped briefly at the Broadi Faces hillside to confirm the presence of the **Meadow Grasshopper** *Chorthippus parallelus*. After some hectic searching we managed to track down 10 or so specimens. We also found a single specimen just to the south of the South Burn at ND219998.

Our next site entailed a short hike across the heather to the South Burn, an “interesting” burn crossing and a scramble up the heathery slopes to the east of the Moss of Whitestanes. Our objective was the western-most pool of a close-together series of pools (it is worth noting that

some pools in this area are not accurately marked on the OS map). Here we were in damselfly-watcher’s heaven. There were at least 120, and probably many more, Common Blue Damsels in flight over the pool or at rest on the pondweed and marginal vegetation. The scene was positively “shimmering” with damsels. Other damsels included 13 Emerald and 10 **Large Red** *Pyrrosoma nymphula*. Dragons were also present –



Large Red Damselfly (Brian Ribbands)

20 Black Darters and seven Common Hawkers. Incidentally we had approached the pools with caution in case breeding **Red-throated Divers** *Gavia stellata* were present, but this was not the case.

Time was by now getting short but we were determined to reach a small pool we could just make out about 600m to the east. We were rewarded with two Black Darters, five Common Hawkers, 25 Common Blue Damsels and two Emerald Damsels.

Our final stop was at the artificial pool near the road bridge over the Whaness Burn not far from Moaness. As far as we knew this small pool had been created only a few years previously

Other Sightings of Interest

Micropterix calthella (U): four swept 29 June, Quoyberstane, St Ola (SV Gauld).

Bird-cherry Ermine *Yponomeuta evonymella* (I): two taken by trap, one 2 August, Sea Cottage, Longhope, Hoy (M Harris) and one 10 August, 34 High St, Kirkwall (CJ & J Booth).

Honeysuckle Moth *Ypsolopha dentella* (R): 19 taken by trap between 22 August and 10 September, 34 High St, Kirkwall (CJ & J Booth).

Elachista atricomella (U): one taken by trap 9 August, Cairston Road, Stromness (B Simpson). This is the second record of *Elachista atricomella*. The first record was 20 August 2000, Lochside, Harray (SV Gauld).

Acleris effractana (U): five taken by trap: one 19 August and two 2 September, Sea Cottage, Longhope, Hoy (M Harris); one 20 August, Quoyberstane, St Ola (SV Gauld); and one 7 August, Harray Manse, Harray (Orkney Lep Group).

Crambus pascuella (U): two taken by trap, one 13 July, Sea Cottage, Longhope, Hoy (M Harris) and one 26 July, Quoyberstane, St Ola (SV Gauld).

Brown China-mark *Elophila nymphaeata* (V): two taken by trap, one 17 July, Cairston Road, Stromness (B Simpson) and one 14 August, Sea Cottage, Longhope, Hoy (M Harris). I suspect that this moth is now a resident, so it would be good if proof could be obtained to prove this.

Udea olivalis (V?): 394 taken by trap between 24 June and 19 August at ten sites across Orkney.

Udea ferrugalis (I): one taken by trap 26 August, Sea Cottage, Longhope, Hoy (M Harris).

Rush Veneer *Nomophila noctuella* (I): two taken by trap, one 6 October, Sea Cottage, Longhope, Hoy (M Harris) and one 11 October, Quoyberstane, St Ola (SV Gauld).

Bee Moth *Aphomia sociella* (R): five taken by trap: one 17 June, Bayview, Herston, South Ronaldsay (J & R McCutcheon); three between 23 August and 5 August, 34 High St, Kirkwall (CJ & J Booth); one 6 August, Sea Cottage, Longhope, Hoy (M Harris); and two seen at a window 26 July, Quoyberstane, St Ola (SV Gauld).

Red Admiral *Vanessa atalanta* (I): Red Admiral were seen between 22 June and 9 October, mostly as single individuals.

Painted Lady *Vanessa cardui* (I): one record 29 July, Rackwick, Hoy (CJ & J Booth). There is also a report of one seen 2 June, Bay of Skail, Sandwick.

Peacock *Inachis io* (V): three seen: one 25 May, Bu, Orphir (Kate Barrett); one 14 September, Bayview, Herston, South Ronaldsay (J & R McCutcheon); and one 21 September, High Street, Kirkwall (CJ & J Booth).

Fox Moth *Macrothylacia rubi* (R): two larva seen, one 25 September, The Park, Rackwick, Hoy (CJ & J Booth) and one 2 November, Roan Head, Golta, Flotta (B Ribbands).

Small Fan-footed Wave *Idaea biselata* (V): two taken by trap, one 3 August, Caolilla, Heddle Road, Finstown (SV Gauld) and one 9 August, Bayview, Herston, South Ronaldsay (J & R McCutcheon).

The Gem *Orthonama obstipata* (V): one taken by trap 22 October, Sea Cottage, Longhope, Hoy (M Harris). This will be the fourth record for The Gem. The first three were 28 August 1980, Scorrada, Orphir (RI Lorimer); two 14 October 1991, North Ronaldsay (M Gray); and one 26 October 1996, Holland Farm, North Ronaldsay (M Gray).

Flame Carpet *Xanthorhoe designata* (V): 24 taken by trap: nine between 12 June and 25 August, Bayview, Herston, South Ronaldsay (J & R McCutcheon); seven between 19 June and

Lepidoptera Report 2013

Sydney Gauld

It was a good year, with sightings being recorded from mid February through to December, making January the only month with no records. I have a feeling that with the number of people taking an interest in moths and butterflies there will be records for every month in 2014. Part of the reason for the interest is people chatting on a Lepidoptera Facebook site. However, I was disappointed that a request on that site for people to officially submit records with the necessary details fell on deaf ears. This meant that some very good sightings posted on Facebook will not find their way onto the database.

This report starts with two species new to Orkney: *Palpita vitrealis* and **Spruce Carpet** *Thera britannica*. These are followed by Other Sightings of Interest; this is only a small selection from the total of 248 species recorded in 2013, 248 being almost half the 499 species on the Orkney list.



Palpita vitrealis (Sydney Gauld)



Spruce Carpet (Mary Harris)

In the following list the following abbreviations are used:

R – Resident; R? – Probably a Resident but not proven; RI – Resident & Immigrant; I – Immigrant; U – Status Uncertain; V – Vagrant; V? – Vagrant/Possible Resident; C? – Possible Colonist

New to Orkney

Palpita vitrealis (V): one taken by trap 6 October, Gerraquoy, South Ronaldsay (S & S Sankey). *P. vitrealis* is normally seen only as a migrant in the south of England, and rarely elsewhere in the rest of the Britain. It is on the wing from June until early December.

Spruce Carpet *Thera britannica* (V): two taken by trap, one each 21 & 22 October, Sea Cottage, Longhope, Hoy (M Harris). Spruce Carpet is found widely throughout England and Wales, but is scarcer in Scotland, especially in the far north. The larvae feed on **Norway Spruce** *Picea abies*, other *Picea* species and **Douglas Fir** *Pseudotsuga menziesii*. They overwinter as small larvae then finish feeding up by May. There may be a second generation in June and July. The adult moth is on the wing from May to early July and then again during September and October.

and had never been properly examined. We were amazed at the buzz of activity here and counted eight Black Darters, seven Common Blue Damsels, three Large Red Damsels, six **Blue-tailed Damsels** *Ischnura elegans* (the only specimens of this species seen on this trip) and an amazing 20 Emerald Damsels.

During our journey from Rackwick to the Whaness Burn we were delighted to see three pairs of **Stonechats** *Saxicola torquata* including a female feeding recently fledged young. The population of this species which was hit hard by freezing conditions in the two previous winters seems to be making a comeback.

So what did we learn from this trip:

- The Emerald Damsel was indeed spreading rapidly in northern Hoy, reinforcing our belief that it might colonise Mainland Orkney in the not too distant future. We had found the insect at all the five pools we visited.
- We need to visit earlier – not later than the end of June to learn more about the breeding sites of the Four-spotted Chaser.
- Although a species widespread in the county the flight period of the Large Red Damsel tails off sooner than we expected – we had only seen it at the Whaness Pool and one of the Whitestanes Pools.
- The Common Blue Damsel is a prolific breeder if it finds pools which suit its requirements. It is thus surprising that it is not found more widely on Orkney Mainland.

Projects for 2014:

- To search pools on Orkney Mainland which might be suitable for the Emerald Damsel, particularly those pools which are the shortest distance from north Hoy, perhaps those in the Stromness area. To look at pools further south on Hoy in order to monitor the spread of this damsel there.
- To visit north Hoy more often and earlier. In June we would have a greater chance of finding the Four-spotted Chaser and locating its breeding sites. We might learn more about the distribution and Flight Periods of the commoner damsels and we would probably be more likely to find the magnificent **Golden-ringed Dragonfly** *Cordulegaster boltonii* (a running water species, very uncommon in Orkney although widespread in the Scottish Highlands).

The more we delve into the mysteries of our dragonfly species the more questions our researches throw up – this is part of the attraction of this fascinating pastime; and so we have a great deal more work to do on Orkney's Odonata. The scope and success of our efforts are limited by the number of enthusiasts as well as by the weather. If any of our readers would like to join us (remember we only operate when the forecast looks good!) please get in touch with me at r.matson42@btinternet.com. We would be most grateful to receive any records.

My thanks to Keith Fairclough and Brian Ribbands for help with this article and to the folk who supplied the photographs.



The **Poplar Hawkmoth** *Laothoe populi* is the commonest hawkmoth in the Western Palearctic (Pittaway 1993) and one of the most widespread. It is found in all the counties of Mainland Britain. Lorimer (1998) noted that it was common in Caithness and comments “it is difficult to imagine why this strong-winged moth appears never to have crossed the Pentland Firth”. In fact it was just a few years after this that it was first recorded in Orkney, when one was trapped in Burray on 22nd May 2000 and it has been recorded annually since then. The finding of a larva in Longhope on 8th September 2007 confirmed that it was now resident in Orkney (Gauld 2008).

On 1st July 2013 I found an egg of this moth on a leaf of Willow (*Salix* sp.) at Waulkmill Bay, Orphir. It hatched the following day and the caterpillar was just over 50mm in length. It had its first skin change on 5th/6th July. Following a further three skin changes it had reached a length of 6cm on 21st July. It then buried itself prior to changing into a pupa. The caterpillar at all times was green in colour with yellow diagonal stripes and tail horn. Assuming that that it would stay as a pupa until next summer, I was very surprised to find that on 23rd August it had emerged as a full grown moth.

The majority of Poplar Hawkmoths in Britain, once they have reached the pupa stage, remain like this throughout the winter, emerging as a full grown moth in May or June of the following year. Occasionally, in the warmer climate of southern Britain, the moth will emerge in the

off. One particularly common species was the ichneumon *Hyperbatus segmentator* (Ichneumonidae: Ctenopelmatinae), which was found in Orkney for this first time this year. This is a parasitoid of several species of Nematinae, with a few records of it being reared from *Nematus pavidus*. There is no reason to think it is actually a rare species but it seems to be very rarely collected other than by rearing from its host sawflies.

Tenthredo arcuata and *T. brevicornis* are two very similar and easily confused species and it is only really possible to separate the females. The adults of both species have been found from late June through July feeding on umbellifers. Their larvae feed on White Clover *Trifolium repens* and Bird’s-foot-trefoil *Lotus corniculatus* respectively. *T. arcuata* has been seen many times between 1976 and 2013 from several sites on Hoy, and from Birsay, Sandwick, Harray and Orphir on Mainland. It is likely to be widespread. *T. brevicornis*, under the synonym *T. acerrima*, was seen in 1982 and 1983 on Hoy, and from Birsay, Sandwick, Harray and Orphir on Mainland. It is likely to be widespread. *T. brevicornis*, under the synonym *T. acerrima*, was seen in 1982 and 1983 on Hoy, but with a few sightings this year from Sandwick and Orphir. *Rhogogaster viridis* was seen on Mainland in late June 1975 and more recently individual adults have been seen in Harray (2010) and Sandwick (2013) from late June until late July. The adults are commonly seen on umbellifers while the larvae have a wide range of hostplants.

The **Black Sawfly** *Dolerus aeneus* was first recorded in Binscarth and elsewhere on Mainland in 1977 followed by a sighting on Hoy in 1982. In more recent years it has been found in Orphir (2011) and Birsay (2013) suggesting a widespread distribution. Again these records refer only to adults which are commonly found on umbellifers from late June until late July. The larvae are grass feeders.



Hemichroa crocea is a distinctive orange sawfly first recorded from alder trees in Sandwick 2011 and subsequently only found at this location. It seems that 2013 was a particularly good year for this species with hundreds of larvae and adults observed. It is a species occurring later in the year compared to other sawflies found in Orkney. The adults are present from late July until mid-August and like many sawflies, reluctant to fly. Instead they can be found wandering around the leaves of the host plant particularly in the early morning and early evening. Eggs are laid

by the females along the underside midrib of the leaves. The common name for this species, the **Striped Alder Sawfly**, refers to the black and yellow colouring of the larvae which feed gregariously from mid-August onwards, pupating before leaf-fall. As with *Nematus pavidus*, this species appears to attract a great deal of attention from hymenopteran parasitoids.

Acknowledgements

The author would like to thank Dr Gavin Broad, Natural History Museum, London, for identifying the ichneumon.

Sawflies remain an under-recorded group of insects despite their abundance and the status of some species as pests. There are references to at least 35 species having been found in Orkney (a few with little detail) but recent records (i.e. post-1990) exist for only around a third of these. During 2013, eight species were recorded in the county as detailed below.

Craesus septentrionalis was first recorded from Orkney on Hoy in 1977. It has been found in relatively large numbers in Sandwick in 2010, 2011 and 2013 on alder and whitebeam. Last year it was also seen in Stenness on birch and in Orphir on alder. This species has the potential to be widespread as it uses numerous host plants and the larvae feed gregariously. The adults have characteristically swollen tarsi so field identification is possible. Adults are on the wing during early June in Orkney and larvae have been found from the end of June through July until pupation in mid-August.



Craesus septentrionalis larva, in defensive pose
(Jenni Stockan)

Another species likely to be common and widespread is *Nematus ribesii*, more commonly known as the **Gooseberry Sawfly**. As its name suggests it feeds gregariously on Gooseberry and currant bushes sometimes completely defoliating them. Despite this, it has been recorded only twice; once from Hoy in 1982 and then again from Stenness in June 2013.

Nematus oligospilus was seen on Mainland in 1977 (location unknown) and Melsetter, Hoy, in 1982. Both these records refer to adults flying in late June. More recently in 2011 and 2013, single larvae have been found in Sandwick feeding on willow between late July and early September. Identification was confirmed by rearing these larvae through to adulthood. Elsewhere this species can also be found on alder and birch.

A new species to Orkney last year was *Nematus pavidus* which was found as larvae in Sandwick and Stenness in mid-August. Again these were reared through to adults to confirm identification. Sawflies in general attract many hymenopteran parasitoids and these larvae appeared to be under constant attack. To avoid detection and/or toxic chemicals produced as deterrents by these sawfly larvae, female parasitoids maintain a reasonable distance from the larvae, often on the reverse side of the leaf where they cannot be detected, before seizing their opportunity. They reverse slowly towards their victim, curl their abdomen round so the ovipositor can be inserted into the abdomen of the sawfly, deposit an egg or eggs, and then fly

same year that it has pupated thus producing a second generation. However I did not expect that this would happen as far north as Orkney.

For comparison on the 28th June I found two eggs on willow near Moaness, Hoy. These eggs hatched on 6th July and the caterpillars pupated on 26th and 30th July respectively. They have remained at this stage and the moths will not emerge until summer 2014.

The caterpillars of the Poplar Hawkmoth feed principally on the leaves of Poplars *Populus* spp. and Willows *Salix* spp., but Ash *Fraxinus excelsior* and Oak *Quercus* spp. form a significant part of its diet in Central Europe (Pittaway 1993). Although the eggs I found were laid on *Salix* sp., the caterpillars were reared on the leaves of a *Populus* sp. that I had growing in the garden.



Egg



10 day old caterpillar



Fully grown caterpillar



Pupa

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All photos by the author.

Elfin Saddle

Julian Branscombe

A visit to Flotta in autumn 2010 brought a new species to the Orkney Fungi list – the **Elfin Saddle** *Helvella lacunosa*. I was walking into the plantation near the remains of the Naval Cinema, not far from the main pier, when I spotted the distinctive greyish-black and intricately sculpted fruit-bodies of this very strange fungus. It was in the grass, near hazel shrubs on the edge of the woodland.



Elfin Saddle, Flotta, Nov 2014 (Jenny Taylor)

Mason Wasp *Ancistrocerus scoticus* (Widespread but uncommon)

There were also two reports, from Rendall on 16 June and South Ronaldsay on 21 July (both JBR). The one at Queenamidda, Rendall was new for 10 km square.

Ruby-tailed Wasp *Chrysis ignita* agg. (Rare)

There was a single report from Birsì Geo, South Walls on 7 July, new for 10 km square ND38 (JBR).



Ruby-tailed Wasp (Brian Ribbands)

Spider-hunting Wasps *Priocnemis parvula* (Rare)

Several were spotted at Veness, Orphir on 17 July (JEC). This was only the second Orkney record, the first being at Rackwick, Hoy in 2011. These little wasps fly rapidly for short distances, alighting frequently, in this case on areas of bare peat and subsoil in eroded heather moorland.

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Barbut's Cuckoo Bee
Bombus barbutellus
(Rare, also rare in Scotland)

A single individual was positively identified, and photographed, at Queenamidda, Rendall, on 22 July (JBR). This was only the seventh record in recent years, but the second for Queenamidda. Another possible record was one photographed in St Ola (SG), but it could have been a **Gypsy Cuckoo**



Barbut's Cuckoo Bee (Brian Ribbonds)

Bee *B. bohemicus*. The colours and markings of some of the Cuckoo Bee species are variable and may be very similar: they are often difficult to identify.

Gypsy Cuckoo Bee *B. bohemicus* (Widespread but generally uncommon)

This was recorded on six occasions, from Orphir, Hoy, Burray and South Ronaldsay, between 18 June and 8 September (CJB, JBR & JEC). There was also the possible record in St Ola.

Social wasps

Common Wasps *Vespa vulgaris* (Very local, can be common)

Seven reports were from Kirkwall (CJB), with just one from St Margarets Hope (JEC), between 10 August and 26 October. Most of the Kirkwall wasps were caught in a moth trap, with up to six on a single day.

Red Wasp *V. rufa* (Increasingly widespread but still uncommon)

Wasps of this species were reported on four occasions, from Rendall and South Ronaldsay, between 10 July and 22 September (B & JMcC, JBR & JEC).

Norwegian Wasp *Dolichovespula norvegica* (Local and uncommon)

There were two reports from Rendall, between 4 June and 3 September (JBR).

Tree Wasp *D. sylvestris* (Increasingly widespread, locally common)

There were eleven reports from Kirkwall, Holm, Rendall and Stenness from 28 May to 4 September (CJB and JBR).

Solitary bees and wasps

Andrena coitana (Rare)

A single bee was recorded on 27 July at the known nesting site at Queenamidda, Rendall (JBR).

Mason Wasp *Ancistrocerus oiventris* (Widespread but uncommon)

There were two reports, from South Walls on 7 July and South Ronaldsay on 16 July (JBR & JEC). The South Walls one, at Birs Geo, was new for the 10km square ND38.

The Elfin Saddle may look like superficially like a 'toadstool' in shape, with a distinct cap and stem – but all the true toadstools have gills or pores to release spores, and belong to the major Sub-division of the Fungi Kingdom known as the Basidiomycetes. The Elfin Saddle is from another fungal Sub-division, the Ascomycetes. There are no gills or pores covered with spore-releasing basidia (each of which typically releases four spores, which drop out of the cap by gravity, before being carried off in draughts. Instead, the shiny outer surface of the cap of Elfin Saddle is its 'fertile' surface, holding tiny structures called asci – eight spores are fired out from each of them.

Whilst the great bulk of the fungi we see each autumn are Basidiomycetes, there are even more species of Ascomycete in the world. Most of these 'Ascus' are small and inconspicuous, whilst many of the more obvious Ascus are cup-shaped, like the **Scarlet Elf Cup** *Sarcoscypha coccinea* or cup-fungi *Peziza* sp. The Elfin Saddle (and other members of its Genus, none of which are known from Orkney) along with the **Morels** (*Morchella* and related genera, again none of which are known from Orkney) are the only big Ascus which have a distinct cap, although some of Orkney's woods support **Jelly Babies** *Leotia lubrica*, a small and slightly slimy Asco with an obvious brownish-yellow cap on top of its yellowish stem.

The Elfin Saddle is virtually unmistakable, thanks to its colouration, grooved and chambered stem and irregular cap. The Orkney Fungus Flora (Watling, Eggeling & Turnbull, 1999) records well over 1,000 fungi species in Orkney, making these isles one of the better recorded areas of the UK for fungi; however at the time of publication, this species had not been found.

When it was first found, in 2010, it looked well-established. Anne Gascoigne and Jenny Taylor visited the island on 1st November 2013 and found a number of specimens of this species, in just the same spot (where an interpretation panel now sits at the entrance to the plantation). This confirms its persistence here. Could it occur anywhere else in Orkney? And how did it get here?

The National Biodiversity Network Gateway gives free online access to distribution maps of any species in the British Isles. It needs used with care, as it does not hold all data sources, and is infrequently updated as far as some species groups are concerned. However, it is striking that the NBN species map shows no records any closer to Orkney than the Inverness area.

It would seem that this fungus is typically associated with trees, often conifers. There are suspicions that its underground hyphal network (which makes up the great bulk of any fungus 'individual', with the fruiting body being the tip of the iceberg, as it were) could form a mycorrhizal relationship with tree roots. However, the fruit bodies are often found in burnt areas, so perhaps it is flexible in its lifestyle, also decomposing charred material. There is no sign of recent burning at its Flotta site.

Of course, its English name comes from elves who enjoy riding on its rather uncomfortable gnarled caps. Orkney is without an elf recorder at present, but I will gladly accept any records of fungi. I would be fascinated to know if Elfin Saddle occurs elsewhere in the County, and if so, I wonder if the location of any other records will give a clue as to how this species has colonised Orkney. Please contact me at julianbranscombe@yahoo.com or Greens, Toab, Orkney KW17 2QG.

Reference

Watling, R, Eggeling, T & Turnbull, E (1999) *The Fungus Flora of Orkney*. Royal Botanic Gardens, Edinburgh.

Houton Slugs *Anne Bignall*

The term 'sea slug' rather humbles what must be one of the most beautiful groups of marine invertebrates. It includes marine gastropod molluscs that are either shell-less or only have an internal shell.

Houton Bay in Orphir has proved an excellent place for finding them, with 24 species noted in snorkelling trips over the last two years. The site may not be unique and a comparable list could well be collated in other Orkney bays. However, conditions certainly seem to make it an agreeable place for them.

The bay is sheltered by the Holm of Houton although conversely, boat traffic causes regular wave disturbance throughout the day. The habitat comprises a shallow sloping rocky shore, descending to a sandy bottom. There are areas of mixed red and green seaweeds, an abundance of the green seaweed *Codium* sp. and areas of large brown seaweeds, including *Halidrys siliquosa* and *Laminaria* sp.

The Houton 'slug count' has grown by two already this year. The first spotted was *Placida dendritica* (see picture on Page 72), a sacoglossan seaslug that feeds on *Codium*. It is one of a number of sacoglossans that are sometimes referred to as 'solar powered' as it was previously understood they could absorb functioning chloroplasts from their food, enabling them to survive lean periods using photosynthesis. However, recently published articles seem to shed doubt on the possibility of this unique function.

The second new species found this year is *Cuthona nana* – a nudibranch. This slug has certainly found its own niche. It feeds on a species of hydroid, *Hydractinia echinata*, which lives on the shell of a particular species of hermit crab, *Pagurus bernhardus*. The hydroid looks like a fuzzy covering on the shell, giving the common name, hermit crab fur. This description might give an idea of the size of many slugs – both species recorded were around 0.5-1cm in length.



Cuthona nana (right) and smaller *Facelina bostoniensis* (left) feeding on hydroids growing on a shell inhabited by hermit crab (Penny Martin)

Bees and Wasps Report 2013

John Crossley

In 2013, 130 records of 16 species were received from ten observers. These comprise more records of more species than last year. However, for all the commoner species, except one, first spring/early summer sightings were later and last autumn sightings earlier than in 2012 and previous few years. The exception was the **White-tailed Bumblebee** *B. lucorum sens. lat.* Also the numbers of commoner species recorded was much less – c.250 compared with c.600 in 2012. The additional records must represent more observer effort. It is likely that two successive cold, late springs have had an adverse impact on bee and wasp numbers.

Bumblebees

Great Yellow Bumblebee *Bombus distinguendus* (Widespread but generally uncommon. UK Biodiversity Action Plan Priority Species)

There were 21 records, the earliest on 26 June in South Walls (MH) and Kirkwall (CJB), both single queens. These were two months later than the earliest record last year. Other reports were from Birsay (CJB), Evie (REM), Sandwick (CJB), Gairsay (CJB), South Ronaldsay (B & J McC, JEC & SP), Sanday and Stronsay (both JEC). The Sanday record at the tidal entrance to Cata Sand was the first for 10 km square HY73. There were no high counts and all seasoned observers commented that bees were much scarcer than in recent years. The highest count was nine near North Culdigo, Egilsay on Aug 14 (BO'D). Egilsay also had the highest number of bees recorded overall, 19 from four sites in the course of the summer. Last record of the year was on 3 September in Herston, South Ronaldsay (B & J Mc).

Garden Bumblebees *B. hortorum* (Widespread and common)

Sixteen reports were from Kirkwall, Rendall, Egilsay, South Ronaldsay and Stronsay, between 7 May and 8 October (CJB, JEC, B & J Mc, BO'D & JBR).

Heath Bumblebee *B. jonellus* (Widespread and locally common)

This was reported only from Orphir and South Ronaldsay, on four occasions between 11 May and 4 September (CJB & JEC).

White-tailed Bumblebee *B. lucorum sens. lat.* (Widespread and common)

There were 24 reports, as usual the most for any species, from Kirkwall, Orphir, Rendall, Egilsay and South Ronaldsay (B & JMcC, CJB, JBR, JEC, BO'D and DM). The first record of the year was at Dyke End, Orphir on 1 March and the last in Herston, South Ronaldsay on 22 October – this species at least was active from early spring to late autumn. There were no high counts.

Moss Carder Bee *B. muscorum* (Widespread but generally uncommon, except locally common in North Isles. UK Biodiversity Action Plan Priority Species)

This was recorded on seven occasions, in Kirkwall, Firth, Orphir, Gairsay (all CJB), Stenness, Sanday and South Ronaldsay (all JEC), between 16 May and 4 September. There were no high counts.

Common Carder Bees *B. pascuorum* (Widespread and common, except absent outer North Isles)

Fifteen sightings came from Kirkwall, Holm, Orphir, Rendall, Hoy and South Ronaldsay, between 12 May and 14 October (CJB, JEC & JBR). The highest count was of 20 at Queenamidda, Rendall on 16 June.

Specimens	Survey	Flight period	Distrib'n	Habitat (Larval)	Status (Britain)
Family Phryganeidae (Larvae live in tubular cases made from plant stems or leaves)					
<i>Agrypnia (=Phrygania) varia</i> (Fabricius) Speckled Peter					
A203	JDW <'85 RHA '86-87	End Jun- end Aug MW, 2 nd wk July	West Mainland, N Hoy 5	Weedy ponds and lochs	Common throughout Britain
* <i>Agrypnia obsoleta</i> (Hagen) Dark Peter					
A5	RHA '86-'87	?Jun-Sep	West Mainland, N Hoy 2	Hill top lochs and pools	Upland, common in north, lochs and bogs
<i>Phrygania grandis</i> (Linnaeus) Great Red Sedge					
A191	JDW <'85 RHA '86-'87	End Jun- 3rd wk Aug MW, 2 nd wk Jul	West Mainland, locally abundant	Weedy ponds and lochs	Local throughout Britain
Family Goeridae (Larvae with large lateral ballast rock fragments in sand grain cases, minimising dislodgement)					
<i>Silo pallipes</i> (Fabricius)					
?	JDW <'85	?May-Sep	?	Stony rivers and burns	Common throughout Britain
Family Lepidostomatidae (Case-making larvae, square in section, permanently flowing water or loch shore)					
* <i>Crunoecia irrorata</i> (Curtis)					
A2	PK '11	?May-Sep	West Mainland, N Hoy 2	Trickles in woodland and well vegetated springs	Common throughout Britain
<i>Lepidostoma hirtum</i> (Fabricius) Small Silver Sedge					
A135 L	JDW <'85 RHA '86-87 CEH '01 SEPA '07	Final wk Jun - 3 rd wk Aug MW, 1 st wk Aug	West Mainland 3	Stony burns, rivers and loch shores	Common throughout Britain
Family Apataniidae (Case-making larvae, until recently in Limnephilidae)					
* <i>Apatania wallengreni</i> (McLachlan)					
A3	RHA '90	?Apr-Jun 28 Apr, earliest	W Mainland 2	Shores of large stony lochs	Common in Sco, also L District and N Wales

The Dog Whelk *Nucella lapillus*

Derek Mayes

In an attempt to simplify separation of the many quite similar sea shells found in Orkney, I have chosen to concentrate on one of the most easily identified, the **Dog Whelk** *Nucella lapillus*, sometimes called the Atlantic Dogwinkle.

This shell and the live animal are common on all Orkney shores, but they depend on rocky crevices for food and survival in stormy seas, so you won't find many shells on sandy beaches. Where found, they are prolific and easily distinguished from the very numerous, smooth-shelled, **Common Periwinkle** *Littorina littorea* (bottom left in picture 1), which is much rounder and also has a nearly round opening.

Some other shells can cause a little confusion but the Dog Whelk is quite distinctive as well as very numerous. Dog Whelk prefer areas of weed-draped rocks, usually around mid tide level but one must be cautious with washed up whelks, as some of the distinctive ID features will be worn.



The Common (Edible) Whelk *Buccinum undatum* is generally much larger and with some observable sculptural differences. Both start small though! Picture 1 shows a typical Dog Whelk (top row, centre, and another below showing the opening), between two Common Whelk, seen here as sub-adults (they are sometimes massive) with a Common Periwinkle, bottom left, for comparison. Note the roundels on the turret of the larger Common Whelk are more swollen and that the shell is quite a bit wider at the mouth end. But the key to the Common Whelk is the lovely long sculptured zones on the turrets.

The smaller Dog Whelk has little or no long sculpturing but lots of fine ridges round the shell – but note in picture 1 that the lighter one is sea-worn. In Orkney they seem to vary in size between 15 and 28mm long and 9 to 12mm wide (my research). It has a long and distinctive opening, seen clearly in picture 2, from which the animal emerges. Most Orkney Dog Whelk shells laid flat on a 50p coin should not overlap by very much, but even here they can reach 41mm (50p is 27mm). Shells are usually very pale grey, sometimes nearly white or light-brown, or sometimes quite yellow, even occasionally nearly black, though some can be patterned – so colour is not a reliable guide. Note some of the colour range in picture 2. The rough surface quickly wears off empty shells when they are in seawash. Often very pale and smooth, they can still be identified by their shape.

One usually has to stand near weed-draped rocks to see active Dog Whelk but they can be studied easily in small simple plastic ‘tupperware’ aquaria. They have been studied extensively, particularly in regards to shell shape, thickness and predation. Dog Whelk are very mobile and fairly well protected from predation – the shell is hard and the opening small, making it difficult for birds or fish to extract the animal. Their main predator, the **Shore Crab *Carcinus maenas*** is very active on calmer shores. Dog Whelk are fierce predators themselves but are also heavily preyed upon, particularly by the crab, which prise the whelk from the rocks to pull out the soft body with their pincers – larger crabs can crack the shell. Dog Whelk adapt to cope with this and on calmer shores, where they are particularly prone to predation, develop a smaller foot that can be fully withdrawn, and a thicker protective shell. Dog Whelk found on more stormy shores have thinner shells and a larger foot, giving a better grip on exposed surfaces - picture 1 shows thin-shelled ones from a tempestuous shore. This is a good indication of which they fear most – predation or rough seas! So keep a few from one shore to compare with some from another.

Hermit crabs (small soft crabs that live in empty shells) commonly use Dog Whelk shells as temporary houses. About 4% (my research figure) of empty shells are taken by the Hermit Crab so, if looking in a pool for empty shells, pause a while to see if they move. Those containing Hermits tend to stay in water, whereas many empty ones are carried by seawash into dry areas. In Orkney, most, (if not all) Hermits are *Pagurus bernhardus* which has an enlarged right claw but, when south, watch for the ‘leftie’ *Diogenes pugilator*. They both favour Dog Whelk shells (though not exclusively) but may graduate to Common Whelk ones – a much larger abode.

Dog Whelks lay their eggs in protective crevices, under overhangs or beneath stones. One can often find these groups of eggs (like pale-yellow, through orange to magenta, milk bottles – see picture right) apparently in nurseries with mothers and aunties in attendance, though there is no evidence for protective or maternal behaviour. Each ‘bottle’ (about the height of PENCE on the



50p coin) contains few eggs – three to five – which develop into free-swimming embryos called ‘veliger larvae’ which are hardly ever seen. The egg capsules cannot be mistaken for Common Whelk ones, which are laid in small ‘clouds’: these empty ‘sea wash balls’ are often found blowing in the wind on sandy beaches. Dog Whelk egg cases are individual and not normally washed ashore.

Specimens	Survey	Flight period	Distrib'n	Habitat (Larval)	Status (Britain)
Family Psychomyiidae (Caseless larvae build fixed galleries on surface of stones or rotting wood)					
<i>Psychomyia</i> (= <i>Metatype</i>) <i>fragilis</i> (Pictet)					
?	JDW <'85	?Jun-Sep	?	Highly calcareous rivers and streams	Notable, not known from Scotland. Suspect record
* <i>Tinodes maclachlani</i> (Kimmins)					
A1	PK '11	?May-Aug	West Mainland 1	Trickling rock faces by waterfalls, cliffs	Common throughout Britain wherever habitat occurs
<i>Tinodes maculicornis</i> (Pictet)					
?	JDW <'85	?	?	?	In Ireland only. Suspect record
<i>Tinodes waeneri</i> (Linnaeus) Small Red Sedge					
A189	JDW <'85	End Jun-early Sep	West Mainland	Lochs and slow flowing burns	Common throughout Britain
L	RHA '86-87 CEH '01 SEPA '07 PK '11	MW, 1 st wk Aug			
Family Hydropsychidae (Caseless larvae create coarse meshed sieves, catching pieces of plant or animal material)					
* <i>Hydropsyche instabilis</i> (Curtis)					
L	SEPA '07	?May-Aug	West Mainland 1	Stony burns and small rivers	Common throughout Britain
<i>Hydropsyche pellucidula</i> (Curtis)					
?	JDW <'85	?Jun-Sep	?	Rapid stony burns and rivers	Common throughout Britain
L			W Mainland 1		
* <i>Hydropsyche sitalai</i> (Dohler) Grey Flag					
A15	RHA '86-87	?Jun-Sep	West Mainland,	ditto	Common throughout Britain
L	CEH '01 SEPA '07 PK '11		N Hoy 5		

Specimens	Survey	Flight period	Distrib'n	Habitat (Larval)	Status (Britain)
Family Philopotamidae (continued)					
* <i>Wormaldia occipitalis</i> (Pictet)					
L	PK '11		W Mainland 1	Small burns and trickles	Common over most of Britain
Family Polycentropodidae (Larvae spin nets operating as snares catching live prey, many in slow or still waters)					
<i>Cyrrus flavidus</i> (McLachlan)					
?	JDW <'85	?May-Sep	?	Weedy ponds, lochs, slow or still water	Common throughout Britain
<i>Cyrrus trimaculatus</i> (Curtis)					
A8	JDW <'85 RHA '86-'87	?May-Sep	West Mainland	ditto	Common throughout Britain
<i>Holocentropus picicornis</i> (Stephens)					
?	JDW <'85	?May-Sep	West Mainland	ditto	Common throughout Britain
<i>Plectrocnemia conspersa</i> (Curtis)					
A479	JDW <'85	End of	West	Small	Common
L	RHA '86-'87 CEH '01 PK '11	May – end of sep	Mainland, N Hoy	stony burns, rivers and lochs	throughout Britain
* <i>Plectrocnemia geniculata</i> (McLachlan)					
L	PK '11	?Apr-Sep	West Mainland	Small, fast- flowing burns and trickles	Common throughout Britain
<i>Polycentropus flavomaculatus</i> (Pictet)					
A140	JDW <'85	Jun-mid	West	Stony	Common
L	RHA '86-'87 CEH '01 SEPA '07 PK '11	Sep MW, 1 st wk Aug	Mainland, N Hoy	burns, rivers and lochs	throughout Britain
* <i>Polycentropus kingi</i> (McLachlan)					
L	SEPA '07	?Jun-Sep	West Mainland 1	Stony burns and rivers	Common in Britain

There are a number of good seashore books illustrating shelled creatures. For me, the most useful modern one (at the time of writing) is probably Collins' Complete Guide to British Coastal Wildlife. It is a photo-guide and includes plants, sponges, fish, birds, moths and starfish – to name some! I used to steer away from such multi-subject books but I am converted. It has a good description of both the Dog and the Common Whelk. Oh, and the two smaller, far less common members of the family – the **Thick-lipped Dog Whelk** *Nassarius incrassatus* and the **Netted Dog Whelk** *Nassarius reticulatus*. They are easy to separate from each other and from the Dog Whelk.

Typing <http://www.marlin.ac.uk/biotic/browse.php?sp=4288> into the address window of your browser will lead to an enormous amount of additional information and a fascinating insight into their (rather scary) feeding methods.

References

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All photos by the author.

Plant Report 2013

John Crossley

More than 3,500 plant records were received and entered into the Mapmate database in 2013, from a total of 14 observers.

The Orkney Nature Festival started off the plant year in May, with a hunt round the western outskirts of Kirkwall, the Peerie Sea and St Magnus kirkyard, by an enthusiastic band of visitors and locals led by JB. A very sharp-eyed visitor spotted a not particularly striking-looking plant growing from a crack in the pavement by the Albert Hotel. It proved to be **Wall Lettuce** *Mycelis muralis*, a new County record. This grows on walls, rock outcrops and shaded banks throughout the British Isles but is local and generally scarce in Scotland. Another four plants were afterwards found nearby (JB and ERM). However, later in the year none could be re-found, all having fallen victim to the back-pack sprayer of the OIC weed controller (I tried to stop him but it was too late). However the fact that there were several plants indicates that Wall Lettuce had been present for at least a year previously. Hopefully other plants will have survived nearby. Parts of the cathedral kirkyard have something of the character of an area of semi-natural grassland: possibly the **Ox-eye Daisy** *Leucanthemum vulgare* growing there is a survivor from the distant past. Some uncommon long-established aliens present included **Germander Speedwell** *Veronica chamaedrys*, **Slender Speedwell** *V. filiformis* and **Herb-robert** *Geranium robertianum*. The ivy there, also common elsewhere in Kirkwall, was identified as **Atlantic Ivy** *Hedera hibernica*, an introduced species, oddly not identified before and therefore formally a new County record.

Local field meetings

Local BSBI members had four meetings in 2013: west of Rackwick and towards the Old Man of Hoy; in the Rapness and Noup Head areas, Westray; at Work farm and Head of Work, St Ola; and at Graemeshall, Holm. Choice of locations was motivated by scarcity of recent² records from these places and the promise of much of interest to be found.



Early Purple Orchid site, near Old Man of Hoy (John Crossley)

² Recent: since 1987

Specimens	Survey	Flight period	Distrib'n	Habitat (Larval)	Status (Britain)
Family Rhyacophilidae (Caseless, free-living larvae in rocky burns and rivers)					
<i>*Rhyacophila dorsalis</i> (Curtis) Sand Fly					
97A	RHA '86-'87	mid Jun-early Oct	W Mainland	Flowing rocky burns	Common throughout Britain
L	CEH '01 SEPA '07		N Hoy		
			5		
Family Glossosomatidae (Larvae in humped cases of coarse sand, on rocks in running water and loch shores)					
<i>Agapetus delicatulus</i> (McLachlan) Tiny Grey Sedge					
4A	JDW <'85 RHA '86-'87	?May-Aug	N Hoy	Rocky burns	Common throughout Britain
			2		
<i>Agapetus fuscipes</i> (Curtis) Tiny Grey Sedge					
2A	JDW <'85 RHA '86-'87 SEPA '07	?Apr-Oct	W Mainland	Rocky burns	Common throughout Britain
Family Hydroptilidae (Micro-caddis with cases only a few millimetres long)					
<i>*Agraylea multipunctata</i> (Curtis)					
L	RHA '86-'87	?May-Sep	E Mainland	Lochs, ponds, feeding on filament algae	Common throughout Britain
			1		
<i>*Hydroptila martini</i> (Marshall)					
6A	RHA '86-'87	?May-Oct	W Mainland	Slow running burns, feeding filament algae	Local, S Britain inc SW Sco & Shetland!
			2		
<i>Hydroptila tineoides</i> (Dalman)					
A1	JDW <'85 RHA '85-'86	?May-Sep	W Mainland	Stony streams and lochs	Common throughout Britain
			1		
<i>*Oxyethira flavicornis</i> (Pictet)					
A2	RHA '85-'86	?May-Sep	W Mainland	Ponds and lochs	Common throughout Britain
Family Philopotamidae (Caseless larvae in sock-like fine net, in fast flowing water)					
<i>*Philopotamus montanus</i> (Donovan) Yellow Spotted Sedge					
A1	CS '98	?Apr-Oct	W Mainland,	Fast flowing stony burns	Common throughout Britain in suitable habitat
L	RHA '03 PK '11		Rousay		
			5		

Orkney caddis species list with ecological notes

The list follows the order of Barnard & Ross (2012). Some name changes have been introduced since 1985, where this applies, the previous name used is placed afterwards within brackets. In the light of current knowledge, five previously published species records are now viewed as suspect, as corroborated by the national Caddis Recording Scheme organiser, Dr Ian Wallace. All of these are included in the current list with appropriate comment. The previously published list in 1985 from Mr J Walker contained 48 species, more likely to be 43. Since then, 31 additional species have been recorded, with one recent record withdrawn by the surveyor, making a total of 73 from Orkney compared to the 196 known for Great Britain. Angling names are given, where known, after the scientific name. Details for each species are given under the following column headings:

Specimens	Survey	Flight period	Distrib'n and number of sites	Habitat (Larval)	Status (Britain)
Number, A=adult. L=larva. *=recorded since 1985 previously published list. ?=not known. Malaise=flight intercept trap	In date order: JDW=Walker. RHA=Andrew. CS=Countyside Survey. SEPA survey. CEH survey. PK=Kirby. SVG/KB=SV Gauld, confirmed K Bland. IDW=Wallace.	(?=not known for Orkney, British range given)	?=not known		Local=in more than 100, 10km ² but uncommon. Notable=in fewer than 100, 10km ² . RDB=Red Data Book. RDB2= Vulnerable (may be in danger of extinction if habitat changed). RDB3= Rare (small, at risk, populations)

On 22nd June between Rackwick and the Old Man of Hoy a party of five explored several different National Grid tetrads (2 x 2 km), gathering a total of 157 species records, including some new for the area. Outstanding sight of the day was an extraordinarily herb-rich 'meadow' in an almost hidden gully (thank you, BJ) in cliffs north of the Old Man, HY180009, where seventeen flower spikes of **Early Purple-orchid** *Orchis mascula* were counted. Also the following:

Stiff Sedge *Carex bigelowii* (Locally Scarce³), by the path to the Old Man, ND19059894. New for 10 km square;

Bearberry *Arctostaphylos uva-ursi* (Locally Rare⁴), at The Stour HY18110049. New for 10 km square;

Creeping Soft-grass *Holcus mollis* (Locally Scarce [but perhaps no longer after several recent records]) at Glen, ND19949970. New for 10 km square.

A week later around Rapness, Westray three of us set out to record everything we could find in the tetrad HY54A. This includes some fine cliff vegetation on the east side of the island, links and sandy shore on the west side at the Bay of Tafts, and much farmland, field edge and roadside habitat between. It took about four hours and we were rewarded with a list of 145 species including many of interest. Few had been recorded in even the 10 km square before, so I will my confine this report to the more unusual. These included **Silver Hair-grass** *Aira caryophyllea*; **Scaly Male-fern** *Dryopteris cambrensis*, new for island and 10 km square; **Whorl-grass** *Catabrosa aquatica* (Locally Scarce); **Small Sweet-grass** *Glyceria declinata* (Locally Scarce), new for island and 10 km square; **Bulbous Buttercup** *Ranunculus bulbosus*



Tall Ramping-fumitory (John Crossley)

(Locally Scarce), new for island(?) and 10 km square; and **Eelgrass** *Zostera marina*. Noup Head was the next main objective, but en route we stopped to look at weeds of cultivation in a sandy field near Pierowall, HY434488, and were rewarded with **Ivy-leaved Speedwell** *Veronica hederifolia* (Locally Scarce), new for island and 10 km square, among others. Noup Head, tetrads HY34Z & 35V, has cliff vegetation and maritime grassland characteristic of the most exposed locations in Orkney. Only one plant species, **Brackish Water-crowfoot** *Ranunculus baudotii*, has actually been recorded there in the past! This we found, together with another 64 species, including **Small-fruited Yellow-sedge** *Carex oederi* (Locally Rare), and, predictably, **Foula Eyebright** *Euphrasia foulaensis* (Nationally Scarce⁵), both new for 10 km square. There was time on the way back to the ferry to search for more weeds of cultivation in one of the many small potato plots still to be found in Westray, this one at Swartmill, HY4846. It turned up **Tall Ramping-fumitory** *Fumaria bastardi* (Locally Scarce).

³ Locally Scarce: found at no more than 10 sites in Orkney since 1987

⁴ Locally Rare: found at not more than 3 sites in Orkney since 1987

⁵ Nationally Scarce: found in not more than 100 different 10 km squares in the British Isles (there are 3859 of these grid squares in total) since 1987

The outing to Work Farm HY4713 and Head of Work HY4813, St Ola on 20th July was a joint one with the Field Club and was well attended. We were fortunate to have the guidance of Sydney Gauld on his home turf. Seashore, cliffs and heathland are the main features of the area. These together with marshy areas, farmland and tracks yielded 140 species records, some new for the area but none especially unusual.

Graemeshall, Holm HY4801 was the final venue on 3rd Aug. The loch with surrounding reed-bed and marsh form the core of the site but the area also includes policy woodland and gardens, sea shore, road verges and farmland, and 132 species were recorded. Past records indicate a diverse flora for the loch, with eight aquatic species including **Slender-leaved Pondweed** *Potamogeton filiformis* (Nationally Scarce) and **Small Pondweed** *P. berchtoldii*, both indicative of clean water with low salinity. We could find only five, and neither of the two above. There much was rotting seaweed in the water, no doubt resulting from over-topping of the shingle ayre separating the loch from the sea that occurred in the storm surge of December 2012: this, possibly with nutrient run-off from farmland in the loch catchment, are likely to have caused changes to water quality. Similar conditions were seen at the Loch of Work in July, but this loch has a lower ayre and is more frequently flooded with seawater. Possibly Orkney's 'ayre lochs' are in general becoming more brackish and nutrient-enriched, with accompanying changes in their flora, as a result of more frequent storm surges.

Northern Yellow-cress *Rorippa islandica* (Nationally Scarce), new for 10 km square, was found near the loch margin, but was troublesome to identify, the plants being unusually tall and upright and therefore possibly **Marsh Yellow-cress** *R. palustris*, a species not previously seen in Orkney but common further south and with a single record for Shetland. Specimens were subsequently sent to the national referee, who confirmed *R. islandica*. Away from the loch, **White Ramping-fumitory** *Fumaria capreolata* (Locally Scarce), new for 10 km square, and **Purple Ramping-fumitory** *F. purpurea* (Nationally Scarce and UKBAP Priority) were found in disturbed and arable ground, and **Hoary Plantain** *Plantago media* (non-native) was admired at its well-documented but sole Orkney location in the former tennis-court lawn of Graemeshall house. **Northern Saltmarsh-grass** *Puccinellia distans* subsp. *borealis* (Nationally Scarce) was growing on the roadside verge by the sea, new for 10 km square.



Northern Yellow-cress (John Crossley)

The Orkney dataset

In the three winters since 2011-12, I have been systematically sorting and cataloguing the hard copy records, other papers and specimens inherited from Elaine Bullard, the previous Vice-county Recorder, and the records (all pre-2000) entered in the 'Recorder' programme at the Orkney Biodiversity Records Centre, to the point where these have yielded another 15,000 records for the period 1960-2005, all now entered in Mapmate. There is still work to be done on electronic files and pre-1960 hard copy, but essentially the Mapmate database now holds a

Species list

(*=recorded since 1985 published list

●=suspect record

■=withdrawn by surveyor)

Rhyacophilidae

**Rhyacophila dorsalis*

Glossosomatidae

Agapetus delicatulus

Agapetus fuscipes

Hydroptilidae

**Agraylea multipunctata*

**Hydroptila martini*

Hydroptila tineoides

**Oxyethira flavicornis*

Philopotamidae

**Philopotamus*

montanus

**Wormaldia occipitalis*

Polycentropidae

Cyrnus flavidus

Cyrnus trimaculatus

Holocentropus

pivicornis

Plectrocnemia

conspersa

**Plectrocnemia*

geniculata

Polycentropus

flavomaculatus

**Polycentropus kingi*

Psychomyiidae

Psychomyia fragilis●

**Tinodes maclachlani*

Tinodes maculicornis●

Tinodes waeneri

Hydropsychidae

**Hydropsyche instabilis*

Hydropsyche

pellucidula

**Hydropsyche siltalai*

Phryganeidae

Agrypnia varia

**Agrypnia obsoleta*

Phrygania grandis

Goeridae

Silo pallipes

Lepidostomatidae

**Crunoecia irrorata*

Lepidostoma hirtum

Apataniidae

**Apatania wallengreni*

Limnephilidae

Drusus annulatus

**Ecclisopteryx*

dalecarlica

Chaetopteryx villosa

**Anobolia nervosa*

Glyphotaelius

pellucidus

**Grammotaulius*

nigropunctatus

Limnephilus affinis

**Limnephilus centralis*

**Limnephilus coenosus*

**Limnephilus elegans*

Limnephilus extricatus

Limnephilus flavicornis

Limnephilus griseus

**Limnephilus hirsutus*

**Limnephilus ignavus*

Limnephilus incisus

**Limnephilus lunatus*

Limnephilus luridus

Limnephilus

marmoratus

Limnephilus politus

**Limnephilus rhombicus*

Limnephilus sparsus

Limnephilus stigma

**Limnephilus vittatus*

**Halesus digitatus*■

**Halesus radiatus*

Mesophylax

impunctatus

**Micropterna lateralis*

Micropterna sequax

Potamophylax

cingulatus

Potamophylax

latipennis

Potamophylax

rotundipennis●

Stenophylax permistus

Sericostomatidae

Sericostoma personatum

Beraeidae

**Beraea maurus*

**Beraeodes minutus*

Odontoceridae

**Odontocerum albicorne*

Leptoceridae

Athripsodes aterrimus

Athripsodes cinereus

Ceraclea annulicorni

Ceraclea fulva

Ceraclea nigronervosa

Mystacides azurea

Mystacides longicornis

Oecetis ochracea

Triaenodes bicolor

Ylodes conspersus●

Ylodes reuteri

Ylodes simulans●



Male Great Reed Sedge *Phryganea grandis* (Stuart Crofts, photo not taken in Orkney)

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near-complete set of recent plant records for Orkney (with the exception of imprecisely located records that cannot be integrated into the National Grid system, and the 1986 Freshwater Lochs Survey data; the latter are held, temporarily, in another form for reasons too complicated to explain here). This means that it is now possible to carry out a variety of meaningful analyses of the data, for instance on distribution and recent trends in occurrence of rare species, which have not before been possible. Records selected for inclusion in this report have been restricted to the years 2000 to 2013.

Records of note – natives and archaeophytes

An archaeophyte is a plant species which is non-native to a geographical region, but which was an introduced species in ‘ancient’ times [in practice, before 1500], rather than being a modern introduction.

Black Bent *Agrostis gigantea* (Locally Scarce), Bendigo, St Ola, HY4407, 2005 (AB), det. Tom Cope (BSBI referee). New for 10 km square.

Mugwort *Artemisia vulgaris* (Locally Scarce), Ancum, North Ronaldsay, HY75S, 01/10/2013 (ERM). New for island and 10 km square.

Creeping Thistle *Cirsium arvense* var. *incanum*, near Smerquoy, Firth, HY400113, 09/2006 (AB). This variety with a soft felt of white hairs on the leaves has not been recorded before.

Black Spleenwort *Asplenium adiantum-nigrum* (Locally Scarce)

1. Syradale Hammars, Firth, HY351159, 04/08/2013 (ERM). Update⁶ for 10 km square.
2. Scott & Millers' store/car park, Kirkwall, HY449111, 11/10/2013 (HDS). New for 10 km square.

Hart's-tongue *Asplenium scolopendrium* (Locally Scarce):

1. Woodwick House, Evie, HY390240, (HDS). New site, but not 10 km square (which includes part of Rousay).
2. North end of Franklin Road, Stromness, HY256094, 11/01/2013 (HDS). Also Back Lane, off Victoria St, Stromness. New for 10 km square.
3. Earl's Palace, Kirkwall, HY450108, 28/09/2013 (HDS). Adds to several sites now known in Kirkwall and nearby.

Maidenhair Spleenwort *Asplenium trichomanes* subsp. *quadrivalens* (Locally Scarce)

1. Tankerness House, Kirkwall, HY448109, 28/09/2013 (HDS). Said to be introduced at this site. New for 10 km square.
2. Victoria Street, Stromness, HY254092, 30/09/2013. Also Bank Lane, Stromness, HY254093 (both HDS). New site, but not 10 km square (which includes part of Hoy).

Sea Aster *Aster tripolium* (Locally Scarce), St Andrews saltmarsh, Toab, HY51870462, 05/09/2013 (JEC). New for 10 km square.



Hart's-tongue and Black Spleenwort (John Crossley)

⁶ Update: first record since 1987

Frosted Orache *Atriplex laciniata* (Locally Rare).

1. A single plant at Galpo, Stronsay, HY679259, 23/07/2013 (JEC and MM). New for island and 10 km square. The site at Galpo is not far from Mill Bay, a more likely location for a population of this plant but not visited on this occasion.

2. Abundant at north end of Newark Bay, South Ronaldsay, ND4690, 13/08/2013 (ERM). Update for 10 km square.

With these records this species becomes Locally Scarce instead of Locally Rare.



Frosted Orache (John Crossley)

Black Oat (Bristle Oat) *Avena strigosa* (Locally Scarce), Carness, St Ola, HY465140, 09/2006 and HY4613, 2013 (AB). Probable archaeophyte, of special interest for historic/cultural reasons as an ancient crop species no longer cultivated. New for 10 km square.

Saltmarsh Flat-sedge *Blysmus rufus* (Locally Scarce), Vaval (nr. Craig Loch), Westray, HY446517, 30/08/2013 (ERM). A considerable colony in a runnel coming off the south face of Vaval into Craig Loch. New for island and 10 km square.

Quaking-grass *Briza media* (Locally Rare), Howequoy Head, Holm, HY46370103, 10/07/2013 (JEC). A large patch. Thanks to the landowner Gerry Wilson for showing me this. Update for site and 10 km square.

Long-bracted Sedge *Carex extensa* (Locally Scarce), Bay of Suckquoy, St Andrews, Toab, HY52490410, 09/09/2013 (JEC). Update for 10 km square (last in 1957).

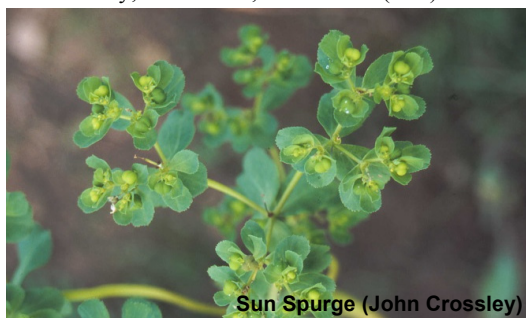
Curved Sedge *Carex maritima* (RDB 'Endangered', Nationally Scarce and UKBAP Priority), Mae Sand links, Westray, HY44244311111 and at other grid references nearby, 30/05/2013 (JEC). Locally abundant. Update for 10 km square. A visitor to the island many years ago reported this site but the record details have been lost.

Hemp-agrimony *Eupatorium cannabinum* (Locally Rare)

1. Near Hesta Head, South Ronaldsay, ND46418747, 17/07/2013 (JEC). One large clump between fences across improved grassland.

2. By old quarry, Common of Kirk, South Ronaldsay, ND465883, 17/07/2013 (JEC). Second and third records, both new sites but not new for 10 km square.

Sun Spurge *Euphorbia helioscopia* (Locally Scarce). Records from North Ronaldsay (ERM), update for 10 km square; Stenness (AB), new for 10 km square; and Stronsay (JEC and MM), new for island and 10 km square. With these records the species no longer qualifies as Locally Scarce.



Sun Spurge (John Crossley)

unpublished species records from Orkney for which he has records from the recording scheme database, but the exact status of these awaits clarification so they have not been included here). Details of the individual biological records for all the species listed can, or will shortly, be found at the website of the National Biodiversity Network or from the Orkney Biodiversity Records Centre, by request.

There is a lack of long-term data about distribution and relative abundance. A repeat thirty years after of the simple survey methodology used in my 1986-87 survey to investigate the possible variance of median week in the flight period of species, especially those known here to be at the edge of their British range, could indicate possible habitat quality or climate change. The importance of caddis both as habitat quality indicators and as contributors to the health of the Orkney wild brown trout sport fishery should not be underestimated.

In any species list compiled from a number of sources there are bound to be errors, please contact me if any are noted. Reliable identification keys for caddis have only been available from 1973 for adults (Macan), from 1981 for caseless larvae (Edington and Hildrew) and from 1990 for the case-bearing larvae (Wallace, Wallace and Philipson). Since these were published, errors have been corrected and the nomenclature continues to change. The publication of a new identification key for adults (Barnard and Ross) has brought the situation up to date and should enable many more people to record caddis flies.

Micro caddis, of the family Hydroptilidae, remain badly under-recorded. The larvae cannot be identified to species and are often recorded to genus only. The adults require special treatment and observation under relatively high magnification to be identified.

Bias in recording may often occur, either through partial sampling due to methods used or used over incomplete date ranges. Many habitats, areas and whole islands remain unexplored. New and developing sampling techniques await application.

Records are always welcome. As a practical suggestion to recorders given in my previous OFC Bulletin article (Andrew, 2013), specimens should preferably be preserved in isopropyl alcohol, available from chemists, which has been diluted to about 80% with distilled water (four parts alcohol to one part water), rather than using the alcohol neat which tends to make specimens very brittle. Alternatively, vodka may be used, if available.

Acknowledgements

I would like to thank Dr ID Wallace for many helpful comments and suggestions received. Contributors to my 1986-87 survey (all moth trap operators) included; ER Meek, K Fairclough, J McCutcheon and the late I Lorimer. The 1986-87 survey was completed with the aid of a British Ecological Society small project grant. Thanks to Drs R Guthrie and M Nicholson for providing SEPA data for Orkney and to Dr IDM Gunn for CEH data for Orkney. RSPB Orkney gave permission to access reserves at The Loons and at Glims Moss. Stuart Crofts kindly provided the image of *Phryganea grandis*.

highly skewed distributions occur. 'It has been shown that in many species in Britain the median week for flight periods becomes progressively later from north to south' (Crichton, 1988). Not surprisingly, perhaps, Orkney limnephilids often exhibit an earlier median week than amalgamated records from Scotland for the same species and with shorter flight periods overall. One side effect of this is that those species having a summer diapause show this to a markedly lesser degree, or not at all, in Orkney compared to Southern England. (The summer diapause is a period of total inactivity after emergence by adults which is then followed by mating and egg laying in the late summer or early autumn. It is thought to be a survival strategy for caddis living in temporary water bodies, such as ditches or small pools, which can dry up in the summer).

Distribution: this is shown for broad areas and number of sites, as currently known. It also reflects the frequency species are met up with but only indicates where sampling has been undertaken to date. The true distribution in Orkney for nearly all species remains unknown, most common species will occur wherever there is suitable habitat. In addition, caddis caught at light traps can fly considerable distances from their breeding site. As can be identified from known larval habitat, 25% of species from light traps are often not from the site being investigated (Wallace, 1991). The only way of establishing breeding sites with certainty is to find and identify larvae or to use floating emergence cages for adults. Recent surveys and monitoring, recording caddis larvae at some lochs and burns by SEPA, have increased the known number of breeding sites but these will be restricted in number and to standardised sampling techniques and therefore habitats.

Habitat: for these summaries I have borrowed extensively from published sources (Wallace, 1991 and Barnard and Ross, 2012), which summarise preferred habitat encountered throughout Britain.

Status: as reflected from the results of the caddis National Recording Scheme database of the Biological Records Centre, organiser Dr ID Wallace. *Ylodes reuteri* is the only species known from Orkney considered rare and under threat with Red Data Book 2 status (in view of possible future changes to the status of Harray Loch). Light trapping results indicate that this species may well have breeding sites other than Harray Loch, where originally found, but this needs to be confirmed from larval records. (This species can be abundant during its relatively short flight period at Harray Loch). There are four nationally local (*sensu* Wallace, 1991) species found in Orkney, of which only *Limnephilus elegans* could be considered to be under any local threat if the raised bog site at which it is found was to be altered (considered unlikely). *Limnephilus politus* is considered to be regionally notable in Scotland but its true status in Orkney remains to be discovered. With regard to suspect records, this has been indicated where considered appropriate for five previously recorded species. However, it should be noted that some species are migratory, in which case it is almost impossible to know what may turn up and even establish breeding populations, notwithstanding the possibility of accidental introductions along with imported aquatic plants. All previously published recorded species for Orkney, as far as is known, have been included.

Discussion

I have taken the previously published 1985 species list of Mr JD Walker as my starting point and have not dealt with the development of historical records prior to this or with subsequent records unknown to me which may have been contributed to the caddis National Recording Scheme. (Dr ID Wallace has communicated five additional previously unrecorded and

Foula Eyebright *Euphrasia foulaensis* (Nationally Scarce), Castle o' Burrian, Westray, HY504429, 30/08/2013 (ERM). New for 10 km square.

Heslop-Harrison's Eyebright *Euphrasia heslop-harrisonii* (Nationally Rare⁷, British Isles endemic, UKBAP Priority, Locally Rare)

1. Filberry and south end of Swona, ND39218446 and ND384837, 22/07/2003 (JK Butler).
2. Bay of Suckquoy, Toab, HY526040, 30/7/2011 (ERM and Local BSBI group, conf. C Metherell). New for 10 km square.

Hybrid Eyebright *Euphrasia heslop-harrisonii* x *E. arctica* subsp. *borealis* (first confirmed County Record), Filberry and south end of Swona, ND39218446 and ND384837, 22/07/2003 (JK Butler).

Black-bindweed *Fallopia convolvulus* (Locally Scarce), Sutherland Links, Burray, ND475957, 29/07/13 (JEC). New for 10 km square.

Hedge Bedstraw *Galium album* (Locally Scarce)

1. Ve Ness, Orphir, HY37450572, 19/07/2013 (JEC). New site, not new for 10 km square.
2. Knowes of Trinnawin, Harray site is confirmed, but none found at previously recorded site on Lyde Road verge at HY334184 (ERM).

Great Marsh-bedstraw *Galium palustre* subsp. *elongatum* (Locally Rare), between Housebay and Holland, Stronsay, HY667224, 23/07/2013 (JEC & MM). New for island and 10 km square.

Field Gentian *Gentianella campestris* (RDB Vulnerable, UKBAP Priority), Skea Hill, Westray, HY41914406, 26/08/2013 (D & ML). Update for island and 10 km square.

Small Sweet-grass *Glyceria declinata* (Locally Rare).

1. Bendigo, St Ola, HY4407, 2005 (AB). New for 10 km square.
2. Hamnavoe East, Stromness, HY2509, 25/06/2013 (EE & RS). New for 10 km square.

With these and the recent Westray record this species becomes Locally Scarce instead of Locally Rare.

Plicate Sweet-grass *Glyceria notata* (Locally Rare), between Housebay and Holland, Stronsay, HY6680224, 23/06/2013 (JEC & MM). New for island and 10 km square.

Common Ivy *Hedera helix* (Locally Rare), Gaitnip Hill, Holm, HY44550533, 2005 (AB). Re-recorded and identity confirmed 06/10/2013 (AB & JEC). Growing on cliffs. Common Ivy is very probably native at this site (compare the frequently-planted, non-native Atlantic Ivy *H. hibernica*). New for 10 km square.

Creeping Soft-grass *Holcus mollis* (Locally Scarce)

1. Syradale, Firth, HY351159, 04/08/2013 (ERM)
2. Tuskerbister, Orphir, HY358093, 09/2006 (AB)
3. Bendigo, St Ola, HY4407, 06/2005 (AB)
4. North of Haddiewell, Gaitnip, HY444058, 06/2005 (AB)

All new for 10 km square.

⁷ Nationally Rare: found in not more than 15 different 10 km squares in the British Isles

Sheep's-bit *Jasione montana* (Locally Scarce), Troila Vatn, HY75Y and Bewan, HY75X, North Ronaldsay (ERM). Updates for island and 10 km square.

Compact Rush *Juncus conglomeratus* var. *conglomeratus* and var. *subuliflorus*; **Soft Rush** *J. effusus* var. *effusus* and var. *subglomeratus*, Bendigo, St Ola, HY4407, 2005 (AB): varieties of these common rushes not previously recorded.

Frog Rush *Juncus ranarius* (Locally Rare)

1. Loch of Ayre, Holm, HY470010, 21/08/2013 (JEC det. Tom Cope)

2. Peedie Sea, Kirkwall, HY445108, 12/09/2013 (JEC det. Tom Cope)

3. Kettletoft Pier, Sanday, HY69583842, 19/08/2013 (JEC det. Tom Cope)

4. Carness, St Ola, HY4613, 05/08/2013 (JEC and SG)

All new for 10 km square and first since 1937. This small rush, very similar to

Toad Rush *J. bufonius*, must be much more common than previously thought: with these records it becomes Locally Scarce instead of Locally Rare.

Dwarf Juniper *Juniperus communis* subsp. *nana* (Locally Scarce), Gaitnip Hill, Holm, HY44850487, 2005 (AB). One plant, new for 10 km square.

Oysterplant *Mertensia maritima* (RDB Near-threatened and Nationally Scarce)

1. Coast at Bee Skerries (locally known as Drit Ness), Stronsay, HY684248, 23/07/2013 (JEC & MM). Several plants in site not recorded before, but not new or update for island or 10 km square.

2. North Manse, North Ronaldsay, HY75M, 30/09/2013 (DA). New for island and 10 km square.

Opium Poppy *Papaver somniferum* subsp. *somniferum* (Locally Scarce), Sutherland Links, Burray, ND475957, 29/07/2013 (JEC). New for island and 10 km square.



Sheep's-bit (John Crossley)

Orkney caddis (Trichoptera) species list with ecological notes: Part 1

Ross H Andrew

Introduction

The last Orkney caddis species list was published twenty-nine years ago (Walker, JD, in Berry, RJ (1985) *The Natural History of Orkney*). Since then, as a result of a number of continuing surveys, 30 additional species have been recorded. The present list is, as far as is known, complete to date. It will be of interest to freshwater ecologists, for whom caddis are one of the important indicators for water quality monitoring, as well as fly fishermen and naturalists. Caddis are a conspicuous component of freshwater invertebrate life and are a highly significant part of the food of wild brown trout as larvae, swimming pupae and winged adults.

There are now 73 caddis species known in Orkney, from a total of 196 for Great Britain. This compares with 74 species recorded from Caithness, which has additional habitats not present in Orkney including rivers and extensive dubh lochans in the blanket bog of the Flow Country with their characteristic and, in some cases, special caddis fauna.

This article comprises a brief review of the group in Orkney, a complete species list and some ecological notes on some of the species (Part 1). The second and final part of this article will contain ecological notes on the remaining species and will appear in next year's Bulletin.

Ecological notes

Relative abundance: numbers of specimens recorded for each species are shown if known. Where adults (=A) are indicated, these have nearly all been attracted to light and voucher specimens are available from my own survey, RHA 1986-87, or subsequent, L=larva record. Numbers of adults can be taken as a measure of relative abundance for those species attracted to light, but this must be viewed with caution. Different species show varying degrees of attraction to light, this may also vary according to the stage of the adult life history. Those species not attracted to light are shown only in very small numbers, however, this is no indication of their relative abundance, some are widespread and very abundant. Records for larvae are known for only 33 of the 73 species listed.

Survey: I have listed six surveys from 1986-2011, showing the first date encountered for each species by each survey. It is assumed Mr JD Walker (JDW) is for adults only, as is RH Andrew (RHA). Countryside Survey (CS), Scottish Environmental Protection Agency (SEPA) and the Centre for Ecology and Hydrology (CEH) surveys are for larvae. SEPA surveys are only from lochs and burns where these form regular monitoring sites or suspected pollution incidents. Dr Kirby's (PK) survey was for adults and larvae. (For more information on the background to these surveys, including sampling methods, see Andrew, 2013).

Flight period (including median week and summer diapause): where this is not known for Orkney, ? is used, followed by the known flight period for Britain. Where light trapping has taken place over the whole of the flight period and where at least 50 adults have been caught (RHA survey), the full Orkney flight period is shown. For many species, especially from the family Limnephilidae, this information is unique. This is due to the fact that flight period for these species is strongly affected by latitude and has not previously been obtained for Orkney. The same species tend to peak in number earlier in Scotland than in Wales and northern England and these earlier than in southern England. One measure of flight period is the median week (shown as MW), thought to be a better measure of the mid-point than the average when

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Species List for 2013

		Records	Status
<i>Colymbetes fuscus</i>		1	
<i>Dytiscus semisulcatus</i>		1	
<i>Acilius sulcatus</i>		1	
<i>Carabus problematicus</i>		1	
<i>Cychrus caraboides</i>		1	
<i>Cicindela campestris</i>	Green Tiger Beetle	4	
<i>Loricera pilicornis</i>		2	
<i>Pterostichus niger</i>		2	
<i>Pterostichus melanarius</i>		1	
<i>Curtonotus aulicus</i>		1	
<i>Thanatophilus rugosus</i>		1	
<i>Silpha atrata</i>		2	
<i>Nicrophorus investigator</i>		12	
<i>Nicrophorus vespilloides</i>		1	
<i>Staphylinus erythropterus</i>		9	
<i>Ocypus olens</i>	Devil's Coach-horse	3	
<i>Creophilus maxillosus</i>	Carrion Beetle	2	
<i>Geotrupes stercorarius</i>	Dor Beetle	1	
<i>Aphodius rufipes</i>		2	
<i>Serica brunnea</i>	Brown Chafer	1	
<i>Ctenicera cuprea</i>		3	
<i>Denticollis linearis</i>		1	
<i>Adalia decempunctata</i>	10-spot Ladybird	3	
<i>Chrysolina intermedia</i>		1	RDB2
<i>Chrysolina staphylaea</i>		1	
<i>Gastrophysa viridula</i>	Green Dock Beetle	13	
<i>Lochmaea suturalis</i>	Heather Beetle	2	
<i>Otiorhynchus sulcatus</i>	Vine Weevil	3	
<i>Otiorhynchus atroapterus</i>	Black Marram Weevil	2	

Aspen *Populus tremula* (Locally Scarce)

1. Several sites on cliffs from Waulkmill Bay to east of Hobbister, Orphir, HY30, 2013 (JEC and JT). All updates for 10 km square.

2. Gaitnip Hill, Holm, HY44610524, 06/10/2013 (AB & JEC). One tree-top just visible at cliff edge. New for 10 km square.

Slender-leaved Pondweed *Potamogeton filiformis* (Nationally Scarce), Peerie Water, Evie, HY3327, 16/08/2010 (EE and NFS). Update for loch and 10 km square.

Lesser Pondweed *Potamogeton pusillus* (Locally Scarce), Peerie Water, Evie, HY3327, 16/08/2010 (EE and NFS). Update for loch and 10 km square.

Tormentil *Potentilla erecta* subsp. *strictissima* (Locally Rare), Bendigo-Cannigall shore, St Ola, HY4407, 2005 and 09/2013 (AB, det B Harold). New for 10 km square. This sub-species is probably commoner than previously thought: the referee B Harold advises that this and subsp. *erecta* represent two ends of a spectrum of variation and that all possible intermediates are produced.

Scottish Primrose *Primula scotica* (Nationally Scarce). The 2013 Bulletin contained a report of *P. scotica* at Faraclett Head, Rousay, HY4443533493 and speculated that this was the Faraclett site reported several years ago but with details lost. It was not! Details of the earlier record have now been found: Faraclett Head, HY448336, 89 plants in a strip c. 20 m x 3 m, 14/08/1992. The site has now been searched, but no *P. scotica* found.

Hybrid Dock *Rumex x hybridus* (= *R. longifolius x obtusifolius*) (Locally Rare)

1. near Merkister Hotel, Harray, HY298189, 09/2006 (AB). New for 10 km square.

2. near Wester Sand, Holm, HY5000, 08/2006 (AB). New for 10 km square.

Hybrid Dock *Rumex x pratensis* (= *R. crispus x obtusifolius*) (Locally Rare)

1. Glimps Holm, Burray, ND49U, 06/2006 (AB). New for 10 km square.

2. Carness, St Ola, HY465140, 09/2006 (AB). New for 10 km square.

Brookweed *Samolus valerandi* (Locally Rare), 1 km SW of Burgh Head, Stronsay. HY69042236 to HY69182242, 23/07/2013 (JEC & MM). After last year's worrying report of but a single plant found in the area a thorough search was carried out, with the gratifying result of at least 160 plants being found over a substantial area.

Annual Sea-blite *Suaeda maritima* (Locally Scarce)

1. The Bush, Stromness, HY281107, 28/08/2013 (ERM). A large colony. New for 10 km square.

2. The Ouse (east end), Finstown, Firth, HY3614, 12/09/2013 (JEC). New for 10 km square.

3. Long Ayre, Quindrie, South Ronaldsay, ND433921, 08/09/2013 (JEC). New for island and 10 km square.

4. Elsness, Sanday, HY6738, 16/08/2013 (JEC). Update for 10 km square.

5. Weethick, Tankerness, HY4909, 09/2013 (AB). New for 10 km square.

With these records the species no longer qualifies as Locally Scarce.

Field Penny-cress *Thlaspi arvense* (Locally Scarce)

1. Sutherland Links, Burray, ND475957, 29/07/2013 (JEC). New for island and 10 km square.

2. Dingieshowe, St Andrews, HY546034, 08/2013 (JB). New site in recent 10 km square.

Sea Mayweed *Tripleurospermum maritimum* subsp. *nigriceps*, Saviskaill, Rousay, HY400334, 27/09/2013 (JEC, conf. A Chater). New County Record for the sub-species. The identification of sub-species of *T. maritimum* and indeed the separation of the two species *T. maritimum* and Scentless Mayweed *T. inodorum* in Orkney is proving to be problematic. Of 16 specimens collected from different places, both inland and by the sea, in 2013, most were determined as

hybrids between *T. maritimum* and *T. inodorum*, irrespective of habitat, with some *T. maritimum* and one *T. inodorum*. Sub-species of *T. maritimum* were impossible to determine in almost all cases. As far as is known, hybridisation to this extent between these species does not occur elsewhere in the British Isles.

Lesser Bladderwort *Utricularia minor* (Locally Scarce), Russadale Quarry, Stenness, HY333098, 05/08/2013 (ERM). New for 10 km square.

Non-natives – neophytes and casuals

A neophyte is a plant species which is non-native to a geographical region and was introduced in 'modern' times [in practice, after 1500] and has become established. A casual is a non-native that has not become established.

Ramsons *Allium ursinum*, sea-banks north of Heatherquoy to beyond Brough, Berstane, St Ola, HY4709, 05/2006 (AB). Probably planted and since spread. Third County record and new for 10 km square.

Astrantia *Astrantia major*, verge of B9047 near Melsetter, North Walls, ND274895, 24/05/2013 (ERM). Probably planted. Update for only known site.

Hemp *Cannabis sativa*, Gaitnip, St Ola, HY4406, 2005 (AB). In grass re-seed. Second County record (last in 1933), new for 10 km square.



Cornflowers, South Ronaldsay (John Crossley)

Pendulous Sedge *Carex pendula*, Hamnavoe East, Stromness, HY2509, 25/06/13 (BS and EE). Probable garden escape. Third Orkney record, new for 10 km square.

Cornflower *Centaurea cyanus*, North Flaws, South Ronaldsay, ND458856, 31/07/18 (JEC). At least eight plants in grass re-seed, only the second County record since 1971, new for 10 km square.

Snow-in-summer *Cerastium tomentosum*, Sands of Evie, Evie, HY3726, 2006 (AB). On road verge, probably planted. New County record.

Aunt-Eliza *Crocsmia paniculata*, Bigging Road, Russland, Harray, HY298177, 09/2006 (AB). According to Stace (2010), the plant named *C. paniculata* is more likely to be *C. paniculata* x *C. pottsii*. On road verge, probably planted. New County Record.

overlooked. They are strong flyers so it could have got to Orkney with a following wind. The larvae feed in dung; they are likely to be killed by wormers such as Ivermectin in the dung. The species may have bred in Orkney before such wormers came in to use.

Brown Chafer *Serica brunnea* was again found on a sandy beach, this time near Elsness in Sanday. This is a similar habitat to the Glimps Holm record the previous year but seems very different from Berriedale wood, Hoy, where one was found in 2011. This species is supposed to occur in 'sandy places' and there is quite a lot of sand in Berriedale, deposited by the burn. The larvae feed on roots and it is possible that they prefer to burrow in sand.

Denticollis linearis is a very distinctive black and orange click beetle. One was photographed in Orphir in July. It is a new species for Orkney and is unlikely to have been overlooked. It has been recorded in the middle of Caithness; some click beetles fly readily so it could have flown from around there. It was a female; males are mainly orange.



Denticollis linearis (Derek Mayes)

Ctenicera cuprea is the most distinctive of the other Orkney click beetles; it was recorded in Rousay, Burray and South Walls in 2013.

10-spot Ladybird *Adalia decempunctata* was again the only ladybird reported; there were records from three sites, two of which were in new islands for this species, Sanday and South Ronaldsay. It has been recorded in Orkney every year since 2007 and for three successive years near Finstown where it must surely be breeding.

The nationally rare *Chrysolina intermedia* was recorded only once, further north than usual at Row Head in Sandwick. It occurs along the cliff tops south from there to Black Craig.

Green Dock Beetle *Gastrophysa viridula* was recorded in two new islands, Eday and Swona. The Eday record is the first in the outer north isles; at least 30 were in a ditch near Carrick House. As usual at most sites the beetles were on Broad-leaved Dock *Rumex obtusifolius* but it was found on Rhubarb at two sites, on Sorrel *Rumex acetosa* on the cliffs near the Old Man of Hoy and on Amphibious Bistort *Persicaria amphibia* in Holm.

Heather Beetle *Lochmaea suturalis* was recorded in Orphir and Rousay in April, both at sites where it had been seen the previous year.

Black Marram Weevil *Otiiorhynchus atroapterus*, a sand dune specialist, was found in Eday and Orphir. There was one record in 2011 but no others since 1981. It is similar in size and shape to **Vine Weevil** *O. suturalis*, but shiny black with red on the legs.

Beetle Report 2013

Brian Ribbands

A total of 77 records of 29 species were reported in Orkney in 2013. As in 2012 and in contrast to 2011 there was no systematic recording by visiting experts so these are casual records, mostly of relatively conspicuous species.

There were two new Orkney species in 2013 though one of these is yet to be identified. This is a longhorn beetle which was photographed on Stromness pier in August. The larvae of these beetles live inside wood for several years before emerging; most likely it was in a pallet or crate made of untreated wood and could have been imported from anywhere in the world that these come from. I have sent the photo off for an expert opinion. It had been posted on Facebook where I would never have found it myself. If you see a beetle on such a site please tell me!

Another species found this year was on the Orkney list but with no traceable record of date or place. It is good to get a definite record. Some spring species were scarcer than usual, or not recorded, no doubt due to the cold late spring.

Dytiscus semisulcatus is one of the two species of **Great Diving-beetle** reliably recorded in Orkney. One was found on a trampoline in Harray in September; presumably it had mistaken the shiny surface for water.

Acilius sulcatus is a slightly smaller water beetle. One was photographed climbing out of a pool in Rendall, probably drying off before taking flight. Fortunately it was a female which has sculpturing on its upper side. Males are less distinctive. The second record in 10 years.

Green Tiger Beetles *Cicindela campestris* were reported from the usual area in Hoy, between 25th May and 29th July. There were again no records from south of Rackwick.

Sexton Beetle *Nicrophorus investigator* was as usual one of the most frequent beetle species recorded, between 27th July and 3rd September, mostly from moth traps. Its smaller relative *N. vespilloides* is recorded much less frequently but is more likely to be seen active in daylight. One was found in Hoy this year. There were no records of the larger black *N. humator*, which usually turns up in spring.

Devil's Coach Horse *Ocypus olens* was recorded three times in 2013, in Eday and Orphir. Its slightly smaller and more colourful relative, *Staphylinus erythropterus* was found in Rousay, Hoy and West Mainland. This species has reddish wing-cases and spots formed by patches of yellow hair on the abdomen. The other large rove beetle in Orkney is **Carrion Beetle** *Creophilus maxillosus*, which has wing-cases marked with patches of white hairs contrasting with a very shiny thorax. It was found in Eday and Orphir.



Devil's Coach Horse (Penny Martin)

Dor Beetle *Geotrupes stercorearius* was found in Burray in May (see photo on page 72). This is the first definite record of a species that was on the Orkney list. It is a large rotund black beetle with iridescent blue on its underside. Due to its size it is unlikely to have been

Ivy-leaved Toadflax *Cymbalaria muralis*, Castle Street, Kirkwall, St Ola, HY448110, 03/07/2013 (JEC). Apparently self-sown. New County record.

Sweet-William *Dianthus barbatus*, Mill Dam of Rango, Sandwick, HY2618, 16/08/2010 (NFS & EE). Garden throw-out. New County record.

Perennial Wall-rocket *Diplotaxis tenuifolia*, Sutherland Links, Burray, ND47499566, 29/07/2013. (JB). Self-sown into links. New County record.

Treacle-mustard *Erysimum cheiranthoides*, Gaitnip, St Ola, HY4406, 2005 (AB). In grass seed. New County record.

Petty Spurge *Euphorbia pepus*, Langskaill, Gairsay, HY43442191, 08/08/2013 (ERM and JEC). Self-sown garden weed. Second County record, new for island and 10 km square.

Herb-Robert *Geranium robertianum*. (The status of this species in Orkney is unclear: in some places it is almost certainly introduced, but in at least one it is most probably native. As a native it would be Locally Rare)

1. Near Finstown, Firth, HY3613, 03/06/2013, probably introduced (JEC). New for 10 km square.

2. St Magnus Cathedral kirkyard, HY449108, 03/07/2013 (JEC, det. T O'Mahoney). An unusual glabrous form, almost certainly introduced. New site in recent 10 km square.

3. At Carness, St Ola, HY486137 the species is probably native and was until very recently abundant on the Loch of Carness shingle ayre, but none could be found on 05/08/2013 (JEC & SG).

Wood Avens *Geum urbanum*, Blinkbonny, Lyness, ND27869100, 15/07/2013. Origin unknown (BJ & EE). Third County record, new for island and 10 km square.

Laburnum *Laburnum anagyroides*, Moorfea burn, Hoy, ND19849968, 22/06/2013 (Local BSBI group). Planted. Fourth County record and new for 10 km square.

Shasta Daisy *Leucanthemum x superbum*, Tuskerbister, Orphir, HY358093, 01/09/2006 (AB). Garden throw-out. New County record.

Hybrid Ryegrass *Lolium x boucheanum* (**Perennial Ryegrass** *Lolium perenne* x **Italian Ryegrass** *L. multiflorum*), Cleat, St Ola, HY468124, 2006 (AB), conf. Tom Cope (BSBI referee). New County Record.

Bird Cherry *Prunus padus*, verge of B9047, South Walls, ND334904, 05/09/2013. Apparently self-sown. New County record.

Aconite-leaved Buttercup *Ranunculus aconitifolius*, near Finstown, Firth, HY3613, 03/06/2013 (JEC). Probably planted. New County record.

Wild Mignonette *Reseda lutea*, Blanster Brae, South Ronaldsay, ND446920, 11/08/2000 (JEC). On road verge re-seeded after road widening. Previously published in Bulletin (2001), in error, as **Weld** *Reseda luteola*. New County record.

Burnet Rose *Rosa spinosissima*, Hamnavoe East, Stromness, HY2509, 25/06/2013 (BS & EE). Planted or garden escape. Third County record and new for 10 km square.

Water Figwort *Scrophularia auriculata*, south side of Maitland's Burn bridge, Firth, Finstown, HY36241353, 29/09/2013 (JM). Well-established and spreading from seed in waste ground, previous recorded elsewhere but probably not well-established until now. Said to be pollinated by wasps, and there were wasps on it at a later date. Third County record.

Steeple-bush *Spiraea douglasii* subsp. *douglasii*, St Ola, Scapa Gills, HY442075, 2013 (AB). Long-established garden outcast. New County record.

Other interesting records

Sea Spleenwort *Asplenium marinum*. Not a scarce species in Orkney, and without any national conservation designation, nevertheless the finding of two sites away from the sea, on walls at the Earl's Palace, HY450108, 28/09/2013 and Junction Road, Kirkwall, HY447108, 21/10/2013 (HDS) was most unusual. Identity of the small, juvenile fronds collected has still to be finally confirmed but there is little real doubt about it.

Winter-cress *Barbarea vulgaris*. An uncommon neophyte, previously recorded as one or a few plants per site, numerous around the Kingsdale road end on the Old Finstown Road, Firth, HY378123, 3 June (JEC).

Pignut *Conopodium majus*. Uncommon in Orkney but with no special local or national status, plants of this species were unusually abundant over an area of approximately seven hectares at Gaitnip, St Ola, HY443061, 3 July (JEC & RMcC).

Heath Spotted-orchid *Dactylorhiza maculata* subsp. *ericetorum*. A common plant in its habitat, but an enormous colony of c.3000 plants at Smoogarth, Firth, HY364155, 26/06/2013 (ERM) was a sight worth seeing.

Reference

Stace, CA (2010) *New Flora of the British Isles*. Third Edition. CUP.

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David Anderson (DA); Julian Branscombe (JB); Alan Bremner (AB); Effy Everiss (EE); Sydney Gauld (SG); Barry Jones (BJ); David and Midge Leather (D & ML); Eric Meek (ERM); John Moar (JM); Marion Miller (MM); Rosemary McCance (RMcC); Brian Ribbands (JBR); Hugo Shearer (HDS); Bob Simpson (BS); Nick Stewart (NFS); Jenny Taylor (JT)



Heath Spotted-orchids, Swona (John Crossley)



Mauve Stinger



A salp chain



A stalked jellyfish



Brain jelly



Blue Lion's Mane



Aequorea sp. jellyfish

Brain Jelly *Neoturris pileata*

This strange little hydromedusa is up to 2cm long with a transparent bell with the bright pink "innards" clearly visible. Seen in small numbers at Rerwick, The Lash, Yesnaby and washed up dead on Marwick beach.

Clapper Hydromedusa *Sarsia tubulosa*

The clapper hydromedusa is the medusa stage of a small polyp. The medusa has the shape of a bell, with four tentacles along the edge. In the centre is a notable tunnel-shaped mouth. That is the clapper of the bell. Seen in the thousands from June to October off the west coast, in Scapa Flow and off Deerness.

Sea Gooseberries *Pleurobrachia pileus*

These are small (up to 3cm long) round comb jellies looking very much like a gooseberry with two branched tentacles up to 30cm long. They have a set of eight comb rows that run down the outside of the gelatinous body. These beat to drive the animal through the water mouth first with some rows beating faster than others to turn. They are often wonderfully iridescent. These have been seen in large quantities (1,000+) from June to October in many different locations around Orkney.

Bolinopsis infundibulum

This is a much larger comb jelly up to 15cm long. It is almost transparent and fairly delicate. It has a pair of large oral lobes which are used to catch prey. Seen frequently between June and October in Orkney waters.

Beroe cucumis

This is a medium-sized, sack-shaped comb jelly. It reaches up to 15cm in length and is completely transparent in colour. It swims with eight longitudinal combs that give it a characteristic shimmering appearance. Several were seen at Yesnaby in June.

Stalked Jellyfish *Haliclystus auricula*, *Haliclystus octoradialis*, *Lucernariopsis campanulata*, *Lucernaria quadricornis*

These delicate jellyfish attach themselves to strands of seaweed in shallow water; 100+ were seen on both ends of the second Barrier in June. A few were seen at Halley and Deerness in July and August.

Salps (barrel-shaped, planktonic tunicate)

Although not cnidaria, salps were here in hundreds of thousands in June. They were in long chains which were broken up by wave action forming a thick "scum" on the beaches and surface of the sea. They appear similar to jellyfish because they are transparent with a simple body form. They were accompanied by many jellyfish which prey on them.

All photos by the author.

Note: The attribution of common names to some of the species is still to be agreed by taxonomists.

Fungi Report 2012 & 2013

Julian Branscombe

The highlight of 2012 was the wealth of records when visiting expert mycologist Liz Holden was in Orkney. An intensive three days of recording took us round the county, in quite mixed weather. A visit to Hoy was a great success, with the conifers of Hoy Lodge Plantation being particularly productive. Two species of **Knight** *Tricholoma* were found here which had not been previously recorded in Orkney. One species has been confirmed as *Tricholoma guldeniae*, after confirmation through molecular analysis. The other species is *Tricholoma pseudonictitans*. Neither of these is common enough to have an accepted English name – each has only been found once before in Scotland.

A careful examination of the woodland along the burn at Woodwick House, Evie, was very productive. The **Webcap** *Cortinarius alnetorum* was found in association with the fringing **Alder** *Alnus glutinosa* trees. The tussocks of large *Dryopteris* ferns were found to be home to a tiny species of **Bonnet**, *Mycena pterigena*, with distinctive red-edged gills. This mushroom was another new species for Orkney.

A pasture on thin soil by the road in Evie proved to be well worth a stop. Yet another new species to Orkney was found there – the beautiful **Big Blue Pinkgill** *Entoloma bloxamii*. It had a strong supporting cast of specialist fungi of unimproved grassland, including the aptly named **Splendid Waxcap** *Hygrocybe splendidissima*, clumps of the purple branched stems of **Violet Coral** *Clavaria zollingeri* and the **Dark-purple Earthtongue** *Geoglossum atropurpureum*.

Not far away around the edge of the Hill of Dwarmo, another good suite of fungi were found, several of which were mycorrhizal species associated with **Creeping Willow** *Salix repens* – a **Poisonpie** species (*Hebeloma velutipes*), **Variable Webcap** *Cortinarius anomalus* and **Red Swamp Brittlegill** *Russula aquosa*. Normally these three fungi are associated with **Birch** *Betula* sp., but with birch being absent, it would seem that they 'make do' with whatever tree and shrub partner will have them.

An expert from the British Mycological Society, Justin Smith, was in Orkney for a family holiday in August 2013. He managed to fit in some recording, including a couple of species on the twigs of **Aspen** *Populus tremula* at Waulkmill Bay which appear to be new to Orkney. Both of these are small Ascomycete fungi – *Hysterobrevium mori* and *Leucostoma niveum*. They neither have English names nor bear ready description. Justin also came across a range of other fungi which were more appreciably mushrooms, from the edible **Wood Mushroom** *Agaricus silvicola* near Loch of Harray to the **Tawny Grisette** *Amanita fulva* at Berriedale.

Autumn 2013 brought incidental records from a number of observers, such as Jenny Campbell who found the **Dusky Puffball** *Lycoperdon nigrescens*. Cathleen Hourie reported a 5.5kg **Giant Puffball** *Calvatia gigantea*, providing further evidence that this striking species is widely distributed around Orkney although not too frequently encountered. Another fungus which is often reported when found is the **Shaggy Parasol** *Chlorophyllum rhacodes*, with its strikingly scaled cap, with Sydney Gauld finding it at Quoyberstane, St Ola.

Derek Mayes came up with a good number of records. They included rust fungi from the leaves of **Common Alder** *Alnus glutinosa* which could well be something quite unusual, but for which a specimen will need collected and sent off for confirmation in 2014. An appeal for records of **Wood Blewit** *Lepista nuda* produced a rash of sightings from around the county – Derek accompanied his record from Rose Ness, Holm with particularly beautiful photos.

The woodland around Berstane House, St Ola, are being increasingly well-recorded for their fungi, in no small part thanks to Nancy Charlton who lives there. In both 2012 and 2013 she

has found the remains of what appear to be Orkney's first **Giant Polypore** *Meripilus giganteus* – however, we shall need to find a fresh specimen there in 2014 to confirm this.

Brian Ribbands found a brown club fungus growing from **Willow** *Salix* sp. twigs at Queenamidda, Rendall. This proved to be the *contorta* variety of the **Pipe Club** *Macrotrotyphala fistulosa* – another addition to the Orkney list.

There were a number of records came in of the widely-recorded slime mould *Mucilago crustacea* which is quite common on lawns, verges and other grassland in Orkney. The children of a class at Glaitness School coined a new English name for it – **Troll's Vomit** – that really deserves to catch on!

Orkney Field Club held a well-attended fungi foray on 29th September, visiting Binscarth Wood and the old Cemetery in Finstown. About 30 species were identified with some confidence, whilst a range of other fungi were also admired which had to go un-named. Highlights included a full house of Orkney's members of the Ascomycete genus *Xylaria*. These fungi appear as strange black fingers of a range of sizes growing on dead wood – **Candlesnuff Fungus** *X. hypoxylon*, **Dead Moll's Fingers** *X. longipes* and **Dead Man's Fingers** *X. polymorpha*. A range of other decomposing fungi were found in Binscarth Wood, including **Plums and Custard** *Tricholomopsis rutilans*, **Porcelain Fungus** *Oudemansiella mucida* and **Glistening Inkcap** *Coprinellus micaceus*.

The wood also contains a range of ectomycorrhizal species, of which several were recorded on the foray. They included the **Deceiver** *Laccaria laccata* which is a generalist species which forms mycorrhizal relationships with a wide range of trees. The **Beech** *Fagus sylvatica* in the wood support **Beech Milkcap** *Lactarius blennioides* – this was seen in abundance on the day. A large yellow **Brittle Gill** *Russula* sp. escaped specific identification. It was associated with patches of **Salmonberry** *Rubus spectabilis* – a dangerously invasive thicket-forming shrub – but it may be that its true mycorrhizal partner was one of the other trees or shrubs in the vicinity.

The cemetery contained a range of brightly-coloured waxcaps including the **Pink Waxcap** *Hygrocybe calyptriformis*. Another speciality of the old grassland of the cemetery is the **Smoky Spindles** *Clavaria fumosa* which was also showing well.

Old unenriched grasslands are a very important habitat for native fungi. The lawn of Peter Slater's house in Stromness looks likely to prove one such good site when further investigated – a late autumn visit in 2013 found several waxcap species including the Pink Waxcap. Our new OFC President has a lot to commend him!

Another important development with regard to the encouraging of fungi recording in Orkney has been provided by Effy Everiss in late 2013. She has set up the 'Orkney Fungi & Lichens' facebook group. This has quickly become a lively place to share and discuss fungi photographs.

Fungi queries and records can be submitted to me at julianbranscombe@yahoo.com or Greens, Toab, Orkney KW17 2QG.

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Cnidaria Report 2013

Penny Martin

If there was such a thing, 2013 would be the "Year of the Jellyfish". Large blooms of jellyfish have been reported all around the coast of UK, and Orkney was no exception. There were thousands in the seas around Orkney from May through to October. Many dead ones were washed up on beaches all round Orkney but notably on the coast of West Mainland.

There were many reports which included four species of true jellyfish, two comb jellies, four hydromedusae and also hundreds of thousands of Salps which are tunicates and a rich food source for true jellyfish.

Moon Jellies *Aurelia aurita*

Many scyphistoma were seen on the wrecks in Scapa Flow. These polyps release tiny juvenile jellyfish called ephyra; many of these were seen around the Barriers and off the Lash, Orphir in March and April. Hundreds of larger ones up to three inches in diameter were seen on the Scapa Flow side of the Second Barrier for a few days in early May. A few were seen occasionally in Scapa Flow and off the west coast in June.

Mauve Stingers *Pelagia noctiluca*

These beautiful purple jellyfish were seen in various locations in July and August. Notable numbers of 20 + were seen off Birsay, Skaill and Yesnaby in July. The bell is approx 10cm in diameter. Many were washed up dead on the shores of Skaill Bay, the Broch of Birsay and Marwick Bay.

Lion's Mane Jellyfish *Cyanea capillata*

These larger jellyfish with long trailing tentacles can give a powerful sting although there were no reports of people being stung in Orkney. The main body is yellow/orange in colour with mainly white tentacles up to 3m long with occasional red ones. There were many seen off the west coast in July and August in the water and others washed up dead on the beaches. Occasional specimens were seen in Scapa Flow, off the Lash, Swanbister and off Deerness. Individuals can be up to 50cm across.

Blue Lion's Mane *Cyanea lamarckii*

This striking jellyfish is closely related to the Lions Mane and the bell is coloured blue or purple. It tends to be smaller, approx 20cm in diameter. Many were seen off the west coast possibly predating the thousands of Salps present. Many were washed up dead on beaches throughout Orkney.

Crystal Jellyfish *Aequorea forskalea*

This is a hydromedusa species, a free swimming stage of a hydroid. These were seen from July to end of October in large quantities at various locations off the west coast and in Scapa Flow, often hundreds ranging in size from 10 to 40cm. Many dead ones were washed up on the beaches. They are transparent with pink or white stripes where the tentacles can be withdrawn into canals in the body.

White Cross Jellyfish *Staurophora mertensii*

This smaller hydromedusa has been seen in large numbers from the beginning of June to the end of October in many different locations. It is approx 2cm in diameter and very transparent with a white cross.