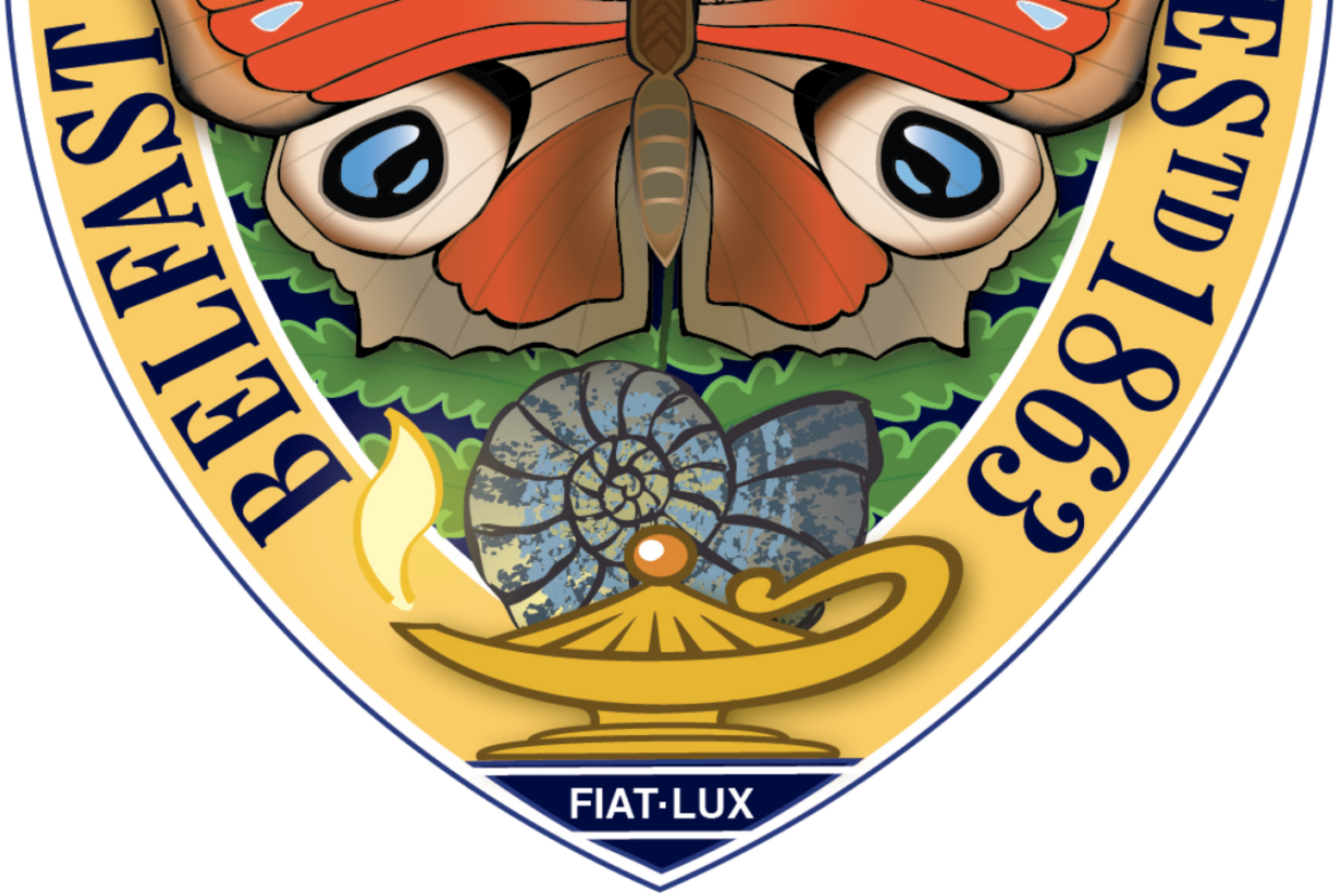
Belfast Naturalists'

Field Club

Field Reports

2015



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Glasswater Wood and Tobhar Mhuire, Crossgar

9th May 2015

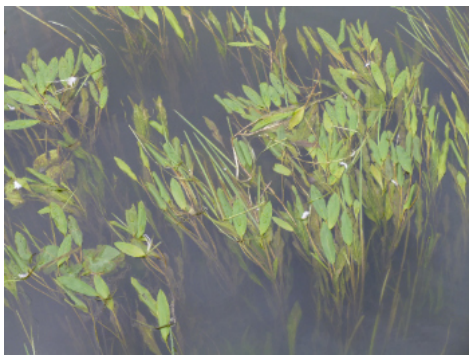
Leaders: Rosie Irwin (Woodland Trust), Pamela Thomlinson and Margaret Marshall

Botany

A sunny May morning after a night of persistent rain not only brought out the butterflies but also a good number of BNFC members at Glasswater Wood. 'Glas' is the Irish for 'green' and the woods were bright with new green foliage. Thanks are due to ***Graham Day***, ***Botanical Society of Britain & Ireland***, Recorder for Co.Down, and ***Julia Nunn*** who did a complete species list for both sites which will be attached to this report.

We were met by Rosie Irwin of the Woodland Trust who explained that the 14 acre community wood had been planted with 2000 broad-leaved trees to mark the Millennium on agricultural land which had once been part of the ***Great Wood of Dufferin***. As well as the trees there are old hedges of **Hawthorn** *(Crataegus monogyna)*, **Blackthorn** *(Prunus spinosa)* and **Holly** (*Ilex aquifolium)*, a pond and meadow areas, so there is a good variety of habitats. Wetter areas had **Alder** *(Alnus glutinosa)* and **Willow** *(Salix cinerea ssp. cinerea & Salix caprea)* and Graham recorded **Bog Pondweed** *(Potamogeton poligonifolius)*, **Loddon pondweed** *(Potamogeton nodosus)* and **Water-starwort** *(Callitriche)* in the pond. In the woodland areas, **Hazel** *(Corylus avellana)*, **Ash** *(Fraxinus excelsior)*, **Silver Birch** *(Betula pendula)*, **Rowan** *(Sorbus aucuparia)* and **Beech** *(Fagus sylvatica)* were well-established. **Wild Cherry** is *Prunus avium* (of birds) while **Bird Cherry** is *Prunus padus* - a Greek name for a type of cherry, rather confusing but birds presumably enjoy them both. Large white clumps of **Greater Stitchwort** *(Stellaria holostea)* contrasted with **Bluebells** *(Hyacinthoides non-scripta)*. Someone had been illegally planting primroses and bluebells but Graham, a bluebell expert, pronounced that they were genuine wild and not Spanish ones.

After a picnic lunch, Rosie produced spades and gloves; Pamela had got Irish Grow Wild 2015 seeds so sowings were made beside the car park, along a path and in a damp area as the mixture included **Purple Loosestrife** *(Lythrum salicaria)* and **Devilsbit Scabious** *(Succisa pratensis)*.



Loddon Pondweed

Tobhar Mhuire Heritage Trail

In the afternoon we re-assembled at the **Tobhar Mhuire Passionist Monastery and Retreat Centre** to walk the 1.9 mile Heritage Trail through the grounds of a mid-nineteenth century estate; the house had belonged to the **Cleland** Family who had linen mills in the area.

Instar of Yellow Tail moth (Euproctis similis)

After the Botanical Secretary had arranged the Belfast Naturalists' visit, she had an embarrassed phone call to enquire what exactly we would be doing; I was able to assure them that we would be fully clothed.

Tobhar Mhuire means 'Mary's Well' and the well is a feature in the wood.

continued

Glasswater Wood and Tobhar Mhuire, Crossgar (contd)

9th May 2015

Egg from Orange Tip butterfly (below) on Cuckoo flower *(Cardamine pratensis)*

The contrast between the Glasswater newly planted wood and the demesne woods was interesting, but the Victorian passion for planting **Laurels** *(Aucuba japonica, Prunus laurocerasus and lusitanica)* under trees, meant the flora was not as rich as it might have been.

Beech trees *(Fagus sylvatica)*had their fresh green leaves and new sprouts were coming from the stumps of **Wych Elms** *(Ulmus glabra)*.

However we saw many woodland plants – **Bluebells** *(Hyacinthoides non-scripta)*, **Wood Anemones** *(Anemone nemorosa)*, **Wild Garlic** *(Allium ursinum)*, **Enchanter's Nightshade** *(Circaea lutetiana)* and **Celandines** *(Ranunculus ficaria ssp.ficaria)*. A gentle climb brought us to a seat of **Liscannor slabs** with fine views of the Co. Down countryside, the Mournes and the Dromara Hills.

A surprising sight nearby was a fine stand of **Early Purple Orchids** *(Orchis mascula)* on a bank and old field wall. Near the **Ulster Wildlife Trust Centre** car park was a colourful patch of **Green Alkanet** *(Pentaglottis sempervirens)* and **Garlic Mustard** *(Alliaria petiolata)* with **Orange Tip butterflies** *(Anthocharis cardamines)* nectaring on them.

Everyone agreed it was a pleasant first excursion for the 2015 BNFC season to places that were new to most members.

Margaret Marshall

Carnmoney Hill

Leaders: Jim Bradley and Larry Toal

19th May 2015

Botany

Wild Garlic

On a chilly May evening hardy members assembled in winter coats and woolly hats for a birdsong and botany walk up **Carnmoney Hill**.

This green oasis of grassland, wetland and woodland is owned by **Newtownabbey & Antrim Council** and covers 70 hectares. It is managed by the **Woodland Trust** who have planted 60,000 native trees to bolster the fragments of ancient woodland.

We examined the sheath-like spathes of **Lords & Ladies** (Arum maculatum). Maculatum means 'spotted' for the leaves, but they are generally not spotted in Ireland. Inside is a spadix, a column with the male and female flowers whorled around it. Pollinating midges get trapped inside and the flowers develop into poisonous red berries. **Garlic Mustard** *(Alliaria petiolata)* is a crucifer but has a garlicky smell.

The older woodland is mostly of **Hazel** *(Coryllus avellana)* with **Bluebells** *(Hyacinthoides non-scripta)*, **Wood Anemones** *(Anemone nemorosa)*, **Wild Garlic** *(Allium ursinum)*, and **Wood Sanicle** *(Sanicula europea)*, an umbellifer which is an indicator of ancient woodland. The strange-looking **Toothwort** *(Lathraea squamaria)* is a parasite on hazel and other trees and has no green pigment and scales instead of leaves. The one-sided spike of flowers is supposed to look like a set of teeth! It is one of 8 uncommon plants to be recorded on the **BSBI Irish Species Project**.

Near the old farmhouse a large patch of **Red Campion** *(Silene dioica)* and **Ox-eye Daisy** *(Leucanthemum vulgare)* had been sown and were flourishing. Even in the cold the fresh green of the springtime woods and the views over Belfast and as far as the Mournes made it an evening to remember.

Margaret Marshall

Zoology

Chaffinch

The woodland provided an ideal spot for evening birdsong. We are indebted to **Larry Toal** for sharing his keen ear and expertise to help us unravel the cacophony of birdsong.

The **Blackcap's** *(Sylvia atricapilla)* song was heard throughout our walk. The song consists of short phrases, often with a terminal flourish of loud clear notes regarded by many as the as equal to the nightingale in quality. These are the summer visitors which have migrated from the Mediterranean and North Africa. Increasingly we are seeing Blackcaps feeding at our garden feeders but these migrate to Eastern Europe to breed.

Altogether we heard sixteen birds singing, the easiest to pick out were, the **Wren** *(Troglodytes troglodytes)*, **Chiffchaff** *(Phylloscopus collybita)* and **Great Tit** *(Parus major)*. With Larry's help we were able to hear many more.

continued

Carnmoney Hill (contd)

19th May 2015

Goldcrest

Long tailed tit

Hooded Crow

The highlight was the **Goldcrest** *(Regulus regulus)* with its thin, high rhythmical song which ends in a flourish. The full list is below.

There are several opinions and theories on why birds sing in the evening. The most widely held idea is for communication, just as daytime singing is used for communication. Individual birds "talk" with each other during mating periods and to let other birds know they are in the area. Some birds have only one "song" perhaps with slight variations on this while others sound off with a lot more variety, depending on whether they are protecting territory, finding a mate or raising an alarm if a predator is nearby.

After we thanked Jim and Larry for a very interesting evening we made it back to the cars before the weather changed and to a heavy hailstorm. Perfect timing!

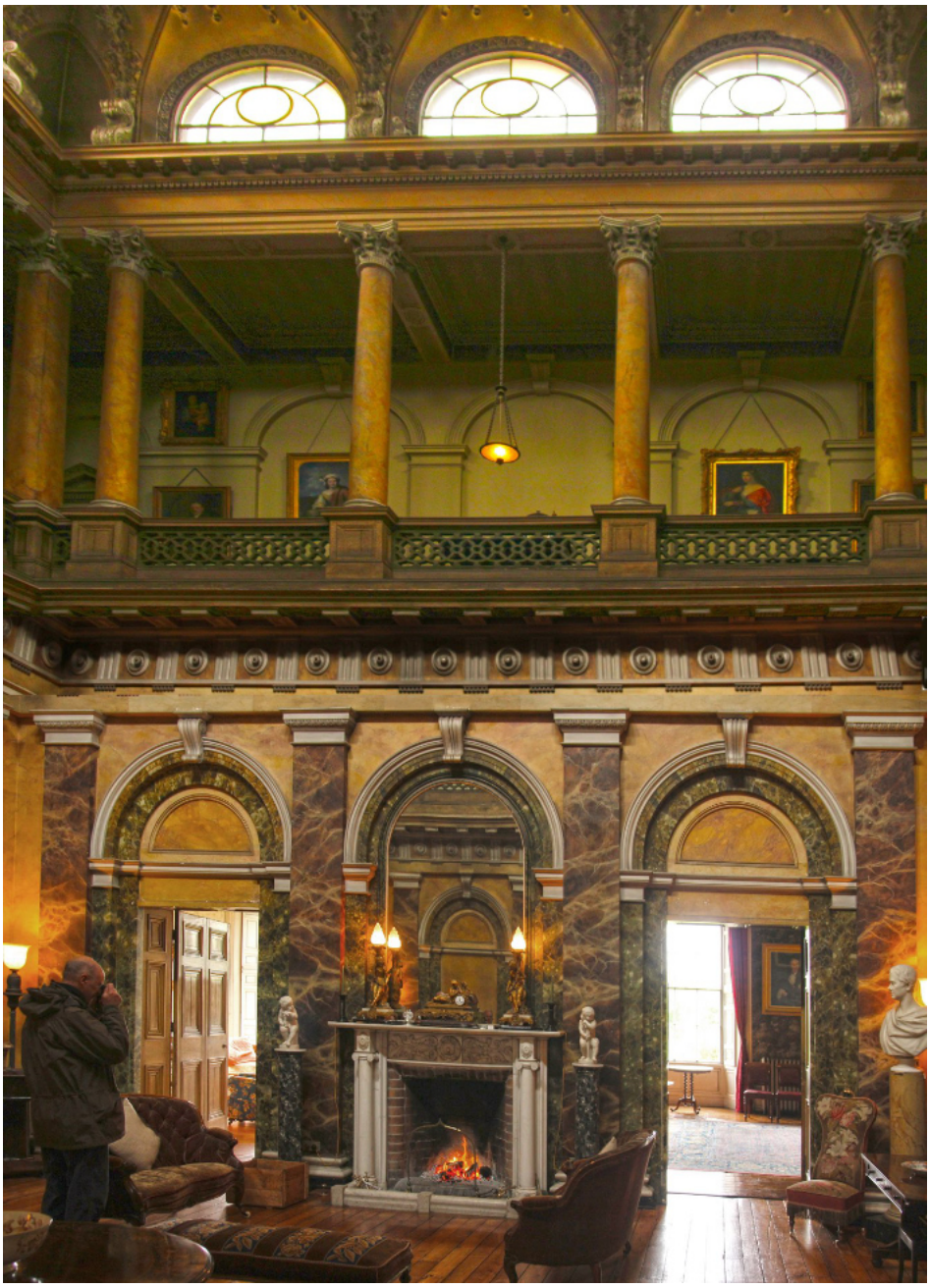
Pamela Thomlinson

Goldcrest *Regulus regulus*
Wren *Troglodytes troglodytes*
Robin *Erithacus rubecula*
Blackbird *Turdus merula*
Dunnock *Prunella modularis*
Great Tit *Parus major*
Long-tailed Tit *Aegithalos caudatus*
Chaffinch *Fraginella coelebs*
Blackcap *Sylvia atricapilla*
Chiffchaff *Phylloscopus collybita*
Willow Warbler *Phylloscopus trochilus*
Jay *Garrulus glandarius*
Magpie *Pica pica*
Hooded Crow *Corvus corone cornix*
Wood Pigeon *Columba palumbus*
Swift *Apus apus*
Mallard *Anas platyrhynchos*

Bushmills and Dundarave

The Macnaghten Estate

6th June 2015



The Belfast Naturalists' Field Club had the opportunity to study some of the aspects of the **Macnaghten Estate** which is located between **Bushmills and the Giant's Causeway**.

It has been the home of the Macnaghten family through eleven generations, from 1805, when the residence was known as **Bushmills House**. Originally the grant of land consisted of 7,000 acres but was carved up in the agricultural reforms of the late 19th century and now consists of 1300 acres.

The first owner of the estate was **Sir Francis**. He built a grand mansion and named it **Dundarave** after the seat of the family on **Lough Fyne in Argyll**, Scotland. The Macnaghten family was well known in legal circles, practicing most of their time in London and relaxing two months per year in their Irish property.

Sir Francis was a judge in the Madras and Calcutta supreme courts and was honoured with a Baronetcy in 1836.

Later, two brothers, **Sir Harry and Sir Douglas** lost their lives in the First World War in the battle of the Somme.

The present house is a Grade One Listed mansion built between 1846 and 1849 by **Sir Edmund**, the architect being **Sir Charles Lanyon**. The elegant hall was modelled on **The London Reform Club.**

The main house is laid out in 2 principal floors over a basement. The 5 principal rooms are on the ground floor and accessed from the large square hall. The hall rises to the full height of the building with a galleried landing at first floor level and lit by an attractive cupola.

continued

Bushmills and Dundarave (contd)

The Macnaghten Estate

6th June 2015

At ground floor the great hall features timber pillars with a painted marble design. There is a central open fireplace with a decorative mantelpiece in marble. This is overlooked by the first floor picture gallery with carved timber Doric columns supporting the elaborate cupola.

The drawing room has a magnificent ceiling with cornice and frieze and decorative plasterwork. There is a white marble mantelpiece and large double doors leading into the dining room.

The dining room is also spacious with a marble fireplace, and decorative ceiling and 3 large windows.

The other principal rooms include the morning room with large bay windows enjoying the fine views over the surrounding grounds. There is also a billiard room and library.

Although the house is in new ownership the Macnaghten family presence is much in evidence as their portraits still adorn the walls and the period furniture is still in place.

The estate has been bought by **Dr. Peter Fitzgerald,** Managing Director of **Randox Laboratories** who plans to use it for Corporate Hospitality. A more wonderful place in which to impress foreign clients would be hard to imagine, with a World Heritage site on the door step, the pretty town of Bushmills with its long established distillery, and acres of woodland with wild flowers in which to relax.

The BNFC are grateful to Dr Fitzgerald for the invitation to visit the estate and for a delightful afternoon tea in the ambience of such a historical house. We wish him well in this new venture.

Pat and James Rutherford

CEDaR Bioblitz Whitepark Bay

19th June 2015

To celebrate CEDaR's 20th Anniversary this year, they supported one of their long term partners, *The National Trust*, with two BioBlitz events, *White Park Bay* and *Murlough Nature Reserve*.

These coastal BioBlitz's were part of a Nationwide programme of 25 events to celebrate 50 years of the *Neptune Coastline Campaign*.

The BNFC joined with CEDaR at White Park Bay to help run the event – so volunteers were encouraged to attend.

This was a opportunity to spend time looking at a splendid ancient sand dune system and the rich habitats it provides for plants, birds and animal life.

The event was designed to engage and involve the public to look at nature and also as the focus to encourage new recorders.

We began with opening of moth traps, which yielded a good variety, including an attractive specimen of **Fox moth** *(Macrothylacia rubi)*.

We ranged over the dunes, where records included orchids – including **Common spotted** *(Dactylorhiza fuchsia)*, and **Frog orchid** *(Coeloglossum viride)* and much more – records were collected and entered to the CEDaR database during the day.

Common Spotted Orchid

Fox Moth

Wexford

24th to 27th June 2015

County Wexford has a warmer, drier and sunnier climate than most parts of Ireland so many plants occur here that are not found elsewhere in the island. **The Federation of Irish Field Clubs** was fortunate too that we had four sunny warm days for our meeting.

At our first stop on Monday morning at the **Wexford Wildfowl Reserve**, members were attracted to a fine display of Goatsbeard *(Tragopogon pratense)* in flower. As the yellow dandelion - type flower closes up at midday, it is often called **'Jack-go-to-bed-at–noon'** and gets its name from the spherical 'dandelion' clock. We examined a patch of deep purple vetch, which **Gerry Sharkey** decided was a sub-species of **Common Vetch** *(Vicia sativa ssp. nigra)*.
The grassland of the **North Slob** is grazed by cattle and by **Greenland White-fronted geese** *(Anser albifrons)* in the winter and both seem to prefer agricultural-type grasses so there were not many flowers.

In the afternoon we had a walk, led by **Chris Wilson** of the **Wexford Naturalists' Field Club**, through the **Raven Nature Reserve**. As at Murvagh in SW Donegal, **Corsican Pines** had been planted to stabilise the dunes. **Bluebells** *(Hyacinthoides non-scripta)* were growing in open ground but would be shaded when the **Bracken** *(Pteridium aquilinum)* grew up. Near the shore were large clumps of yellow **Alexanders** *(Smyrnium olusatrum)*, a Mediterranean plant, supposedly brought back by Crusaders as a celery-like herb.

An open sand dune area near the sea was a delight with many flowering plants of the maritime sub-species of **Round-leaved Wintergreen** *(Pyrola rotundifolia ssp.maritima)* along with **Creeping Willow** *(Salix repens)*. These also occur at Murvagh. The dark blue, mauve and white flowers of **Milkwort** *(Polygala vulgaris)* contrasted with the yellow of **Wild Pansy** *(Viola tricolor ssp.curtsii)*.
Flowering hybrid **N. American Evening Primroses** had red-striped sepals, so probably were *Oenothera erythrosepala*.
They release their scent in the evening to attract pollinating moths. Another find was **Adderstongue Fern** *(Ophioglossum vulgatum)*.

On Tuesday we visited **Tintern Abbey**; as in many old monasteries and castles, there were large quantities of **Pellitory of the Wall** *(Parietaria judaica)*, a member of the nettle family used to cure urinary infections. The smell of Garlic was obvious even from a distance and on the walk though woods of **Sweet Chestnut** *(Castanea sativa)* and other deciduous trees, we found **Wild Garlic** *(Allium ursinum)* thick on the ground. Some members walked along the river to the salt marsh.

Most of us visited the **Colclough Walled Garden**, unusual in being a Georgian garden so earlier than the more common Victorian walled gardens. **Miss Marie Colclough**, who died in 1983, had bequeathed Tintern Abbey and its grounds to the Irish state but the garden had been abandoned. It has been restored according to the layout shown in the 1838 OSI map, divided into vegetable and ornamental sections with a stream and bridges down the middle. The high brick walls are built with estuarine mud and on the south-facing wall peach, fig and citrus trees fruit in the sunny SE Wexford climate. Old Irish species of apple trees in the vegetable garden bore the names of volunteers and donors who had helped restore the gardens.

continued

Wexford (contd)

24th to 27th June 2015

Botany and Zoology Report

Hook Head

Hook Head was colourful with flowering pink **Thrift** *(Armeria maritima)* and yellow **Birdsfoot Trefoil** *(Lotus corniculatus)*.
Some 300 different plants have been recorded on the Hook peninsula including rarities like **Rough Clover** *(Trifolium scrabrum)* and **Golden Samphire** *(Inula crithmoides)*.
As we admired the thousands of nesting sea birds on the **Saltee Islands**, we could see from the boat that the islands were blue with **Bluebells** *(Hyacinthoides non-scripta)*.

We walked from **Kilmore Quay** to **Ballyteige Burrow**, the finest sand-dune system in SE Ireland. It is noted for **Wild Asparagus** *(Asparagus officinalis ssp prostratus)* and **Lesser Centaury** *(Centaurium pulchellum)*.

We thank members of the Wexford and Dublin Field Clubs who introduced us to this most interesting and varied area.

Margaret Marshall

Tintern Abbey

Zoology Report

On Monday visiting **Wexford Wildfowl Reserve** and the **Raven Wood Nature Reserve** we were amazed by the many species we were shown.

We saw **Small Drinker moth** caterpillars *(Euthrix potatoria)*, **Small Tortoiseshell** *(Aglais urticae)* butterfly caterpillars on nettle and we listened to a **Reed Bunting** *(Emberiza schoeniclus)* with it's stuttery call almost sounding as if it's 'running out of steam'.

In the Raven Wood Nature reserve we saw a wide range of butterflies.

There were up to thirty five **Cryptic Wood Whites** *(Leptidea juvernica)* in flight so we had plenty of opportunity watch their flight which is very, very persistent. We were lucky enough to see them land and **Bob Aldwell** took time to explain the pattern on the wing which is quite different from the other Wood Whites.

continued

Wexford (contd)

24th to 27th June 2015

Zoology Report

Drinker Moth caterpillar *(Euthrix potatoria)*

Common Blue *(Polyommatus icarus)*

Cryptic Wood White *(Leptidea juvernica)*

The upperwings are white with rounded edges. Males have a black mark on the edge of the forewing and the undersides are white with indistinct grey or greenish markings.

Common Blues *(Polyommatus icarus)* were also numerous along with some **Green-veined Whites** *(Pieris Napi)*, **Large White** *(Pieris brassicae)*, **Small White** *(Pieris napi)* and **Speckled Wood** *(Pararge aegeria)*.

As we walked back along the sandy path we found a beautiful **Millar moth** *(Acronicta leporina)* on the path. At Dunbrody Castle we saw **Green-veined Whites** and **Common Carder Bumble Bees** *(Bombus pascuorum)*. Johnston Castle had **Red Damselflies** *(Ceriagrion tenellum)* in flight.

A most interesting few days with the Federation of Irish Field Clubs, all with similar interest, and many lovely sights to see.

Pamela Thomlinson

Craigavon Lakes

Leader: Brian Nelson

13th June 2015

It had been a cool May and we hoped for warmer, sunnier days in June so that insects would be in flight. The flight muscles need to be kept at a suitable temperature for a dragonfly to be able to fly. Being cold-blooded, they can raise their temperature by basking in the sun. Early in the morning, they may choose to perch in a vertical position with the wings outstretched, while in the middle of the day, a horizontal stance may be chosen.

Common Blue

Another method of warming up used by some larger dragonflies is wing-whirring, a rapid vibration of the wings that causes heat to be generated in the flight muscles.

As we arrived at The Craigavon lakes the sun was trying to break through the clouds and we were hopeful that we would have some sunshine. We walked along the upper path and saw four **Cryptic White** butterflies on the wing – they have a slow, persistent flight and so were easily netted and Brian took the chance to demonstrate the difference between the Wood White and Cryptic.

He showed us the rounded wing shapes, black edge at the very top of the wing, the underside has grey/greenish markings often appearing almost pearl-like.

Enallogma cyathigerum

We walked along the edge of the lake and began to see **Common Blue** *(Enallagma cyathigerum)* and **Blue-tailed Damselflies** *(Ischnura elegans)* on the wing. Brian was able to reinforce his winter lecture by showing us the details of their bodies and how they were identified.

We walked round the lake and again the sunny intervals encouraged **Common Blue** butterfies *(Polyommatus icarus)*, micromoths *Eudonia delunaella* and *Micropterix calthela* (found in great numbers sitting in the buttercup flowers) into flight.

continued

Craigavon Lakes (contd)

13th June 2015

Leptidea juvernica

We headed for the bridge at the railway line and the sheltered area there was full of insects. We counted eighteen Common Blue and four **Cryptic Wood White** *(Leptidea juvernica)* butterflies as well as six **Small Heath** *(Coenonymphya pamphilus)*. Some worker bees were spotted *Bombus pascuorum* and *Bombus lucorum sp.*

We saw and heard a **Black Cap** *(Sylvia atricapilla)* singing and watched a **Reed Bunting** *(Emberiza schoeniclus)* sitting on the railway fence.

Reed Bunting

Ischnura elegans

Lisnabreeny

Leader: Craig Somerville (National Trust) 16th June 2015

Hawthorn *(Crataegus monogyna)*

In 2014 Craig led us up **Cregagh Glen** as far as the former walled garden of **Lisnabreeny House**; this year members gathered on a dry but cloudy evening at the **National Trust** carpark on Lisnabreeny Road to walk downhill.

Lisnabreeny means 'the Fort of the Fairy Palace' and our first stop was at the **Rath**. Raths date from 500-900 AD and were built to protect families and their livestock from wolves and raiders. The 1832 Ordnance Survey had shown 9 raths in this area, probably all belonging to the same clan. This rath is south-facing to gain the maximum light and at 180 metres is at the highest point in the **Ordovician Castlereagh Hills**.

From the viewpoint we had fine views over **Belfast** and the basalt **Belfast Hills**; Craig had brought with him photographs of the Belfast Blitz in April and May 1941. Belfast was targeted because of its important shipbuilding and aircraft industries but was ill-prepared with few air-raid shelters, search-lights or anti-aircraft guns as it was thought we were too far away for the Luftwaffe to reach.
Incendiary and high explosive bombs caused damage to Harland & Wolfs, Short & Harlands, the Waterworks and the centre of Belfast, thousands of homes were destroyed and over a thousand people were killed. Fire brigades came from Southern Ireland to help put out the fires. There was a gun emplacement and battery at Lisnabreeny.

Lisnabreeny House and 156 acres were donated to the National Trust in 1938 by the writer **Nesca Robb** of the Robbs' Department Store family. **Lagan College**, the first integrated school, now occupies some of the ground. American soldiers in training for D-Day had been billeted at Lisnabreeny and 148 soldiers, airmen and sailors who died in N. Ireland were interred here; they were later exhumed and re-buried in USA and England. In 2013 a memorial garden with a polished granite stone bearing the names of these men was dedicated near the Rocky Road.

The National Trust has recently provided a fenced-in path across the fields where cattle graze and the new hedges of **Hawthorn** *(Crataegus monogyna)*, **Hazel** *(Corylus avellana)*, **Willow** *(Salix spp.)* and **Guelder Rose** *(Viburnum opulus)* have grown up well. In the maturer hedges were fine specimens of **Bush Vetch** *(Vicia sepium)* including some unusual white specimens along with **Greater Stitchwort** *(Stellaria holostea)*, stellaria meaning star-like because of the star-shaped flowers. Supposedly it was a remedy for a stitch in one's side, but a gatherer could be led astray by fairies.
Among the lush vegetation in the former walled-garden were large clumps of purple **Comfrey** *(Symphytum x uplandicum)*, a healing plant, which is useful as a fertiliser, and big patches of **Dame's Violet** *(Hesperis matronalis)*; this belongs to the Stock family and produces its sweet scent in the evening to attract pollinating moths. A **Reed Bunting** was heard in the nearby marshier area.

We climbed back up the hill to enjoy the last of a fine June evening and Craig was thanked for his very informative excursion.

Margaret Marshall

Slievnacloy Botany

Leader: Margaret Marshall

27th June 2015

Heath Spotted
(Dactylorhiza maculata ssp ericetorum)

Heath Spotted *White*
(Dactylorhiza maculata ssp ericetorum)

Greater Butterfly Orchid
(Platanthera chlorantha)

We had visited **Slievnacloy** on 17th May 2014 so decided to return this year at the end of June to see a different selection of plants and lepidoptera.
This was a **BNFC Zoological and Botanical** excursion meeting up with members of **Butterfly Conservation NI**, the **Belfast Hills Partnership** and the **Ulster Wildlife Trust**, who manage the site.

It had been a cold spring but summer flowers were appearing at last. Early **Purple Orchids** *(Orchis mascula)* were over but at least 6 other species of Orchid were seen. The labella of **Heath Spotted** *(Dactylorhiza maculata ssp.ericetorum)* and **Common-Spotted Orchids** *(Dactylorhiza fuchsii)* were examined - Common Spotted is supposed to have a longer and more pointed mid-lobe of the labellum but there is a lot of variability. Pollination is by a variety of insects including hoverflies, bumble bees and beetles. The faintly scented flowers attract insects which feed on the sugars in the spur and carry the pollinia to the next flower. **Frog Orchids**, now classed as Dactylorhiza *(Dactylorhiza viridis)* do actually have frog-like features when viewed through a hand lens. **Butterfly Orchids** were coming into flower. **Greater Butterfly Orchids** *(Platanthera chlorantha)* have diverging pollinia while **Lesser Butterfly Orchids** *(Platanthera bifolia)* have parallel pollinia. This means that while both are pollinated by moths, they are not cross-pollinated. The whitish colour and the scent, stronger at night, attract pollinating night-flying moths.

Common Twayblades *(Neottia ovata)* with their 2 large leaves were plentiful; the forked tongue of the lip has a nectar-producing groove that provides a reward for visiting flies and wasps and pollen is attached to the pollinator by an explosive device triggered by the insects!

There was a report of the rare **Small-white Orchid** *(Pseudorchis albida)* having been found at Slievenacloy; I went next week with **Jim Bradley** of the Belfast Hills Partnership to a field grazed by cattle where he had seen 2 flowering plants. We had almost given up, deciding the plants had been chewed or crushed when we found a third flowering orchid. The ample nectar and pleasant scent attract day-flying insects.

Field banks were multi-coloured with white **Heath Bedstraw** *(Galium saxatile)*, dark blue **Milkwort** *(Polygala serpyllifolia)*, pale blue **Heath Speedwell** *(Veronica officinalis)*, purplish **Bitter Vetchling** *(Lathyrus linifolius)*, lemon-yellow **Mouse-ear Hawkweed** *(Pilosella officinarum)*, bright yellow **Catsear** *(Hypochaeris radicata)*, and pinkish **Lousewort** *(Pedicularis sylvatica)*.
On the limekiln, some of the **Adderstongues** *(Ophioglossum vulgatum)* still had their fertile spikes and **Fairy Flax** *(Linum catharticum)* was in flower.

In wetter areas were large patches of **Ragged Robin** *(Lychnis flos-cuculi)*, flos-cuculi means 'flower of the cuckoo' and like **Cuckoo-flower** *(Cardamine pratensis)*, **Cuckoo-pint** *(Arum maculatum)* and **Frog-hoppers' Cuckoo-spit** is supposed to appear when the cuckoo is calling. Alas, we rarely hear the cuckoo now. The dark-purple star-shaped flowers of **Marsh Cinquefoil** *(Potentilla/ Comarum palustris)* were admired.

Slievnacloy is a remarkable site and it is important that it is preserved by careful management.

Margaret Marshall

Slievnacloy Zoology

Leader: Pamela Thomlinson

27th June 2015

Wood White *(Leptidea sinapsis)*

Green Veined White *(Pieris napi)*

The day at Slievenacloy started with the moth traps set up the night before. We had 11 traps at the Nature Reserve and 2 from gardens of BNFC members.

There were 28 different species with a total of 148 moths in the Slievenacloy traps. The **Map-wing Swift** *(Hepialus fusconebulosa)* was the most common species, with one trap having a total of 15. All the traps had **Broom moths** *(Melanchra pisi)* with 13 in one of the quarry traps. We also caught **Shears** *(Hada plebeja)*, **Latticed Heath** *(Chiasma clathrata clathrata)*, **Campion** *(Hadena rivularis)*, **Knot Grass** *(Acronicta menyanthidis)*, **True-lovers Knot** *(Lycophotia porphyria)* and **Small Angle Shades** *(Euplexia lucipara)*.
The garden traps had a **Green carpet** *(Colostygia pectinatarias)*, **Single-dotted Wave** *(Idea dimidiate)*, **Common Wave** *(Cabera exanthemata)*, **Buff and White Ermine** *(Spilosoma luteum and lubricipeda)*, **Yellow-barred Brindle** *(Acasis viretata)*, **Spectacle** *(Abrostola tripartita)* and **Scalloped Hazel** *(Odontopera bidentata)*.

All together an interesting set of moths in spite of the cold weather.
As we walked through the grassland we saw a range of butterflies including **Wood White** *(Leptidea sinapsis)*, **Green-veined White** *(Pieris napi)*, **Common Blue** *(Polyommatus icaris)*, **Small Heath** *(Coenonympha pamphilus)* and **Meadow Brown** *(Maniola jurtina)*.

There were day-flying moths with many **Latticed Heath moth**s *(Chiasmia clathrata clathrata)* flying through the grass as well as **Silver–ground carpet** *(Xanthorhoe montanata)* and **Grass veneer** *(Chrysotenchia culmella)*.

The day remained cool and this explained the low number of butterflies seen in flight.

Pamela Thomlinson

Mid Tyrone Archaeology

Leader: Claire Foley

4th June 2015

We met for an opening coffee at *An Creagan Visitor Centre* (Grid Ref H 623788) on the road between *Cookstown* and *Omagh* on the A505.

This is a hub of local community activity with an archaeological display showcasing the main prehistoric sites in the area and displaying a large dugout canoe from nearby *Lough Fingrean*. A Bronze Age wedge tomb from about 2500 BC has been reconstructed here after excavation from the edge of a gravel pit at *Ballybriest*.

We wound our way to *Copney* on a nearby hilltop – where a remarkable group of nine stone circles, some with internal stones and central burial cists, have a presiding grandfatherly standing stone. This unusually complex site, paralleled at *Beaghmore* some seven miles to north east, was uncovered from peat in the last century indicating an intense early Bronze Age (2000-1800 BC) presence here. A short walk along *Lough Mallon* further south brought us to *Creggandevesky court tomb* (c.3500 BC) which our guide had excavated some 25 years earlier.

Creggandeveskey Court Tomb

What had been an amorphous cairn revealed, when cleared of its layers of cairn slippage, was a well-preserved court tomb with three burial chambers. Cremated remains of some 21 men, women and children were found here as well as flint implements, pottery sherds and a stone bead necklace.

continued

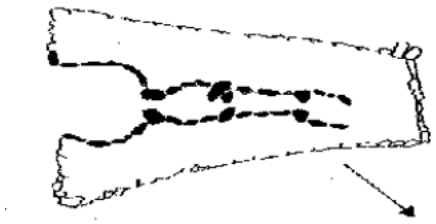
Mid Tyrone Archaeology (contd)

4th June 2015

Creggandeveskey Court Tomb

Bronze Age pottery indicated that this major Neolithic landmark was still used for ritual for about 2000 years before it slumped and was partially buried in blanket peat. The immediate area has Bronze Age stone circles indicating farming continuity in this landscape. We finished the day at *Loughmacrory* wedge tomb – a well-preserved one with a lintel-covered burial chamber and an outer arc of orthostats.

A very atmospheric 'fairy thorn' is threatening the stability of the site but superstition prevents the owner from cutting it down.



Members at Copney AnCreagan

Victoria Park, Connswater

Leaders: Pamela Thomlinson *Zoology* and Margaret Marshall *Botany* **27th July 2015**

Centaurea cyanus

Victoria Park was opened in 1906 on reclaimed land beside Belfast Lough and was landscaped by **Charles McKimm** who built the **Tropical Ravine** in the **Botanic Gardens.**
The boating lake was formed when soil was dug out and piled up in banks to prevent flooding at high tide. It is an oasis for wildlife and an **ASSI** because of the bird life. Maritime plants grow beside the tidal stretch of the Connswater.
Wild flowers were sown in 2014 for the opening of the pedestrian and cycle-way Sam Thompson Bridge which links the area to the Titanic Quarter as part of the **Connswater Community Greenway** project. Kyleen Clarke had sent photographs of these colourful banks of bright yellow **Corn Marigolds** *(Chrysanthemum segetum)*. White **Ox-eye Daisies** *(Leucanthemum vulgare),* **Red Poppies** *(Papaver rhoeas)* and **Yarrow** *(Achillea millefolium)* were also present. On a dull Tuesday evening there was a good turn-out of members in their wet–weather gear, so needed this wet summer.
Annual wildflower seed mixes are often swamped by grasses after the first year, but there were still some Corn Marigolds, bright blue **Cornflowers** *(Centaurea cyanus)* and deep purple **Tufted Vetch** *(Vicia cracca)* in flower.

Chrysanthemum segetum

We walked along the embankment beside the Connswater where tall clumps of **Mugwort** *(Artemesia vulgaris)* were examined. It is related to **Wormwood** *(Artemesia absinthe)* used to make absinthe and is called after a queen of Asia Minor. The Vikings flavoured stews with Mugwort and it was supposed to ward off evil spirits during pagan mid-summer ceremonies. Maritime plants included **Sea Aster** *(Aster tripolium)* and **Sea Mayweed** *(Tripleurospermum maritimum)*. **White Stonecrop** *(Sedum anglicum)* had been planted on the Lookout wall.
Nearby are wooden boxes for park-users to leave and borrow books.
Unfortunately while we were sheltering from a thundery shower, some of our members were at the receiving end of sodden books being used as missiles by a group of teenagers. The rain at least gave us a fine double rainbow to photograph.

An unusual tree was later identified by Maureen Dibble as being the **Bastard Service Tree** *(Sorbus thuringica fastigata)*. It is a hybrid between Rowan and Common Whitebeam and has been grown since the late 18th century.

Ardea cinerea

Along the river we saw **Grey Herons** *(Ardea cinerea)*, **Black-headed gulls** *(Larus ribundundus)* and **Common Terns** *(Sterna hirundo)* from the nearby nesting area in the RSPB lagoon –WOW. Ivor Mc Donald pointed out the **Mallards** *(Anas platyrhynchos)* in their eclipse plumage in the lake where we also saw a pair of **Mute Swans** *(Cygnus olor)* with 10 fluffy cygnets.

In spite of the rain we had all enjoyed the evening wall in the park with a variety of plants and wildlife to enjoy.

Achillea millefolium

Geology of Newry and Armagh Area

Leader: Dr Siobhan Power

1st August 2015

A Geotourism Trip

Armagh Roman Catholic Cathedral

Meeting at the Ulster Museum, we then proceeded by coach to the circuit of *Ring of Gullion*. This is the first ring-dyke ever to be described in scientific literature. The geology of this area is special as it was a volcanic centre 60 million years ago at the opening of the Atlantic Ocean. The landscape has changed very considerably since then due to fault movements, volcanic action and glaciations. Now it remains the classic shape of a ring dyke with a diameter of 11km.

Following lunch in the Gullion Ring courtyard, the coach then continued to Armagh city and the cathedrals.

We are interested in how the geology of the area is reflected in the site of the city, its important buildings and their materials also the use of decorative stone, for example the beautiful marbles, especially in the Roman Catholic Cathedral. This gives a most impressive ambiance to the whole building.

There was then some time to examine a number of the other buildings, before our Geological outing finished at 4.00pm and we left to get back to our starting point in Belfast at around 5.00pm.

Ballyhornan

Aster tripolium

Riparia riparia

Crambe maritima

Papaver dubium

Redshank

Leader: Graham Day

15th August 2015

On a sunny morning members gathered at **Ballyhornan** to walk along the beach towards **Killard**. Graham is the BSBI Recorder for Co.Down and with his wife, **Julia Nunn**, is recording the flora of the county in 1 km squares.

On the grass above the shore were typical seaside plants like the yellow **Lady's Bedstraw** *(Galium verum)* and the pinkish **Rest-harrow** *(Ononis repens)* – its tough woody stems can "arrest a harrow" and **Long-headed Poppy** *(Papaver dubium)*. On the shore were the spinach-like **Sea Beet** *(Beta vulgaris)* and two of the many **Oraches – Frosted** *(Atriplex laciniata)* and **Spear-leaved** *(Atriplex prostrata)*. Where water was seeping through the crumbling mud cliffs were **Watercress** *(Rorippa nasturtium-aquaticum)*, **Marsh Horsetail** *(Equisetum palustre)* and **Sea Club-rush** *(Bolboschoenus maritimus)*.

We admired the bluish-lilac **Field Scabious** *(Knautia arvensis)* which is uncommon in N.Ireland except on the south Co. Down coast and the blue of the rare **Bugloss** *(Anchusa arvensis)* which we had seen in June at the Dundarave sand-dunes. Large blocks of the glacial drift had fallen onto the beach during winter storms but we watched **Sand Martins** *(Riparia riparia)* feeding their young - apparently their nests can be dug over a foot deep into the sandy cliffs. The bird watchers also identified a **Stonechat** *(Saxicola torquata)* and **Dunlin** *(Calidris alpina)*, **Redshank** *(Tringa totanus)* and **Oystercatchers** *(Haematopus ostralegus)* along with various gulls on the beach.
We thought we had spotted a **Wall Brown** butterfly *(Lasiomata megera)* which occurs at nearby Sheepland Harbour, but on closer inspection we decided it was a **Meadow Brown** *(Maniola jurtina)*. The chilly wind so common this summer prevented other butterflies appearing.

After a picnic lunch we rounded a promontory into **Benderg Bay** to look in vain for the poisonous **Henbane** *(Hyoscyamus niger)*. This was the main site for the plant but Webb describes it as "often impermanent". However Graham was delighted to find at least 12 plants of the rare **Sea Kale** *(Crambe maritima)*. The south Down coast is its most northern site and we had seen it in 2014 at Kearney. Graham reckons it rarely flowers at this latitude so must spread vegetatively.

A grassy area was reminiscent of nearby **Killard** with many plants of **Spring Squill** *(Scilla verna)* in seed. **Brookweed** *(Samolus valerandi)* belongs to the Primrose family and is a plant of marshy shores. **Sea Aster** *(Aster tripolium)* a relative of the North American Michaelmas Daisy, was coming into flower. We normally now only see **Corn Marigolds** *(Chrysanthemum segetum)* as part of "wild-flower" sowings, but here they were actually in a field of Oats! We were amused to see **Wild Carrots** *(Daucus carota)* growing in a field of **Edible Carrots** *(Daucus ssp.sativus)*. The low-growing **Field Woundwort** *(Stachys arvensis)* is another "weed" of cultivation.
On BNFC excursions we benefit from the expertise of many members. Julia Nunn is a marine biologist and as the tide had gone out, she showed us **Thick-lipped Topshells** *(Monodonton lineata)* grazing on rocks. Their age can be calculated by counting the growth lines on the shells and one she had collected was 11 years old. **Nora Mc Millan** had studied their distribution which can be affected by cold winters. South County Down had been their northern Irish limit but climate change could encourage their moving northwards.
Graham will have a complete list of all the plants seen on the enjoyable visit to these varied habitats.
He and Julia were thanked for sharing their knowledge with us.

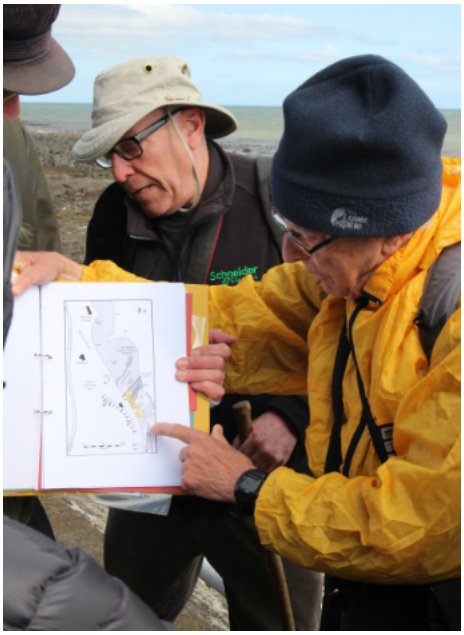
Margaret Marshall

Geology of the Larne Area

Leader: Peter Millar

5th September 2015

WATERLOO



The party met at Larne swimming pool on a fine but blustery day and proceeded north along the promenade. This section is usually referred to as "Waterloo" by geologists after the small terrace of cottages at the north end but the name *"Bank Heid"* may be more widely understood in Larne!

This is a locality of international importance and should not be hammered.

Note on terminology, there are four ways (at least!) of naming rocks/ time periods:

Geochronology.
This refers only to time and has nothing specific to do with actual rocks e.g. "Jurassic PERIOD".
Divisions: Period / Epoch / Age. Qualifiers: Early / Late.

Chronostratigraphy.
This refers to actual rocks e.g. "Jurassic SYSTEM".
Divisions: System / Series / Stage. Qualifiers: Lower / Upper.

Biostratigraphy.
This refers to fossil content. Stage / Zone.

Lithostratigraphy.
This refers to rocks as found in the field without necessarily implying any specific age e.g. "Moffat Shales Group" in Scotland and Ireland covers rocks of similar type but actually of a wide variety of different ages.
Divisions: Group / Formation / Member / Bed

Mercia Mudstone

The section of coast from *Larne Leisure Centre* to *Waterloo Cottages* displays an almost complete sequence of *Mesozoic sediments* from the *Triassic Mercia Mudstone Group (210 Ma)* to the *Jurassic Waterloo Mudstone (part of the Lower Lias)*. In particular, the crucial transition from the end of the Triassic to the start of the Jurassic can be followed.
In 2007 *Jeram and Simms* proposed that this could qualify the site as a "GSSP" – a *Global Boundary Stratotype Section and Point*.
This would in effect be a "golden spike" separating the two systems.

continued

Geology of the Larne Area (contd)

5th September 2015

At the time the *Mercia Mudstone* was deposited the area was part of the supercontinent "Pangaea" and was at low latitude, so the climate was arid. The section records the intermittent but progressive flooding of this part of Pangaea.

A few outcrops of typical red mudstone are seen on the foreshore going north from the Leisure Centre. The red colour is characteristic of continental deposits. The red is due to ferric oxide, the more oxygen-rich oxide of iron. In places there are greenish reduction spots of the oxygen-poor ferrous oxide. These have been claimed to contain central specks of exotic elements such as *Uranium, Vanadium* and *Platinum*.

At times there were incursions of the sea and the sea-water evaporated in down-warping basins. This formed thick beds of salt: something like 400m has been proved in boreholes. The salt is still being worked near *Carrickfergus*.

Further north, the beds are entirely green. This implies shallow water deposition. At *Bankhead Brae* the beds have desiccation cracks so the area must have dried out occasionally. There are also small harder spherical masses called *pseudo-pisoliths* or *pseudo-ooliths*. If these are concretionary features it is surprising to find them in muddy sediments which would inhibit diffusion of fluids. Since similar features occur further along the section in sediments of an different age they may actually be due to a regional effect. This could be later thermal alteration related to the volcanic episode that produced the *Antrim basalts* in the *Palaeogene* period. Suggestively, the mudstones in the cliffs are abnormally hard, the lavas of the Antrim Lava Group are not very far above here and there are a number of small dolerite intrusions in the section.

Dark Penarth Group overlying light Colin Glen Formation

The top part of the Triassic here is the *Collin Glen Formation*, formerly the *"Tea Green Marls"*. This is thought to have been formed in hypersaline lagoons. *[In the writer's opinion the top of the Collin Glen Formation is shown about 30m too far south on the published maps]*.

The Collin Glen Formation is succeeded abruptly by the thin but distinctive *Penarth Group*, formerly the *Rhaetic* (the term is sometimes still used). This represents the onset of more marine conditions but still with a fluctuating sea level which caused mass mortality of bivalves and fish at some levels. Some organisms can tolerate salt water and others can tolerate fresh water but few can tolerate variable, brackish conditions.

continued

Geology of the Larne Area (contd)

5th September 2015

The Penarth Group is divided into two formations: the *Westbury Formation* and the *Lilstock Formation*. These sediments are very well bedded; a typical marine characteristic. They are also very dark as they contain *iron pyrites*; another marine indicator.

In the *Lilstock* there are zones of highly contorted sediment. The origin of these is somewhat conjectural. It cannot be tectonic since the strata below and above are unaffected. It has been suggested that it was produced by an extremely powerful earthquake and then would be described as a "seismite". This zone of contortions is very widespread at the same stratigraphical level all over the United Kingdom and seems to increase in intensity to the north-west. It has been suggested that the only feasible trigger for such extreme disruption is a meteorite impact, though no crater of the correct age has so far been found. Above the seismite is a zone of very flat-bedded sediment with ripped-up *clasts*: this has been interpreted as a *tsunamite*.

Seismite

Above the *Lilstock* we pass into the *Waterloo Mudstone*. The start of the Jurassic is officially defined by the appearance of ammonites in the sequence: particularly *Psiloceras planorbis*. The beds immediately above the Lilstock originally showed no planorbis and so were assigned to the Triassic. They were termed the "pre-planorbis beds". However more recently planorbis has been found in these and this has effectively shifted the boundary down slightly.

A useful marker here was a disused sewerage outfall: the top of the pre-planorbis was just a few metres to the south of this. Unfortunately the outfall has been tidied away and is no more. Perhaps it should have been listed!

North of this and just below the steps down to the beach is a *Palaeogene dolerite dyke*. This is rather sinuous which is not unusual in dykes intruding the soft Mesozoic sediments.

Below Waterloo Cottages at the north end of the bay is a highly fossiliferous outcrop of typical Lias. For some reason this is partly stained yellow.

Round the point are the *Cretaceous Hibernian Greensands* and then the familiar *Ulster White Limestone* ("Chalk"). There are some interesting features in this stretch.

continued

Geology of the Larne Area (contd)

5th September 2015

There are dolerite intrusions and also masses of rubble which may represent lava ploughing into hollows in the chalk or just later collapses of basalt into cavities in the chalk.

Between the Jurassic Waterloo Mudstone and the Cretaceous Hibernian Greensands is a substantial time-gap of about 90 Ma. Thus there is a jump from low in the Jurassic to high in the Cretaceous. It is thought that although some higher beds of Lias may have been deposited and later eroded, for most of the interval the area was above sea-level and so the missing strata were never deposited.

OLDERFLEET

Olderfleet Castle

The members proceeded next to the rather industrialised area of The Curran. This was a spit in raised beach times (about 6000 ybp). There we were able to examine the ruined *Olderfleet Castle*. This is (probably) a 16th century defended warehouse and watchtower. Only the NE and SE walls and some fragments of the lower courses of the other walls survive. The castle is unsurprisingly built largely of the local basalt but we examined two splayed sandstone windows very low in the SE wall.

We then crossed the street and went down to the beach by courtesy of the yacht club. This is a locality of considerable historical interest to the Field Club for in 1869 and again in 1890 members of the club collected flint flakes here. There was argument about the age of these: *Knowles* argued that they were Palaeolithic, i.e. pre-ice age. In 1935 *Movius of Harvard University* organised a large excavation and collected 15,000 flakes. On the basis of this a Late Mesolithic "Larnian Culture" was posited. Present thinking is that the flakes are merely debris produced in the manufacture of larger tools and are widely distributed along the coast of Antrim. So there was no Larnian Culture as such.

BALLYGALLEY HEAD

We then continued further north and were able to pull in at the entrance to the old quarry on the south side of Ballygalley Head.

Geologists have disagreed for many years as to what Ballygalley Head is. It could be a dolerite plug similar to *Slemish*, *Scawt Hill*, *Tievebulliagh* etc. and this is the interpretation in the regional handbook (2004). Against this is the strongly developed vertical jointing which is more characteristic of a sill or a lava than a plug, since vertical joints imply that the cooling surfaces were horizontal, whereas the cooling surfaces in a plug would be vertical.
There is also little alteration of the chalk beside the contact at south end of the quarry. The jointing does swing to the horizontal near the contact. *Thompson* (1982) suggested it could be a lava lake developed in a pit crater, or in a solution depression in the chalk.

continued

Geology of the Larne Area (contd)

5th September 2015

The west side of the dolerite is in contact with basalts and there is a vent agglomerate on the east side of a fault which trends SE between the head and the youth hostel. Waterloo Mudstone is said to be exposed near the car park.

GLENARM LITTLE DEER PARK

An intrepid few continued to a large car park on the sea side of the road, 2 km east of Glenarm (see left).

Before the 1960s the road here was close under the cliffs and there were recurrent problems with rockfalls onto the road, culminating in a very large landslide which completely blocked the road. A major engineering scheme was undertaken which involved moving the road out from the cliffs and building an apron faced with large chalk blocks to protect it from the sea. The cliffs were also blasted back, leaving a "bund" between the cliffs and the road to receive any future falls. We were able to compare photographs taken in 1971 shortly after the works with the present. We could see from these that there has been very little change in the cliffs. Also it was noticeable that the screes of the 1970s have now been extensively colonised by vegetation.

Peter Millar

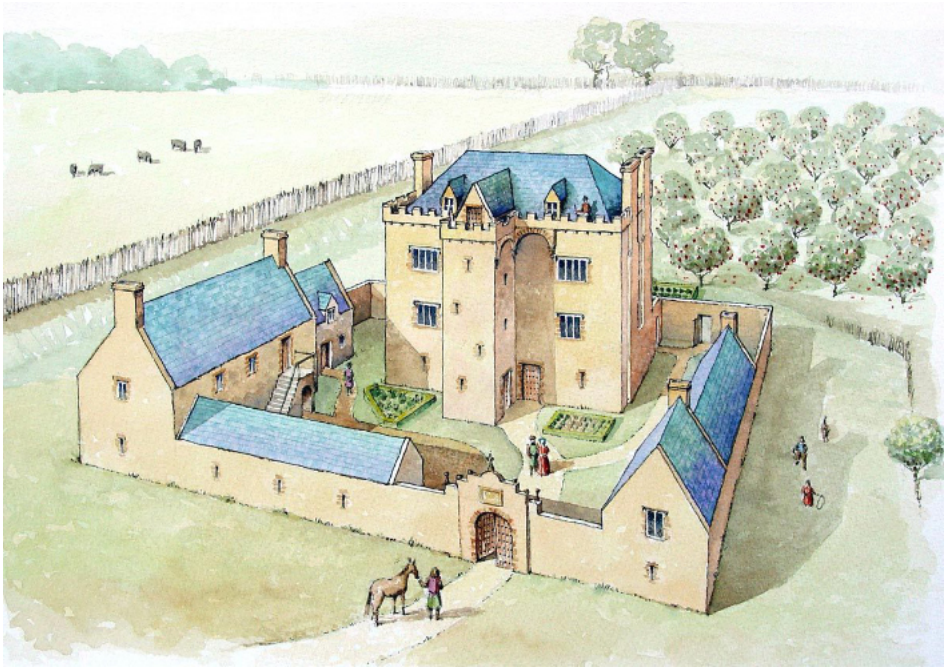
Kingdom of the Mourne - Archaeology

Leaders:
Claire Foley and Vanessa Ryan

12th September 2015

This was a most interesting day with experts in a very beautiful area.
After meeting at the square in *Castlewellan*, we visited some sites in the Kingdom of Mourne including *Drumena Cashel*, *Goward* and *Kilfeaghan Portal Tombs*, and *Dunnaman Court Tomb*.

Returning by Newry we visited *Bagenal's Castle*.



Bagenal's Castle

Dunnaman Court Tomb

Kilfeaghan Portal Tomb

Cairn Wood - Fungus Foray

Leader Dr Alistair McCracken 27th September 2015

Pamela Thomlinson and Joan McCaughey with a Giant Puffball.

Members assembled at **Cairn Wood** near **Craigantlet** on a sunny morning. There was a warning notice about *Phytophora ramorum* – the disease affecting larch trees and rhododendron. Dr McCracken is a specialist in plant diseases and he explained that 1200 hectares of larch trees in N. Ireland were affected. This has led to the cutting down of thousands of trees. The other serious tree disease is *Chalara fraxinea* - **Ash Dieback Disease**. So far it has only been found in recently planted trees, but could have a devastating effect on our landscape and wildlife if it spread to the general population. The manufacture of hurleys is at risk. Alistair told us that the affected trees began life as Irish seeds, were sent to Scotland for germination and then to Europe to grow on, where they caught the disease. When one considers how many seeds one ash tree produces, what a pity there was not a local nursery!

Oudemansiella mucida

Calocera cornea

Cairn Wood consists of forestry coniferous trees with old beech, birch and bilberry further uphill, so there was a variety of habitats for the Fungus Foray. There are over 12,000 species of fungi; fungi obtain their nutrition from other living organisms, the *mycelium* can cover vast areas and the *mycorrhiza* can help the host plants take up nutrition. Some are edible and some poisonous and people here are generally more cautious about which are safe to eat than those in other parts of Europe where over-picking can lead to the loss of species. Joan Mc Caughey had brought an enormous **Puffball** *(Lycoperdon)* for us to examine and large enough to feed us all. Alistair said there would be enough spores in 2 similar puffballs to colonise the world. We examined the bootlace strands of **Honey Fungus** *(Armillariella mellea)*, which can spread for hundreds of metres to infect more trees. Boletus fungi have pores and tubes rather than gills and the **Penny Bun** *(Boletus edulis)* is a popular food. The shiny white appearance of the **Slimy Beech Tuft** *(Oudemansiella mucida)* gives it its name of the **Porcelain Fungus**. Another fungus named from its appearance is the edible **Lawyer's Wig** *(Coprinus comatus)*. The pretty violet-coloured **Amethyst Deceiver** *(Laccaria amethystea)* was easy to spot.

We saw several species of **Jelly Fungus** growing on decaying wood - the yellow **Small Stagshorn** *(Calocera cornea)* and the **Jelly Ear** *(Auricularia auricula- judae)* which gets its Latin name and former English name because Judas Iscariot traditionally hung himself from its host tree, the Elder. It was used in folk medicine for sore ears and jaundice and in modern medicine is being examined as an anti-tumour, anti-coagulant and cholesterol-reducing drug. The **Beech Jelly Disc** *(Neobulgaria pura)* appeared on a rotting beech branch in all its stages from small disc to a horrible to touch slimy mush.

Bracket Fungi can go on growing for years, becoming hard and developing into lignum. The **Artist's Bracket** *(Ganoderma applanatum)* can be used as an artist's medium. The fresh fungus can be rubbed or scratched and shaded and the picture remains when it dries. Ganoderma means 'shiny skin' and the Ganoderma species are used in traditional Asian medicine, in modern herbal medicine and have potential in bio-medicine.

Fungi, therefore, are essential for re-cycling nutrients, assisting decay, providing food and poisons, and of future importance in developing new medicines. Alistair was thanked for yet again leading us on a pleasant and informative excursion to end our 2015 botanical season.

Margaret Marshall