



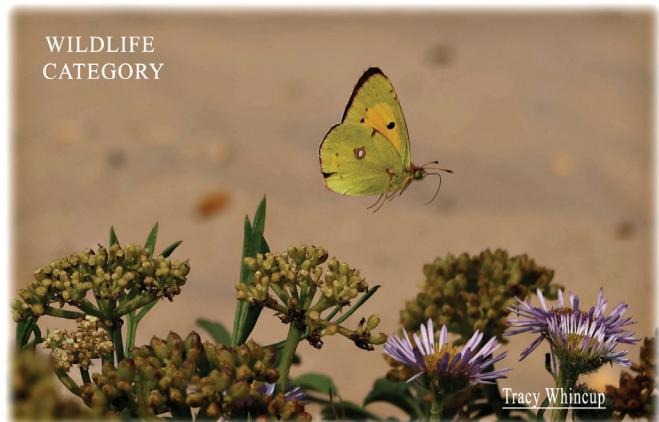
# BOURNEMOUTH NATURAL SCIENCE SOCIETY & MUSEUM

*Share our love of science*

## BNSS Photography Competition 2024

**Tony Grant**

In 2024 we had 40 adult entrants with a total of 200 photographs submitted for consideration in the three categories: Plants and Fungi, Landscapes and Wildlife; wildlife being the most subscribed with 77 photographs. We had entries from 5 Young Explorers with a total of 24 photographs. We would welcome entries from more of our young members in 2025.



### Summer 2025 In This Issue

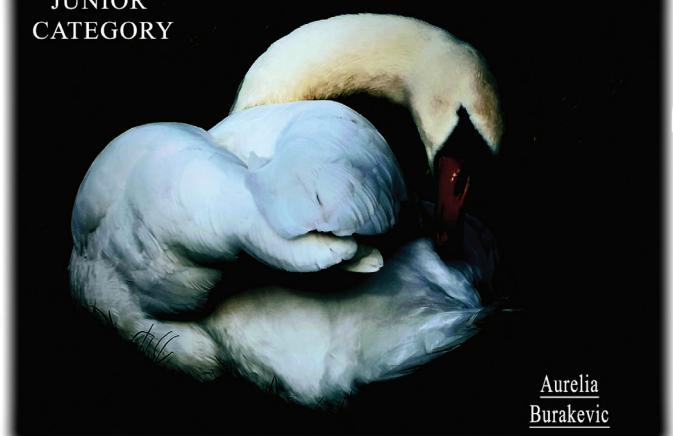
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[www.bnss.org.uk](http://www.bnss.org.uk)  
Charity No. 1165951

The Winners of each category are shown here, and all the prize winners' photographs are on display in the Wallace Room on the first floor of the Museum.

The 2025 Competition will be announced very soon.

JUNIOR  
CATEGORY



# Mayor visits the Microscopists Grenham Ireland

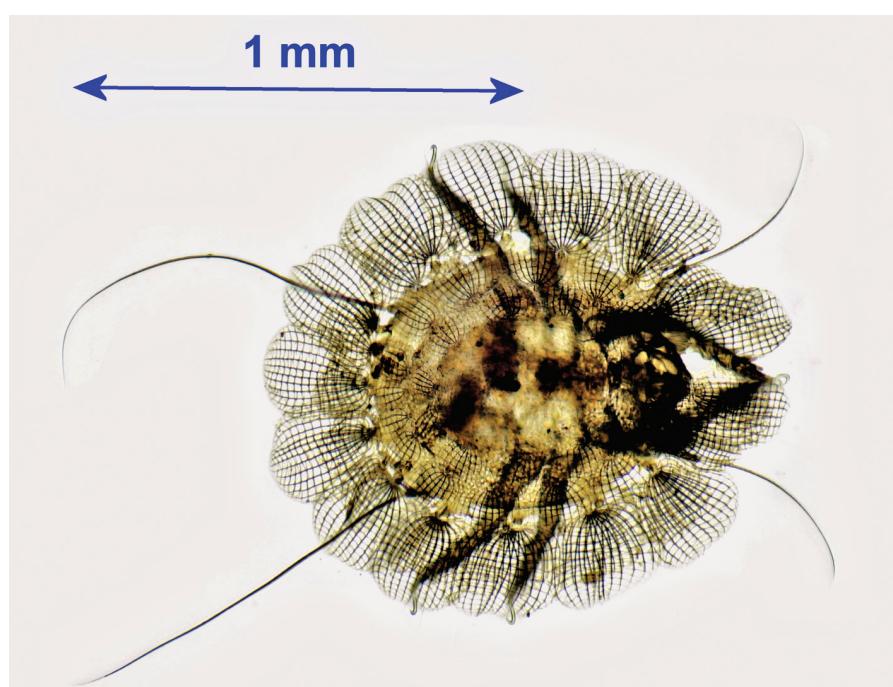
The 5th Joint Meeting of the BNSS and the Quekett Microscopical Club was held on Saturday 31st May. Bournemouth Mayor Jackie Edwards visited the displays early on followed by a steady stream of visitors, both BNSS members and members of the public, which kept the exhibitors busy for the five-hour display period.

Jeremy Poole showed the results of his scanning electron microscope studies of minerals, including elemental analysis, and of fossil coccolithophores the unicellular organisms which have calcite plates from which chalk is composed. Pam Hamer had a collection of thin sections of rock samples which are going to be incorporated into the QMC collection which showed colourful images when polarisers were used. Joan Bingley's stand demonstrated microscopes slides from the Postal Microscopical Society and Debbie Burfitt had pictures of diatoms. Graham Matthews had been photographing an early 20th century collection of slides of Acari (ticks and mites) taking multiple images at different focal depths to produce a combined 'stacked' image some of which were quite stunning.

For BNSS, Steve Limburn had an extensive display of Victorian microscopes complete with an opportunity to guess the identity of the specimens shown under each of them. Jacque Bainbridge had a mix of both biological and geological specimens for visitors to examine themselves. For my own display, I had live barnacles, collected from Poole beach, which when magnified showed their feeding behaviour and a fresh sample of active plankton both of which could be seen on a large monitor.

This year we reached out to try and encourage interest from local microscopists and Prof. Genoveva Esteban from Bournemouth University brought a variety of live protozoans and microscopes to show them to us and our visitors. John Smith, a local bee-keeper, also sent specimens of workers and drones for us to display under magnifiers although he was unable attend himself.

The lunchtime break gave the exhibitors the opportunity for 'microscope gossip'!



Bournemouth Mayor, Jackie Edwards and Steve Limburn

A 'stacked' image (many combined photos) taken by Graham Matthews of a nymph of the mite *Conoppia palmicinctum* (Order Orabidae). From the A.D.Michael collection of 19th century slides held by QMC - only recorded in SW Britain.

# Two Hundred Years of Iguanodon

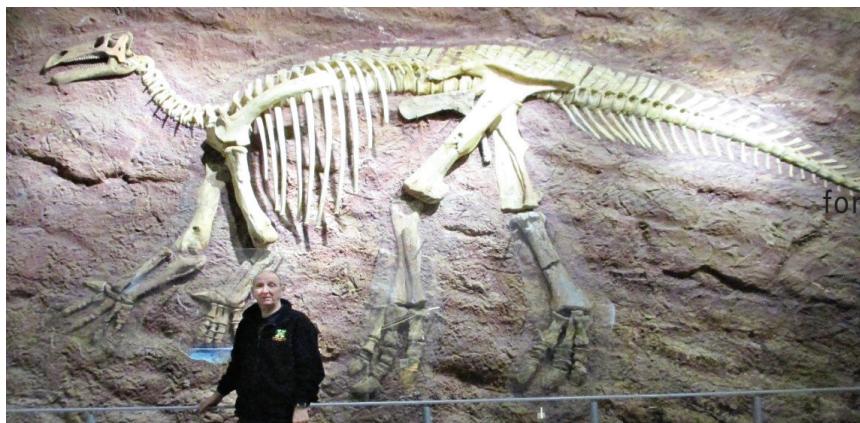
## Jacqueline Bainbridge

Iguanodon "iguana tooth" was the second dinosaur to be named in 1825, after Megalosaurus in 1824. Together with *Hyaelosaurus*, these three became the basis of Richard Owen's 'Dinosauria', the first use of the name, meaning "terrible lizard."

The fossil was formally named by Dr Gideon Mantell in the *Philosophical Transactions of the Royal Society* February 1825. There are many differing accounts of the finding of Iguanodon. These were the subject of Ray Chapman's talk in January 2020.

The BNSS has two connections to Iguanodon – our type specimen of the trackway *Iguanodontipus burreyi* on display in the Geology Room. The other is one of the likely foods – the Ginkgo tree, a specimen of which can be found at the front of the building on the West side.

The genus Iguanodon has had many changes over



Iguanodon skeleton, Isle of Wight (volunteer for scale)

the years. Mantell's original name of *I. anglicus* is no longer valid and is now *I. bernissartensis*, after the complete skeletons found in Belgium some 50 years after Mantell's original find. For many years a lot of material was 'dumped' under the heading of Iguanodon. Recent research has found there are probably many Iguanodons and closely related species.



## Cheek by Jowl By James Dovey

On 24th May there was a welcome first visit to our society by wildlife photographer Gordon Small. His talk on 'The Everglades' covered the first half of his journey to 'sunshine Florida' in January 2023.

What does a photograph mean to you? For Gordon, who wanted to immerse himself in wildlife and know what he was looking at, its main aim was to help him identify all forms of life, often, later, referring back to friends and books.

Many of Gordon's subjects in Florida weren't too difficult to find: the Turkey Vultures (TVs!) in the car park; the alligator resting by the pond; the Osprey by the ice cream shop with its nest just above his head, and being accompanied down the freeway by a light morphed Broad-winged (Maple-winged) hawk... think small buzzard. The wildlife is close by and seems to ignore people!

Other images that stuck in my mind were: Great Blue, Little Blue & Green Herons, the latter's beautiful bright green flight feathers catching the eye. In the swamp the Skeleton Forest made up of Bald Cypress trees. In winter these deciduous conifers look dead. It's a bleak landscape, but wait for spring. Just beneath the water's surface the spectral, pike-like, Florida Gar covered in leopard spots. The iridescent, very long toed American Purple Gallinule walking on the lily pads, a vagrant occasionally seen in



Roseate Spoonbill  
© Gordon Small

the UK. What a beautiful bird. Dorset Museum shows an excellent specimen.

A couple of years ago, as a summer day came to an end, I was lucky enough to see a group of Spoonbills (Eurasian) fly directly overhead at Arne in Dorset. From below, the shape of the bill was so diagnostic. Eight 'long handled spoons' passing through the sky: a striking silhouette. There are six Spoonbill species found around the globe. The Eurasian is white. The only one found in Florida and the Americas is the Roseate Spoonbill and it's an intense bright pink. It was one of Gordon's favourite shots!

# Aerial Archaeology

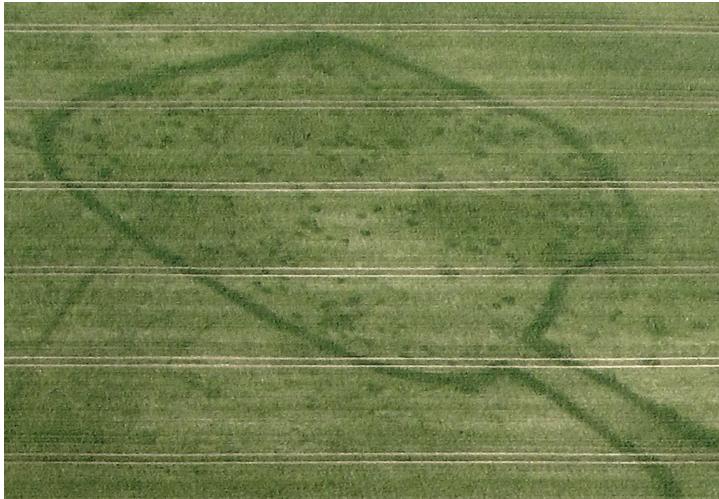
## Jo Crane

This is a fascinating area of science that has been increasingly important since the early 20th century when firstly balloons and kites then aircraft of various forms started spotting strange shapes in the landscape. These would either be permanent features or fleeting crop marks.

The rapid rise of reconnaissance photography in WW1 triggered dedicated research in the 1920s. An archaeologist **O.G.S Crawford** is acknowledged to be the main early pioneer.

Considered to be a very awkward character he, together with Alexander Keiller, dedicated many years to carrying out aerial surveys across the country. Crawford was often seen setting off on his bicycle before covering many miles in order to investigate sites of interest on the ground.

Crop and soil marks, earthworks, stone structures and ancient land use can also be spotted from the air. Many traces, although ancient, only appear briefly due to climatic conditions. A ditch will hold more soil or moisture so that in dry conditions the crop above will be more lush.



Conversely crops over a stony or impervious feature will be less developed or dense. Ambient lighting can also be a factor in showing up features. A low sunlight angle will highlight subtle ground height variations more readily.

Invariably, what may appear to be an ancient feature may not be and requires 'ground truthing' by visiting on the ground or even excavations.

Over the years a vast number of photographs and mapped features have been catalogued. Historic England alone holds a collection of 400,000 photographs that can be accessed freely online.

In more recent times LIDAR surveys have been revolutionary. Laser pulses are fired at the ground from an aircraft. The time taken for the reflected light is captured and even differences as small as 25cm can be detected, showing minute ground features. Furthermore, over wooded areas some light will still reach the ground and reflection data can be filtered in order to show what lies beneath.

This technique (combined with ray tracing visualising methods) has recently revealed vastly more unknown

features. *Google Earth* has also revealed many new sites right across the world.

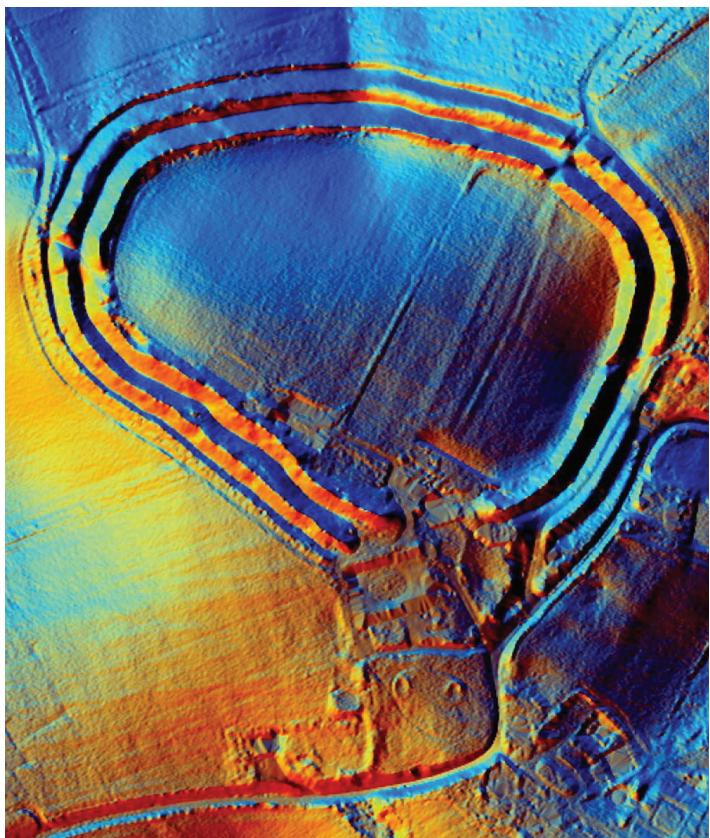
Taking photographs from an aircraft can be very tricky. Apart from the speed of travel, there can be turbulence too that requires a camera that can focus rapidly and has a fast shutter speed. Air clarity and the direction of the sun (or no sun) are also important considerations. However, large distances and areas can be covered.

In recent times UAVs (drones to you and me) have become very dominant for surveying smaller areas. Extremely good lightweight drones with decent cameras can be bought for just a few hundred pounds. They can be stationary in the sky giving plenty of time to pick the right place and light conditions for good results.



Left: Iron Age Settlement crop mark, Cranborne Chase

Below: LIDAR including ray tracing



# Seasonal Wildlife Notes

## Jonathan McGowan

Reed Warbler ©Jonathan McGowan

This spring saw our resident ospreys return and the laying and hatching of four eggs again. Let's hope that all four survive to fledge as they did last year.

We had some unusual visitors on 17th April, as four common cranes flew along the eastern edge of Lytchett Bay before alighting in Lytchett Fields Nature Reserve. They were very vocal - only the second time I have heard or seen cranes around Poole Harbour.

The local pair of white-tailed sea eagles have also been very visible within the harbour areas catching fish, usually bass and thick lipped grey mullet - the same species targeted by the ospreys. For the present time, ospreys bombard the much larger eagles with high fast stoops, then escort them out of Lytchett Bay. Other birds also escort them away including their target prey species such as shelduck and Egyptian geese. The eagles can often be seen soaring



Osprey mobbing a White-tailed Eagle

© Jonathan McGowan

high above Bournemouth and Poole, catching the thermals and allowing them to rise even higher. Mainly unobserved by grounded humans, the art is to listen out for the alarm calls of herring gulls as they spiral upwards to intercept the huge birds that to us look like a tiny dot, best seen with polarising sun glasses! I trust that they have already built a nest or taken over one of the osprey platforms.

Annually common swifts return around the first week in May, and this year I spotted some on May 2nd. Unfortunately, the swift nesting boxes under the Eastern roof of the BNSS building hadn't attracted any! We have had them up for many years, but still no interest. The Pittosporum tree has been removed during last year so maybe the flight path is more attractive, although a great tit has taken up residence in one.



The garden ponds have been devoid of frogs, which have not recovered since the huge die offs four years ago, when sudden flash frosts caught them out during the breeding season. A few clumps of spawn were found in the large pond, but more has been donated from other areas by one or two members. Hopefully this will help numbers to recover as well as adding a greater gene pool as they were too inbred.

Newts were not affected as they breed later and deeper within the ponds. There is only one species currently residing in the two garden ponds, the common or smooth newt, and they can be seen in the small pond easily, with courting males vigorously dancing around the females, even as they lay fertile eggs from previous matings.



Common or Smooth Newt at No 39

© Sally Grant

# Members' Garden Party

## Sally Grant

BNSS Members and guests with Deputy Mayor George Farquhar  
Photo courtesy of Nik Pawluk]

We enjoyed warm and sunny weather, and were delighted to welcome around 60 Members and their Guests to our Garden Party on Saturday 14th June for copious quantities of tea and cake. We were joined by the Deputy Mayor of Bournemouth, George Farquhar, who kept us entertained as he served refreshments and handed out raffle prizes.

We raised around £300 through the sale of refreshments and raffle tickets, and would like to thank all those who attended; bought tea and cakes or raffle tickets; or donated a raffle prize; or baked some delicious cakes. Grateful thanks to all those who helped to set up the room, served refreshments, ran slideshows, and tidied up. With a special mention to Jill Abbot and our garden volunteers for maintaining the garden for us all to enjoy.



## Coach Trip 2025: RHS Wisley

### Sue Newman

40 cheery members, attired in an abundance of appropriate flowery prints, summery straw hats and walking shoes, joined the excursion on a warm and humid day. And what did we see?

The colour and diversity at Wisley never fail to impress: from extraordinary tropical exotics in The Glasshouse; to welcome cool from majestic trees in a natural woodland of long grass, to sweeping wildflower plantings with meandering paths; to the World Food Garden; the lake with assorted ducks (a heron's nest on the island); the various eateries accompanied by the same eagerly anticipating ducks, and squabbling jackdaws squawking belligerently for crumbs, and Canada geese nibbling the grass everywhere.

Everywhere was a fresh delight to the eyes, plants carefully labelled, but the lack of rain these last few weeks has in some places taken its toll. There were some extraordinary highlights, such as the majestic lavender-clothed mound with a lookout on top, the parasol-shaped trees offering welcome shade, and casually placed artworks such as the giant apple.



### Lavender-clad Lookout



If tiring of the delights of the plant world, a large shop inevitably tempted us in with a wide range of all things horticultural. More entertainment on the way home caused frustration, mirth and many opinions, as our coach got stuck at Ripley by roadworks which seized up traffic in both directions, resulting in some road manoeuvres which were not exactly compliant with the Highway Code! As with the rest of the day, this was met with the same good humour as we had throughout.

### In Memoriam

#### Captain Michael Fulford-Dobson

passed away on 15th February 2025 aged 93. He joined BNSS in 2006 and whilst not active in recent years was still an Honorary Member at the time of his death.

**A full obituary will appear in the BNSS proceedings.**

Newsletter edited by G. Ireland & S. Grant, Layout and design N. Swann.

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