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What's our President, Paul Bingham, doing up an oak tree in Appley Park? Read the iWatch Wildlife report on page 4.

The first annual flowering of Coltsfoot

A patch of coltsfoot, *Tussilago farfara*, grows on the sea cliff edge near Binnel Point, St Lawrence. Walking there regularly since 2003, I have been in the habit of noting the appearance of the first open flowers in winter/spring. This is usually in the early new year, but a couple of flowers were seen in early December 2007. The flowers normally appear before the leaves, which rise separately from the ground, but 2015 was exceptional, the flowers appearing extremely late and after some leaves were already up. The following table summarises the dates for anyone who is interested, perhaps to correlate with weather records. With luck further records will become available after another few years. Over this admittedly limited period there is no very obvious trend. In some seasons there were just one or two early flowers followed by a long gap until the main flush.

Year	Date of first flowering
2004	1 st January
2005	7 th January
2006	30 th January
2007	28 th February
2008	15 th December 2007 then 8 th January
2009	21 st January
2010	9 th February
2011	11 th February
2012	13 th January
2013	16 th January
2014	2 nd January then 6 th February
2015	27 th February after first leaves
2016	13 th January
2017	1 st March
2018	13 th January then 30 th January

Judy Stoneley

Advance Notice of Forthcoming CELEBRATION DINNER November 2020

It has been decided to hold a centenary celebration dinner on a Friday evening at the Isle of Wight College restaurant in November 2020. They have agreed that we can take over the restaurant if we have about 50 people and the charge for a 3 course meal will be £10 per head (drinks extra).

I hope to get a Menu in September with a Vegetarian option so **WATCH THIS SPACE!**

Toni Goodley
Membership Secretary

Grey-Green Infrastructure Project

Our Society has made a financial contribution towards an environmental project run by Artecology Ltd. so that George Greiff, one of our young members could investigate ways of ‘greening’ roofing tiles. Here is George’s report on how it has gone:

The aim of the project is to “green” cities and towns quickly and effectively by cultivating pollution-resistant cryptogams on artificial surfaces. The current direction of the project has involved creating a Bio-Dust, a mixture that is rich in nutrients and also acts as a glue, sticking transplanted species and propagules to surfaces. Initial Bio-Dust tests have been completed and the most productive mixture has been identified. This mixture, comprised mostly of potato starch, has allowed propagules of the green alga *Apatococcus vulgaris* to completely cover a 20cm x 20cm natural cement tile four weeks after inoculation. This was in the spring so it is assumed that autumn and winter propagation will happen even faster.

The idea is to start the plant succession in urban areas at the very lowest level. Future tests in the cold season will explore the propagation of bryophytes on tiles that have established algal communities. Presumably, when the bryophyte mass is large enough then seeds from higher plants will be able to take hold. This process already occurs naturally, but if people can find ways to promote this succession then it has the potential to increase the overall photosynthesis of urban areas and therefore reduce the carbon dioxide in the atmosphere.

Additionally, propagules of bryophytes and lichens have been painted onto walls with Bio-Dust in three areas around Sandown. Because it has been such a dry and hot summer, these cryptogams will be dormant so we can only see the results of these inoculations in the winter.

George R. L. Greiff

What’s in a Name? *Blackstonia perfoliata*, Yellow-wort

Historically Yellow-wort was known by the Latin name of *Chlora perfoliata*. From the Greek language chloros means green, though in botany chlorinus is interpreted as yellow-green. Perfoliate means having opposite leaves united at the stem, looking as though the stem

grows up through the centre of rounded or elliptical leaves. From Latin per means through and folium means leaf.

The 18th century botanical author William Hudson changed the plant's generic name from *Chlora* to *Blackstonia* in honour of John Blackstone (1713-1753). During his short life Blackstone had been a well-respected plant collector for the Apothecaries' Garden of Chelsea and for the Oxford Physic Gardens. He subsequently opened his own Apothecary Shop in London and became a prominent member of the Society of Apothecaries. As an accomplished botanist John Blackstone had two botanical volumes published: a flora of Harefield, Middlesex (1737) and 'Specimen Botanicum' (1746). Both publications were written in Latin, as was customary during that era.

According to the text in 'Flora Vectensis' (1856) Dr William Arnold Bromfield thought yellow-wort to be '...one of our most beautiful native plants...' Bromfield seemed fascinated that yellow-wort's flowers opened only on sunny or bright days but closed each afternoon at about two o'clock (GMT) no matter how sunny or bright the remainder of the day. When flowering stems were taken indoors and kept in a vase for several days, Dr Bromfield noticed that the yellow corollas closed at approximately the same time each afternoon and remained closed even when moved into direct sunlight '...until the usual period of repose had elapsed.'

Sue Blackwell

What's iWatch Wildlife been up to?

iWatch Wildlife is the Society's project, funded by HLF Down to the Coast, to promote wildlife recording amongst members and the wider public. Tina Whitmore has been leading the project and here's her report on recent activities:

It's been a busy few months for iWatch Wildlife – the IWNHAS species recording and engagement project. Since March we have been running our Spring / Summer 2018 'Species of the Month' Campaign on Social Media, where we highlight one species each month, usually one that may be in decline or one we'd like to know more about to boost our local records, knowledge, abundance and distribution.

We kicked off in March with Brown Hare, April – Cuckoo, May – Swifts. Although we did receive a handful of records for these spring species, they were down on last year most likely a result of the extreme cold period we experienced in March.

However, nature appears to have finally caught up and June has been a bumper month for records Stag Beetle records. The first two weeks of the month turned out to be the peak time for adult Stag Beetles to emerge with the expected concentrations occurring in the Cowes area. We have also received records from previously unrecorded sites in Bembridge, Seaview and Arreton this year - which is brilliant news.

July is the turn of the Hedgehog, followed by Snakelocks Anemone – a marine species in August.

We've also been busy with engagement at events such as the BioBlitz at Hullabaloo in May and carried out species recording both at ground level and in the canopy of a mature oak tree at Appley Day in June, thanks to Goodleaf Tree Climbing. Collaboration with other organisations such as Shademakers, has enabled us to carry out some educational work in schools too, where inspired by our 'Species of the Month' campaign, pupils decorated handmade kites. We continue to use the Society's pop-up museum of local natural history specimens at events - our most recent and highly popular additions being a male and female adults stag beetles plus a larva (kindly donated by Bill Shepard) encapsulated in resin by the technicians at the National Poo Museum.

Huge thanks to Society members who have kindly shared their time, expertise and skills with iWatchWildlife. If you would like to be involved with the project – please do get in touch with Tina at iwatchwildlife@gmail.com. We would particularly welcome help with capturing species records posted on Social Media. We would also welcome any natural history specimens of interest into the pop-up museum.

Tina Whitmore

Recording Matters

The designation of more than half of the Island as an Area of Outstanding Natural Beauty is recognition that its landscape is one of the best in the country. Standing on top of Brading Down allows the eye to range over chalk downs, sandstone hills and gravel ridges, and intensive agriculture to the distant southern coastal farmland in one direction; and to the northern woodlands, traditional enclosed pasture and harbours and creeks in the other. The presence of Brading Roman Villa nearby reminds us that people have been influencing these landscapes for centuries, for as long as there has been human habitation; and of course, our present-day settlements are visible too.

The Island has been described as a microcosm of south-east England; as a result of the underlying geology, most of the landscapes and habitats of the region are present here, within a few miles of each other. Habitats are frequently named by reference to their dominant vegetation type (woodland or grassland for example), the underlying geology (e.g. acid grassland or calcareous grassland) or their altitude (lowland or upland). The way in which the habitat has developed – is it semi-natural or the product of significant human intervention - is also a part of the record. River channels may be largely natural, with riffles and pools along their length or may have been modified by deepening and straightening to allow rapid movement of water. The ongoing management of a habitat like grassland is also very relevant - for example grazing by cattle, sheep or horses, use of fertilisers or cutting for hay will, over time, impact on the nature and quality of the habitat. This overlaps to a considerable degree with the idea of land use, a term used more frequently in areas which have undergone development.

Terrestrial ecologists have used the Joint Nature Conservation Committee's Phase 1 classification for many years. This system, and associated field survey technique, provides a relatively rapid system to record semi-natural vegetation (woodland, grassland, reedbed, saltmarsh, etc) and other wildlife habitats. Each habitat type/feature is defined by way of a brief description and is allocated a specific name, and code. If more detail is required, 'Phase

2' surveys are carried out, which include details of species and vegetation communities. Marine biologists have used a system based on features such as the physical substrates (e.g. rock or soft sediments) the position of the habitat in relation to tidal levels, and the degree of exposure to wave action as well as the suite of species which is present. Recently another scheme has been announced - UK Habitats - <http://ecountability.co.uk/uk-hab-faqs/>. It is in the early stages of development, but it will be interesting to see how it works in practice in the coming years.

Data collected in all these systems has a mapping element, with additional information held in tabulated or narrative form. Nowadays, all of this can be held in computerised Geographic Information Systems which combine electronic mapping with associated databases. These enable visual representation and analysis of data to be carried out much more readily than by using paper-based systems.

Recording of landscapes, and the habitats within them, is a very important activity. Over a period of time, these observations build up a picture of change, begin to identify the reasons for change and provide evidence to help to conserve them for the future.

Anne Marston, Isle of Wight Local Records Centre

Andy Butler's Nature Notes January to June 2018

January

- 1st. An overwintering Lesser Whitethroat in the ivy at the bottom of South Street steps.
- 2nd. Went over to Laundry Lane, Brading, and saw three Cattle Egrets. Called in at Borthwood, and counted at least 60 Brambling (an unprecedented number) in the field to the south of the wood.
- 3rd. Yarmouth with Pete Campbell. About 250 Black-tailed Godwits and 200 Wigeon.
- 5th. Pete and I checked out a report of a Great Egret at Grange Chine. Nothing there. We went on to Laundry Lane where there are now four Cattle Egrets.
- 10th. At Forelands, Bembridge, seven Dunlin only. Back to Laundry Lane and distant views of a Glossy Ibis plus two Treecreepers. A warm and sunny day.
- 11th. Left the lid off the bird food container in the shed. Pesky mice have eaten the lot!
- 14th. Three male Blackcaps feeding together in the garden.
- 17th. A male and female Bullfinch in the garden.
- 18th. Went to Seaview with Pete to look for a reported Black Guillemot, a very rare bird to see in Island waters. We didn't see it but we did see Great Northern Diver, Great Crested and Slavonian Grebes. Eleven White-fronted Geese at Laundry Lane on the way home. We went to a site near Shorwell in the evening and, just as it got dark, saw four Short-eared Owls.
- 22nd. Back to Seaview and had distant views of the Black Guillemot.
- 24th. Contractors started work on the next phase of the Glanville Project at Wheeler's Bay.
- 25th. Over to Newtown and just missed a Great Egret by ten minutes.
- 26th. Went to Seaview again with Pete. No Black Guillemot but a 1st Winter Iceland Gull came close by. We then went along to Bembridge Harbour where there were at least 60 Gadwall.

28th. Seaview yet again and at long last Pete saw the Black Guillemot! A Peacock butterfly flew along the sea front while we were there. Called in at Laundry Lane on the way home and had three Egyptian Geese and the Glossy Ibis.

30th. Photographed a male Goldeneye on the lake by the Dinosaur Museum.

February

5th. Went to Newtown with Pete. We saw one Black-throated Diver, three Spoonbills, six Goldeneye, four Great-crested Grebes, Mergansers and a Kingfisher.

6th. Back to Newtown. Four Spoonbills and 28 Knot, one of which was colour ringed.

7th. Saw about 30 Yellowhammers near St Lawrence Shute.

9th. Went to Dodnor with Pete. One Jack Snipe, two Common Snipe and a Hawfinch.

17th. Found two Glanville Fritillary webs at Shepherd's Chine with about 50 caterpillars in each. 14 Skylarks above the eastern chine. A clump of Thrift in full flower.

20th. A male Cormorant in full breeding plumage on the breakwater in front of the house.

21st. Over to Forelands to look for Purple Sandpipers. Found one only. Very cold easterly wind set in.

26th. Bitterly cold east wind.

28th. Very strong east wind and very, very cold.

March

1st. Pipes from the spring into the house are frozen up. This has not happened before. As they feed the two toilet cisterns, I am having to fill them with buckets from the mains. Snowing now.

3rd. Thaw set in and the spring is flowing now.

5th. Went to Yarmouth. Distant views of three Avocets.

6th. A Firecrest in the garden.

8th. Eight Glanville webs along the revetment plus a Silver Y moth. Redwings and Blackcaps on the ivy up South Street steps.

10th. Went to Brading with Pete to see a Little Bunting, only the second Island record ever.

12th. First Wheatear of the year along at Monk's Bay.

15th. Went to Yarmouth and saw four Grey Partridge along Broad Lane on the way. Back to Barn's High, Military Rd, for a Great Egret. We watched it catch, kill and swallow a vole.

18th. Five Common Scoter on the sea close in off Wheeler's Bay.

21st. Over to Newtown, not much about but there were c. 50 Redwing and two Treecreepers in Town Copse. Three Small Tortoiseshell along the revetment.

23rd. Went to Shalfleet with Pete and Alan and saw two Hawfinches. One Avocet and three Gadwall at Yarmouth.

26th. Down to Binnel Bay looking for webs with Pete. We logged 35 and two further east.

April

3rd. Photographed the Great Egret at Barn's High kill and swallow another vole or mole.

6th. Humming-bird Hawkmoth [HBHM] in the garden at 7.20 am.

7th. HBHM in garden.

10th. Chiffchaff in the garden.

11th. One Comma, one Green-veined White and one Small White in the garden. Two Small Tortoiseshell at Monk's Bay.

14th. Holly Blue in the garden and two Swallows in off the sea.

16th. A Large White in the garden.
17th. Clouded Yellow seen by Dave Nordell and John Caws along the revetment. Found five Glanville webs by Ventnor skate board park.
18th. Saw a Grizzled Skipper on Mottistone Down.
19th. Male Brimstone and a male Orange Tip in the garden. The Glanville caterpillars by the skate board park are feeding on sea beet. I have never seen this before.
20th. Went up to Luccombe Down with Pete. We saw three male Redstarts, a Whinchat and three Wheatear. There was a large adder halfway up a gorse bush.
25th. Saw a Hoopoe at Highcliff at the end of the Luccombe Road, by Haddon's Pits. Had very good views.
26th. At least three Holly Blues in the garden.

May

1st. At Atherfield there were seven Wheatears. At Whiteways carpark, three Green Hairstreaks, HBHM, two Orange Tips, two Holly Blues and a Large White in the garden.
3rd. A Swift over Bonchurch and a Clouded Yellow along the revetment.
4th. St. Catherine's Point with Pete, one Great Skua. On to Laundry Lane, two Hobby and two Marsh Harriers. We also saw six Large-red Damselflies and a Broad-bodied Chaser.
5th. Went to Laundry Lane to look for a reported Purple Heron. No luck but saw a Great Egret out on the marsh.
7th. Saw a Hairy Dragonfly at Laundry Lane.
9th. First Glanville Fritillary emerged today at Wheeler's Bay revetment. Also a Clouded Yellow seen there.
11th. Five Glanvilles, one Clouded Yellow, one Small Blue and a Dingy Skipper along the revetment.
12th. Cetti's Warbler at Shepherd's Chine.
13th. Went up to Bonchurch Down and saw 17 Wall [a good count], two Adonis Blue, 15 Brown Argus, seven Small Heath and ten Common Blue.
14th. Laundry Lane with Dave Nordell. Four Hairy Dragonflies and one Black-tailed Skimmer.
19th. Saw a Red-rumped Swallow on Bonchurch Down, with Pete.
20th. At St Catherine's Point with Pete we saw one Arctic Skua.
21st. At Binnel Bay, 20 Glanvilles and two Wall Browns. 33 Glanvilles, 25 Common Blues, one Small Blue and one Adonis Blue along the revetment.
23rd. A Grey Seal in the Bay [Ron]. Shepherd's Chine with Dave, 236 Glanvilles and another 25 at a site near Bleakdown.
25th. Pete, Dave and I went to the Sandown Levels, had four Hairy Dragonflies, three Banded Demoiselles and four Broad-bodied Chasers. Four Dunlin along the revetment.
28th. Two Grass Snakes in my pond.
29th. A Painted Lady in the garden.
30th. A Reed Warbler calling in the scrub at the back of the house. Thick fog.
31st. A record count of 85 Common Blues along the revetment. Silver Y's everywhere.

June

1st. Ron the seal close in Wheeler's Bay
2nd. Went to Shepherd's Chine to count Glanvilles on the east side. Total of 165 as far as the Coastguard Cottages. Saw a Red-veined Darter dragonfly there as well plus a Painted Lady and about 200 Common Blues.

3rd. At Redcliff, three Glanvilles seen, probably strays from Whitecliff Bay. Another Red-veined Darter, this time along the revetment at Wheeler's Bay.

4th. 86 Small Blue and 105 Glanvilles at Watcombe Bottom this morning, with Dave Nordell. Went to Forelands in the afternoon after a tip off from Pete and saw 58 Glanvilles.

6th. Two Grass Snakes still round my pond.

8th. Pete and I walked from Whale Chine to the Coastguard Cottages and logged at least ten pairs of Skylarks. A Clouded Yellow along the revetment in the afternoon.

9th. Cetti's Warbler still at Shepherd's Chine.

11th. Dave and I went to the Sandown Levels and recorded four male and one female Scarce Chasers plus three Emperor Dragonflies, 40 male and 10 female Banded Demoiselle and four Broad-bodied Chasers.

12th. Two Hairy Dragonflies at Laundry Lane plus one male Banded Demoiselle, about 20 Broad-bodied Chasers, one male Emperor and four Black-tailed Skimmers.

15th. At Clammerkin, four Emerald Damselfly and a White Admiral.

22nd. Walters Copse with Dave. Five Silver-washed Fritillary and five White Admiral.

23rd. Went out to Blackgang Terrace and saw three Golden-ringed Dragonfly and ten male and two female Keeled Skimmer dragonflies.

25th. Back to Blackgang with Iain Outlaw. Ten Keeled Skimmer on a plateau east of Whale Chine and twenty below the terrace. A very hot day.

26th. Dave and I went over to Newtown, saw a Purple Hairstreak on the Ranges plus a Four-spot Chaser dragonfly, possibly a first for the site. On into Walter's Copse where there were seven Silver-washed Fritillaries, five White Admirals and one female Beautiful Demoiselle. An even hotter day!

27th. Two Glanvilles along the revetment, one of which could only have emerged in the past couple of days.

28th. Too hot to go out today!!

29th. A freshly emerged Dingy Skipper along the revetment plus two Glanvilles.

30th. A strong easterly wind and very hot. Sat in the garden all day!

Andy Butler

Reports of General Meetings

12th January New Dinosaur Footprints Exposed in Rocks of the Wessex Formation, Lower Cretaceous, at Sandown, an illustrated talk by Trevor Price of Dinosaur Isle

In his introduction, Trevor described how the idea of setting up a dinosaur tracking group came from the University of Southampton. Although dinosaur footprints have been known about for thousands of years, their true nature was not recognised for a very long time. The Chinese thought they were dragon bones, and villagers in Central China used them in Chinese medicine. The whole of the southern half of the Isle of Wight, where the Wealden formation is at its thickest, is full of dinosaur bones. It wasn't until 1846 that the first dinosaur footprints were reported in Britain, at Hastings. They were believed to be the footprints of giant birds. Also, in 1846, the first natural footcast was found at Ventnor. Shortly after that, Gideon Mantell pointed out that these were likely to be dinosaur prints. Trackways were discovered at Hanover Point, and between 1983 and 2001, there are several references to footprints discovered at Yaverland.

Trevor decided to go out onto Yaverland beach at low tide and record dinosaur footprints exposed when a layer of sand had been washed away by the tide. The potential

track makers include *Iguanodon*, *Polacanthus foxii*, *Valdosaurus*, *Hypsilophodon foxii*, *Neovenator salerii*, *Baryonyx* and *Eotyrannus*. John Sibbick, a local artist who specialises in Cretaceous landscape paintings, has depicted the scene at Yaverland as swampy, muddy, sandy and most of the time with very few trees and a lot of cycads and ferns.

In a depression in the beach, Trevor found a dinosaur footprint in a pool. As he turned around, he suddenly noticed an area that had been trampled by dinosaurs, one three-toed print on top of another, of varying sizes. He divided the beach where he found dinosaur prints into areas, and plotted his findings on charts.

The main problems Trevor encountered when trying to record track makers were:

- the diversity of shape of the tracks: can the track makers be identified?
- posture and gait: how to identify tracks when the walker may be recorded in different postures and moving at different speeds?
- substrate and preservation: how to deal with different types of substrate and preservation, for example, was the print ruined on?

Trevor identified three types of dinosaur living in the area that is now the Isle of Wight: sauropods (giants), ornithomimids and theropods, and their respective footprint types. Then he considered posture and gait, because dinosaurs make different shaped footprints according to what they are doing. They may be standing still, or running on their toes. With a long trackway of prints, you can work out how the animal was moving and even the length of its legs.

Trevor recorded his findings by taking photographs and making sketches, and he produced a draft paper for the Geologists' Association Proceedings. This paper received a mention at the Wealden-Jehol Conference, during a field excursion to Yaverland, in September 2013, and Dr Gareth Dyke of the University of Southampton offered to assist publication as part of the Conference Proceedings. The article was published in November 2014 in the *Biological Journal of the Linnean Society*. Copies of the article were distributed to local councils so that they would be aware that this unprotected area – outside the SSSI - contains these important tracks.

Trevor's suggestions for opportunities for further research in this field include:

- recreating the palaeo-environment;
- investigating the emplacement, registration and preservation of the tracks;
- providing input to current global research into ichnotaxonomy for dinosaur footprints;
- finding out whether micro-environments are preserved in the base of the prints;
- finding out if the footprints have been altered by palaeo-soils, mudcracks, rain and plants;
- raised cast preservation, being unusual, warrants further investigation;
- other track makers may be identified: pterosaurs and even crocodiles; burrows may be present in the tracks, made by molluscs, worms and crustaceans.

And finally, Trevor asks, what is the potential importance of these discoveries for the Isle of Wight and Sandown Bay? Dinosaur footprints attract visitors to the West Wight, hence the potential to boost tourism in Sandown Bay. The prints probably extend under the sand in front of the sea wall as far west as Fort Street, under the old fort, boating lake, marsh, Dinosaur Isle and the Isle of Wight Zoo. Trevor has a grand vision for enhancing Dinosaur Island, with Yaverland and Sandown at its centre.

We thanked Trevor for sharing his great enthusiasm for his subject with us, and for raising our awareness of the importance and extent of dinosaur tracks to be found in Sandown Bay.

In his introduction, Richard Smout explained the rules of engagement and introduced the five other speakers. The theme of Hidden Heroes of the Isle of Wight is a familiar one, as in recent months it has been adopted by museums and art galleries across the Island, as well as by a travelling museum that has toured towns and villages. Quay Arts has not only held a fascinating exhibition on this theme, but has also hosted talks by local historians and an inventor. The heroes are all outstanding innovators or have demonstrated a remarkable talent or resilience.

The hidden heroes chosen by the six contestants in this afternoon's talks all made a significant contribution to natural history, archaeology or geology on the Isle of Wight. The speakers drew lots to determine the order in which they spoke.

Richard Smout's hero was Percy Wadham, whose enthusiasm for natural history inspired him to set up as a taxidermist. He was especially passionate about reptiles. A very sociable man, he was well known for arranging amusing entertainments. His great love was angling, and among the angling equipment he invented was a collapsible armchair and a wicker box seat. He was also a writer and a great populariser of natural history, his writings being full of anecdotes.

Jo Bingham, the only female speaker, chose as her hero Catherine Morey, born in 1855. Her younger brother Frank is well known among nature enthusiasts as the writer of a seminal book on the natural history of the Isle of Wight. He was a member of the Hampshire Field Society. Catherine threw herself into various Island societies, including the Natural History Society, of which she was Honorary Secretary and Editor. Her obituary read that she was the 'backbone' of the Society, and she was also Curator of Carisbrooke Castle Museum and a supporter of Newport Roman Villa. Jo imagined Catherine as the woman who worked tirelessly behind the scenes, taking little credit for keeping everything running smoothly.

Colin Pope's hero was Herbert Livens, born in 1860, a clergyman whose hobby was mosses, liverworts and bryophytes. At the time, this was a very unusual enthusiasm, as very little was known about these organisms. He moved about the country, living in Newport between 1905 and 1908. Frank Morey asked Herbert to write a chapter on lichens for his Natural History of the Isle of Wight. Herbert also wrote books, illustrated by his brother, to encourage children to open their eyes to God's Creation – the natural world. He also set up one of the first centres to help the unemployed find work. As Vice-president of IWNHAS, Herbert regularly took part in meetings and wrote scientific papers for The Proceedings. He was especially keen on the Microscope Section and he brought specimens to show others. He became a national authority on lichens, honeybees and the migration of birds. He gave talks to the Society on these subjects, as well as about his visit to New Zealand to study wildlife. Curiously, he bequeathed his collections of lichens, liverworts and bryophytes not to the Isle of Wight, but to the library in Bolton, where he had once lived.

Paul Bingham spoke about James Jackson (1894 – 1996), noted for his services to Isle of Wight geology and the Sandown Museum. Jackson was of humble origins. His father abandoned the family, and James suffered from chest infections all his life. Yet he managed to become a respected field geologist and collector, who donated his collections to museums, or charged a small fee. He produced a catalogue, drawings and models. James met Frank Morey and moved to the Island to be Frank's Scientific Assistant. He was also Assistant Secretary to IWNHAS, edited The Proceedings and led field trips. Each morning, he measured the weather, keeping records for the Society. After a few years, Frank died, and James found himself out of a job and with no income. He would have liked a job as a museum curator, but he had no academic qualifications. Catherine Morey could only find him menial work -

gardening. Eventually, James was granted a small pension by a Trust for individuals who had made a significant contribution to science. IWNHAS made a collection for him, in recognition of his valuable work, and offered him the position of Honorary Vice-President. But James did not remain on the Island.

Martin Munt's hero was Edwyn Court-Smith (1813 – 1900). While he was surveying the north coast of the Isle of Wight, as part of the first deep British geological survey, blue heart limestone caught his attention, and in this rock he discovered fossilised plant remains and even insects. Insect preservation only occurs in exceptional circumstances. Edwyn's legacy was his collection of fossils that he sold to the Natural History Museum in London. In 1900 his remaining specimens ended up at auction in Winchester. Fortunately, another geologist stepped in to save them.

The Reverend John Skinner, born in the 1770s, was David Tomalin's choice of local hero. Skinner was unfortunate to live in a violent society, and, as a young child, to witness a death in a duel and a public hanging. This cast a shadow over his life; he was shot through with misogyny and had little faith. While studying at Oxford, in 1790, Reverend Skinner made a lifelong friend called Burrard. He followed his friend to Cornwall, where Burrard was fascinated by megaliths. Reverend Skinner was a prolific writer of journals; he produced ninety-two volumes between 1809 and 1834. These are now in the British Museum, along with 1500 drawings. As his writing was almost illegible, his brother faithfully copied them for him. After the death of his wife from tuberculosis in 1812, John was left with four children. They scoffed at his writing. He became interested in tombstone burials. He first came to the Isle of Wight to stay with his friend Burrard, and he sketched thirteen round barrows on the downs. He also excavated Chessell Down Cemetery. His legacy includes finds from the barrows, though not many, and two of his written manuscripts describing his excavations on Chessell Down.

After the last talk, the audience was asked to vote for their favourite hero. The first round winners were James Jackson and Catherine Morey. Paul Bingham and Jo Bingham then went head-to-head, each having the opportunity to emphasise what they thought to be their hero's greatest accomplishments.

Jo pointed out that Catherine Morey was always in the background, but tirelessly supporting men, who took the limelight. Her knowledge and experience were vast; she was creative and hard-working; and she encouraged young people and children to take an interest in natural history, archaeology and geology. Paul praised James Jackson, a humble man, to whom geology on the Isle of Wight, especially Dinosaur Isle, owes a huge debt. He argued that if only Catherine Morey had bequeathed some money to Jackson, he could have made an even greater contribution. The result of the second round was 8 votes to 7 for Catherine Morey.

Martin Munt pointed out that, on the negative side, Jackson sent a lot of specimens he had collected to the Natural History Museum in London, rather than to the Sandown Museum, and someone remarked that Catherine Morey was the person responsible for interviewing potential members of the Society, and, far from being humble, she was rather formidable. They questioned whether she in fact always took a background role, as Jo Bingham had emphasised so strongly.

This afternoon's talks introduced the audience to key players in our Society and other societies on the Island over the past two centuries or so. Although we were asked to vote for our favourite character, the one we judged to have made the most important contribution to scientific knowledge and/or IWNHAS, this was not strictly speaking a debate, and we did not vote for the speaker. In a 'Balloon Debate', one character at a time is ousted from the overcrowded balloon to enable it to climb higher in the sky. That character is represented by

the loser of the debate in each round. We thanked Richard Smout for organising the afternoon's talks, and all six speakers for introducing us to some fascinating hidden heroes.

10th March Binoculars, Choosing and Using, an illustrated talk by Richard Flux

With such a wide variety of binoculars on the market to choose from, where do we start, asked Richard in his introduction to his talk to some thirty-five members at Arreton Community Hall.

He started with popular sizes, from 8x30 up to 25x100, and explained what these numbers signify. Sizes are standardised internationally. There are three types of binoculars, Richard told us, only two of which, the roof prism and porro prism are effective options for general use. The other type, Galilean, are opera glasses. Binoculars can focus in two ways, either by central focus or by individual focus, the latter used for military and naval purposes. Richard's thorough research took him into highly technical areas, such as the quality of prism materials and the two ways in which field of vision can be measured: linear field and angular field. Various chemicals are used in anti-reflection coatings. Without these coatings, 47% light loss occurs, compared with only 17% for fully-coated binoculars. Definitions of coating are, however, rather vague, says Richard.

A brief history of binoculars served, for me, as a welcome diversion from the technical. It began in 1609 in Holland, when Hans Lippershey applied for a patent for his optic tube, the first recorded telescope. His invention was rejected. History was followed by a look at manufacturers of binoculars in Britain and Europe. Richard commented on their output and reputation for quality. Mountings are essential for binoculars over a certain size. There are tripods, brackets and car window mounts to choose from. An outstanding new invention is image stabilised binoculars. They are electrically operated – some use batteries – and they correct shaking, tilt and so forth.

When choosing binoculars, you need to have a good idea what you are going to use them for. 8X25 are so small that you can carry them in your pocket. A small monocular can be used to study a flower, insect or coin. Nitrogen filled binoculars stay dry inside and don't fog up. Some binoculars even have an inbuilt camera! In real terms, the price of binoculars is much cheaper than in the nineteen-fifties, before army surplus entered the market. As binoculars got cheaper, more and more people were encouraged to study and explore the natural world. Field guides replaced coffee-table sized books.

Focussing is not straightforward. A person's eyes are not identical so you need to focus one eye at a time. Our physiology can vary, too, which means you may have to readjust each time you use your binoculars. And when you zoom in on zoom binoculars, you need to refocus. Self-adjusting binoculars are very rare.

Someone asked Richard how close you can focus, on an insect in a ditch, for example. Most binoculars will not focus below about twelve feet. Perhaps this could be improved upon in the future? There is surely a market for this macro technology.

And finally, a tip for using binoculars in snowbound Britain this March: if you go out in freezing temperatures with your binoculars, don't put them straight back into their case when you return indoors. Let them adjust to the huge rise in temperature first.

We thanked Richard for a comprehensive and well researched talk, and for bringing binoculars from his own collection for members of the audience to examine and ask questions about.

7th April The Oil Threat at Arreton, an illustrated talk by Sylvia May of Frack Free Isle of Wight

Sylvia May is a retired headteacher, who has been researching and speaking about the impacts of oil extraction across the southern half of the Isle of Wight for nearly three years. She began her talk by asking why 70% of fossil fuels must remain in the ground. Scientists have reached a consensus that global warming must not cross the 2 degree Celsius threshold if humans are to prevent catastrophic climate change. The maximum amount of carbon we can burn is 565 Gigatons, and yet what we have already in reserves since 2012 is 5 times higher than this.

Fracking, short for high volume hydraulic fracturing, involves horizontal drilling, using water under high pressure with sand and a mix of chemicals to blast fractures in the rock to release the oil and gas. This technique is a form of what is known as ‘stimulation’. However, fracking is no longer defined by this, but instead just by the amount of water used. Below 10,000 metres, you can drill horizontally from a vertical well. Several government agencies are charged with assessing the safety of, administering, monitoring and regulating the oil and gas industry: safety assessments are done by the Environment Agency (EA), Health and Safety Executive (HSE), in some cases, Natural England (NE) and administration by the department for Business, Energy & Investment Strategy (BEIS) and the Oil and Gas Authority (OGA). Funding for, the safety and assessment agencies has been cut in recent years, and so with the explosion of oil drilling in England and Wales, they are overwhelmed. Petroleum Exploration and Development Licences (PEDLs) apply to both conventional and unconventional hydrocarbons. Sixty per cent of England and Wales is now licensed for drilling. Three companies are licensed to drill on the Isle of Wight: UKOG (UK Oil and Gas Investment PLC), Solo Oil and Doriemus PLC, across 200 square kilometres. The licences expire in 2045.

Before submitting a planning application to the Isle of Wight Council, UKOG will be responsible for carrying out Environmental Impact Assessments (EIAs). The Environment Agency will examine these and decide whether they need more research, but it is up to the local authority, the Isle of Wight Council, to decide whether an EIA is required. At Bury Hill Wood/ the Leith Hill site in the North Downs, the Environment Agency was ‘minded to approve’ Europa’s permit until local residents decided to commission their own EIAs and found many causes for concern. Once planning permission has been granted, oil companies are left to self-regulate their operations.

What is a traditional conventional oil well, Sylvia asks? It is a single vertical well from a well pad, drilled into permeable limestone and sandstone formations close to the surface – down to a thousand metres. The oil and gas easily rise to the surface. And what are unconventional oil wells? These are designed to release fuels that do not flow naturally to the surface. They include:

- a matrix of multiple horizontal wells - up to ten per well pad;
- stimulation of strata with acids and a cocktail of chemicals – known as acidizing or acid stimulation; Limestone reservoir stimulation techniques involve the injection of some 15 to 28% concentration of hydrochloric acid pumped at a rate of a thousand metres a second OR
- high volume hydraulic fracturing – fracking. Tight oil in sandstone and shale oil cannot be extracted easily.

Fracking is used below a thousand metres in shale. It uses ten times more fluid, a 0.5 to 2% concentrated chemical cocktail, injected at high temperature, with the addition of silica to

prop open the fractures made in the rock. 60% of the toxic flowback remains underground. 40% comes back to the surface for reuse or 'safe' disposal.

Both conventional and fracking sites look the same, so an observer would not know whether fracking was taking place. So what about Arreton? Already there are two wells which were drilled 40 years ago but considered uneconomic at the time. 219 million barrels of oil have been assessed to be under Arreton, but how much can be retrieved is another matter. UKOG announced this January that it was making preparations to drill for oil in Arreton during 2019. 15.7 barrels of oil are predicted to be recoverable over many years, but this represents less than ten days supply for the UK. UKOG claims it will drill conventional wells to retrieve the oil at Arreton, though this will also involve drilling horizontal wells and using stimulation techniques. However, potential environmental impacts and risks to human health from oil extraction could include:

- The depletion and pollution of our water table: aquifers, reservoirs and surface extraction points lie predominantly south of Newport, where the industry wants to drill;
- One unconventional oil well in its lifetime can require about eight to twenty million litres of fresh water. (The Isle of Wight already has to import nearly a third of its water from the mainland);
- Thousands of litres of toxic chemicals and acids are transported to, stored and handled on site. No amount of regulation can protect against equipment failure, human error, leaks, road and site accidents and spills;
- Damaged well casings allow leakage of methane, radon gas, fuels, acids, chemicals, brine and toxic substances into the strata. These could migrate into the water table. The industry admits that all wells will decay and leak over time;
- Burning-off gas, known as flaring, and just releasing gas into the atmosphere, known as venting, both cause carbon dioxide emissions;
- Earthquakes and geological shifts may occur due to main well bore drilling or the construction of deep waste water wells. The Isle of Wight's geology is fragile, and small seismic movements often occur, causing cracked water pipes and earth movement;
- Air pollution from industrialisation of the area: our health is at risk from inhaling dust and silica, and from benzene fumes;
- Increased HGV impacts, long-term, include air pollution, damaged road surfaces, traffic accidents, noise and congestion, especially between the drilling sites and ferry ports;
- Agriculture, tourism and the environment – a landscape scarred and polluted by oilfields could negatively impact on the image and economy of the Island, holiday tourism, green tourism, outdoor industries, food production and property prices;
- The Island's Area of Outstanding Beauty could be blighted with oil infrastructures and loss of wildlife habitats, since only government defined fracked wells are banned from surface drilling;
- Climate change: 70% of existing fossil fuel reserves must remain in the ground. There are enough global reserves to sustain us, if used wisely, whilst we act to cut emissions, invest in and develop sustainable sources of renewable energy and new ways of making plastic.

There followed a short question and answer session, and we thanked Sylvia for her comprehensive and well researched talk.

7th April Wetland Restoration, an illustrated talk by Jamie Marsh, Reserves Officer, and Steve Egerton-Read, Wetlands Restoration Officer, for the Hampshire and Isle of Wight Wildlife Trust

In his Introduction to the Wildlife Trust, Jamie told us that eleven of the fifty HIWWT reserves are on the Island. There are 27 000 members and over a thousand volunteers. As well as managing nature reserves, the Trust advises landowners and farmers on how to manage their land with wildlife in mind. It also carries out surveys and gathers data.

The Wildlife Trust is currently running four projects. These are as follows:

1. Wetland Restoration, funded by the AONB's 'Down to the Coast' scheme. It involves clearing marshland of non-native, invasive plant species, especially Himalayan balsam and parrot's feather that crowd out native plants.
2. Woodland Apprentices – The first group of four apprentices has just completed their eighteen month course, run in conjunction with Sparsholt College. All have passed with flying colours. They have been taught as many transferrable skills as possible to enable them to apply for a range of jobs. These skills include bridge construction, from cutting planks from a felled tree to bridge design and building. They also include hedgelaying. This year the team entered the Island's annual hedgelaying competition.
3. Gateway to the East – creating fish passage opportunities on rivers where there are obstructions that prevent fish from swimming upstream to spawn. The Trust has demonstrated several different solutions to this problem.
4. Forest School on the Beach – providing opportunities for children to engage in fun learning activities centred on the natural world. Forest School has been run on the Island for some years, at Bouldnor. This time the activities are held on a beach.

Steve introduced us to the Wetland Restoration Project in the Lower East Yar Valley, where the Wildlife Trust now owns an eight kilometre stretch of wetland nature reserves, from Langbridge to Sandown. Steve is a wetland restoration specialist, with a Living Landscape approach to management. He talked of encouraging kingfishers that catch fish in the marshes, lapwings that currently breed on the RSPB reserve at Brading Marshes, reed bunting, and a rare dragonfly species. Water voles are faring much better here on the Island than on the mainland, and a lot of the work being carried out in the East Yar Valley is for water voles. As for plants, the triffid bur-marigold and the marsh cinquefoil are two species that Steve wishes to encourage to spread.

The Trust is creating a new nature reserve at Morton Marsh. This wetland area is bordered on one side by Sandown's Perowne Way housing estate. The main Sandown to Brading road crosses the marsh at one end. The site was neglected for some twenty years, and trees have collapsed along the main drainage ditch. The plan is to manage the site in two phases. The first is to use grazing to break up the tougher grass and sedge, accompanied by ditch digging. Water voles breed in the reeds along the ditches. Digging out ditches using a mechanical digger creates a much wider and deeper channel and a sloping bank. The second phase is to fence off the marsh and allow it to regenerate naturally.

Funding is a big problem for the Trust. It needs to find funding to retain Steve after his initial two-year contract runs out. Brexit makes funding uncertain, as the Government has not yet decided on funding policy for environmental projects. 'Everything we do must be risk assessed for floods and overseen by the Environment Agency', says Steve.

Asked what the Trust's policy is towards oil extraction and hydraulic fracturing (fracking), Jamie says that every planning application would be considered separately. Generally speaking, there are better ways of getting energy than oil and gas extraction, and the Trust favours green energy, so the general principle is anti-fracking. The Trust has a dedicated Planning Officer who will deal with risks to wildlife posed by any proposed oil drilling. Contamination of ground water is Jamie's major concern. The Environment Agency and Southern Water carry out baseline water quality testing, though the data is not easy to interpret.

We thanked Jamie and Steve for their very informative presentations to an audience of some thirty members. I am impressed by Jamie and Steve's dedication to these important wetland areas for nature conservation, and I am delighted that the Wildlife Trust has recognised the importance of the Lower East Yar Valley and taken on the management of more and more wetland areas in recent years.

It was Wight Nature Fund (WNF) that created the very first nature reserves in the Lower East Yar Valley. This pioneering nature conservation organisation was set up in 1990 by members of the Isle of Wight Friends of the Earth, to manage land for wildlife and for people, land that was threatened with development or neglect. This land contained important habitats for wildlife. The best known WNF reserve is Alverstone Mead, the land originally owned by the Isle of Wight Council, but recently taken over by the Wildlife Trust. WNF still manages this wetland, woodland and meadows reserve, along with Bentham's Marsh, Youngwoods Copse and Brent's Meadow, with advice and support from the Wildlife Trust. Hugh Walding (Chair) and Mary Edmunds (Secretary) are two of the founding members of WNF and they are still at the helm after nearly thirty years. They are also longstanding members of our Society.

I paid tribute to the pioneering work for nature conservation on the Island, setting a fine example for others to follow, and I emphasised how much WNF, the Wildlife Trust, Gift to Nature, the RSPB, the National Trust and other organisations with nature reserves in the Lower East Yar Valley stand to lose if oil drilling is given the go-ahead at Arreton.

14th April The Solent and South Wight: Our Living Seas, an illustrated talk by Dr Tim Ferrero, Senior Specialist for Marine Conservation at the Hampshire and Isle of Wight Wildlife Trust

'Living Seas' is the Wildlife Trusts' vision for the future of the UK's seas, Tim told some twenty of our members. It is a vision of recovery from past decline, and the environmentally sustainable use of the sea's resources. Good bacteria in the sea help govern clouds and rainfall. Ocean processes are helping to slow down climate change by absorbing vast quantities of harmful carbon dioxide, while releasing oxygen for us to breathe. People are inspired by marine wildlife and value the sea for the many ways in which it supports our quality of life.

Our seas could be the most productive and wildlife- rich on Earth. Beneath the surface there is a great range of landscapes: undersea cliffs, caves, chasms, mountains, dunes and plains. Beautiful and colourful reefs, seagrass meadows and other extraordinary habitats shelter many thousands of plants and animals.

For centuries, humans have plundered the seas, taking their riches for granted, destroying fragile habitats like reefs, whether ripped up by commercial fishing gear or contaminated by industry. Only two per cent of the UK's sea area has even a minimal level of protection for wildlife, and less than a thousandth of one per cent is fully protected from all harmful activities. As a result, many species have declined, especially the basking shark, whose numbers have plummeted by over ninety-five per cent, and the common skate, once

abundant, is now on the brink of extinction. Corals, seahorses, whales, dolphins and seals have also declined. Fish stocks have collapsed and marine resources are depleted. The ocean processes that regulate our climate are also under threat.

Living Seas was launched in 2009. The Wildlife Trusts pledged to focus on four themes:

- Marine Protected Areas (MPAs) and wildlife
- Fishing and seafood
- Marine planning and sustainable development
- Legislation and policy

In order to create MPAs and protect wildlife, the Wildlife Trusts need to address the other issues as well. Fishing will need to be controlled, marine industry licensed sustainably, legislation enacted and enforced, and continuous improvements made to marine policy. Hampshire and Isle of Wight's Living Seas Region extends from the Hampshire boundary with Dorset in the western Solent, via Southampton Water to Bembridge. There are only two designated Marine Conservation Zones (MCZs): The Needles, and Utopia, off Seaview. There are, however, three recommended MCZs, all Isle of Wight coastal areas: Yarmouth to Cowes, Norris to Ryde, and Bembridge. These will be considered in the third and final tranche. There are also European Specially Protected Areas (SPAs) around our coasts, from The Needles to Cowes, The Medina, and from Seaview all the way around the east and south coasts to The Needles.

There are many pressures on our seas: pollution, coastal development and defence, alien invaders, fishing aquaculture, offshore energy, shipping and plastics.

Pollution - We have made great strides in treating our sewage, since a European Directive ordered our government to stop releasing raw sewage into the seas by the year 2000. There is also far less oil on our beaches and in our seas than there was several decades ago. A sea foaming brown is natural, as this comes from sea plants.

Coastal Development and Defence – Seaside towns are expanding, and rising tides are squeezing the shore area, causing a sharp decline in wildlife inhabiting the intertidal zones.

Alien Invaders – These include Wakami, a species of Japanese seaweed that clings to any manmade structure. It is a conspicuous and edible brown kelp. The Solent's focus on shipping means it has the greatest number and concentration of invasive species that hitch a ride on ships' hulls.

Fishing and Aquaculture – There is likely to be aquaculture in the Solent in the future, and this brings its own problems.

Offshore Energy – From wind turbines to oil extraction, and possibly tidal, these need to be monitored and controlled.

Shipping – Ships can leak oil and their cargoes can be lost overboard.

Plastics – This is a massive problem that has hit the headlines this year and galvanised people into action: among these are beach cleans and increasing pressure for plastic bottle return schemes. Plastic is piling up in the oceans, ingested by fish, and adversely affecting the food chain right up to sea mammals and humans.

Bait Digging – This can destroy seagrass beds. There is a black market in ragworms, the most valuable sea harvest commodity.

Tim then went on to discuss the Secrets of the Solent project. This project has been granted Heritage Lottery funding for a year, to develop it. It aims to establish the Solent based Marine Protected Areas as recognised marine heritage sites: understood, appreciated and cared for in the same way as our land-based nature conservation designations, such as Heritage Coast and SSSIs. 'Secrets of the Solent' aims to celebrate our marine heritage and showcase its diversity and importance. "Unfortunately," says Tim, "the south coast of the Island has been excluded

from the project by the funders because it is not in the Solent. However, the Wildlife Trust will work on the South Wight separately”.

The project has six main themes:

1. **Marine Champions** – to encourage local people and companies to get involved and inspire others. The Trust will provide training and support. People can learn more about the Solent marine environment through a range of citizen science opportunities, such as ‘Shoresearch’, seashore surveying with a knowledgeable leader. In 2015, twelve surveys were carried out by 139 volunteers, and 260 species were recorded. Peacock’s Tail is a warm water alga, at its northern limit on the Isle of Wight. Stalked jellyfish (*Craterlophus convolvulus*) can be found at Compton Bay. It is very primitive. The Shoresearch record was the first since 1880. It was discovered in a low-shore rockpool in a tuft of red algae.
2. **The Solent Seagrass Project** aims to survey existing seagrass beds and to map their extent and quality. The seagrass beds on the Island are more accessible than those on the Hampshire side of the Solent, being in sand rather than mud. The Thresher Shark returns to the Solent every year for pupping. Sharks are threatened species worldwide. The Trust wants to find out more about these oceanic sharks, by working with experts, such as a group of anglers who are licensed to catch and study them.
3. **The Unlocking the Secrets of The Solent Project** aims to make long-lasting and creative art pieces and interpretation within key visitor attractions to get better recognition for the Solent’s species, habitats, Marine Protected Areas and identity. It also aims to get information into places that people frequent, such as cafes, sailing clubs and town centres.
4. **The Lives of The Solent Project** celebrates the species and people that rely on the Solent for their home, livelihood or recreation, using a range of creative arts. Tim showed us slides of some of the fascinating species that frequent this area, such as the isolated population of harbour seals that this year numbered 65. The nearest population to the Solent is in Kent. Mantis shrimps live in burrows, are fast and alert, can live up to twenty years, and mate for life. They have amazing compound eyes, making their visual world exceptionally rich. There are four species of wrass, one very rare. “They are nest-building, egg-defending, sex-changing, exotic, and wonderfully colourful”, says Tim. The Balsam Wrass is used to eat sealice off salmon, as it has a cleaning habit. This avoids the use of dangerous chemicals. Seagrasses are, nationally and internationally, the only marine higher plants. They are structurally complex and provide a foraging and refuge habitat, nursery and spawning grounds, sediment stability, and a sink to lock carbon dioxide away that is vital for mediating climate change. Seagrass beds are ecologically important for diversity. Most of the Atlantic was covered in seagrass meadows until the 1930s, when a disease wiped them out. Seagrass was used for thatching cottages, being naturally fire retardant. Brent geese rely on a diet of seagrass, cuttlefish lay their eggs on it, and it is home to a rare starfish at The Needles. From Ryde to Puckpool and Seaview, the shore is covered in seagrass, and it attracts so much marine life. The under-boulder community is a designated protected habitat, as part of a reef structure.
5. **The Sustainable Seafood Project** aims to promote low-impact fishing and local seafood. working with local producers and key food organisations to promote local seafood to purchasers and consumers. The Solent used to be the largest oyster fishery in Europe, but, in recent years, the fishery has declined and has now collapsed. The Southern Inshore Fisheries Conservation Authority (SIFCA) is working with the Bluemarine Foundation to restore oyster farming. ‘Horse’s Hooves’ are ancient

oysters found in The Solent. The Common/Solent Whelk used to be street food in this country. Now most seafood from the Solent goes to London and is exported.

6. **The Mapping the Solent Project** aims to involve local people in celebrating what they know about their area of the Solent, through community events. These can be financed through crowdfunding and matchfunding. For every pound raised, the Trust receives nearly ten pounds in matchfunding.

Mooring and Anchoring in Seagrass

The anchor chain moves about, damaging the roots of the seagrass. There are now available Eco- or Conservation Moorings of many different types, designed to prevent this damage. “Unfortunately”, says Tim, “we have a very conservative boating community in the Solent area.”

The Fishing Industry

Most dredging operations damage the seabed, and seagrass is hard to regenerate. The dredging depth in The Solent is limited to two or three metres, as the water is cloudy. Bottom-towed fishing gear is prohibited in some areas under European legislation. “Whether this remains in force after Brexit is cause for concern”, says Tim.

Blue Planet 2

This recent television series has raised the profile of marine conservation enormously. Yet Tim says he is disappointed that not a single outdoor UK location featured in the series – only inside Plymouth Marine Aquarium.

Plastics

Blue Planet 2 shocked viewers with its footage of marine life starved to death by a bellyful of plastic, accidentally ingested. This has galvanised many people all over the country and abroad into action. Microbeads, ingredients in personal hygiene and cosmetics products, have recently been banned in the European Union.

Post-Brexit

How will Brexit affect marine conservation? European Union Environment legislation will be transferred to UK law, but not all. There will still be Habitats and Birds protections. Tim says “there does not exist in the UK a court that deals with cases of failure to meet requirements.” The UK is still a signatory to many international conventions and treaties. “What will be the basis for management of European marine sites?” asks Tim.

Marine Protected Areas (MPAs)

These only work if they are big enough and close enough together.

Marine Conservation Zones (MCZs)

- In 2011, 127 MCZs were recommended for the whole country by stakeholders in Tranche 1;
- In 2013, just 27 were designated, but none of these was in Hampshire or The Isle of Wight;
- In 2016, 23 MCZs were designated in Tranche 2, including The Needles, Pagham Harbour, and Utopia, off Seaview;
- Tranche 3 has been postponed repeatedly. The Wildlife Trust is hoping for action this summer.

“British Overseas Territory has liberal MCZs, so why not Britain?” says Tim.

Recommended Marine Conservation Zones in Tranche 3 off The Isle of Wight are:

1. Yarmouth to Cowes – a nine metre high underwater peat cliff and clay exposures support important wildlife such as molluscs that bore into the soft clay. Porcelain crabs, sea squirts and sponges thrive under scattered boulders..
2. Norris to Ryde – This area has large seagrass meadows that shelter juvenile fish and crustaceans. Large expanses of subtidal mud are home to burrowing mantis shrimps, and lagoons house rare tentacle lagoon worms.

3. Bembridge is a biodiversity jewel, containing exposed reefs, mud and marl beds. These provide habitats for seahorses, sponges, spoon worms, peacock's tail seaweed and rare kaleidoscope stalked jellyfish.

In the South-east, only 14 of the 31 recommended MCZs have so far been designated, leaving the remainder open to continued damage, and the network far from complete. The Wildlife Trusts need our support to ensure that all the zones are designated and protected, as part of a full national network. A public consultation is due to start anytime soon, and the more people who fill in the questionnaire in support of the recommended MCZs in their area, the more likely the Government is to designate them. We need all the recommended MCZs designated so that there are networks of protected areas, rather than isolated ones. Marine life needs to be able to move freely from one safe haven to another.

How can we get involved in marine conservation?

- Take part in Shoresearch or Seasearch;
- Come to events, such as Marine Week or Secrets of the Solent
- Send the Trust data, such as records of sea mammal sightings, together with a photo and GPS location;
- Go to the Wildlife Trusts' website and sign up for the Friends of Marine Conservation Zones newsletter;
- Take part in the MCZs Consultation, an online questionnaire.

Shoresearch

Tim invited our members to go along to Ryde Pier the following afternoon to take part in a Shoresearch. Six of us joined another six enthusiasts to see what was living on the pier structure, in the pools, on the stones and in the sand, in each of the intertidal zones. I was amazed to find such a diversity of life, including sea squirts and various brightly coloured sponges clinging to the pier supports, sea slugs, beadlet and daisy anemones, barnacles, slipper limpets, top shells, shrimps, sea spiders and bright green worm eggs. At the low tide mark, we came upon seagrass beds, and Tim pointed out two different species of eelgrass. Attached to a stalk, we found cuttlefish eggs. I enjoyed the talk and Shoresearch survey so much that I plan to attend other surveys around the Island's coasts this year. I have also joined the Wildlife Trust.

We thanked Tim for a fascinating, knowledgeable and comprehensive talk.

Maggie Nelmes

Reports of Section Meetings

Looking at the Countryside

Tuesday 16th January

Surprise Winter Walk

Thirteen people met at Winford. The start time was made to fit in with the hourly bus and some members did use this service. The weather forecast was bad, we had lots of really heavy rain recently so all expected proper mud. The group walked up towards Sandown Airport but turned onto a permissive path into the top of Borthwood. We stopped to view the wonderful old oak trees and looked at some oaks that had been coppiced many years ago.

We left the wood and walked past the hill of Queens Bower. Interesting discussions took place about the history of this small hill and how it got its name. On down the muddy bridleway to the site of the 2005 Alverstone dig where the leader produced four large photos

and told people a bit about the dig. The site is very interesting and very complicated, an Iron Age crossing was found built by craftsmen, a Roman one on top, followed by a Saxon one. A medieval mill was also found and over 1000 items have been removed. Jill passed round the cutting from the IW County Press 26/08/05. Mr Paul Newton, the owner of the land was having a conservation lake made but all work was stopped for 4 months. Colin Pope told us that the sweet chestnut that was found and carbon dated showed it came from the period just after the Romans left.

Then we went into Alverstone and heard how the Village Hall was saved for the local people. On to the old railway, across a bridge to another permissive path, which is a wonderful new path through the marsh and willow carr on land owned by Wight Nature Fund, over to Hill Farm, along to Hill Top Lane and so back to Apse Heath. The rain held off until the last 20 minutes.

Jill Green

Friday 9th February

Yarmouth

Ten members joined Richard Grogan, Lead Officer for the Isle of Wight Area of Outstanding Natural Beauty, on a walk from Yarmouth to the Causeway at Freshwater, on a cool day in February. The walk began with an explanation of the history of Yarmouth as a mediaeval port which gained importance as the nearby harbour at Newtown declined. Defended by a castle the small village was able to develop a port which served the west Wight both as an entry point for goods and provisions as well as a gateway for the later tourist industry.

The walk continued along the old railway line to look at the estuary. The development of the harbour and the railway caused great changes in the estuary and allowed the development of saltmarsh along much of the estuary coastline. This saltmarsh and associated mudflats provide an important resource for wintering waders and wildfowl and good views were secured of oystercatcher, teal, widgeon and redshank.

Along the route we stopped at Barnfield stream, a tributary of the Yar and discussed the management of the hinterland including the ancient woodland at Mill Copse and the adjacent farmland. The farmland, which had been in the Countryside Stewardship scheme was predominately fallow following cropping and this temporary habitat produced good conditions for flocks of small birds including starlings and finches.

The transition from salt water from the Solent to freshwater from the river Yar was illustrated by the changes in vegetation as reed beds took over from saltmarsh. The river Yar is one of the smallest complete river systems in the UK with its estuary being far larger than its river floodplain. The walk concluded at the causeway at Freshwater and the members then returned to their cars retracing their steps.

Richard Grogan

Wednesday April 18th

Northcourt, Shorwell

Twenty-six members were greeted by John Harrison, the owner on a glorious clear warm Spring day. John gave an introductory talk, pointing out that Northcourt was very biodiverse due to the presence of chalk and greensand downland and the presence of shelter and water. He referred to the plantings of lime, ash chestnut, mostly dating from the late 18th century and one ancient yew of about 400 years of age. He also gave a very brief summary of

the history of the 17th century house and garden. He listed of particular interest an increase in red squirrel, raven and buzzard presence but a decline in the rook and adder population.

He showed us colonies of Cyanobacteria *Nostoc* on the paths, pointing out the peculiar properties of this very ancient organism of being both nitrogen fixing, and having chlorophyll. Of particular note on the tour he showed us flowers of the parasitic Toothwort (*Lathraea squamaria*) in the garden. He also pointed out *Tetrapanax papyrifera* from Taiwan used to make rice paper. By the stream we saw Giant Butterbur (*Petasites japonicum giganteum*), once used as a cancer cure but now banned from sale, and Skunk Cabbage (*Lysichitum americanum*), used in America to ward off racoons and squirrels. He also showed red squirrel damage on a Norwegian Spruce. John pointed out the diversity of plants naturalising in the old walls together with the Mediterranean wall lizards, which derived from the Ventnor colony about 30 years ago.

Members were given refreshments and the option of a one mile circular walk on the Downs circulating Northcourt farm. John pointed out the features of the registered Park and Garden and showed how isolated the Shorwell woodland was for Red squirrels to have established themselves in the past 10 years in the village.

We re-entered the garden and completed our tour of the gardens past many camellias and magnolias in full bloom, all planted by John in the last 35 years since they have been in occupation. The woodland full of garlic (ransoms), the banks of primroses, and the beds lined with forget-me-not were noted.

Toni Goodley

Tuesday 22nd May

Walk to Bonchurch with Andy Butler

Thirteen members met at Wheelers Bay Car park in warm sunshine to hear about Andy Butler's work with Ventnor Town Council and Natural England to create and enhance habitats for the Glanville Fritillary Butterfly.

First, we walked towards Ventnor where we saw a man-made area at Wheelers Bay where thousands of tons of soil had been brought in as part of the sea defences. The area was initially bare but has since been colonised mainly by Winter Heliotrope (*Petasites fragrans*), not the best habitat for the Glanville Fritillary. Andy pointed out a few areas where the Glanville could be seen and also showed us a Glanville chrysalis, which we had not observed before. We continued walking towards Ventnor where we were shown areas where the larvae had been active. Andy explained that the main food plant, Ribwort Plantain (*Plantago lanceolata*) was not the only food source and he had observed them feeding on Teasel (*Dipsacus fullonum*), Bristly Ox Tongue (*Helminthotheca echioides*) and Sea Beet (*Beta vulgaris*).

We then turned back towards Bonchurch and walked to the old boat park, where a new habitat had been created using large chalk boulders to enclose a large area which he hoped would be ideal for the Glanville Fritillary. The main criteria included (initially at least) bare ground, food plants and warmth, all of which were present in the newly designated area, where some food plants had already started to colonise the bare ground. The area had been well fenced to prevent dogs from disturbing the site. This area had been created using grants from Natural England and Ventnor Town Council.

During the walk we were delighted to observe several Glanville Fritillaries and a highlight was when Andy was able to get a newly hatched Glanville to alight on his fingers, which gave the photographers in the group an ideal opportunity for some good images. Other butterflies observed during the walk were Common Blues, Orange Tips and Holly Blues. Several interesting plants were observed during the morning including Eastern Gladiolus (*Gladiolus communis ssp. byzantinus*), Rock Sea Spurrey (*Spergularia rupicola*), Duke of

Argyll's Tea Tree (*Lycium agg.*) and Tree Mallow (*Malva arborea*). We also observed a Ventnor Wall Lizard (*Podarcis muralis*) sunning himself on a rock.

Dave and Hazel Trevan

Archaeology

Saturday 27th January Iceland: Delian Backhouse-Fry

Using stunning photos taken on her recent visit to Iceland, Delian gave about 28 members a sense of the modern country and its links to its past plus some environmental issues that are of interest to our membership as a whole.

When the Norsemen arrived in the late 8th century, probably having been driven off course by storms, they found a land with some trees, which were cut down pretty quickly, as in Orkney in the Neolithic. Today there is a planned re-planting programme. The main food source then was fish, seal and whale. That continues to be the case. The ground is too cold most of the year for successful arable farming, even grain crops, so much has to be imported. Crops are grown mostly in polytunnels, heated by geothermal energy, and research is ongoing to develop the range. Possibly Iceland's main resource, apart from seafood, is the geothermal energy. It may be cold outside, but houses are warm as the use of this natural resource is highly developed.

A distinctive feature in June was the vast spread of lupins across the landscape. This is as a result of planting which has taken over. Think rhododendrons, sycamores, Japanese knotweed.

With a population of about 320,000, an influx of about 2 million tourists annually clearly has a major impact on a fragile ecosystem. Wooden walkways and roped areas are used to protect the thin layer of grass, moss etc.

Delian noticed that the population seemed to fall into 2 distinct types – tall and fair or short and dark. Recent DNA studies have shown that the lines of descent are predominately from Norwegian males and Scottish/Irish females. It is not hard to see why. Whilst the younger sons of a Norse family might have to emigrate to find new land, they could not pay the dowry for a local wife to take with them. But the Viking raids provided a source of women from Scotland and Ireland; is it just fancy to think there may be Pictish ancestry in the current population?

Whilst the Norse are usually credited with discovering Iceland, recent archaeology on the South West coast has revealed remains of earlier stone buildings. Finds there have included 3rd century Roman coins. Current thinking is that Irish monks, long known for their intrepid travels, may have tried to establish themselves there. It is also perhaps no surprise that the DNA research has shown 4% of the population to have Inuit ancestry. Most Nordic archaeology consists of finds in the museum but Delian had a photograph of a turf longhouse that has been excavated and reconstructed.

This talk set the scene for the following one describing the explorations further west.

Helen Jackson

Saturday 17th February Vikings in Greenland and the New World: Delian Backhouse-Fry

Delian pointed out the value of the Icelandic Sagas which tend to be detailed family histories and tell us much more about the lives of ordinary people than sources in other

cultures. Archaeology has been able to confirm some of these accounts, just as the accounts have helped make sense of the archaeology. By about 1000 AD the Vikings had spread across much of Europe and the eastern Mediterranean, raiding, trading or settling. The Anglo-Saxon Chronicle makes several references to their temporary bases on the Isle of Wight, where they established safe areas to meet the locals for trade and parley. Yet there is scant archaeological evidence, no buildings found and only a few artefacts.

The settlement on Iceland flourished with about 300 families farming. The North Atlantic drift enabled temperate conditions on the South coast and grazing for the cattle. They also gathered driftwood, but did not know where it came from. It seems they experienced Climactic Optic Inversions, whereby they occasionally thought they saw land in the distance. This same illusion has led some people on the Isle of Wight to see the Cherbourg Peninsula. In fact, the Icelanders were seeing Greenland, some 150 nautical miles away.

The land was finally discovered by Erik the Red in 879, who named it to make it sound attractive to settlers. The climate was quite mild at that time. He took about 500 people to a place offering fish, whale, walrus but also more predators than Iceland, such as bears and wolves. Again, there was a plentiful supply of driftwood. The colony flourished, benefiting from the milder climate of the time and the trade in walrus ivory. With the current global warming, archaeological evidence is emerging from the ice and the Danes have a long-term research programme. Delian showed us a photo of a stone building, - the bishop's palace or the cathedral.

In time, Bjarn became lost in the fog en route to Greenland and discovered an unknown territory. This led Leif Erikson to explore. He identified 3 areas 'Slabland', probably Baffin Island, Markland (meaning forest), probably Labrador and Vinland, probably Newfoundland. The latter was named for the wild grapes he found growing there. Leif also encountered the native people, whom he named Skraelings. Eventually a group of colonists led by Thorvald and his wife Gudrun sailed across. Their child, Snorri, was the first white child to be born on this continent. In the late 1960s a site known as L'Anse aux Meadows was identified as possibly a Viking settlement site and subsequent archaeological work has produced clear evidence. The site can now be visited and there are reconstructions of the Viking buildings. Yet again very few artefacts have been found.

By 1500 the colony on Greenland was abandoned. This was probably largely due to the deteriorating climate, but analysis of human bones shows many were plague victims. The Vinland colony was also abandoned. By this time the Viking Age was on the wane and the thirst for exploration dwindled,

Delian likes to leave us with a few teasers. Firstly, some have wondered whether Irish monks might have accidentally sailed to the New World before the Norsemen, just as they may have reached Iceland. But there is no clear evidence. Secondly, why are there so few artefacts left in Greenland and L'Anse aux Meadows? Delian wondered if it is part of the Viking culture to value scarce resources, to never throw anything away but rather to re-use and recycle. Even today in Scandinavia they do not like to throw away unwanted items, preferring to 'rehome' them!

Helen Jackson

Saturday 17th March 2018 Making Sense of Mythology

Seventeen members made their way to St Lawrence through light swirling snow to hear a stimulating talk by Alan Phillips. The subject matter and Alan's facility to explore ideas with both scholarly and analytical approach took our minds off the weather.

His talk was developed from one he gave, linked to the exhibition called *Illumination*, at the Quay Arts last year in which Marius von Brasch and Howard Hardiman explored the concept of Myth through paintings and drawings. Alan sketched out the contribution made by nine influential thinkers on the concept of Myth, how it relates to human activity, beliefs and rituals.

The oldest recorded myth is probably that of King Gilgamesh, over 4000 years ago. While the Ramayana and the Greek myths are more recent (500BCE). Greek stories have dominated over local legends and myths in western culture. Yet myths are not necessarily set in history, they can be considered in the present and the future.

Sir Edward Tylor (1832 – 1917) in his studies in Cultural Anthropology explored the definition, origins, influences on Myth and those resulting from it. He considered that science was displacing both Myth and religious belief as evolutionary process. Myth was an outdated method of explaining the world.

William Robertson Smith (1846 – 1894), a scholar and theologian argued otherwise. His Myth/Ritual theory considered that myths were to justify ritual.

Sir James Frazer (1854 – 1941) and his massive work *The Golden Bough* were hugely influential in associating Myth with fertility rites among other essential aspects of human activity.

Alan continued by exploring a number stories, widely distributed among different cultures. Adonis, from Greek mythology, for example, came to represent the seasons, regeneration, nature, the eternal child and innocence. Creation myths involved the sacrificial dismemberment of a giant creature. The primordial paradise, fall from grace, the flood and a lost golden age often occur.

Sigmund Freud (1856 – 1939) explored notions that myths and dreams interacted in the human psyche. Perhaps the best known is the Oedipus complex. Carl Gustav Jung (1875 – 1961) developed the ideas further in the collective unconscious. Fairy tales, illusion, spirituality and religion are manifestations of primordial images. Dreams reveal the unconscious. Myth links the past to the present. The anima and animus, attributes of male and female collective unconscious respectively are well recognised in the characters of Greek gods and goddesses in both their positive and negative attributes.

Joseph Campbell (1904 – 1987) in *The Hero with a Thousand Faces* focused on the commonality of mythology. He identified a monomyth, present in all cultures, of a heroic figure taking a journey. It is a clear recognition of the collective unconscious. This Hero undergoes a separation or departure. This is followed by a form of initiation, often meeting with goddesses (anima?), finding atonement, enlightenment or an ultimate boon. Finally there is the return with all its complexities. The story has been retold an unknown number of times through history and also features in modern epics. Campbell and George Lucas worked together on the storylines of Star Wars, which perhaps helped the films to resonate so well with so many.

René Girard (1923 – 2015) equated Myth with violence, sacrifice and the scapegoating. The effect of conflict in the evolution of society is to focus on what unites a community into action. What better for bringing people together than mimetic desire to identify a scapegoat? However, sacrificing the scapegoat renders him sacred and turns him into a hero. The criminal becomes the innocent victim. The initial collective violence is reconciled through creating a myth. The victim is resurrected, ritual ensues and religion propagated. Girard holds that Christianity exposes the scapegoat mechanism.

Coming to the present time we would prefer to deny the effect of Myth in our culture, yet there is an obsession with celebrity, in pop stars, actors and sports people as heroes. Modern myths continue with national and religious identity problems, scientific generalisations and moral acceptances, economic systems and politics. The scapegoat, the

swaying of public opinion by mimetic thought and fake news, unresolved gender issues, prejudice and many other aspects of Alan's journey through the theories of Myth are still with us.

The relevance of Myth to the archaeologist is in placing human kind in a wider context. The inter-relationships of history, philosophy, anthropology, politics, theology, science and archaeology are so complex that it is not possible to separate one from another. In our interpretation of evidence of the past we need all these tools and more to shape our models and understanding.

Eric Johnson

Botany

Saturday 30th December New Year Plant hunt 2018

The dates for this year's event were set by the BSBI as 30th December 2017 – 2nd January 2018. The weather was mixed in the final days of December, but a check of the weather forecast site www.yr.no predicted overcast conditions on the Isle of Wight for 30th December, but no rain until after dark, so a group of nine set off northwards from Winchester House car park to explore Lake cliffs. This was new territory for all of us! We walked down Littlestairs path, along the Esplanade to Ferncliff path, back up to the cliff to make a brief detour to Battery Gardens and then returned to our starting point along the cliff top path. New Year Plant hunt rules require the flowers to have anthers or stigmas visible to qualify as 'flowering'. Around the car park and on our way to the cliff, we found Creeping Buttercup, Daisy, Common Cat's ear and Winter Heliotrope. On the cliff face we found Broom, Gorse, Greater Periwinkle. Looking along the talus slope and behind the beach huts at the base of the cliff provided the opportunity to add naturalised plants such as Red-hot Poker and Hebe 'Blue Gem' to our list. Hydrangea proved to be the subject of much debate -could we count it or not? 'When is a flower not a flower?' - when you are observing are sterile bracts and there are no anthers or stigmas, it doesn't count!!

Re-ascending the cliff gave us a Pot Marigold flower in pristine condition. The walls around Battery Gardens enabled us to find Ivy-leaved Toadflax, Pellitory-of-the-wall and Sicilian Chamomile and there was a Primrose in flower at the edge of the grass. A quick tally from the mobile phone screen gave an approximate total of 45 species so far, so a target of 60 was set. The clifftop yielded a fine specimen of Field Scabious and a patch of Red Valerian amongst others. Back at the car park our provisional total was 58, so much searching under fences and on walls occurred to find Keel-fruited Cornsalad and Trailing Bellflower.

Checking of the results later made our total 61, though the BSBI website does not entirely agree; that comes down to the group leader's issues with the mobile phone app recording form! However, we were top of the leader board for quite some time until the Swanage and Cornwall groups got going! And yes, the weather kept dry for us, except for the briefest of showers at Battery Gardens. See: <https://nyph.bsbi.org/results.php>

Saturday 20th January Indoor meeting

The indoor meeting in January followed the same format as previous years and gave the opportunity for reports to be given on the progress of Field Cow-wheat and Wood Calamint monitoring projects, as well as reviewing the particular botanical finds of the last season.

We spent some time considering our future activities especially in the light of the society's centenary in 2020 and listed some ideas for inclusion in our programme that year. During the tea break we celebrated the 90th birthday of one of our members, Margaret Burnhill.

Afterwards we looked at photographs of spring in the Algarve, taken during a visit last year, to see some of the characteristic vegetation types and flowering plants of this varied region - from the sand dunes, estuaries and cliffs of the coast to the wooded hills of Monchique and the rolling farmland which stretches into the Alentejo.

Sunday 11th February 11th / Saturday 24th March Wood Calamint conservation work

The participants in Sunday morning meeting in February spent their time thoroughly clearing back the woody remains of last year's vegetation in the larger of the two laybys. The other layby was cleared by a contractor grant funded by Natural England. Afterwards, we walked over part of Rowridge Copse (on the slope to the west of the road) to look at possible areas for the translocation work planned for later in the month. We also were able to see an excellent display of wild daffodils not visible from the road and subsequently not reported to the Recorder for many years.

Mark Larter from Natural England explained the plans for this year's coppicing; much of the larger cut material was to be taken away, leaving the smaller branches to be rowed-up in lines. The gaps between the rows provided space for the setting out of approximately 40 wood calamint plugs towards the end of March. We will visit the site in August and September to see how the plant is faring and would welcome more people to help with the monitoring.

Saturday 28th April Westbrook Meadow, Nettlestone

The Westbrook Centre on Puckpool Hill, Ryde has extensive grounds which are used for recreation but also are managed for conservation. The large meadows, fringed by woodland, gave a long list of 134 species by the time we had completed our survey including Butcher's Broom (*Ruscus aculeatus*), Redcurrant (*Ribes rubrum*) Stinking Iris (*Iris foetidissima*) and Soft Shield Fern (*Polystichum setiferum*) in the woods and Cuckooflower (*Cardamine pratensis*), Spring-sedge (*Carex caryophylla*), Common Spotted-orchid (*Dactylorhiza fuchsii*) and Ground-ivy (*Glechoma hederacea*).

The meadows are notable for their population of Green-winged Orchids (*Anacamptis morio*) which were in superb flowering condition. One particularly deep purple flower was on a plant on the edge of the football pitch which was too wet for mowing early in the season. Not far away was a small patch of Upright Chickweed (*Moenchia erecta*) a rare plant of open dry sandy ground or gravelly turf which was a good addition to our list. Some building work has taken place on the site and the area of disturbed ground in the vicinity gave opportunity to record plants associated with this more transient habitat: Scarlet Pimpernel (*Anagallis arvensis*), Petty Spurge (*Euphorbia peplus*), Charlock (*Sinapis arvensis*), and Rosebay Willowherb (*Chamerion angustifolium*). At the end of the meeting the Westbrook Centre kindly offered hospitality in the provision of tea, coffee and biscuits which were greatly appreciated.

Sunday 13th May St Mildred's church, Whippingham

This church and its grounds, with their connections to Victoria and Albert, are on the Island's tourist route, and also a popular venue for weddings. Consequently, the management

of the grounds presents a challenge to the volunteer group who work there regularly. They have attended a cemetery wardens course run by the Footprint Trust and are attempting to apply what they have learnt to keep the grounds tidy while allowing a variety of plants to flourish. They had mowed the main pathways three weeks before our visit but left the areas between and within the burial plots.

In the areas of longer grass around the edges we found Rough Meadow-grass (*Poa trivialis*) and both Prickly and Smooth Sow-thistle (*Sonchus asper* and *S. oleraceus*), Meadow Buttercup (*Ranunculus acris*) and Common Sorrel (*Rumex acetosa*). In the shorter turf and on the wall, speedwells provided the opportunity for us to use the key in the identification book to distinguish them. There were 6 in total: Wall Speedwell (*Veronica arvensis*), Germander Speedwell (*Veronica chamaedrys*), Ivy-leaved Speedwell (*Veronica hederifolia*), Common Field-speedwell (*Veronica persica*), Thyme-leaved Speedwell (*Veronica serpyllifolia*) and Slender Speedwell (*Veronica filiformis*). The latter is relatively uncommon.

We were pleased to find that the species list at the end of the afternoon corresponded well with those from previous surveys in 2000 and 2011, suggesting that the management regime is succeeding. We enjoyed refreshments in the Parish Centre afterwards, served by Sarah Kite a member of the church and of IWNHAS.

Saturday 9th June The Allotment Field, Freshwater and Colwell Common

'Big Days Out' are advertised by various organisations and this was the Botany Group's version, spending a day in Freshwater visiting two small sites and being pleased to welcome a number of local members who live close by. Lucy Temple, a member of IWNHAS, and her mother have grazed their horses on the Allotment Field for many years. They have carried out strip-grazing for 9 months of the year and have carefully removed the dung twice a day to reduce the nutrient levels of the soil. This regime favours the growth of wildflowers amongst the grasses.

Corky-fruited Water-dropwort (*Oenanthe pimpinelloides*), Cat's-ear (*Hypochaeris radicata*), Meadow Vetchling (*Lathyrus pratense*) were found in some quantity with smaller amounts of Common Broomrape (*Orobanche minor*), Grass Vetchling (*Lathyrus nissiola*), Meadow Barley (*Hordeum secalinum*) and Lesser Centaury (*Centaureum pulchellum*). Spear Mint (*Mentha spicata*) was judged to have spread from the nearby allotments. There were small quantities of Bee Orchids (*Orphrys apifera*) and a solitary Pyramidal Orchid (*Anacamptis pyramidalis*) at the top corner of the field.

After a pleasant sunny morning, the clouds rolled in and there were a few drops of rain as we began our survey of Colwell Common. The southern end has had areas left uncut in the last two seasons and we were able to find some of the site's specialities. Bog Pimpernel (*Anagallis tenella*) is a plant not frequently seen on the Isle of Wight and, as its name implies, it favours wet conditions. This plant was re-found here last year, the first 'written-down' record since William Bromfield in 1856 and we were pleased to see it this year. The group was also challenged to find a flowering spike of Marsh Pennywort. The leaves of this plant are very noticeable but the picture in the identification guide suggested a very insignificant flower. Once we 'had our eye in', a number of flowers were seen and photographed, and the plant was correctly identified as being in the Apiaceae (carrot or umbellifer family). We found three species of orchid: Green-winged Orchids (*Anacamptis morio*) were all but over but good numbers of Southern Marsh Orchid (*Dactylorhiza praetermissa*) were still flourishing with a single plant of Common Spotted Orchid (*Dactylorhiza fuchsii*). A total of 57 species were named.

Saturday 23rd June

Merstone Station

Merstone Station these days lies on the Newport-Sandown Cycleway (N23 route), the tracks having been taken up many years ago. It is managed by Gift to Nature who have installed sculptures (suitcases on the old platform), information boards and picnic tables. They have planted fruit trees to make a community orchard, and sown wild flower seed.

There was a wide range of relatively common plants growing close together and we had the opportunity to compare similar plants to understand the differences between them, for example Black Medick (*Medicago lupulina*), Hop Trefoil (*Trifolium campestre*) and Lesser Trefoil (*Trifolium dubium*). Other showy flowering plants included Yellow Rattle (*Rhinanthus minor*) possibly from the wildflower seed mix, Ox-eye Daisy (*Leucanthemum vulgare*), Tufted Vetch (*Vicia cracca*) and Meadow Vetchling (*Lathyrus pratensis*). A small group of plants characteristic of chalk - Hoary Plantain (*Plantago media*), Cowslip (*Primula veris*) and one Pyramidal Orchid (*Anacamptis pyramidalis*) - was also found, suggesting there may be a lens of chalky soil present.

As the meeting had been advertised as the opportunity to practice grass identification, we worked together to understand the important features of grass flowers – awn, lemma, glume and ligule, amongst others. Towards the end of the meeting we gathered at the convenient edge of the platform to check through our grass specimens which enabled us to compare the variation between grass plants in full flower and those going to seed. We checked the names as a group and we had 17 in total.

Additionally, there were some new gall records for the site including Fig gall (*Tetraneura ulmi*) on Elm, *Contarina acroecis* on Lady's Bedstraw (first English record in 2014) and *Urocystis avenae-elatioris*, a smut fungus on False Oat-grass, which is recorded in Morey's Natural History of the Isle of Wight but not on any gall list.

Anne Marston

Ornithology

Saturday 13th January

Shalfleet Quay

Eleven people attended the meeting on a bright but windy and cold day. After walking down to the little bridge where a Gadwall and Goldcrest were seen amongst other birds we continued down towards Shalfleet Quay. In one of the fields not far from the car park many winter thrushes were sighted, mostly Redwing but with a few Fieldfare amongst them. The most notable birds were 100+ Wigeon, 50+ Lapwing, 30+ Black-tailed Godwit and a Great Crested Grebe. 44 different species were seen or heard. The meeting finished a little early as everyone was getting cold.

Toni Goodley

Sunday 18th February

Shepherd's Chine

Seven members and a guest met at Shepherd's Chine for a walk inland to Atherfield Lane and return to our parked cars. We were expecting the weather to be dry but cloudy however, as soon as we set off a slight drizzle began. This did not put us off. After some days of wet weather we were delighted to hear the song of Skylarks filling the air.

A Yellowhammer was singing from the top of a bush by the Chine and a Kestrel was hovering over a field. In a large expanse of field a large group of gulls were roosting which included Herring Gull, Lesser Black Backed Gull, Great Black Backed Gull, Mediterranean

Gull and Black-headed Gull as well as five Canada Geese. In a nearby field two flocks of finches numbering about 75 were noted but the visibility was poor and could only conclude that in all probability they were Linnet. In another field we saw six Red-legged Partridges running up the brow of the hill and disappearing over but we then saw a few of them appear to jump up in the air – displaying perhaps? In the same field we saw approximately 40 Lapwings. In the Fir trees by the farm we counted 15 Collared Dove. In all 28 species were seen.

Jackie Hart

Saturday 10th March Newtown

Nine members met at Newtown NT car park for a walk led by Nicky Falconar on the Nature Reserve. The weather forecast was for sunshine and showers and rain was threatening as we left the car park. Someone was just leaving and advised us that a pair of Goosander were in the Scrape so we headed down there. We arrived within ten minutes and what we saw was a pair of Red Breasted Merganser and, a little later, a pair of Pintail but no Goosander. The Black-headed Gulls and Mediterranean Gulls were congregating on and around the islands and 76 Mediterranean Gulls and 191 Black-headed Gulls were counted. There were six Teal in amongst the vegetation and about 100 Dunlin and two Grey Plover were out on the mud. At least seven Curlew were in a field at Brickfields and some Canada Geese and a Peregrine was on one of the Osprey nest poles. There was a Great Black Backed Gull on the marsh as well as 90 Shelduck. As the rain had stopped and we had a sunny interlude we headed out to the boat house and saw two Meadow Pipits fly whilst we were on the bridge. A lone bird was spotted standing in the vegetation near the bridge and we stopped to take a look and had excellent views of a Knot. It started to rain again and we turned round and went up the side of the meadow and saw two Yellowhammer. We took a slight detour to overlook the estuary at Cassey Bridge but as the tide was well out we did not see many ducks although we did see a few Wigeon. The field opposite had Brent and about 20 Starlings. In all we saw 37 species.

Jackie Hart

Sunday 29th April West High Down

Eight members and four guests met at the National Trust chalk pit car park at Totland for a walk up to the downs. It was a cold and blustery morning but we did see or hear some summer migrants including Chiffchaff, Blackcap, Willow Warbler and Whitethroat in the woodland either side of the track. Jay and Buzzard were overhead in the car park and a Pheasant was heard periodically calling from the nearby field. A Green Woodpecker, Wren and Robin were also either heard or seen. A pair of Long-tailed Tits were foraging in amongst the trees. On the downs Swallows were flying by and Linnets were flitting from Gorse bush to Gorse bush. There was a party of five with one carrying nesting material and a Dunnock was spotted with a feather in its bill. It was very noticeable that very few Meadow Pipits were seen- probably two altogether. A male Stonechat was sitting on top of a Gorse bush as were two Wheatear. No Dartford Warblers were noted. Two Ravens were sitting together on a redundant golf tee off area. In all 31 species were noted during the morning. **Jackie Hart**

Saturday 12th May Walk from Hurstake to Werrar Farm

Eight members met at the Medina Park Picnic site car park for a walk to Werrar Farm.

The weather was overcast but dry and after a visit to the river from the car park it was decided to walk through the picnic area as the tide was coming in and it was very muddy along the river bank due to recent rainfall. We walked as far as the 'rowing club' and then up onto the cycle path where we had views of the wading birds.

We then left the cycle path and went to Riverview Park and headed to Dodnor Pond, which was quiet but two Tufted Ducks were seen. We then walked up the path beside the pond and back onto the cycle path where we were invited by Dr Ruth Waller onto the Mummies Caves site to see the progress that the archaeologists are making on the old cement kilns, which is now part of Gift to Nature land and through lottery funding is being cleared of debris and excavated. She gave an excellent impromptu talk and guided tour and showed the new discoveries they were making. Although this was not part of the planned walk it was too good an opportunity to miss as the site will not be opened to the public and eventually will be covered over again. We all agreed that this detour was well worth it. We then started to walk back towards Newport along the cycle path, passing over Dodnor Pond on the bridge and then back to our cars.

In all 36 species of birds were seen or heard and evidence of breeding noted.

Nicky Falconar

Friday 1st June Parkhurst Forest

Ten members turned out for the evening Nightjar walk meeting in the main car park. It was a misty evening and I was not very hopeful of good outcome. We did a circular walk and heard Blackcap, Blackbird and Song Thrushes singing in the evening air and also saw a Jay. We saw approximately five Woodcock flying over the rides and also heard them call. On the way to our usual spot to hear/see Nightjars we heard the familiar churring sound and when we got down to the corner saw a bird flying and then another one flew low along the ride towards us. We were fortunate to have a number of sightings of the Nightjar and also heard it churring before we headed off towards the car park and on the way found another territory where the churring was very loud. In all three territories were identified and at least four birds seen or heard. A very successful evening.

Jackie Hart

Entomology

Tuesday 5th June

Nansen Hill

Four members met on an afternoon which was disappointingly dull, with lots of cloud cover, and rather cooler than of late. We had been hoping to see a range of spring butterflies, including blues, but although Common Blues were present in good numbers on the previous weekend, they were notable by their absence on this visit. The only butterflies seen were a couple of Speckled Woods. A Straw Dot and a Diamond-back were the two species of moth recorded. In addition, we saw Dark Bush-cricket, and *Capsus ater*, a mirid bug. Three homoptera were identified, the Common Froghopper, another froghopper species, *Aphrophora alni*, and the planthopper *Stenocranus minutus*. Four galling species and three varieties of mine were also identified, including *Phytomyza symphyti* on Gromwell. A few birds were also observed including Jay, and Buzzard, but the highlight of the afternoon was the party of at least forty Swifts which appeared over the brow of the hill and continued to migrate north. After such a poor May for this species, it was encouraging to see evidence of a second wave of birds.

Saturday 16th June

Mottistone Down

This was another day when the weather proved to be critical. This time not only was there cloud, and spots of rain, but the strength of the wind made it very unattractive for species to be on the wing. Despite these unpromising conditions nine members met at the Jubilee Car Park. This visit coincided with National Moth Night and this year's theme was pyralid moths, many of which are day-flying, and so in good weather would have been present in good numbers here.

Despite the poor conditions two species of pyralid were seen. These were *Chrysoteuchia culmella*, and a couple of examples of *Pyrausta despicata*. The most spectacular find was the caterpillar of Brussels Lace, an extraordinary sight, looking for all the world like lichen on a tiny twig. Indeed, it was only the fact that it looped up, on being disturbed, that showed that it was not a piece of the Hawthorn that it had come from. No examples of Six-spot Burnet moths were seen, but two chrysalises were noticed, both occupied by a moth just on the point of emergence. Further moths, found later on the edge of Westover Plantation, were *Agapeta hamana*, and the Shaded Broad-bar. Few butterflies were on the wing, but some were disturbed, most of which were Meadow Browns, but there was also a sighting of a Small Heath. Among the bugs that were found were *Closterotomus norvegicus*, a mirid bug, and *Leptopterna dolabrata*, a grass bug, for which we were able to contrast the male and females. Three Ravens flew over at the start of our walk, and Chiff-chaff and Blackcap were heard later near the entrance to Westover Plantation.

Richard Smout

IMPORTANT MESSAGE FROM MEMBERSHIP SECRETARY

As you may be aware, we have not raised the subscriptions for many years, and this is partly due to the fact that we can claim some of the subscription back from the Government when Members sign a Gift Aid Declaration. For Single Membership of £20 we can claim back £4 and for Family Membership of £25 we can claim back £5.

If you are a Tax Payer and have not yet signed a Gift Aid Form I would strongly urge you to think about doing so.

A Form is enclosed in your envelope.

Toni Goodley, Membership Secretary

MEMBERSHIP SECRETARY'S REPORT

New Members

Deaths

Toni Goodley

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NEXT BULLETIN

Items for inclusion in the next Bulletin and Reports of Meetings for 1st July 2018 to 31st December 2018 should be sent to:-

Isle of Wight Natural History & Archaeology Society, Unit 16, Prospect Business Centre, Prospect Road, Cowes PO31 7AD Email - iwnhas@btconnect.com

The closing date for acceptance of items and reports will be 2nd January 2019

Bulletin Editor: Colin Pope