

Wyre Estuary

BioBlitzed!

2018



A REPORT ON THE BIOBLITZ CONDUCTED
ON THE WYRE ESTUARY IN JUNE 2018

Preface

Mike Harding : Comedian, Author, Artist, Photographer and Presenter



Things You Will Never Know was written about Besses O'th Barn and the land south of Heywood in Lancashire where I played, wandered and cycled as a child. We cling to the idea of England's Green And Pleasant Land at the same time as we destroy it in the pursuit of "growth".

I once asked a business studies Post Grad who was doing a PhD at Manchester Met if he knew the most important rule of economics. He said no. I asked him, "You have one cake. You eat it.

What's left?" He answered, "Nothing." I asked, "You have one planet. You eat it. What do you have left." The answer came, "Nothing." And do you know, that man, soon to have a doctorate in business studies had never been troubled by that thought before.

Toby and Felix are my grandchildren. The poem appears in **Cosmos Mariner**, my latest book of poems, published by Luath Press of Edinburgh in May

Things You Will Never Know – #42

For Toby and Felix and in memory of my uncle Robert "Bobby" McLoughlin who took me there.

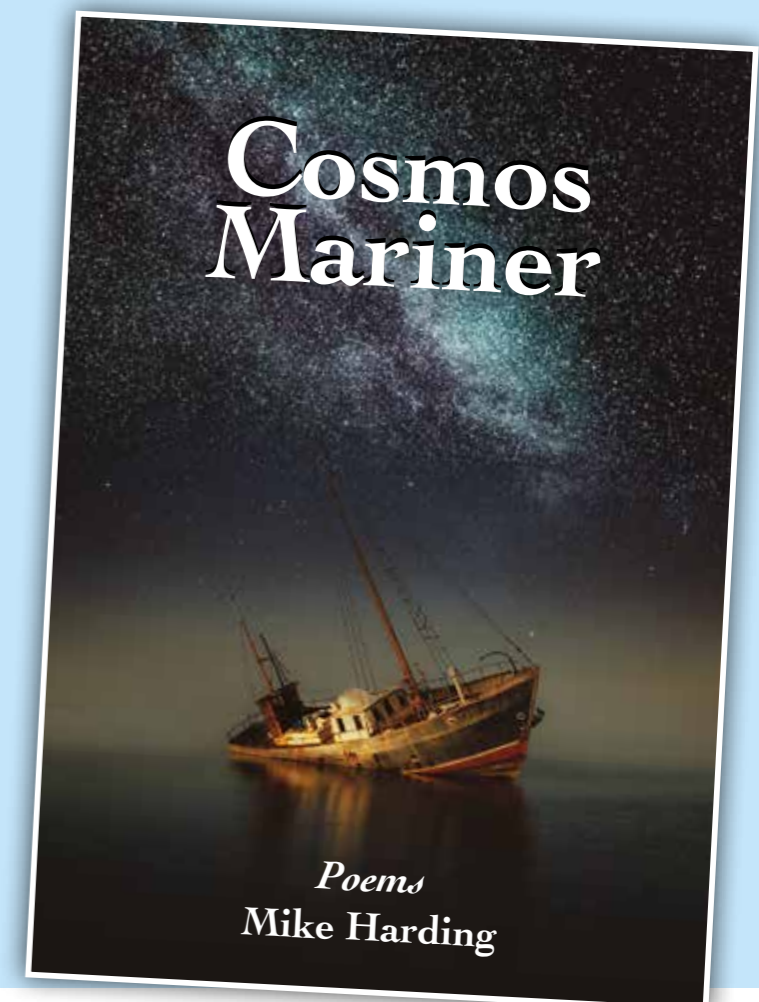
This motorway you think was here since Time began
Was once a dene where larks sang, fieldmice ran
Through ferns and brambles, there were bumble bees,
Hawks, hedgehogs, badgers, hares and centipedes.

A small child running wild I wandered here,
Picked ripe blackberries and mushrooms,
One summer saw great ranks, platoons
Of soldier orchids studding a high bank.
Here was a lake where the old headmaster
Heron on the pool's soft edge,
Hunched and shifty, stalked the sedge
For schools of gudgeon, perch and sticklebacks;
It's now a red brick maze of avenues, and cul-de-sacs
With barbecues and trimly barbered lawns.

All gone the fields where they once grew wheat
And barley and the winter hay;
And for the rest? This retail park, back in the day
Acres of fat meadows filled with sweet
Soft grass and shiny-coated, brindle cows.
This lorry park – two dairy farms,
This bowling alley – a marsh and a small lake;
This McDonalds' drive-thru was a copse
Of silver birch where once a big dog fox
And I outstared each other face to face
Until he realised I meant only good
And padded off again into the sheltering wood.

And here just where the motorway now dips
The deepest, once was marshland: rushy, pooled,
A childhood jungle of sally, birch and fallen logs,
Dimpled with newts and loud with frogs
Where water boatmen scudded on shallow ponds.

Here where the concrete piles hit bedrock
Culverts drain and spew the motorway's runoff,
I used to lie and watch entranced
Belly down, my child's eyes dazzled,
Filled with the flickering, shimmering dance
Of the sapphire sparks of damselflies.



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Acknowledgements

Sponsors



Partners



- Hillhouse International Industrial Estate
- Northwest Bees
- Over-Wyre Art Society
- Wyre Coast and Countryside Service
- Ian Coote (bird expert)
- Jackie Williams & Barbara Matley (caterers)
- Geoff Holroyd (RSB member)

- Karen Lawson (RSB member, Preston Moth Society)
- Jennifer Sharples (RSB member)
- Mike Harding (Comedian, author, artist, photographer & presenter)
- David Wareing (RSB)
- Volunteer Naturalists and Recorders Report edited by Tom Myerscough and Lucy Brookfield, Wyre Rivers Trust



What is a BioBlitz?

Jean Wilson MBE

BIO ... means LIFE

BLITZ ... refers to anything that is completed thoroughly and quickly.

The BioBlitz concept was first developed by Sam Droege in the USA in 1996, BioBlitzes have been taking place in the UK since 2006, co-ordinated by the Bristol Natural History Consortium.

Effectively they are a race against the clock to record as many species of living things as possible within a designated area over a set period of time, usually 24 hours.

Wyre Estuary BioBlitz

A gathering of both professional and amateur wildlife experts were recruited in the months prior to the June BioBlitz. They came from near and far(ish) including North Wales, Bristol and the Wirral! All had the same aims, to locate, identify and confirm as many species as possible within the Wyre Estuary as parameters, such as access, would allow.



The sites and, therefore, the area were much increased from the more modest BioBlitz conducted in 2015 at Stanah, Wyre Estuary Country Park. In 2018, our area extended to Rossall Point, Knott End and the Wyre Channel, Hillylaid Industrial Site, Burrow's Marsh and of course Wyre Estuary Country Park. The timeline was almost one week, mainly due to the limitations of access imposed by the tides and availability of the recorders.

A BioBlitz is a great activity for engaging participants to learn together, sharing expertise and passion for nature. It is a great way to break down barriers by engaging all attendees with science and raise awareness of biological recording, allowing an opportunity to contribute to a genuine scientific survey.

A BioBlitz is a fun way to explore natural spaces and discover wildlife!



Why choose the Wyre Estuary for a BioBlitz?

Thomas Myerscough - Programme Manager - Wyre Rivers Trust

The Wyre Catchment is home to a wide variety of flora and fauna. The lower catchment is renowned for the vast flocks of migratory birds which gather on the mudflats of the estuary to feed. As a result of the huge numbers of migratory birds which gather within it, the estuarine section of the catchment is designated as a Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC) and Specially Protected Area (SPA). The mouth of the Wyre also sits at the southern boundary of the Morecambe Bay RAMSAR site. There are a large number of species which gather on the mudflats of the estuarine area, among the most commonly seen are: Shell Duck, Black Tailed Godwit, European Oystercatcher, Knot, Turnstone, Redshank, Dunlin, Plover and Sanderling.

The farmlands of the lower Wyre Catchment also host a wide variety of migratory birds. During the winter months vast gaggles of Pink Foot, Grey Lag and Barnacle Geese are often spotted, along with dozens of Lapwings and herds of Curlews. The farmlands and saltmarshes are a useful source of food for the birds which are en route to their winter-feeding grounds. The estuary is also home to vast expanses of saltmarsh habitat such as Barnaby's Sands and Burrows Marsh, many of which are Natura 2000 sites. The saltmarsh habitats are home to a wide variety of flora and fauna and are also critically important feeding and roosting grounds for many migratory bird species. The saltmarshes are home to plants that are nationally scarce such as Rock Sea Lavender and Sea Wormwood. Some of the saltmarsh habitats are impacted by agricultural and industrial activity which can have impacts on the makeup of plant species which are found on the marsh.

Other habitats seen in the lower catchment include sand dunes, rock pools and clean beaches and muddy shores. Each of these habitats are home to important species of flora and fauna. The beaches of Blackpool, Cleveleys and Fleetwood are home to a wide variety of invertebrates which are food sources for fish, birds and marine mammals. Among the most commonly seen are Blow and Black Lugworm, Ragworm, Masked Crabs, Shore Crabs, Edible Crabs, Mussels, Razor Clams, Cockles and Periwinkles. Rarer species include Peacock Worms and Burrowing Piddocks.

The estuary of the River Wyre forms a critical pathway for a number of important species of Migratory Fish. Atlantic Salmon, sea trout, eels, smelt and river lamprey all use the estuary to make their way between the Irish Sea and the Wyre. Salmon and sea trout which are returning to the Wyre to spawn will make use of the brackish waters of the estuary for a number of days to allow their bodies to adapt to increasing amounts of freshwater. In the spring months the estuary forms a thoroughfare for elvers (Juvenile European Eels) and thousands of salmon and sea trout smolts as they make their way out of the Wyre. Meanwhile smelt and river lamprey are moving toward the tidal limit of the Wyre at St Michaels to complete their spawning activities. The Wyre estuary also forms a key spawning ground and home to a wide variety of marine fish species including commercially important species such as: cod, plaice, sole and bass. Larger marine mammals such as the Harbour Porpoise and Grey Seal also make use of the estuary.

I am sure you will agree; the Wyre Estuary is an ideal site for a BioBlitz!

The Sponsors



Wyre Council

One of the principles of Wyre Council is to enable communities to help take care of their green spaces with the ethos that together we make a difference. The Council also aims to work with agencies and partners to provide good quality services and environment for the residents and visitors to Wyre as well as to undertake its biodiversity duty.

As land manager for the Wyre Estuary Country Park, the Wyre Coast and Countryside Service have benefited from reliable, evidence-based information from the Bioblitz that will help us to better manage our green spaces.



Wyre Rivers Trust

The Wyre Rivers Trust works for an improved environment across the Wyre catchment, undertaking river restoration, monitoring and educational programmes through a range of projects. The Bioblitz has highlighted the species present in our catchment which need to be conserved and protected, as well as engaging people in their local river and encouraging them to take responsibility for its care.



Royal Society of Biology

The Royal Society of Biology's mission is to be the unifying voice for biology: advising Government and influencing policy; advancing education and professional development; supporting its members, and engaging and encouraging public interest in the life sciences. There is more information about what the north western Branch does and its role in the Bioblitz on page 23.

The Experts



Jean Wilson (right)

Jean Wilson MBE C.Biol FRSB

I have now retired from a long career in teaching, most of which was spent in Further and Higher Education. I was Head of Science and Course leader for a Degree in Marine Biology and Coastal Ecology and for a number of years I was a member of the Editorial Board for the Journal of Biological Education. Now I volunteer for the Wyre Waters Catchment Partnership as a consultant ecologist where we are currently developing a biodiverse wetland. I am a volunteer countryside ranger and an active member of the RSB N-W Branch.

David Earl and Nik Bruce

Dave Earl and Nik Bruce run the Lancashire Environmental Local Record Centre known as LERN and our core function is to gather environmental information for Lancashire including the Wyre Borough. Dave is also the Botanical Society of Britain and Ireland recorder for Lancashire, Merseyside and much of Greater Manchester.

Dave has a specialist knowledge of brambles and works with a team of enthusiasts, academics and students from across Europe developing identification techniques to gain a greater understanding of how well over 700 species of bramble have evolved across the continent.

Jenny Gibson

Jenny Gibson has a degree in botany from Bangor and a Masters in microbiology from Queens Belfast. She was a senior lecturer in biology at Newtownabbey FE college in NI until retirement. She listed the trees and helped the children with the pond dipping among other things.



Jenny Gibson



Chris Gibson

Chris Gibson

Chris Gibson did his PhD on Waterblooms in Anglesey from Bangor University in 1968. He spent his professional life studying freshwaters in Northern Ireland and around the world, retiring as a Senior Principal Scientific Officer and Honorary Professor of Queens University Belfast in 2004. At the BioBlitz he helped with listing the wildflowers and trees, sampled the pond and manned a microscope in the lab.

Alan and Hilary Bedford

Alan and Hilary (Team Bedford) are retired biology lecturers with a long standing interest in natural history. Both have been involved for a long time in small mammal and owl pellet surveys and workshops and, since retiring, have been developing specialisms in insects particularly true flies (Alan) and hymenoptera (Hilary). For the Bioblitz they carried out small mammal and insect surveys on both the main Country Park site and Hillhouse International Industrial Estate.

Barry Brigden, Mike Bloomfield & Malcom Evans

Barry Brigden, Mike Bloomfield and Malcolm Evans, local amateur naturalists with a particular interest in insects, surveyed the area for hoverflies which fulfil an important role as pollinators. Nineteen species of hoverfly were identified and added to the overall total. Other species found during their visit including butterflies, solitary bees, bumblebees and ladybirds were also recorded for inclusion in the final list.

The Experts Continued

Eric F Greenwood MSc, FLS, FSB, FMA

A graduate of Durham (Kings college) and Newcastle universities, where he did research on the colonisation of colliery spoil heaps. After a short career in teaching he joined the staff of the then Liverpool Museums in 1966 as Keeper of Botany, retiring in 1998. He became a member of the Lancashire Wildlife Trust in 1964 shortly after it was founded and has remained on the committee ever since, enjoying two periods as a trustee.

He joined the Botanical Society of the British Isles (BSBI) in 1963 and shortly afterwards was appointed vice-county recorder for V.C. 60 (West Lancaster), which office he still holds. He is the author of 'Flora of North Lancashire', a culmination of systematic surveys of the region's flora over the last 46 years.



Eric Greenwood

Graeme Nuttall BSc first class with hon, Ecology and conservation Management



Graeme Nuttall

I came late to my current profession as a coast and countryside ranger from a career as a chef. Returning to college at the local environmental school of Myerscough College I studied for three years whilst volunteering with several conservation bodies.

Following roles with Lancashire Wildlife Trust and Blackpool council I have been with Wyre Council as a Coast and Countryside officer for the past three years, a varied role upholding the council's commitment to its bio-diversity assets, including coastal, woodland habitats and country parks. I have taken part in both the 2015 and 2018 bio-blitzes helping to record flora and fauna alongside some very knowledgeable people.

Ian Coote

Ian is a middle-aged, grumpy, Gentleman Coastal Ecologist. Having had a life-long interest in nature in general, over the last ten or more years, he has specialised in various types of surveying including rock pools, marine mammals and birds, as well as organising a number of guided ecology walks. After being made redundant he successfully completed a Foundation Degree studying Marine Biology and Coastal Zone Management at Blackpool College and several other short environmental courses including Wildlife Guiding. He has contributed to both the Wyre Estuary Bioblitzes and the World Oceans Day event at Fleetwood Marina.

Karen Lawson



Karen Lawson

I love the outdoors and nature and completed a marine biology degree at Blackpool college 7 years ago. I am never happier than being by the sea and volunteer for North Wales Wildlife Trust at Cemlyn, Anglesey. My dissertation studied a fantastic moth the belted beauty, *Lycia zonaria* - found on the salt marsh near Sunderland point. I have loved the bio blitz- children and adults all learning together and appreciating the environment has been fantastic. Motto- never go for a walk without binoculars!! Or a butterfly net!

Steve Brown

I come from Fleetwood's inshore fishing community spending much of my formative years on family owned inshore trawlers. I worked for 12 years on inshore trawlers before gaining the position of Fishery Officer for the coastline from Fleetwood to Hoylake. I held this post for 29 years serving the successive NW&NWSFC- NWSFC and finally the NWIFCA. Now retired I am an MMO Appointee to the NWIFCA and continue to maintain my lifelong interest in the local fishery it's people, traditional fishing methods and history.

Charlie Pass

Wildlife Charlie is a nature expert, bringing the joy of the natural world and wildlife to young people. Being able to bring my charity; The WildAid Foundation Trust to the Bioblitz and to enthuse the awe and wonder of the natural world into everyone who participated on bat, butterfly and moth surveys was incredible!



Thomas Myerscough

Thomas Myerscough

Tom is the Programme Manager for the Wyre Rivers Trust. Having gained a degree in Marine Biology and Coastal Zone Management in 2013, Tom was quick to take the opportunity to support Wyre RT as a volunteer. Following this he was asked to become the trusts first employee (Science Officer). Over the last 5 years Tom has helped the trust deliver 27 projects and take on another member of staff. Within the BioBlitz, Tom helped organise the event from its outset, organising and delivering a comprehensive marine survey programme and the analysis and verification of the samples. Tom is passionate about the health of the river Wyre and the wider environment.

Michael Clapham

Michael is a retired lecturer in Scientific Illustration and Wildlife Photography, he is Chair of the Royal Society of Biology North Western Branch. He is a popular guest speaker for the N-W Branch where he relates tales of his travels in pursuit of natural history images from home and abroad.

Jennifer Sharples

After retiring from a career as a dentist, Jennifer successfully completed a degree in Marine Biology and Coastal Ecology. She maintains her interest in the Natural World as a volunteer for the WRT and WC offering her support with surveys of salt marshes and woodland.

Alison Boden

Alison has worked for Wyre Council for 30 years and is now the Councils Coast and Countryside Manager. She oversees the management of the Ranger service and countryside volunteers who lead health walks and guided walks and look after the council's Country Park and picnic areas. Her spare time is spent spotting birds, bats and wildflowers and exploring the British coast and countryside in search of nature and heritage with her husband Trevor.



Alison Boden

Day 1: Schools Activities



In conjunction with the **Eco-Schools Co-ordinator**, local primary schools were invited to join the experts in a variety of activities that would enhance their knowledge and interest in the environment generally and Wyre Estuary Country Park in particular.

The Royal Society of Biology focused on Owl Pellet Dissection and food chains. Elizabeth Green and David Shaw set up their mini-laboratory in a corner of the marquee, where the children soaked their Barn owl pellets in water and then gently teased them apart with forceps and blunt needles, the components were categorised into limb bones, skulls, vertebrae, exoskeletons and fur before being mounted onto skeleton outlines of the possible victims of the top consumer's meal.

Bird boxes, bat boxes, bug hotels and noughts and crosses boards were constructed under the watchful eye of volunteers Cliff Ainsworth and Martin Pelham. This was definitely a very popular activity with pupils proudly displaying the products of their efforts knowing they would be put to good use enhancing the environment around their schools.

Staff from SeaLife Blackpool focused on Sharks, a high impact subject which definitely captured the children's attention. Scott, Michelle and Matthew from Sealife emphasised the number of species that are found just off the Fylde coast and brought along examples of Mermaid's purses (egg cases) that can be found on our shores. The number and species of these egg cases are recorded and sent to the Shark Trust to keep track of trends.



Over Wyre Art Society were kept very busy with enthusiastic children eager to paint butterflies and birds in a variety of media. They were encouraged by Sandra Langhorne and Liz Ainsworth who kept calm under the onslaught of requests for nail varnish, paint, key rings and images!!

Michael Clapham, Geoffrey Holroyd, Alan and Hilary Bedford were based in the shade of the conservatory at the back of the Riverside Room where they had set up terrestrial habitats in glass tanks which acted as temporary homes for the small mammals



trapped earlier in the day. The professionals were incredibly impressed with the images taken on iPads and said they compared favourably with their more expensive camera gear!

Amy Clayton, a Wyre Ranger, took parties on guided walks around the Country Park highlighting the diverse bird life, the adaptation of plant species which colonise the salt marsh, how to identify trees in the woodland using simple keys and how to capture, identify and carefully release flying insects with sweep nets.



Day 2: Community Engagement



The first event of day 2 was the early morning walk which saw keen, hardy volunteers and rangers looking for wildlife at 5am. The spectacular views over the estuary added to this special experience.

Then it was over to the local experts who were checking the moth and mammal traps to identify what had been found at the various locations throughout the Country Park and Wyre Estuary. (Neighbouring local landowners also gave permission for wildlife surveys to be undertaken so as to increase our knowledge of the various habitats and spaces that the wildlife uses.)

The Biodiversity Marquee opened at 11am and many members of the public had a really interesting day meeting the wildlife organisations, the local GP practice and the Coop who were all promoting the

theme of a Healthy Environment and Healthy People. People took part in health checks as well eating healthy foods and meeting wildlife close up at various stalls. The need for sustainable flood defences was demonstrated by Flood Action Groups from Churchtown and Thornton and issues associated with wildlife were demonstrated by Lancashire Wildlife Trust.



Summary of the Wyre Estuary BioBlitz:

- On Friday over 60 children took part in environmental education activities.
- On the Saturday there were a 1000 visitors finding out about the wildlife of the Wyre Estuary.
- With the help of volunteers members of public built over 100 bug hotels and bird boxes
- Over 600 different species of wildlife were recorded.
- Over 100 volunteers took part in surveys and gave over 150 hours of time to help spot and record wildlife. A further 250 hours were given by volunteers in the setting up and development of the event before and after the event.
- 204 people took part in healthy outdoor physical activity through nature study activities

Outcomes

- Long term connections made with naturalists that the Wyre Estuary Country Park and Wyre Waters Partnership are benefitting from.
- We made connection with new volunteers who have since become more involved in the care of the Wyre Estuary.
- Our staff, volunteers and partners are better informed about the wildlife inhabiting the estuary and country park.

- The data that has been gathered has been shared with the Lancashire Environmental Record Network and national organisations such as BTO and is contributing to the management of the Wyre Estuary Country Park and River Wyre Catchment Plan.
- Local children and teachers have been inspired by their experience.
- The local GP Medical centre won a regional award for its part in the event. Some residents were able to find out and protect their health through the contacts made at the event.
- The event helped to put the Wyre Estuary Country Park on the map to local residents who hadn't been before and to regional scientists and naturalists.
- The experience for those involved was inspiring, particularly the great views of wildlife close up and meeting people with such extensive knowledge and enthusiasm for nature.
- Young and beginner nature recorders met experienced scientists and seasoned naturalists who shared skills and knowledge, leading more people to be involved in wildlife recording and citizen science.

A greater appreciation and understanding of the wildlife in our parks and open spaces within the river Wyre catchment was achieved. Local people and visitors were enabled to enjoy better access to nature.

BioBlitz Surveys

A total of 204 people dedicated 1210 hours to surveying over a week long period. Here are just some of the methods used:

Moth Traps

Moth traps use a light source to attract flying moths which are caught in the main body of the trap. They can then be identified and counted before being safely released. Straw dot macro and marbled minor moths were just some of the moths found.

Bat survey

Bats use echolocation to find food. They send out sound waves through their mouth or nose which produce echoes when they hit an object. During the Bioblitz specialist bat detectors provided by Wyre Council were used to pick up echolocation calls, which can be used to identify species based on the frequency and speed of their calls. During the survey common pipistrelle and noctule bats were heard.

Marine surveys

- A 6ft wooden beam trawl was used to sample estuarine fish and invertebrates such as brown shrimp and shore crab populations at Fleetwood. The trawl is extremely light and towed at low speeds to ensure that very little damage is done to the sea bed
- At several inshore locations a traditional shrimp push net was also used to sample fish and invertebrates
- At Knott End a 15m long seine net was



used to sample estuarine fish populations such as sprat and herring

- A double fyke net was also used to capture European Eels. These nets work by forcing fish to swim along a central net into a series of hooped nets at either end. There the fish remain, until they are captured, measured and released.
- A single plankton net was used within the Wyre Estuary

Mammal trapping

A walkover of the site identified suitable small mammal habitats where around 50 mammal traps were placed. These were left for a few nights for mammals to get used to them before being set. The trapped mammals were then identified, weighed and sexed the following morning before being released. Mice, moles and voles were discovered.

Plant and invertebrate surveys

Three local experts walked the site at Stanah, Burrows Marsh and NPL recording everything they found over several days. Some of our experts were even dropped off at Barnaby sands by boat! Butterfly nets were also used, resulting in one of the most detailed surveys of plants and invertebrates ever undertaken of this area.



Bird Surveys

Extensive bird surveys were undertaken across the estuary and connected shoreline (See page 20 for more details).

BioBlitz 2018 - Results

The 2018 BioBlitz recorded a total of 644 species from tiny single-celled diatoms to huge ancient ash trees.

Rare and threatened species

Birds of Conservation Concern (BoCC) highlights rare and threatened bird species in the UK on two lists, red and amber. Red are species of the highest conservation priority that are experiencing serious declines in population or range. Amber highlights species either recovering from red list criterion or a moderate decline in population or range. During the 2018 BioBlitz 12 red species and 11 amber species were recorded. These are shown in the table below.

Common name	Scientific name	Conservation status
Black-tail godwit	<i>Limosa limosa</i>	red
Curlew	<i>Numenius arquata</i>	red
Herring gull	<i>Larus argentatus</i>	red
House sparrow	<i>Passer domesticus</i>	red
Kittiwake	<i>Rissa tridactyla</i>	red
Lapwing	<i>Vanellus vanellus</i>	red
Linnet	<i>Linaria cannabina</i>	red
Mistle thrush	<i>Turdus viscivorus</i>	red
Ringed plover	<i>Charadrius hiaticula</i>	red
Skylark	<i>Alauda arvensis</i>	red
Song thrush	<i>Turdus philomelos</i>	red
Starling	<i>Sturnus vulgaris</i>	red
Black-headed gull	<i>Chroicocephalus ridibundus</i>	amber
Mute swan	<i>Cygnus olor</i>	amber
Oystercatcher	<i>Haematopus ostralegus</i>	amber
Reed bunting	<i>Emberiza schoeniclus</i>	amber
Sandwich tern	<i>Sterna sandvicensis</i>	amber
Shelduck	<i>Tadorna tadorna</i>	amber
Snipe	<i>Gallinago gallinago</i>	amber
Stock dove	<i>Columba oenas</i>	amber
Swift	<i>Apus apus</i>	amber
Tawny owl	<i>Strix aluco</i>	amber
Willow warbler	<i>Phylloscopus trochilus</i>	amber

BioBlitz 2018 - Results Continued



The Lancashire Biodiversity Action Plan highlights threatened species and habitats in the area and is designed to conserve and restore biological processes. Seven species listed on the LBAP were recorded during the BioBlitz, which are shown in the table below.

Taxonomic group	Scientific name	Common name
Bird	<i>Limosa limosa</i>	Black-tail godwit
Bird	<i>Vanellus vanellus</i>	Lapwing
Bird	<i>Linaria cannabina</i>	Linnet
Bird	<i>Emberiza schoeniclus</i>	Reed bunting
Bird	<i>Alauda arvensis</i>	Skylark
Bird	<i>Turdus philomelos</i>	Song thrush
Terrestrial mammal	<i>Lepus europaeus</i>	Brown hare
Terrestrial mammal	<i>Pipistrellus pipistrellus</i>	Common pipistrelle
Terrestrial mammal	<i>Nyctalus noctula</i>	Noctule



One plant which was recorded during the BioBlitz, *Potentilla argentea*, or hoary cinquefoil, is recorded on the register of rare plants for the west Lancashire region where it was found. Found at only three sites in the region, it is classified as near threatened.

Other plant finds included Curled Dock (*Rumex crispus*) and a sub-species (*Plantago major intermedia*), along with the first ever sighting in the local area of the bramble *Rubus multifidus*. *Rubus latifolius* was also recorded at its southern limit.

Invasive species

40 of the species recorded in the BioBlitz are considered to be invasive non-native species in Lancashire. Of these, 9 species are included on schedule 9 of the Wildlife and Countryside Act, which lists non-native species established in the wild which pose a conservation threat to native biodiversity and habitats, such that further releases should be regulated. These are listed in the table below.



Taxon Group	Scientific name	Common name
Bird	<i>Branta canadensis</i>	Canada goose
Flowering plant	<i>Cotoneaster bullatus</i>	Cotoneaster
Flowering plant	<i>Cotoneaster horizontalis</i>	Cotoneaster
Flowering plant	<i>Hydrocotyle ranunculoides</i>	Floating pennywort
Flowering plant	<i>Heracleum mantegazzianum</i>	Giant hogweed
Flowering plant	<i>Impatiens glandulifera</i>	Himalayan balsam
Flowering plant	<i>Rosa rugosa</i>	Japanese rose
Flowering plant	<i>Crocsmia pottsii x aurea = C. x crocosmiiflora</i>	Montbretia
Terrestrial mammal	<i>Sciurus carolinensis</i>	Grey squirrel

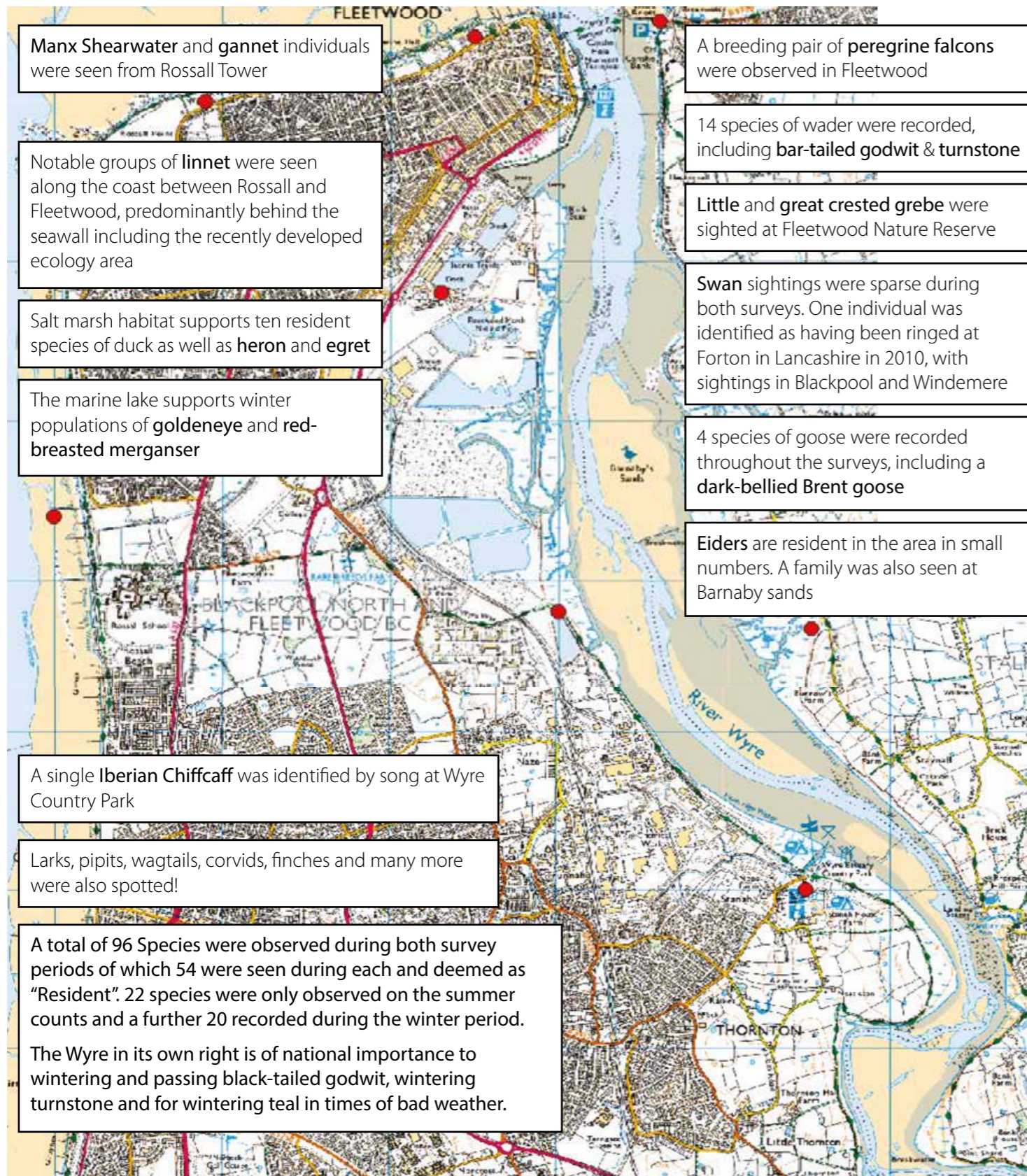
The data which was collected at the BioBlitz has been checked and verified and will be submitted to the National Biodiversity Network where it can be accessed for free.

This helps improve our knowledge of biodiversity in the area, opens up research possibilities and can inform environmental decision making so that these species will still be here for generations to come to enjoy.

For a full list of all the species recorded please visit www.wyriverstrust.org.

BioBlitz Bird Survey

As part of the 2018 Bioblitz, 50 transect or static surveys were conducted between dawn and dusk to count and record bird life in 11 zones along the River Wyre estuary and connected shoreline. The start points of the surveys are shown on the map below along with notable sightings. Supplementary surveys were undertaken in December to assess the importance of the sites for wintering birds.



2015 - 2018 Contrasting results

Taxonomic group	Number of species recorded in 2018	Number of species recorded in 2015
Flowering plants, ferns and conifers	430	196
Birds	79	63
Insects	52	32
Other invertebrates (annelids, molluscs, nematodes and crustaceans)	22	20
Fish	19	9
Seaweeds	12	6
Terrestrial mammals	11	9
Liverworts, mosses and lichens	6	1
Phytoplankton (Diatoms, dinoflagellates, algae)	5	5
Zooplankton (hydroids, cnidaria and comb jellies)	5	4
Amphibians	2	1
Cyanobacteria	1	0
Total	644	346

2015 and 2018 BioBlitz

Led by the Wyre Waters Catchment Partnership, the 2015 BioBlitz took place at the Wyre Estuary Country Park. The country park is situated around 3.5 miles from the mouth of the River Wyre and is home to a myriad of wildlife. Like the 2018 event, the BioBlitz spanned 24 hours, beginning on the 5th of June at 18:00 with a Saltmarsh Saunter, Evening Bird Walk and a Bat Walk. Further bird walks, invertebrate hunts and mammal trapping took place on the 6th of June. 346 species were recorded by a small group of eminent scientists and wildlife enthusiasts.

Three years later, the 2018 BioBlitz took place with more surveys, more experts and covering a wider area than the previous BioBlitz! A total of 15 partners along with specialist experts from 9 different organisations helped to record an

additional 298 species to the previous BioBlitz.

Notable species which were more widely recorded in the 2018 surveys included orchids; 6 species of orchid were found in 2018 compared to just one in 2015. The plant species hoary cinquefoil, rare in west Lancashire, was also recorded in 2018 but not in 2015.

The surveys undertaken during the BioBlitz may help to tell us more about the occurrence and spread of invasive species in the area. Japanese rose, which can quickly out compete native plants by forming dense thickets, was recorded in 2018 but not 2015.

Missing from the 2018 surveys were sea squirts, brittle stars and starfish as we were unable to survey the marina at Fleetwood.

Health and Wellbeing

Amy Sissons - Practice Business Manager - The Thornton Practice

As a local GP Practice we see the real difference that getting involved in community activities – and especially giving something back as a volunteer – can make to our patient’s self-esteem, physical and mental health and their enjoyment of life. There really is something for everyone to get involved in locally, but sometimes people need a little push from us.

There is lots of evidence that social prescribing (medical professionals connecting local people with community and voluntary services that can help them in a non-medical way) is effective in improving people’s health and wellbeing and reducing loneliness and social isolation.

To facilitate our Patient Population getting involved in the BioBlitz, the Practice Business Manager contacted the local Council Countryside Community Rangers to ask if the Practice and the PPG could work together on a collaborative project which would involve encouraging the benefits to patients health, of being active in their local environment and health promotion for healthy eating with families, children and young people.

BioBlitz Theme for the Thornton Practice Stand:

- “Who is your healthy hero?” Without bees and butterflies, fresh fruit and vegetables would be off the menu.
- The Patient Participation Group, practice staff and the Countryside Rangers came up with the theme to link pollinators to healthy eating campaigns.
- The idea of the initiative was to combine education and art activities for children

with a healthy eating campaign, whilst at the same time promoting the benefits of a Patient Participation Groups, exercise and health screening.

- The stand was strategically placed next to the Lancashire Bee Society stand that seamlessly brought the project aims together.
- PPG members obtained generous donations from local supermarkets of fresh fruit and vegetables. The practice supplied art and crafts materials for the children to decorate lunch bags to take a piece of fruit or vegetable home in.
- While the children were being engaged with arts and crafts the PPG promoted the World Record Attempt. This was a Fylde and Wyre initiative to promote an active lifestyle.
- A GP from the Practice offered Pulse and Blood Pressure checks to visitors. If any anomalies were found then the individual was referred with the reading back to their individual practice for a blood pressure review.

Outcomes

- Collaboration across the community in the promotion of Healthy Eating and Wellbeing with a range of patient groups including families, children and young people.
- Increased awareness of the value of regular blood pressure screening.
- Healthy Heroes community project continuation by the PPG.
- Healthy Promotion in collaboration with the local community groups and local council.

BioBlitz Final Report

The **North Western Branch of the Royal Society of Biology** includes the areas of Cumbria, Lancashire, Greater Manchester, Merseyside and Cheshire. It engages with its members on many different levels including lectures given by eminent scientists such as Professor Richard Fortey and talks and visits to places of interest including Chester Zoo, SeaLife Blackpool and Manchester University Museum. It also aids and supports young Biologists with the Year 12 Annual Schools’ Quiz and members attend careers events and presentations.

Over the past 4 years the Branch has been committed to bringing Biology to people and communities. Our first effort in 2015 was by today’s standard a relatively modest affair with a BioBlitz based at the Wyre Estuary Country Park and Fleetwood Marina. The obvious interest in marine species from the public was the inspiration in 2016, to celebrate World Oceans Day at Fleetwood Freeport which is adjacent to the Marina.

Requests from visitors who wanted to know more about habitats and biodiversity of the area gave us the idea in 2017 of having ecology days to suit all levels of ability; salt marshes, sand dunes, muddy shores and freshwater habitats were explored and relevant data collected for future reference. Our plan is now to repeat the BioBlitz every 3 years so adding valuable statistics to our ever increasing data base. The information is submitted to Bristol NHM/ BioBlitz, to the Wyre Rivers Trust, to LERN at Lancashire County Council and to Wyre Council. Pressure on natural environments is remorseless especially from housing developments, employment opportunities,

industry and the need to provide energy. Therefore, engaging schools and the general public by raising awareness of the beauty of natural history at a local level, we hope to generate passion within people to want to protect and respect their ‘world’.

The Royal Society of Biology at both local and national level is vital for the success of events such as a BioBlitz, it enables access to a network of Biological specialists who are essential for credence of the recordings and whose knowledge and passion are infectious, I overheard a comment from a young attendee who said “Geeks are Good!” The financial support from the RSB is key to enabling the organisers to be confident and creative in their plans for the event without having to wonder where the funding can be found. There is no doubt that strong bonds have developed between Councils, Trusts, Schools, Universities, Clubs, Associations and individuals ensuring that our 2021 BioBlitz should be a resounding success!

Thank you to ALL.

Jean Wilson MBE C.Biol FRSB
Vice Chair RSB NW Branch
Ecology for All 2019



Thank you to each and every supporter of the Wyre Estuary BioBlitz

