South Yorkshire Branch Newsletter Autumn 2020

Editor Pauline Rutherford M.B.N.A. Issue number 32

Yellow and Black Longhorn Beetle *Rutpela maculata*
By S. Rutherford

Habitats
By Steven Rutherford FBNA

Recognizing and understanding habitats is a great help when wanting to study particular species groups and is at the forefront of the planning of our walks and outings. If, for example, we were wanting to look at the local butterflies we would find that some like open meadows while others are associated with hedgerows or woodlands; a few live in very small colonies, some like wetter areas while others can be seen in most gardens with flowering plants. So, to plan this butterfly walk we would need to look at places with a mixture of habitats to maximize the number of species the we could see. We would be hoping for a sunny and windless day, too.

Aerial Photo of Gypsy Marsh (outlined in red) with Old Moor opposite

Some habitats can look quite ordinary and not worth spending much time or effort on, but looks can be deceptive. One such habitat is part of the Old Moor site, Gypsy Marsh. This was part of the Old Moor farm and was always just a small field that had little value for the farmer. He kept this six-hectare site for a few of head of cattle through the winter to take the pressure off the wet grass they were feeding on through the rest of the year. It is now separated from the old farm by the busy road that we see today. Most birders don't bother with this site, which is a shame as through the spring and summer it can be very rewarding with reed bunting, sedge and reed warblers, yellowhammers and the occasional cuckoo, and I have even heard a grasshopper warbler here.

Dingy Skipper and Bee Orchid by D. Farrar

It was always a good spot for dragonflies and lovely spikes of common and heath-spotted orchids with a few northern and southern marsh orchids. Two special species that have been found here are the dingy skipper butterfly and the bee orchid that have now both spread into the main reserve of Old Moor. The beauty of this habitat is quite special with the

land having no “improvements” such as added fertilizers or pesticides. This unimproved grassland also has a subtle geography with a gentle slope across the site from the far corner away from Old Moor to the road. This slope has allowed the top of the reserve to drain freely and so to be relatively dry creating a lowland heath and holds some silver birch, heather and the dryer-loving orchids – heath spotted and common spotted. The mid-section of the reserve has a slight hollow and shows plants that like wetter ground – horse-tails and juncus as well as northern and southern marsh orchids. These orchids continue along the path to the lower end of the reserve, this is because this is the lowest area and becomes semi- wet with sphagnum moss, rushes and reeds dominating before entering the wettest and lowest part with standing water with phragmites reeds, bulrushes and willows.

So, this small reserve has four distinct habitats – heath, wet grassland, semi wet to permanent wetland. There is also another habitat that must not be overlooked; the hawthorn hedge that runs from the top of the reserve at the entrance gate from the TPT to the end of the heath and also borders the whole reserve. The problem that I can see with this unusual habitat is the three trees mentioned – hawthorn, birch and willow – in as much as they are all pioneering species and can quickly spread and out-compete the other species as well as drying out the wet areas. If left without the necessary management this will have a catastrophic effect on the habitats and loss of many specialist species that need these special places.

Ladybird Larvae

By Catherine Artindale

One thing that I found absolutely fascinating during our lockdown nature rambles was the sudden eruption of ladybird larvae. A particular day in June, walking alongside the River Dearne by the Lundwood Treatment Works, we suddenly noticed not just a few but dozens upon dozens of ladybird larvae on the large stands of nettles next to the path! This led to a few happy hours reading up about their life cycle and learning to identify the different larvae that we saw.

Lifecycle

Like many insects the immature ladybirds look completely different to the adult. The larvae have a hard exoskeleton which they shed to grow, going through 4 stages, called instars, before they pupate and finally emerge as adult ladybirds. The whole process is quite quick and in just a few weeks around May-June, the ladybirds will have developed from the eggs to adults.

The larvae are voracious carnivores, preying on smaller insects, so like the adults are great pest controllers of aphids etc. But they will also eat each other! So once hatched the young ladybirds, who are flightless, need to harden their skeletons quickly. We noticed that stands of nettles on different parts of the riverbank erupted at slightly different times. One patch would be clear of the larvae and the pupae and another completely covered. Presumably this was due to slightly differing conditions along the riverside.

Identification

We found that it was relatively easy to identify the individual species of larvae. They have a tiny head and colour patterns are visible on the thorax and abdomen. The key features for an identification are the position of these coloured and pale markings, and how spiky or hairy it is. The main two species we saw were 7-spot and 14-spot.
The *7-spot* has a double orange spot either side of its abdomen, as well as patches of the same colour on the thorax near its head. The photo shows the 3rd and 4th instars. As you can see the background colour is slightly different with the older, larger animal being much darker but the key to an identification are the orange markings which are identical.

On the other hand, the *14-spot* has cream spots all the way down it’s body apart from the first segment of its abdomen, making a line of cream down the middle of its back.

We also saw a few *24-spot* larvae. This is a bit of an oddity being completely different in outline. Not the best photo but you can see it is oblong and covered with hairy spines!

7-spot and 14-spot larvae by C. Artindale

24-spot and harlequin larvae by C. Artindale

Finally, although we didn't see many by the riverside, the larvae of the invasive *harlequin* were common in the garden. These are larger than the native larvae we saw by the river, black with orange stripes down either side of the abdomen, making it very distinctive and noticeable.

The Field Studies Council have been doing free online identification courses on Zoom during lockdown. These are then available on YouTube. The ladybird larvae course was given by Helen Roy and Peter Brown who wrote the recent Field Guide - and are Fellows of the BNA! It was an excellent session, just about an hour long, and can be viewed at this link: https://youtu.be/bcUrBmZ-DS4

Going the Extra Mile

By Pauline Rutherford MBNA

This year we had hedgehogs visiting us again for the first time in many years. We always used to have them leaving their calling card on the lawn but, after neighbours started putting up these “hedgehog proof” fences (that’s the ones with the concrete at the bottom) that stopped as the hogs couldn’t get into our garden.

However earlier this year we saw the occasional dropping and in mid-May Steve spotted the first hedgehog under our bird feeders during the day. Very excited to say the least, so we started putting out a few meal worms at night until we could get some proper hedgie food. The hedgehog will eat the meal worms (that’s like a bag of crisps to them!) but the birds were eating them too so the sooner we got the proper food the better. It is important to make sure there is access to water as well as food and our bird bath supplied that. Hedgehogs can travel several miles on their night-time wanders searching for food. Our garden was providing food, water and shelter in a safe child free and dog free environment so the hedgehog had no cause to travel very far. The garden is very wildlife friendly (in other words wild and untidy!) it is free from chemicals and completely natural, this means plenty of worms, beetles and slugs and snails.


The first visit in May by S. Rutherford, close up of “Smudge” by P. Rutherford



Eating and drinking, and then there were two! by P. Rutherford

We were lucky as Hedgie was coming out early every night sometimes before 7pm! Which led me to believe she was sleeping in our garden (somewhere!) It became a night time ritual for me to sit outside waiting and watching. This was very rewarding as not only did we have Smudge every night but another adult turned up a few times. They tolerated each other which made me think this one was a male and had plans to mate!

Once I got proper hedgehog food, in the form of meat-based dried pellets I erected a temporary shelter to keep the pellets dry if it rained. The pellets were too large to be eaten by birds but if they got wet, they would break down and the birds could eat them.

With a holiday looming (as soon as Lockdown allowed) I began to panic – what was going to happen if I wasn't there to feed them each night? So, the next stage was a proper pet feeder, timed to rotate each evening! And if it was dry the bird bath would dry out so I bought a water dispenser too. Both of these were accepted by the hedgehogs – or was it just Cupboard Love? Roy came to the rescue and came over twice while we were away to fill the feeder up, what a mate!

Rotating pet feeder and water dispenser

Wait for me!

By P. Rutherford

We came back from holiday and everything was fine as I expected it to be, and the first night Mum brought Junior out for supper!

Soon I had my lovely new Hedgehog House and Food Shelter made by the very nice Dennis Farrar, in the dedicated "Hedgehog Corner", and the hedgies were set up for winter.

"Hedgehog Corner" and Smudge 'coming out' of the house by P. Rutherford

I don't see them much now as the nights are drawing in and Smudge doesn't appear until dusk, but two weeks after putting the new structures in place we put the trail camera out; very exciting! Hedgie is sleeping in the new house already, as the first view of her on the camera was coming out of the house! There were lots of shots of her taking nesting material in too, as well as several visits to the food!

What do you think? Am I daft for buying the feeder and water dispenser? Or would you do the same to help your spiky friends?

My Bird Hide

By Mike Squires

It was the end of May. My garden lockdown survey was finished, but the lockdown was still with us. So, what was I to do next in my back yard? Well, the potting shed needed some maintenance, and two trees on the other side of the garden required tidying.

The two trees in question, a Mahonia and a Silk Tassel Bush *(Garrya elliptica)* had, after about twenty-five years of neglect, both reached five metres tall and had grown together to form a dense, tangled mass of slender trunks and branches. This, combined with their location in front of my neighbour's eight feet high Beech hedge and their North facing aspect, meant that the adjacent area of garden was always in shade. Drastic pruning was required to open up the area to some light, and so, after carefully ensuring that there were no nesting birds in them, I set about cutting both trees down to about two feet above ground. I cut down the whole of the Garrya to this level and most of the Mahonia, but left in a couple of tall stems once the objective of getting more light to that part of the garden had been achieved.

The next question was what to do with the large bare patch at the bottom of the lawn, made barren by the overhanging trees? It was full of roots just below the surface and wouldn't be easy to dig over. So, I decided to put some bird feeders there and to adapt the old potting shed opposite to double as a hide. The remains of the Mahonia would provide somewhere for birds to perch, and the Beech hedge behind would give good cover. To hold the feeders, I screwed a couple of spare hanging basket brackets to a pole and fixed this into a large clay plant pot. This was heavy enough to hold the structure steady, but allowed me to move it around to find the best position. Some of the potting shed window frames needed repairing, so whilst I was doing this, I replaced a small fixed window with a wooden viewing slit, including a hinged door to close off the opening. The inside bench was then modified to allow better access to the viewing slit. The front windows were already lined with semi opaque sun filter material, preventing anyone in the shed being seen from outside. The hide was completed by importing an old kitchen stool from the garage.

Bird feeders and potting shed hide photos M. Squires


Inside the shed photos M. Squires

It wasn't long before the birds were visiting the area in good numbers. Goldfinch, Greenfinch, House Sparrows, Robins, Great Tits, Blue Tits and small flocks of Long-tailed Tits all came to the feeders. Occasionally a Dunnock would make a clumsy attempt to use them, usually ending in failure. They were much better suited to foraging in the ground beneath, along with the Blackbirds and Wood Pigeons. Also, a rare but welcome visitor to my garden these days, a lovely Song Thrush, made a brief stop-over on top of an incinerator. On a couple of occasions, a Wren was seen flitting about in the bottom of the Beech hedge behind, but never finding the courage to come out into the open.


Song thrush and long-tailed tits photos M. Squires

One thing that gave me enormous pleasure was watching all the juveniles and fledglings about at that time of year. I saw the same young birds returning day after day and soon came to recognise them, and to realise that they weren't just visitors, they belonged in my garden just as much as I did. There were young Robins with breasts covered in white down, some with their red feathers just beginning to show through. Fluffy little house Sparrows looking hardly old enough to be out on their own. A juvenile Greenfinch that came to the feeders several times every day. And a handsome young Blackbird, bristling with pride in its pristine spotted chocolate livery.


Young robin and juvenile blackbird photos M. Squires

There were lots of things to be enjoyed during those first few weeks in my new hide, but the most memorable was the day I looked out of the hatch and saw a tiny baby Dunnock on the grass in front of me. The little bird had obviously left the nest too early and was unable to get back. As I sat watching it, wondering what to do, an adult flew in and landed alongside. After exchanging a brief greeting with the little one the parent made its way across the lawn to the border on the other side of the garden and disappeared into the bottom of the Beech hedge. The chick followed it but stayed on the grass a couple of metres from the hedge and waited. Then the parent returned with food in its mouth and made its way towards the youngster. The chick waited, head tipped back, mouth wide open until the adult dropped the morsel in.


Baby dunnock, alone in the world. Mum comes to the rescue photos M. Squires

This process was repeated time after time in various parts of the garden. I watched spellbound, for over an hour. hour until they both finally disappeared into the bottom of the Beech hedge. I will never know what the outcome was, but I like to think that after all that effort and devotion by the parent bird, it all ended well.

Entomology Corner

What the Kingfisher ate for lunch?

By Mark Dudley MBNA

During the February BNA meeting at Old Moor RSPB reserve the group came across this pellet deposited on a fence post. It had, as Jean Panniker highlighted in the write-up of the event in the S. Yorkshire Branch newsletter Spring 2020 issue 30, been seen deposited by a male common Kingfisher (*Alcedo atthis*). The pellet was 2cm long, and greyish as a result of all the fish bones, pointed at one end rounded at the other. Previously the group had done owl pellet dissection on several occasions (see British Naturalist newsletter winter/spring 2014 – What did the Owl eat for Dinner? by Mark Dudley and S. Yorkshire branch newsletter issue 13 by P. Rutherford.) But I think this is the first time for the group to see a Kingfisher pellet, so it was a privilege to take it away, dissect it, and try to identify its lunch.

The group had seen the male kingfisher around a small pond near the bittern bus stop. Its typical dinner would be small fish, but also insects, tadpoles and small molluscs. As it was perched on a branch over one of these pools one hour before it regurgitated the pellet, it was going to be interesting to see what it had caught. The kingfisher like the owls are removing the indigestible material from its stomach so that it does not block their digestive system causing serious health problems or even death. As the group could not get close to these pools it was postulated there could be diving beetles, dragonfly nymphs as well as small fish like stickleback, the pools were not large enough for anything more significant.

So, using a dissecting kit I carefully broke the pellet apart and with the assistance of a stereo microscope investigated what it had eaten. It was clear from the photographs below that it had been eating insects as well as fish, as there was an abdominal case plus insect head, but it was the wings (*hemelytra*) that were the distinctive identification offering. The wing cases were mainly creamy brown but down the edge there was a dark band which alternates between light and dark. Using various identification guides, it was pg122 of the Collins pocket guide Freshwater Life: Britain and Northern Europe that illustrated the wing cases of various Water boatman. The one it matched was a species known as *Notonecta glauca* also known as the Common backswimmer and is a species typical of small pools.

So, in conclusion the Kingfisher ate for lunch a few fish and a couple of common backswimmers. Yum!!



Photos by Mark Dudley

Reference:

M. Greenhalgh and D. Ovenden (2007): Collins Pocket Guide Freshwater life: Britain and Northern Europe. HarperCollins Publisher Ltd

Jellyfish in Northumberland

By Richard and Jean Panniker

In early August, we had a thoroughly enjoyable week exploring the Northumberland coast around Beadnell. We were joined by our younger daughter Sarah and fellow BNA member Anne Cameron (Richard's sister).
On one of our walks we were struck by the number and variety of jellyfish washed up on the beautiful sandy beaches and thought we'd research further.

Jellyfish are mainly free-swimming marine animals with an umbrella shaped bell and trailing tentacles. The bell is a hollow structure made up of transparent, jelly-like matter known as mesoglea, 95% of which is water. On the underside is the mouth which also functions as the anus. The bell can pulsate to push the jellyfish through the water. The tentacles are armed with stinging cells which can capture prey and defend against predators.

Jellyfish are attracted inshore by blooms of plankton; they are common in summer and autumn and a group of jellyfish are known as a 'smack' or 'bloom'.

Importantly you should be aware jellyfish can sting even when apparently dead, washed up on a beach.

Lifecycle

Jellyfish have a complex lifecycle, which includes both sexual and asexual phases. There are two main stages — the polyp stage which is a small stalk that attaches to rock, divides into buds (*ephyrae*) which subsequently break free to become adult medusae.
The medusa, which is the bell-shaped adult stage, is the sexual stage. Sperm fertilise eggs which develop into larval planulae and then become the polyps.

Moon Jellyfish *(Aurelia aurita)*

(Courtesy of Pembrokeshire Coastal Photography)

The most common jellyfish in the waters around the UK it is often seen washed up on beaches and is easily recognised by the four purple circles visible through the translucent white bell. These circles are gonads (the reproductive organs) located at the bottom of the stomach. They have a layer of mucus over their bells which are used to catch plankton and pass this into their mouth parts using special tentacles. Usually the size of a plate their diameter varies between 5-40cms and, fortunately for us, they do not sting humans.

Compass Jellyfish *(Chrysaora hysoscella)*

© G. Bradley (www.UKsafari.com)

This jellyfish has a translucent yellowish bell with brown markings around the fringe and on the top of the bell. These v shaped markings on the top are reminiscent of a compass. They have a bunch of oral tentacles below the bell and long thin marginal tentacles around the fringe of the bell. Beware, they have a very nasty sting. They feed on small fish, crabs and other jellyfish.

Sometimes young fish can be seen swimming around the compass jellyfish, giving protection from predators. What isn't clear is why these fish don't get eaten or sting by the jellyfish themselves

Blue Jellyfish *(Cyanea Lamarckii)*

(Courtesy of Linda Pitkin 2020VISION)

A typical looking jellyfish, with a dome-shaped bell and stinging tentacles trailing underneath. The bell colour depends on maturity and can vary from pale yellow to purple. Paler individuals are easily confused with the larger lion's mane jellyfish. The bell can be up to 30cm and can sting even when dead.

Barrel Jellyfish *(Rhizostoma pulmo)*

© Gareth Davies

This is the largest jellyfish found in UK areas and can have a diameter of up to 90cm and weigh up to 35kg. It has a huge mushroom shaped bell with eight frilly tentacles below. This is the favourite food of leatherback turtles - the largest sea turtles in the world.

Lion's Mane Jellyfish *(Cyanea capillata)*

(Courtesy of Achill Island Coastguard Facebook Page)

A translucent brown to reddish jellyfish with a thick mane of hundreds of long hair-like tentacles. The bell can be up to 50cm diameter. The long flowing tentacles surround the bell — these can be up to 3 metres in length and are packed with stinging cells, which give a very nasty sting. They feed on fish and other smaller jellyfish.

Our Sightings

Once we had researched the features of the main types of jellyfish found around the UK coast, we tried to identify the ones we had seen. Disappointingly, this wasn't as easy a task as we had expected! Here are our photos — any suggestions of identification would be welcomed!

Lion's Mane and Moon Jellyfish by R. Panniker

Un-identified jellyfish by R. Panniker

Un-identified jellyfish by R. Panniker

Editors Guess – two Blue Jellyfish and two Lion's Mane Jellyfish?? What do you think?

References:

https://www.wildlifetrusts.org/how-identify/identify-uk-jellyfish
https://en.wikipedia.org/wiki/Jellyfish

Snippets of News from Members

Send me anything you see or are curious about for this section

David Swales found this Cone Head nymph while sweeping some long grass in July. Coneheads are one of the crickets and have either short or long wings and very long antennae. They are a southern species, so it was excellent to find one up here in South Yorkshire which must be on the northern tip of their distribution.

Conehead Nymph by S. Rutherford

Peter Robinson sent a photo to me of a plant which had taken over his lawn. The leaves are very large and looked to me as though they could be from squash or pumpkin.
Peter downloaded an App - PlantSnap that identified the leaves as Coltsfoot (*Tussilago farfara*), a type of groundsel in the daisy family.
He was going to pull up all the leaves but will now leave them over winter to see what happens in the spring.
Editors comment: I had no idea the leaves could grow this big as I have only seen the plant in Spring time when the flowers come out. The stems are red and appear 'wooly', but after flowering the leaves can (apparently) grow as large as Butterbur!


Large leaves of Coltsfoot by P. Robinson

Roy Stewart and David Swales were walking around Elsecar Reservoir when they found this beetle. At first Roy thought it was a plant gall as it seemed to be flush with the leaf but then it moved! Roy identified it as *Cassida rubiginosa* the Thistle Tortoise beetle. Another good find.


Tortoise Beetle by R. Stewart

Helen Brewerton took this spider photo in April, which she wondered if it was a Wolf Spider. She was also treated to the male spider 'attempting' to mate with the female (alas she didn't have her camera and didn't want to distract 'the mating process'!) but said it was absolutely fascinating watching him very carefully watching then approaching her which went on for a good half hour but in the end it looked like it was a non goer as he gave up and wandered off perhaps looking for a more likely mate?!


Wolf Spider by H. Brewerton

Did you know we have items for sale on the website specifically for naturalists?

Visit the shop to order, or email me and I can get them to you.



Waterproof notebook & pencil, mini folding magnifier, everbrite torch


30ml and 60ml insect collecting pots

Branch Meetings

It's still not possible to have a normal meeting with everyone. However, you can meet up in a group of six following all the Government guidelines. The SY Committee has formed a sub-group which is looking at arranging some small group meetings. These meetings will be done on a booking only, first come basis, and covering different subjects.

If you wish to meet up with anyone in particular you can get in touch with them independently and see what you can arrange.

Remember to follow all the rules on social distancing, face coverings and where you are meeting, and if anything is arranged the sub-group will let you know.

Remember to keep up to date with us on Social Media

(you don't need a personal account for this just enter the name in your search)

Facebook – BNA South Yorkshire Twitter – @syorksbna @BNAscience