

East Haven BioBlitz

26th and 27th August 2016



A Report of the Event and Community Biodiversity Action Plan

We care about our environment



We care about our environment

Small Blue Butterfly



We care about our environment



Angus Environmental Trust

Tayside Biodiversity Partnership



BIODIVERSITY
THE VARIETY OF LIFE



Scottish Landfill
Communities Fund

Angus
Environmental Trust



Scottish Natural Heritage
Dualchas Nàdair na h-Alba

All of nature for all of Scotland
Nàdair air fad airson Alba air fad

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INTRODUCTION

A BioBlitz was held in East Haven on 26th and 27th August 2016. The event formed part of a series of activities in the village aimed at conserving and protecting the natural heritage of this coastal community on the Angus Coast. East Haven is one of the earliest recorded fishing communities in Scotland dating back to 1214.

Residents and supporters have been working to improve the environment of East Haven and protect the natural heritage of the village, particularly since the occasion of the octocentenary in 2014. However, there was uncertainty about how to progress work into the future and a lack of knowledge about which species were living in the location. Following consultation and discussion with Tayside Biodiversity Partnership it was agreed that a BioBlitz would provide a fun and exciting way way to involve people in exploring the wildlife and making biological records. The event brought together scientists/experts to work alongside members of the public to identify as many species of animals, insects, plants and marine life as possible over two days. A number of key outcomes to be achieved were agreed.

KEY OUTCOMES

1. Produce an up-to-date species list for Tayside Biodiversity Partnership and add to the national database of biological records
2. Help young people by lowering barriers to engaging with nature
3. Increase knowledge and understanding of local wildlife habitats
4. Develop skills in identifying plant, marine and wildlife
5. Develop biological recording skills
6. Inform future conservation practice and local land management

EVENT PLANNING

Planning took place over eighteen months and new partnerships were created with a number of individuals and wildlife organisations. Within the village itself, activities became increasingly focused on biodiversity and a significant number of volunteer hours were committed to projects in 2015/16. For example;

- Installation of bird boxes, bat boxes, hedgehog boxes at various locations in the village.
- Protecting the rare Greater Yellow Rattle.
- Awareness session delivered by Angus Rangers on hedgehog conservation and protection.
- Engaging with Woodlands Primary School.
- Monthly Bumblebee walks and findings submitted to Bumblebee Conservation Society.
- Planting of Kidney Vetch to help conserve the Small Blue butterfly and joining the Small Blue Butterfly Interest Group (jointly led by the Tayside Biodiversity Partnership and Butterfly Conservation Scotland).
- Training days to identify butterflies and moths.
- Regular beach cleans and survey information submitted to the Marine Conservation Society
- Marine Ecology recording and training.
- The Marine Conservation Society delivered an introductory session to Woodlands Primary School in preparation for their contribution to the BioBlitz.
- We signed up to the Tayside Biodiversity Partnership's BeeWild Project and attended its 'Looking after a Wildlife Pond' workshop.

PUBLICITY

The event was publicised via the press and social media. Leaflets promoting a full programme of activities were distributed in public places and several universities. The BioBlitz was also registered with the National BioBlitz Network and other wildlife web-site.

WHO WAS INVOLVED?

It was essential to adopt a partnership approach from the outset as we required a range of skills from experienced recorders, people with local knowledge and species expertise. We are grateful for the support of the following organisations.

- Angus and Dundee Bird Club
- Angus Council
- Angus Alive - Countryside Rangers
- Angus Environmental Trust
- BumbleBee Conservation Society
- Butterfly Conservation East Scotland Branch
- Dundee Naturalists
- Littlewood Land Care
- Marine Conservation Society
- OPAL, Glasgow Science Centre
- Perth Naturalists
- Perthshire Wildlife
- Scottish Natural Heritage
- Scottish Badgers
- Tayside Biodiversity Partnership
- Tay Ringing Group
- Wildlife Photographer, Steph Wilkie
- Woodlands Primary school



RECORDERS - Anne Reid, Brian Boag, Bob McCurley, Barbara Thompson, David Lampard, Derek Robertson, Dorothy Fyffe, Jim Cook, Jon Loates, Mark Tulley, Paul Brooks, Peter Ellis, Peter Miller, Theo Loizou

VOLUNTEERS - An additional 21 volunteers contributed to the BioBlitz

FUNDING SUPPORT FROM ANGUS ENVIRONMENTAL TRUST (AET)

Angus Environmental Trust provided significant funding for the event following a grant application. It would not have been possible to hold a BioBlitz on this scale and achieve the desired outcomes without the support of AET. The exposed location and absence of any community facilities such as a village hall presented challenges and it was therefore necessary to hire a marquee for the recorders and exhibitors in addition to internet access, electricity and a PA system. A number of other essential items for the collection and identification of species was purchased along with consultancy fees and children's equipment.

BioBlitz Programme

A full programme of activities and events is provided in Appendix 1 at the end of this report.



Angus
Environmental Trust



OUTCOMES ACHIEVED

OUTCOME 1. An Up-To-Date Species List For Tayside Biodiversity Partnership Was Created And Added To The National Database Of Biological Records

East Haven Together registered with a web-based recording system called iRecord. The goal of iRecord is to make it easier for wildlife sightings to be collated, checked by experts and made available to support research and decision-making.

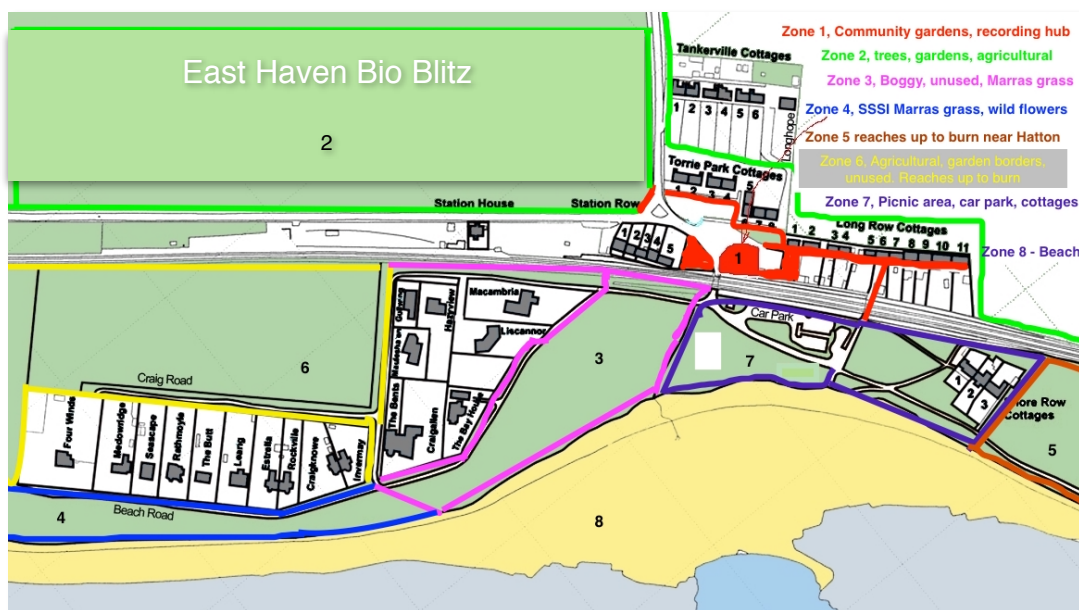
A total of 636 biological records comprising 347 different species were uploaded to iRecord. A full list of species can be viewed in Appendix 2 and many of these have also been added to other national and local databases.

Example of the data recorded within iRecord

Records	Species	Taxon groups	Families	Photos						
ID	Source	Species	Common name	Taxon group	Site name	Grid ref	Date	Recorder	Images	
▼										
✓ 4009319	iRecord general data	Cornu aspersum	Common Garden Snail	molusc	easthaven sssi	NO593363	16/08/2016	Anne Reid		

The Village was divided into 8 zones with related grid references to link species with locations

1	NO 592 364	5	NO 594 364
2	NO 589 361	6	NO 588 359
3	NO 591 361	7	NO 593 363
4	NO 588 356	8	NO 591 361



OUTCOME 2. YOUNG PEOPLE WERE INVOLVED AND ENGAGED WITH NATURE

Presentation by children of Woodlands Primary School



Steph Wilkie

The children of Primary 5 Woodlands Primary School presented songs, music, poetry and art to formally open the BioBlitz and launch the new Tayside Local Biodiversity Action Plan 2016 -2026. They wrote and performed their own Eco Rap and sang 'Welcome to the Wonders of the Ocean' and 'Right to Survive'.

This is what some of them said about the experience

*My speech was first one up and I was quite scared but I went for it - **Stella***

*I loved the songs we sang for you - **Jessica***

*I loved when we did the presentation - **Zoe***

*We enjoyed talking to you about dolphin facts - **Ben***



Steph Wilkie

Tree Sparrow Nest Box Workshops

Carol Littlewood delivered a series of Tree Sparrow nest box workshops over the two days of the BioBlitz. On the Friday, children from Woodlands Primary School took great delight in using hammers and nails to create their own nest boxes. They learned about the importance of protecting the tree sparrow population and written instructions were provided about how and where to site the nest boxes in their own gardens or school grounds. Carol made a visit to Woodlands Primary School the following week to assist in the completion of boxes for those children who were unable to finish them on the day. This was a fun-filled, hands-on learning experience for the children. It was also a very fitting culmination of the Tayside Biodiversity Partnership's Supporting Tayside's Tree Sparrows project which had been providing village communities with nestboxes.

This is what some of the children said about the Tree Sparrow Nest Box workshop

I loved to make the bird boxes. I liked the hammering because it was very very loud
Aaron

We played a bird game which you had to find the matching pair of birds that were scrambled up - **Liam**



Steph Wilkie

We all enjoyed making bird nest boxes. Thank you so much for letting us come along to East Haven
Kiera

We had lots of fun in the two workshops
Reise

We really enjoyed the activities like the bird boxes - **Sofia**



Steph Wilkie

Marine Workshops

Catherine Gemmell from the Marine Conservation Society delivered a sea turtle workshop to Primary 5 pupils at Woodlands Primary School prior to the BioBlitz. This engaged the children at an early stage and helped prepare them for the event. At the BioBlitz itself, Catherine and colleague Matt Smith, delivered a number of beach-based workshops which involved the children in practical learning exercises aimed at making them more aware of the marine environment and also equipped them with practical skills to help stranded dolphins.

This is what some of the children said about the workshops

*I really liked the dolphin saving. Matt was really heavy - **Thom***

*I enjoyed learning about leather back turtles - **Morgan***

*We enjoyed learning how to save a dolphin it was very fun. We had to lift Matt like we were lifting an actual dolphin - **Rory***



Catherine Gemmell



Steph Wilkie

Rock Pooling - With Angus Countryside Rangers and the Marine Conservation Society

The children went rock pooling to identify as many marine species as possible.



Steph Wilkie

This is what some of them said about rock pooling

*We found out about biodiversity and the sea creatures -
Primary 5 pupil*

*It was awesome and I loved that day - **Ruby***

*The best bit was going to the rock pools. I found a fish,
a crab, sea snails, a hermit crab a muscle and I loved
the day - **Max***

*We saw sea anemones, fish, hermit crabs, big crabs,
small crabs. We even saw big fish and I caught the
biggest crab - **Rory***

*We hope we can come back - **Hendry***



Catherine Gemmell

Five other children aged 15 years or under provided feedback about their experience at the BioBlitz. They all strongly agreed that they had learned more about protecting environments such as East Haven and really enjoyed their time at the BioBlitz. Children in the village itself have become more engaged with wildlife activities and participated in a further rock pooling session. One 15 year old boy from Carnoustie came along to the BioBlitz after seeing a leaflet about the event. He had been rock pooling for his own interest for some time and he was passionate about marine life. We were able to provide him with links to other wildlife enthusiasts and involve him in subsequent activities.

Launch of the Tayside Local Biodiversity Action Plan 2016 - 2026

The new Tayside Local Biodiversity Action Plan was launched at the event by Andrew Barbour (pictured right) chair of the Tayside Biodiversity Partnership. Councillor Jeanette Gaul, from Angus Council and Peter Marshall, from Perth & Kinross Council also attended the launch and spoke about the importance of the targets and objectives contained within the new Action Plan. We were very proud that it was launched at the East Haven BioBlitz.

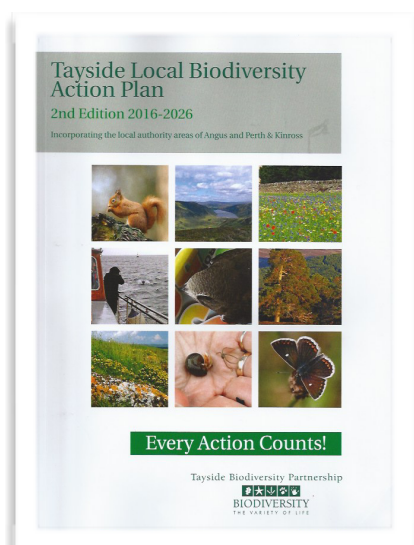
The children of Woodlands Primary school will be young adults before the next Action Plan is launched so their awareness and involvement in this plan is crucial.

One of the children wrote to us and said....

"We are glad to have East Haven's help to save Angus"



Steph Wilkie



The reality is of course, that only meeting the targets and outcomes in the new Tayside Local Biodiversity Action Plan will help to save Angus but, it is encouraging that the children appear to realise that the environment and our precious species do need saving and that 'Every Action Counts'. The Action Plan can be downloaded via www.taysidebiodiversity.co.uk

Citizen Scientists

All children participating in the BioBlitz were presented with Citizen Scientist badges to provide a lasting reminder of their experience and impress upon them the important role citizens can play in gathering records and protecting wildlife. We hope that the experience will stay with them for the rest of their lives and that they will contribute to biodiversity projects and the collecting of species data in the future.

A couple of weeks after the BioBlitz East Haven was represented at a school assembly to provide feedback to the children and thank them for their participation. The pupils were presented with wildlife calendars and Citizen Scientist badges.

Thank you for coming to our school assembly. It was a big surprise for us all. We love the badges and calendars. I am going to use the calendar every year for all my important stuff - Kiera



OUTCOME 3. KNOWLEDGE AND UNDERSTANDING OF LOCAL WILD LIFE HABITATS WAS INCREASED

A whale and dolphin watch was led by Kelly Ann Dempsey, Project Officer, Angus Council. Members of the public found the session very informative and gained insight into the cetaceans present in Angus waters. We learned that the Bottlenose Dolphin, Harbour Porpoise and Minke Whale are all Tayside Biodiversity Priority Species.



Bottlenose Dolphins Angus Council

Although no cetaceans put in an appearance during the session on the 27th, they visited on the 28th. We were treated to a spectacular display in the bay and many children genuinely thought that the dolphins had been brought in especially

for the BioBlitz. Awareness was raised about the importance of recording sightings on the web-site www.marinelifeangus.co.uk. All sightings are fed into national recording schemes and help to conserve species and habitats.

Key Action 17 in Maintaining and Improving Habitats, Coastal and Marine Actions Schedule, Tayside Local Biodiversity Partnership.

Increase awareness of cetaceans in Angus Waters and facilitate community participation in data recording.

Polli:Nation Workshop

This workshop was led by Joanne Dempster from OPAL and in addition to being an enjoyable learning experience, it also provided ideas to help reduce pollinator decline.



Steph Wilkie

Bees, moths, hoverflies and butterflies play a crucial role in pollinating much of our food but populations are in serious decline. This decline may be further accelerated by climate change. East Haven will continue to try and improve habitats for pollinators both in private gardens and in community green spaces.



CAG LLOYD

Bugs Alive

This session was led by Danielle Muir of Perthshire Wildlife and provided a fascinating insight into the hidden world of insects.



Photos
Steph
Wilkie



As part of the Tayside BeeWild Project, residents have decided to establish a pond within part of the community garden in 2017 to encourage and increase biodiversity and provide a breeding ground for frogs, toads and dragonflies.

Tay Ringing Group

Derek Robertson, Peter Ellis and others provided a unique insight into some of our bird population having netted a total of 96 birds over the two days comprising 15 different species. Members of the public were able to watch the birds being measured, weighed and ringed. Questions were answered and the importance bird ringing makes to the conservation of birds was better understood.

A Goldfinch ringed in East Haven on 27 August was subsequently recovered in Cambridgeshire on 22 October 2016 having travelled 461 km in 56 days. Participants are now much more aware of the importance of submitting records such as these, providing crucial information on populations, migratory patterns, breeding success and survival.



Photographs
Courtesy
Steph Wilkie



Plant Watch

Jim Cook, Mark Tulley, and Theo Loizou led guided walks during which 268 plants were identified and the data subsequently uploaded to iRecord. The Site of Special Scientific Interest (SSSI) in East Haven is an important location for many scarce plants including the Greater Yellow Rattle (*Rhianthus angustifolius*). However, it was not recorded during the event as the plant had already flowered and seeded. Residents had undertaken a special 5m cut along the SSSI to promote regrowth of the GYR in 2017. The plant is currently in decline and it is hoped that undertaking special cuts of the SSSI will help in the recovery of this species.



Steph Wilkie

Historic records from L. Farrell and D.M. Bayne in 1982 show that plants such as Small Scabious (*Scabiosa Columbaria*) were growing along the SSSI and although it was recorded again in 2001 (Loizou, T.) it was not identified in 2016. However, we were pleased to see that Goats Beard (*Tragopogon Pratensis*), recorded in 1982 (L. Farrell and D.M. Bayne) and 2001 (Loizou, T.) is still surviving in 2016.



As Scotland grows warmer, we are aware that some plants seen here in the past may not survive but others not normally seen this far north may appear. Yellow Oat Grass (*Trisetum flavescens*) has not been found previously for example, but was recorded growing along the side of the SSSI. Although a common grass in England, Wales and south east Scotland there are fewer records further north. The grass also favours inland rather than coastal areas so it was interesting to find it in such an exposed location.

Invasive and non-native plants

Residents were concerned that we may have a growth of Giant Hogweed in East Haven. However, following examination by the onsite experts, it was confirmed that the plants, although large in size, were native Hogweed and not the toxic Giant Hogweed. This exercise was useful as participants learned more about dangerous invasive species and what action to take if such plants are suspected or found to be growing in an area. We also learned that our large native Hogweed is a very worthy plant to retain because of its biodiversity value to a wide range of invertebrates.

It was noted that invasive plants such as Snowberry (*Symphoricarpos albus*) and exotic garden escapes are growing along the SSSI. Not only do these threaten native and protected species but they also undermine the integrity of the dune system. Work will be undertaken in 2017 to remove the Snowberry and other non-native species



Key Action 5 in Maintaining and Improving Habitats in the Coastal and Marine Actions Schedule, Tayside Local Biodiversity Partnership.

Support sand dune system restoration projects and species management programmes by removal of invasive plants.

Small Mammals

Brain Boag delivered a very interesting presentation on small mammals and the use of the Longworth Trap. As we know that we have Shrews in East Haven, Brian had to use traps which would allow the Shrews to escape. A licence is required from Scottish Natural Heritage (SNH) to catch Shrews as they are a priority species. Although the small mammals in East Haven managed to avoid capture, a European Mole (*Talpa europaea*) was identified.



Bat and Owl Walk

An after dark Bat and Owl Walk was led by David Lampard and proved very popular with adults and children alike. Scottish Natural Heritage secured the use of an Anabat Detector which was secured at the side of the railway line. Hand held bat detectors were used for the walk. The Common Pipastrelle and the Soprano Pipastrelle, both priority species, were recorded.



OUTCOME 4 and 5: Develop skills in identifying plant, marine and wildlife. Develop biological recording skills

Capturing our coast with Catherine Gemmell and Jon Loates.

Participants of all ages enjoyed clambering over the rocks to discover what was hiding in the water and under the rock surfaces. We learned more about local seaweeds and used laminated sheets purchased with grant money from AET to identify the different species. An impressive 43 marine records were created. An East Haven resident has also taken part in the 'Capturing our Coast' training which is a marine citizen science project supporting people to survey their local coastline with the aim of providing widespread data on intertidal species distribution and ecology. We have also participated in a further rockpooling event adding to local records.



Key Action 16, in Maintaining and Improving Habitats in the Coastal and Marine Actions Schedule, Tayside Local Biodiversity Partnership.
Support and promote intertidal species monitoring projects (capturing our coast)



Steph Wilkie



Catherine Gemmell



Steph Wilkie



Steph Wilkie

Bee Aware

Led by Helen Dickinson of the BumbleBee Conservation Society, participants gained confidence in identifying and recording bees. Six different types of bee were recorded during the BioBlitz. We will continue to support the BumbleBee Conservation Society in 2017 by undertaking monthly walks along different transects and recording the number and types of bees. We will submit our findings using the online recording tool.



Birds

Angus and Dundee Bird Club led guided walks and also placed a telescope on the beach to enable the public to view coastal birds. Including the birds identified by the Tay Ringing Group, a total of 103 birds were recorded comprising 58 different species. A full list can be found in Appendix 2. The photographs below (copyright Steph Wilkie) provide a photographic record of some of the birds recorded. Although the Linnet (*Carduelis cannabina*) was not photographed, we were pleased to see a number were recorded as this bird is on the priority species list.

It was also encouraging that sightings of the Sanderling (*Calidris alba*) and the Ringed Plover (*Charadrius hiaticula*) were recorded as some climate change predications in 2004 suggested that populations of these wader birds might decline considerably in the future (Rehfi sch et al. 2004).



Photographs Steph Wilkie



Photographs
Courtesy
Steph Wilkie



Moths

Recorder, Paul Brooks, delivered an informative presentation on Moths and demonstrated how to set up a moth trap. The traps were left overnight and by early morning a huge number of moths were able to be identified and recorded. Paul said "I was blown away by the number and variety on just one visit. Sixty species were identified in one night in East Haven, which was just brilliant". Paul remarked that the species recorded were what he would have hoped to find in this location but he was really pleased with the Bulrush and Large Wainscots.



Paul and Anne inspecting a moth trap

CAG Lloyd

East Haven resident Anne Bancroft has participated in training and spent time working with Paul identifying and recording moths. Anne will continue to develop her expertise and add to the collection of biological records. Photographs of moths identified and recorded at the event (copyright Paul Brooks).



Bulrush

Paul Brooks



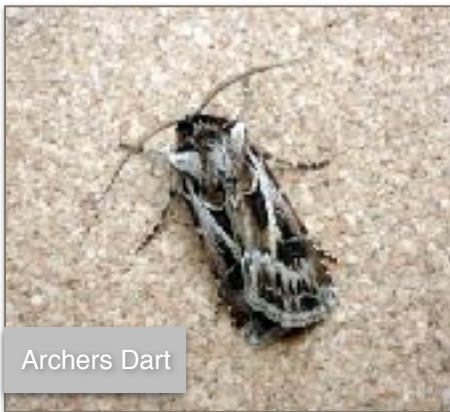
Large Wainscot



Poplar Hawk Moth



Frosted Orange



Archers Dart

Paul Brooks



Square spot rustic



Sallow

Butterflies

All varieties of butterfly across the UK have seen a decline over recent years but the Small Tortoiseshell saw a 47% drop in numbers and the Peacock a 42% drop in 2016. According to Butterfly Conservation, not only could mild winters and cold springs be responsible for this decline but also intensive farming and pesticide use may be a factor. We were therefore delighted to record a number of varieties including the Small Tortoiseshell, Peacock and

R e d
Admiral.



Small Tortoiseshell



Peacock

Photographs
Steph Wilkie

Without a doubt, the introduction of a few varieties of Buddleia into the community gardens have attracted butterflies due to their beautiful colour and nectar quality. East Haven will continue to participate in the Big Butterfly count in 2017 and submit our findings.

In partnership with Tayside Biodiversity Partnership and Butterfly Conservation, residents also planted Kidney Vetch early in 2016. The aim

is to create a food corridor along the Angus Coast where small colonies of the Small Blue are known to exist. The Small Blue is a priority species, due to serious decline in recent decades and is the UK's smallest butterfly. It is hoped that by creating a corridor of Kidney Vetch linking Buddon Ness in the south to Kinnaber, north of Montrose, the Small Blue will thrive in Angus. Individuals also participated in training to identify and record the Small Blue.

Key Actions 5 and 11 in Maintaining and Improving Habitats in the Coastal and Marine Actions Schedule, Tayside Local Biodiversity Partnership.

- *Plant Kidney Vetch as a wider connectivity project*
- *Survey and monitor threatened coastal butterfly populations - Small Blue sightings*

OBJECTIVE 6: FUTURE CONSERVATION PRACTICE AND LAND MANAGEMENT IS FOCUSED AND INFORMED

EAST HAVEN BIODIVERSITY ACTION PLAN (Links to East Haven Sustainability Strategy)

NO.	ACTIONS FOR EAST HAVEN	WHEN	LINKS TO: COASTAL AND MARINE ACTIONS SCHEDULE, TAYSIDE LOCAL BIODIVERSITY PARTNERSHIP
1	<ul style="list-style-type: none"> Continue to develop a Kidney Vetch corridor to attract the Small Blue. Participate in fixed point photography project and submit photographs to help monitor plant number fluctuations. Plant the native Scottish Sea Pea at designated locations along the dunes. The plant is listed in the Tayside Sand Dune Action Plan, its Tayside population being of UK importance. Continue to work in partnership with SNH to improve the habitat along the SSSI by removal of non-native species and carry out special cuts of the grasses. Also help monitor the population and spread of Greater Yellow Rattle. 	Spring 2017	<p>Maintaining and Improving Habitats</p> <p>Kidney Vetch <i>Survey Kidney vetch along the Angus Coast annually (and inland where appropriate). Use fixed point photography at identified sites to monitor plant number fluctuations.</i></p> <p>Sea Pea <i>Identify historical or new sites for planting sea pea grown locally at Dundee Botanic gardens. Monitor replanting and plant colonisation.</i></p> <p>Greater Yellow Rattle <i>Monitor coastal population and spread. Carry out site works to improve habitat for plant spread particularly at East Haven SSSI. Support new projects which identify additional threatened species.</i></p>
2	Continue to prioritise beach cleans and littering of all types. Continue to survey and submit findings to the Marine Conservation Society.	All Year	<p>Maintaining and Improving Habitats</p> <p>3. Endeavour to reduce the direct pressures on coastal and marine biodiversity by implementing litter reduction and beach clean projects enabling the enhancement of ecosystem health.</p>
3	Remove invasive and non-native species from the SSSI. e.g Snowberry, Ivy, Sycamore.	2017	<p>Maintaining and Improving Habitats</p> <p>5. Support sand dune system restoration projects and species management programmes. <i>Remove invasive plants such as gorse, hawthorn, sycamore and rose species.</i></p>
4	Carefully manage all areas of coast and land to protect habitats. Work closely with all partners including SNH, Angus Council, TBP, SEPA, CatchmentTay Ltd, Farmers, Marine Conservation Society, Tay Estuary Forum.	2017	<p>Maintaining and Improving Habitats</p> <p>6. Support and encourage collaborative working. <i>Work with a range of partners in supporting integrated coastal management and marine planning.</i></p>

NO.	ACTIONS FOR EAST HAVEN	WHEN	LINKS TO: COASTAL AND MARINE ACTIONS SCHEDULE, TAYSIDE LOCAL BIODIVERSITY PARTNERSHIP
5	Submit sightings of cetaceans in the waters around East Haven to www.marinelifeangus.co.uk	All Year	Surveying and Monitoring 8 Investigate cetacean spatial and temporal distribution patterns in Angus waters. Generate sightings records through targeted media such the Angus Cetacean Awareness Project and the website www.marinelifeangus.co.uk .
6	Hold a guided bird walk/mini bioblitz during the year. Submit records. Observe and report any beached birds to RSPB.	2017	Surveying and Monitoring 10. Support projects and surveys that provide an understanding of coastal bird ecology.
7	<ul style="list-style-type: none"> • Maintain links with East of Scotland Butterfly Conservation. • Participate in training aimed at improving identification and recording skills. • Maintain membership of Butterfly Conservation and other relevant organisations • Encourage the planting of butterfly-friendly plants in private and community gardens. • Continue to develop Kidney Vetch corridor. 	2017	Surveying and Monitoring 11. Survey and monitor threatened coastal butterfly populations. 18. Raise awareness of endangered coastal butterflies and encourage community participation in conservation.
8	Continue to participate in citizen science project, Capturing our Coast project	2017	Surveying and Monitoring 16. Support and promote intertidal species monitoring projects.
NO	ACTIONS FOR EAST HAVEN	WHEN	LINKS TO: PEOPLE AND COMMUNICATIONS ACTIONS SCHEDULE, TAYSIDE LOCAL BIODIVERSITY PARTNERSHIP
9	<ul style="list-style-type: none"> • Increase biodiversity by establishing a pond in an area of community garden. • Participate in the BeeWild Initiative and develop more areas for solitary bees. • Participate in the GrowWild project by planting native wildflowers in areas away from SSSI. • Participate in Zoomin2 timelapse project 	2017	Maintaining and Improving Habitats 1. Encourage community groups to manage local areas for biodiversity.

NO.	ACTIONS FOR EAST HAVEN	WHEN	LINKS TO: COASTAL AND MARINE ACTIONS SCHEDULE, TAYSIDE LOCAL BIODIVERSITY PARTNERSHIP
10	<ul style="list-style-type: none"> • Participate in the Big Butterfly Count and submit findings. • Undertake monthly Bee Walks and submit records to BumbleBee Conservation Society. • Identify and record moths (annual Moth night). • Capturing our Coast data. • RSPB Big Garden Birdwatch. 	2017	Surveying and Monitoring 3. Encourage community groups to manage local areas for biodiversity and support communities in undertaking a wide range of surveys to report back nationally.
11	Work with Woodlands Primary School to become a species champion for the Small Blue butterfly.	2017	Education and Awareness Raising 8. Promote Scottish Species Champions Identify local species champions to help raise awareness of Tayside Projects.

We would like to thank all organisations, recorders, volunteers and participants for their contribution to the East Haven Bioblitz.

APPENDIX 1: Programme of Main Events

<i>Friday 26th</i>	<i>Programme of main events</i>
10:00 - 12:00	Woodlands Primary School children Tree Sparrow nest box making workshop led by Carol Littlewood Turtle workshop led by Catherine Gemmell - MCS
10:00 - 16:00	Bird Watch - Telescope on beach with Angus and Dundee Bird Club
11:00 - 11:45	Learn about dolphin and whale watching with Kelly Ann Dempsey
12md - 13:00	Launch of Tayside Biodiversity Action Plan2016 -2026. Presentation by Children of Woodlands Primary School, Carnoustie.
13:00 - 14:00	Bird Ringing with Derek Robertson of the Tay Ringing Group
13:30 - 15:00	Children's beach survey and rock pooling with Angus Rangers and Catherine Gemmell of MCS
14:00 - 15:00	Bee Aware with Helen Dickinson BumbleBee Conservation Society
15:00 - 17:00	Bugs Alive' with Daniele Muir of Perthshire Wildlife
16:00 - 17:00	Seaweed Survey - Catherine Gemmell MCS
17:00 - 18:00	Bird Walk with Angus and Dundee Birds
19:00 - 21:00	Learn how to set up a moth trap with Paul Brooks
20:00 - 21:00	Brian Boag will be setting up small mammal traps
21:00 - 23:00	Bat and Owl Walk
<i>Saturday 27th</i>	
07:00 - 09:00	Mothy Breakfast at the Bothy
07:00 - 14:30	Bird Watch - Telescope on beach with Angus and Dundee Bird Club
08:00 - 09:00	Early Bird Walk with Bob McCurley
09:00 - 10:00	Join Paul Brooks to identify and release the moths
09:00 - 10:00	Identify and release small mammals with Brian Boag
10:00 - 14:30	Name that plant with Jim Cook
10:00 - 11:00	Plant watch - VC Plant recorder Mark Tulley - Perth Naturalists
10:00 - 11:00	Tree Sparrow nest box work shop led by Carol Littlewood
11:00 - 12:00	Bird Ringing with Derek Robertson of the Tay Ringing Group
12:30 - 13:30	Polli Nation - exciting workshop run by Joanne Dempster of OPAL
13:00 - 14:00	Tree Sparrow nest box work shop led by Carol Littlewood
13:30 - 14:30	Capturing our coast - out on the rocks with Catherine Gemmell of MCS and Jon Loates

APPENDIX 2: SPECIES LIST

Species	Common Name	Taxon group
Aglais io	Peacock	insect - butterfly
Pipistrellus pygmaeus	Soprano Pipistrelle	terrestrial mammal
Pipistrellus pipistrellus sensu stricto	Common Pipistrelle	terrestrial mammal
Lasius niger sensu lato	Black garden Ant	insect - hymenopteran
Bombus (Melanobombus) lapidarius	Large Red-tailed Bumblebee	insect - hymenopteran
Orthoptera	grasshoppers and crickets	insect - orthopteran
Cornu aspersum	Common Garden Snail	mollusc
Musca domestica	House-fly	insect - true fly (Diptera)
Bibio marci	St Marks Fly	insect - true fly (Diptera)
Diptera	Fly	insect - true fly (Diptera)
Cepaea (Cepaea) hortensis	White-lipped Snail	mollusc
Philaenus spumarius	Cuckoo-Spit Insect	insect - true bug (Hemiptera)
Bombus (Melanobombus) lapidarius	Large Red-tailed Bumblebee	insect - hymenopteran
Tipulidae	Crane fly	insect - true fly (Diptera)
Bombus (Bombus) terrestris	Buff-tailed Bumblebee	insect - hymenopteran
Vanessa cardui	Painted Lady	insect - butterfly
Aglais io	Peacock	insect - butterfly
Aglais urticae	Small Tortoiseshell	insect - butterfly
Bombus (Pyrobombus) pratorum	Early Bumble Bee	insect - hymenopteran
Bombus (Bombus) terrestris	Buff-tailed Bumblebee	insect - hymenopteran
Bombus (Thoracobombus) pascuorum	Common Carder Bee	insect - hymenopteran
Cornu aspersum	Common Garden Snail	mollusc
Neoascia podagrica		insect - true fly (Diptera)
Eristalis nemorum		insect - true fly (Diptera)
Eristalis tenax		insect - true fly (Diptera)
Eristalis tenax		insect - true fly (Diptera)

Species	Common Name	Taxon group
Helophilus pendulus		insect - true fly (Diptera)
Maniola jurtina	Meadow Brown	insect - butterfly
Lycaena phlaeas	Small Copper	insect - butterfly
Bombus (Pyrobombus) pratorum	Early Bumble Bee	insect - hymenopteran
Bombus (Bombus) terrestris	Buff-tailed Bumblebee	insect - hymenopteran
Bombus (Thoracobombus) pascuorum	Common Carder Bee	insect - hymenopteran
Bombus (Melanobombus) lapidarius	Large Red-tailed Bumblebee	insect - hymenopteran
Bombus (Pyrobombus) pratorum	Early Bumble Bee	insect - hymenopteran
Bombus (Bombus) lucorum	White-tailed Bumblebee	insect - hymenopteran
Bombus (Bombus) lucorum	White-tailed Bumblebee	insect - hymenopteran
Bombus (Bombus) terrestris	Buff-tailed Bumblebee	insect - hymenopteran
Bombus (Bombus) terrestris	Buff-tailed Bumblebee	insect - hymenopteran
Bombus (Megabombus) hortorum	Small Garden Bumblebee	insect - hymenopteran
Claviceps purpurea		fungus
Cepaea (Cepaea) nemoralis	Brown-lipped Snail	mollusc
Rheum		flowering plant
Hypochaeris radicata	Cat's-ear	flowering plant
Chamerion angustifolium	Rosebay Willowherb	flowering plant
Honckenya peploides	Sea Sandwort	flowering plant
Atriplex	Orache	flowering plant
Ononis repens	Common Restharrow	flowering plant
Carduus tenuiflorus	Slender Thistle	flowering plant
Vicia sepium	Bush Vetch	flowering plant
Urtica dioica	Common Nettle	flowering plant
Trifolium repens	White Clover	flowering plant
Taraxacum aggregate		flowering plant
Senecio jacobaea	Common Ragwort	flowering plant
Rubus fruticosus agg.	Bramble	flowering plant
Rosa rugosa	Japanese Rose	flowering plant
Plantago major	Greater Plantain	flowering plant

Species	Common Name	Taxon group
<i>Plantago lanceolata</i>	Ribwort Plantain	flowering plant
<i>Pinus sylvestris</i>	Scots Pine	conifer
<i>Ononis repens</i>	Common Restharrow	flowering plant
<i>Medicago lupulina</i>	Black Medick	flowering plant
<i>Malva neglecta</i>	Dwarf Mallow	flowering plant
<i>Lonicera periclymenum</i>	Honeysuckle	flowering plant
<i>Lathyrus pratensis</i>	Meadow Vetchling	flowering plant
<i>Lapsana communis</i>	Nipplewort	flowering plant
<i>Knautia arvensis</i>	Field Scabious	flowering plant
<i>Hippophae rhamnoides</i>	Sea-buckthorn	flowering plant
<i>Heracleum sphondylium</i>	Hogweed	flowering plant
<i>Galium verum</i>	Lady's Bedstraw	flowering plant
<i>Crepis capillaris</i>	Smooth Hawk's-beard	flowering plant
<i>Convolvulus arvensis</i>	Field Bindweed	flowering plant
<i>Cirsium vulgare</i>	Spear Thistle	flowering plant
<i>Cirsium palustre</i>	Marsh Thistle	flowering plant
<i>Cirsium arvense</i>	Creeping Thistle	flowering plant
<i>Chamerion angustifolium</i>	Rosebay Willowherb	flowering plant
<i>Cerastium tomentosum</i>	Snow-in-summer	flowering plant
<i>Centaurea nigra</i>	Common Knapweed	flowering plant
<i>Calystegia sepium</i>	Hedge Bindweed	flowering plant
<i>Bellis perennis</i>	Daisy	flowering plant
<i>Arrhenatherum elatius</i>	False Oat-grass	flowering plant
<i>Anthriscus sylvestris</i>	Cow Parsley	flowering plant
<i>Allium oleraceum</i>	Field Garlic	flowering plant
<i>Achillea millefolium</i>	Yarrow	flowering plant
<i>Vinca major</i>	Greater Periwinkle	flowering plant
<i>Vicia sepium</i>	Bush Vetch	flowering plant
<i>Vicia hirsuta</i>	Hairy Tare	flowering plant
<i>Urtica dioica</i>	Common Nettle	flowering plant
<i>Tussilago farfara</i>	Coltsfoot	flowering plant
<i>Trisetum flavescens</i>	Yellow Oat-grass	flowering plant

Species	Common Name	Taxon group
Tripleurospermum maritimum	Sea Mayweed	flowering plant
Trifolium repens	White Clover	flowering plant
Trifolium pratense	Red Clover	flowering plant
Tragopogon pratensis	Goat's-beard	flowering plant
Torilis japonica	Upright Hedge-parsley	flowering plant
Thalictrum minus	Lesser Meadow-rue	flowering plant
Taraxacum aggregate		flowering plant
Tanacetum vulgare	Tansy	flowering plant
Symphoricarpos albus	Snowberry	flowering plant
Stachys sylvatica	Hedge Woundwort	flowering plant
Sonchus asper	Prickly Sow-thistle	flowering plant
Sonchus arvensis	Perennial Sow-thistle	flowering plant
Sinapis arvensis	Charlock	flowering plant
Silene dioica	Red Campion	flowering plant
Senecio vulgaris	Groundsel	flowering plant
Senecio jacobaea	Common Ragwort	flowering plant
Sagina procumbens	Procumbent Pearlwort	flowering plant
Rumex crispus	Curled Dock	flowering plant
Rosa rugosa	Japanese Rose	flowering plant
Rosa mollis agg.		flowering plant
Rheum		flowering plant
Ranunculus acris	Meadow Buttercup	flowering plant
Poa annua	Annual Meadow-grass	flowering plant
Plantago lanceolata	Ribwort Plantain	flowering plant
Papaver dubium	Long-headed Poppy	flowering plant
Ononis repens	Common Restharrow	flowering plant
Mentha x villosa var. villosa		flowering plant
Medicago lupulina	Black Medick	flowering plant
Matricaria discoidea	Pineappleweed	flowering plant
Lotus corniculatus	Common Bird's-foot-trefoil	flowering plant
Lolium perenne	Perennial Rye-grass	flowering plant
Leymus arenarius	Lyme-grass	flowering plant

Species	Common Name	Taxon group
<i>Leucanthemum vulgare</i>	Oxeye Daisy	flowering plant
<i>Lathyrus pratensis</i>	Meadow Vetchling	flowering plant
<i>Knautia arvensis</i>	Field Scabious	flowering plant
<i>Hypochaeris radicata</i>	Cat's-ear	flowering plant
<i>Honckenya peploides</i>	Sea Sandwort	flowering plant
<i>Heracleum sphondylium</i>	Hogweed	flowering plant
<i>Hedera helix</i>	Ivy	flowering plant
<i>Geranium pratense</i>	Meadow Crane's-bill	flowering plant
<i>Geranium molle</i>	Dove's-foot Crane's-bill	flowering plant
<i>Galium verum</i>	Lady's Bedstraw	flowering plant
<i>Galium aparine</i>	Cleavers	flowering plant
<i>Festuca rubra</i> agg.		flowering plant
<i>Erodium cicutarium</i> agg.		flowering plant
<i>Epilobium hirsutum</i>	Great Willowherb	flowering plant
<i>Elytrigia repens</i>	Common Couch	flowering plant
<i>Echinops bannaticus</i>	Blue Globe-thistle	flowering plant
<i>Dactylis glomerata</i>	Cock's-foot	flowering plant
<i>Convallaria majalis</i>	Lily-of-the-valley	flowering plant
<i>Cirsium arvense</i>	Creeping Thistle	flowering plant
<i>Cerastium tomentosum</i>	Snow-in-summer	flowering plant
<i>Cerastium fontanum</i>	Common Mouse-ear	flowering plant
<i>Centaurea nigra</i>	Common Knapweed	flowering plant
<i>Calystegia sepium</i>	Hedge Bindweed	flowering plant
<i>Cakile maritima</i>	Sea Rocket	flowering plant
<i>Bellis perennis</i>	Daisy	flowering plant
<i>Atriplex prostrata</i>	Spear-leaved Orache	flowering plant
<i>Atriplex glabriuscula</i>	Babington's Orache	flowering plant
<i>Aster</i>	Michaelmas-Daisy	flowering plant
<i>Arrhenatherum elatius</i>	False Oat-grass	flowering plant
<i>Arctium minus</i>	Lesser Burdock	flowering plant
<i>Anthriscus sylvestris</i>	Cow Parsley	flowering plant
<i>Ammophila arenaria</i>	Marram	flowering plant

Species	Common Name	Taxon group
<i>Allium oleraceum</i>	Field Garlic	flowering plant
<i>Agrostis stolonifera</i>	Creeping Bent	flowering plant
<i>Aegopodium podagraria</i>	Ground-elder	flowering plant
<i>Achillea millefolium</i>	Yarrow	flowering plant
<i>Acer pseudoplatanus</i>	Sycamore	flowering plant
<i>Bombus (Bombus) lucorum</i>	White-tailed Bumblebee	insect - hymenopteran
<i>Cepaea (Cepaea) hortensis</i>	White-lipped Snail	mollusc
<i>Cepaea (Cepaea) nemoralis</i>	Brown-lipped Snail	mollusc
<i>Cornu aspersum</i>	Common Garden Snail	mollusc
<i>Lithobius (Lithobius) forficatus</i>		centipede
<i>Tachypodoiulus niger</i>	White-legged Snake Millipede	millipede
<i>Philoscia muscorum</i>	Common Striped Woodlouse	crustacean
<i>Porcellio scaber</i>	Common Rough Woodlouse	crustacean
<i>Vespula (Paravespula) vulgaris</i>	Common Wasp	insect - hymenopteran
<i>Aphodius (Acrossus) rufipes</i>		insect - beetle (Coleoptera)
<i>Nicrophorus humator</i>	Black Sexton Beetle	insect - beetle (Coleoptera)
<i>Nicrophorus investigator</i>		insect - beetle (Coleoptera)
<i>Spilosoma lubricipeda</i>	White Ermine	insect - moth
<i>Scotopteryx chenopodiata</i>	Shaded Broad-bar	insect - moth
<i>Pieris napi</i>	Green-veined White	insect - butterfly
<i>Vanessa cardui</i>	Painted Lady	insect - butterfly
<i>Vanessa atalanta</i>	Red Admiral	insect - butterfly
<i>Aglais io</i>		insect - butterfly
<i>Aglais urticae</i>	Small Tortoiseshell	insect - butterfly
<i>Maniola jurtina</i>	Meadow Brown	insect - butterfly
<i>Lycaena phlaeas</i>	Small Copper	insect - butterfly
<i>Bombus (Bombus) lucorum</i>	White-tailed Bumblebee	insect - hymenopteran
<i>Bombus (Pyrobombus) pratorum</i>	Early Bumble Bee	insect - hymenopteran
<i>Bombus (Bombus) terrestris</i>	Buff-tailed Bumblebee	insect - hymenopteran

Species	Common Name	Taxon group
Bombus (Thoracobombus) pascuorum	Common Carder Bee	insect - hymenopteran
Bombus (Melanobombus) lapidarius	Large Red-tailed Bumblebee	insect - hymenopteran
Platycheirus manicatus		insect - true fly (Diptera)
Rhingia campestris		insect - true fly (Diptera)
Syrphus vitripennis		insect - true fly (Diptera)
Episyrphus balteatus	Marmalade Hoverfly	insect - true fly (Diptera)
Helophilus pendulus		insect - true fly (Diptera)
Neoascia podagrica		insect - true fly (Diptera)
Eristalis nemorum		insect - true fly (Diptera)
Eristalis pertinax		insect - true fly (Diptera)
Eristalis tenax		insect - true fly (Diptera)
Perizoma albulata	Grass Rivulet	insect - moth
Scotopteryx chenopodiata	Shaded Broad-bar	insect - moth
Pipistrellus pygmaeus	Soprano Pipistrelle	terrestrial mammal
Bombus (Thoracobombus) pascuorum	Common Carder Bee	insect - hymenopteran
Bombus (Melanobombus) lapidarius	Large Red-tailed Bumblebee	insect - hymenopteran
Episyrphus balteatus	Marmalade Hoverfly	insect - true fly (Diptera)
Eristalis tenax		insect - true fly (Diptera)
Ocypus (Ocypus) olens	Devil's Coach-horse	insect - beetle (Coleoptera)
Crangon crangon	Brown Shrimp	crustacean
Talitrida		crustacean
Schistomysis spiritus		crustacean
Hediste diversicolor	Estuary Ragworm	annelid
Pygospio elegans		annelid
Arenicola marina	Blow Lugworm	annelid
Emberiza citrinella	Yellowhammer	bird
Phylloscopus trochilus	Willow Warbler	bird

Species	Common Name	Taxon group
<i>Sylvia communis</i>	Whitethroat	bird
<i>Sturnus vulgaris</i>	Starling	bird
<i>Acrocephalus schoenobaenus</i>	Sedge Warbler	bird
<i>Emberiza schoeniclus</i>	Reed Bunting	bird
<i>Anthus pratensis</i>	Meadow Pipit	bird
<i>Linaria cannabina</i>	Linnet	bird
<i>Passer domesticus</i>	House Sparrow	bird
<i>Delichon urbicum</i>	House Martin	bird
<i>Parus major</i>	Great Tit	bird
<i>Carduelis carduelis</i>	Goldfinch	bird
<i>Periparus ater</i>	Coal Tit	bird
<i>Cyanistes caeruleus</i>	Blue Tit	bird
<i>Turdus merula</i>	Blackbird	bird
<i>Praunus flexuosus</i>	Chameleon Shrimp	crustacean
<i>Mysida</i>		crustacean
<i>Crangon crangon</i>	Brown Shrimp	crustacean
<i>Caridea</i>	Shrimp	crustacean
<i>Tursiops truncatus</i>	Bottle-nosed Dolphin	marine mammal
<i>Bombus (Megabombus) hortorum</i>	Small Garden Bumblebee	insect - hymenopteran
<i>Bombus (Melanobombus) lapidarius</i>	Large Red-tailed Bumblebee	insect - hymenopteran
<i>Bombus (Bombus) lucorum</i>	White-tailed Bumblebee	insect - hymenopteran
<i>Bombus (Thoracobombus) pascuorum</i>	Common Carder Bee	insect - hymenopteran
<i>Bombus (Bombus) terrestris</i>	Buff-tailed Bumblebee	insect - hymenopteran
<i>Lucilia caesar</i>	Common Greenbottle	insect - true fly (Diptera)
<i>Syrphus vitripennis</i>		insect - true fly (Diptera)
<i>Episyrphus balteatus</i>	Marmalade Hoverfly	insect - true fly (Diptera)
<i>Cepaea (Cepaea) nemoralis</i>	Brown-lipped Snail	mollusc
<i>Tachypodoiulus niger</i>	White-legged Snake Millipede	millipede
<i>Spilosoma lubricipeda</i>	White Ermine	insect - moth
<i>Chilopoda</i>		centipede

Species	Common Name	Taxon group
<i>Philoscia muscorum</i>	Common Striped Woodlouse	crustacean
<i>Porcellio scaber</i>	Common Rough Woodlouse	crustacean
<i>Aphodius (Acrossus) rufipes</i>		insect - beetle (Coleoptera)
<i>Nicrophorus humator</i>	Black Sexton Beetle	insect - beetle (Coleoptera)
<i>Nicrophorus investigator</i>		insect - beetle (Coleoptera)
<i>Udea lutealis</i>		insect - moth
<i>Scotopteryx chenopodiata</i>	Shaded Broad-bar	insect - moth
<i>Vespula (Paravespula) vulgaris</i>	Common Wasp	insect - hymenopteran
<i>Cepaea (Cepaea) hortensis</i>	White-lipped Snail	mollusc
<i>Emberiza citrinella</i>	Yellowhammer	bird
<i>Turdus merula</i>	Blackbird	bird
<i>Sylvia communis</i>	Whitethroat	bird
<i>Accipiter nisus</i>	Sparrowhawk	bird
<i>Hirundo rustica</i>	Swallow	bird
<i>Passer domesticus</i>	House Sparrow	bird
<i>Carduelis carduelis</i>	Goldfinch	bird
<i>Rissa tridactyla</i>	Kittiwake	bird
<i>Linaria cannabina</i>	Linnet	bird
<i>Corvus frugilegus</i>	Rook	bird
<i>Corvidae</i>	Crows	bird
<i>Columba livia</i>	Rock Dove	bird
<i>Emberiza schoeniclus</i>	Reed Bunting	bird
<i>Larus ichthyaetus</i>	Great Black-headed Gull	bird
<i>Columba palumbus</i>	Woodpigeon	bird
<i>Falco peregrinus</i>	Peregrine	bird
<i>Numenius phaeopus</i>	Whimbrel	bird
<i>Morus bassanus</i>	Gannet	bird
<i>Motacilla alba</i> subsp. <i>yarrellii</i>	Pied Wagtail	bird
<i>Fulmarus glacialis</i>	Fulmar	bird
<i>Motacilla cinerea</i>	Grey Wagtail	bird

Species	Common Name	Taxon group
<i>Tringa totanus</i>	Redshank	bird
<i>Charadrius hiaticula</i>	Ringed Plover	bird
<i>Phalacrocorax carbo</i>	Cormorant	bird
<i>Calidris canutus</i>	Knot	bird
<i>Calidris alpina</i>	Dunlin	bird
<i>Calidris alba</i>	Sanderling	bird
<i>Somateria mollissima</i>	Eider	bird
<i>Chroicocephalus ridibundus</i>	Black-headed Gull	bird
<i>Sturnidae</i>	Starlings	bird
<i>Numenius arquata</i>	Curlew	bird
<i>Sterna hirundo</i>	Common Tern	bird
<i>Larus canus</i>	Common Gull	bird
<i>Hydrocoloeus minutus</i>	Little Gull	bird
<i>Haematopus ostralegus</i>	Oystercatcher	bird
<i>Larus argentatus</i>	Herring Gull	bird
<i>Sterna sandvicensis</i>	Sandwich Tern	bird
<i>Ardea cinerea</i>	Grey Heron	bird
<i>Morus bassanus</i>	Gannet	bird
<i>Branta canadensis</i>	Canada Goose	bird
<i>Hydrocoloeus minutus</i>	Little Gull	bird
<i>Larus marinus</i>	Great Black-backed Gull	bird
<i>Pluvialis apricaria</i>	Golden Plover	bird
<i>Charadrius hiaticula</i>	Ringed Plover	bird
<i>Oenanthe oenanthe</i>	Wheatear	bird
<i>Phalacrocorax carbo</i>	Cormorant	bird
<i>Calidris alpina</i>	Dunlin	bird
<i>Somateria mollissima</i>	Eider	bird
<i>Larus argentatus</i>	Herring Gull	bird
<i>Chroicocephalus ridibundus</i>	Black-headed Gull	bird
<i>Sterna paradisaea</i>	Arctic Tern	bird
<i>Haematopus ostralegus</i>	Oystercatcher	bird
<i>Erithacus rubecula</i>	Robin	bird

Species	Common Name	Taxon group
<i>Sylvia communis</i>	Whitethroat	bird
<i>Fringilla coelebs</i>	Chaffinch	bird
<i>Prunella modularis</i>	Dunnock	bird
<i>Pica pica</i>	Magpie	bird
<i>Numenius arquata</i>	Curlew	bird
<i>Corvidae</i>	Crows	bird
<i>Turdus merula</i>	Blackbird	bird
<i>Troglodytes troglodytes</i>	Wren	bird
<i>Sturnus vulgaris</i>	Starling	bird
<i>Emberiza citrinella</i>	Yellowhammer	bird
<i>Passer domesticus</i>	House Sparrow	bird
<i>Linaria cannabina</i>	Linnet	bird
<i>Parus major</i>	Great Tit	bird
<i>Cyanistes caeruleus</i>	Blue Tit	bird
<i>Phylloscopus trochilus</i>	Willow Warbler	bird
<i>Motacilla alba subsp. yarrellii</i>	Pied Wagtail	bird
<i>Tringa totanus</i>	Redshank	bird
<i>Sterna sandvicensis</i>	Sandwich Tern	bird
<i>Columba palumbus</i>	Woodpigeon	bird
<i>Delichon urbicum</i>	House Martin	bird
<i>Hirundo rustica</i>	Swallow	bird
<i>Anthus pratensis</i>	Meadow Pipit	bird
<i>Carduelis carduelis</i>	Goldfinch	bird
<i>Streptopelia decaocto</i>	Collared Dove	bird
<i>Anas platyrhynchos</i>	Mallard	bird
<i>Agrotis vestigialis</i>	Archer's Dart	insect - moth
<i>Cerapteryx graminis</i>	Antler Moth	insect - moth
<i>Agrochola litura</i>	Brown-spot Pinion	insect - moth
<i>Agriphila tristella</i>		insect - moth
<i>Eugnorisma glareosa</i>	Autumnal Rustic	insect - moth
<i>Xestia c-nigrum</i>	Setaceous Hebrew Character	insect - moth

Species	Common Name	Taxon group
Xestia xanthographa		insect - moth
Xestia xanthographa		insect - moth
Xestia baja		insect - moth
Noctua janthe	Lesser Broad-bordered Yellow Underwing	insect - moth
Noctua janthe	Lesser Broad-bordered Yellow Underwing	insect - moth
Noctua comes		insect - moth
Noctua comes		insect - moth
Noctua fimbriata	Broad-bordered Yellow Underwing	insect - moth
Noctua pronuba	Large Yellow Underwing	insect - moth
Noctua pronuba	Large Yellow Underwing	insect - moth
Diarsia rubi	Small Square-spot	insect - moth
Diarsia rubi	Small Square-spot	insect - moth
Euxoa tritici	White-line Dart	insect - moth
Euxoa tritici	White-line Dart	insect - moth
Mythimna impura		insect - moth
Mythimna pallens	Common Wainscot	insect - moth
Agrochola litura	Brown-spot Pinion	insect - moth
Agrochola litura	Brown-spot Pinion	insect - moth
Cirrhia icteritia		insect - moth
Cirrhia icteritia		insect - moth
Xanthia togata	Pink-barred Sallow	insect - moth
Xanthia togata	Pink-barred Sallow	insect - moth
Litoligia literosa		insect - moth
Mesapamea secalis	Common Rustic	insect - moth
Apamea monoglypha	Dark Arches	insect - moth
Denticucullus pygmina		insect - moth
Nonagria typhae	Bulrush Wainscot	insect - moth
Nonagria typhae	Bulrush Wainscot	insect - moth
Rhizedra lutosa		insect - moth
Luperina testacea		insect - moth
Luperina testacea		insect - moth

Species	Common Name	Taxon group
Amphipoea oculea	Ear Moth	insect - moth
Hydraecia micacea	Rosy Rustic	insect - moth
Hydraecia micacea	Rosy Rustic	insect - moth
Gortyna flavago		insect - moth
Amphipyra tragopoginis	Mouse Moth	insect - moth
Amphipyra tragopoginis	Mouse Moth	insect - moth
Autographa gamma	Silver Y	insect - moth
Autographa gamma	Silver Y	insect - moth
Tyria jacobaeae	Cinnabar	insect - moth
Spilosoma lubricipeda	White Ermine	insect - moth
Peribatodes rhomboidaria		insect - moth
Peribatodes rhomboidaria		insect - moth
Eupithecia assimilata	Currant Pug	insect - moth
Perizoma alchemillata	Small Rivulet	insect - moth
Ecliptopera silaceata		insect - moth
Ecliptopera silaceata		insect - moth
Epirrhoe alternata	Common Carpet	insect - moth
Camptogramma bilineata	Yellow Shell	insect - moth
Xanthorhoe fluctuata	Garden Carpet	insect - moth
Scotopteryx chenopodiata	Shaded Broad-bar	insect - moth
Idaea aversata	Riband Wave	insect - moth
Idaea biselata	Small Fan-footed Wave	insect - moth
Laothoe populi	Poplar Hawk-moth	insect - moth
Agriphila inquinatella		insect - moth
Agriphila tristella		insect - moth
Agriphila tristella		insect - moth
Chrysoteuchia culmella	Garden Grass-veneer	insect - moth
Udea lutealis		insect - moth
Udea lutealis		insect - moth
Ancylis badiana		insect - moth
Cochylis atricapitana	Black-headed Conch	insect - moth
Agapeta zoegana	Knapweed Conch	insect - moth

Species	Common Name	Taxon group
Acleris variegana		insect - moth
Clepsis consimilana		insect - moth
Clepsis consimilana		insect - moth
Blastobasis adustella	Furness Dowd	insect - moth
Blastobasis adustella	Furness Dowd	insect - moth
Elachista atricomella	Black-headed Dwarf	insect - moth
Elachista atricomella	Black-headed Dwarf	insect - moth
Depressaria daucella		insect - moth
Agonopterix heracliata	Common Flat-body	insect - moth
Agonopterix arenella		insect - moth
Agonopterix arenella		insect - moth
Hofmannophila pseudospretella	Brown House-moth	insect - moth
Anomia ephippium	Saddle Oyster	mollusc
Pholis gunnellus	Butterfish	bony fish (Actinopterygii)
Lipophrys pholis	Shanny	bony fish (Actinopterygii)
Mytilus edulis	Blue Mussel	mollusc
Anodonta	Swan mussels, etc	mollusc
Henricia oculata	Bloody Henry Starfish	echinoderm
Mastocarpus stellatus	False Irish Moss	alga
Chondrus crispus	Carrageen	alga
Arenicola defodiens	Black Lugworm	annelid
Ascidia		tunicate (Urochordata)
Halidrys siliquosa	Sea Oak	chromist
Palmaria palmata	Dulse	alga
Laminaria digitata	Oarweed	chromist
Saccharina latissima	Sugar Kelp	chromist
Fucus vesiculosus	Bladder Wrack	chromist
Fucus serratus	Toothed Wrack	chromist
Halichondria (Halichondria) panicea	Breadcrumb Sponge	sponge (Porifera)
Lithophyllum incrustans		alga
Corallina officinalis	Coral Weed	alga

Species	Common Name	Taxon group
<i>Ulva intestinalis</i>	Gutweed	alga
<i>Ulva lactuca</i>	Sea Lettuce	alga
<i>Palaemon serratus</i>	Common Prawn	crustacean
<i>Lepidochitona</i> (<i>Lepidochitona</i>) <i>cinerea</i>		mollusc
<i>Actinia equina</i>	Beadlet anemone	coelenterate (=cnidarian)
<i>Lanice conchilega</i>	Sand Mason	annelid
<i>Ophiothrix fragilis</i>	Common Brittlestar	echinoderm
<i>Cancer pagurus</i>	Edible crab	crustacean
<i>Pagurus bernhardus</i>	Hermit Crab	crustacean
<i>Carcinus maenas</i>	Green Shore Crab	crustacean
<i>Nucella lapillus</i>	Dog Whelk	mollusc
<i>Littorina littorea</i>	Common Periwinkle	mollusc
<i>Gibbula cineraria</i>	Grey Top Shell	mollusc
<i>Buccinum undatum</i>	Common whelk	mollusc
<i>Patella vulgata</i>	Common Limpet	mollusc
<i>Talpa europaea</i>	European Mole	terrestrial mammal
<i>Numenius arquata</i>	Curlew	bird
<i>Ceratodon purpureus</i>	Redshank	moss
<i>Larus argentatus</i>	Herring Gull	bird
<i>Haematopus ostralegus</i>	Oystercatcher	bird
<i>Carduelis carduelis</i>	Goldfinch	bird
<i>Larus canus</i>	Common Gull	bird
<i>Corvidae</i>	Crows	bird
<i>Columba palumbus</i>	Woodpigeon	bird
<i>Sterna hirundo</i>	Common Tern	bird
<i>Atriplex laciniata</i>	Frosted Orache	flowering plant
<i>Agrostis stolonifera</i>	Creeping Bent	flowering plant
<i>Fraxinus excelsior</i>	Ash	flowering plant
<i>Cardamine laciniata</i>	Cut-leaved Bitter-cress	flowering plant
<i>Rhinanthus minor</i>	Yellow-rattle	flowering plant
<i>Festuca ovina</i>		flowering plant

Species	Common Name	Taxon group
Agrostis stolonifera	Creeping Bent	flowering plant
Cardamine laciniata	Cut-leaved Bitter-cress	flowering plant
Syringa vulgaris	Lilac	flowering plant
Epilobium montanum	Broad-leaved Willowherb	flowering plant
Buddleja davidii	Butterfly-bush	flowering plant
Sisymbrium officinale	Hedge Mustard	flowering plant
Papaver orientale		flowering plant
Aster	Michaelmas-Daisy	flowering plant
Sagina procumbens	Procumbent Pearlwort	flowering plant
Poa annua	Annual Meadow-grass	flowering plant
Geranium pratense	Meadow Crane's-bill	flowering plant
Poa pratensis		flowering plant
Agrostis capillaris	Common Bent	flowering plant
Daucus carota	Wild Carrot	flowering plant
Vinca major	Greater Periwinkle	flowering plant
Erigeron acris		flowering plant
Sonchus oleraceus	Smooth Sow-thistle	flowering plant
Euphorbia helioscopia	Sun Spurge	flowering plant
Acer pseudoplatanus	Sycamore	flowering plant
Sterna paradisaea/hirundo	Comic' tern	bird
Salix	Sallow	flowering plant
Galium verum	Lady's Bedstraw	flowering plant
Veronica chamaedrys	Germander Speedwell	flowering plant
Silene	Campion	flowering plant
Cerastium tomentosum	Snow-in-summer	flowering plant
Lathyrus pratensis	Meadow Vetchling	flowering plant
Anthriscus sylvestris	Cow Parsley	flowering plant
Sonchus arvensis	Perennial Sow-thistle	flowering plant
Rumex obtusifolius	Broad-leaved Dock	flowering plant
Festuca ovina		flowering plant
Agrostis stolonifera	Creeping Bent	flowering plant
Hedera helix	Ivy	flowering plant

Species	Common Name	Taxon group
Polygonum aviculare		flowering plant
Poa angustifolia	Narrow-leaved Meadow-grass	flowering plant
Geranium pratense	Meadow Crane's-bill	flowering plant
Agrostis capillaris	Common Bent	flowering plant
Tanacetum vulgare	Tansy	flowering plant
Veronica chamaedrys	Germander Speedwell	flowering plant
Galium aparine	Cleavers	flowering plant
Silene	Campion	flowering plant
Knautia arvensis	Field Scabious	flowering plant
Cerastium tomentosum	Snow-in-summer	flowering plant
Vicia sepium	Bush Vetch	flowering plant
Betula pubescens	Downy Birch	flowering plant
Lathyrus pratensis	Meadow Vetchling	flowering plant
Rumex crispus	Curled Dock	flowering plant
Anthriscus sylvestris	Cow Parsley	flowering plant
Rosa	Rose	flowering plant
Impatiens balsamina	Balsam	flowering plant
Calystegia sepium	Hedge Bindweed	flowering plant
Zygaena	Burnet Moth	insect - moth
Malva arborea		flowering plant
Crepis capillaris	Smooth Hawk's-beard	flowering plant
Hippophae rhamnoides	Sea-buckthorn	flowering plant
Tragopogon	Goat's-Beard	flowering plant
Epilobium lanceolatum	Spear-leaved Willowherb	flowering plant
Lapsana		flowering plant
Malva sylvestris	Common Mallow	flowering plant
Cotoneaster	Cotoneaster	flowering plant
Iris		flowering plant
Pinus	Pine	conifer
Mentha x villosa var. villosa		flowering plant
Poa pratensis		flowering plant

Species	Common Name	Taxon group
Rumex obtusifolius	Broad-leaved Dock	flowering plant
Galium verum	Lady's Bedstraw	flowering plant
Equisetum arvense	Field Horsetail	horsetail
Poa pratensis		flowering plant
Festuca filiformis x ovina		flowering plant
Impatiens balsamina	Balsam	flowering plant
Calystegia sepium	Hedge Bindweed	flowering plant
Tripleurospermum maritimum	Sea Mayweed	flowering plant
Cirsium vulgare	Spear Thistle	flowering plant
Ammophila arenaria	Marram	flowering plant
Plantago lanceolata	Ribwort Plantain	flowering plant
Lolium perenne	Perennial Rye-grass	flowering plant
Urtica dioica	Common Nettle	flowering plant
Aegopodium		flowering plant
Rosa	Rose	flowering plant
Tripleurospermum maritimum	Sea Mayweed	flowering plant
Trifolium dubium	Lesser Trefoil	flowering plant
Lotus corniculatus	Common Bird's-foot-trefoil	flowering plant
Cirsium vulgare	Spear Thistle	flowering plant
Achillea millefolium	Yarrow	flowering plant
Festuca rubra		flowering plant
Bellis perennis	Daisy	flowering plant
Medicago lupulina	Black Medick	flowering plant
Cerastium fontanum	Common Mouse-ear	flowering plant
Torilis japonica	Upright Hedge-parsley	flowering plant
Ammophila arenaria	Marram	flowering plant
Aegopodium podagraria	Ground-elder	flowering plant
Tripleurospermum maritimum	Sea Mayweed	flowering plant
Mentha spicata	Spear Mint	flowering plant
Rubus fruticosus agg.	Bramble	flowering plant
Trifolium dubium	Lesser Trefoil	flowering plant
Lotus corniculatus	Common Bird's-foot-trefoil	flowering plant

Species	Common Name	Taxon group
Cirsium vulgare	Spear Thistle	flowering plant
Achillea millefolium	Yarrow	flowering plant
Bellis perennis	Daisy	flowering plant
Medicago lupulina	Black Medick	flowering plant
Cerastium fontanum	Common Mouse-ear	flowering plant
Vicia hirsuta	Hairy Tare	flowering plant
Torilis japonica	Upright Hedge-parsley	flowering plant
Ammophila arenaria	Marram	flowering plant
Plantago lanceolata	Ribwort Plantain	flowering plant
Aegopodium podagraria	Ground-elder	flowering plant
Rubus fruticosus agg.	Bramble	flowering plant
Cirsium vulgare	Spear Thistle	flowering plant
Achillea millefolium	Yarrow	flowering plant
Medicago lupulina	Black Medick	flowering plant
Torilis japonica	Upright Hedge-parsley	flowering plant
Ammophila arenaria	Marram	flowering plant
Plantago lanceolata	Ribwort Plantain	flowering plant
Dactylis glomerata	Cock's-foot	flowering plant
Festuca rubra		flowering plant
Centaurea nigra	Common Knapweed	flowering plant
Arrhenatherum elatius	False Oat-grass	flowering plant
Centaurea nigra	Common Knapweed	flowering plant
Heracleum sphondylium sphondylium sphondylium		flowering plant
Bellis perennis	Daisy	flowering plant
Lolium perenne	Perennial Rye-grass	flowering plant
Arrhenatherum elatius	False Oat-grass	flowering plant
Centaurea nigra	Common Knapweed	flowering plant
Heracleum sphondylium sphondylium sphondylium		flowering plant
Lolium perenne	Perennial Rye-grass	flowering plant
Bellis perennis	Daisy	flowering plant
Senecio cineraria x jacobaea = S. x albescens		flowering plant

Species	Common Name	Taxon group
Cirsium arvense	Creeping Thistle	flowering plant
Trifolium repens	White Clover	flowering plant
Taraxacum officinale agg.	Dandelion	flowering plant
Urtica dioica	Common Nettle	flowering plant
Heracleum sphondylium sphondylium sphondylium		flowering plant
Lolium perenne	Perennial Rye-grass	flowering plant
Senecio cineraria x jacobaea = S. x albescens		flowering plant
Cirsium arvense	Creeping Thistle	flowering plant
Urtica dioica	Common Nettle	flowering plant
Leymus arenarius	Lyme-grass	flowering plant
Leymus arenarius	Lyme-grass	flowering plant
Leymus arenarius	Lyme-grass	flowering plant
Rumex acetosa subsp. acetosa	Common Sorrel	flowering plant
Senecio cineraria x jacobaea = S. x albescens		flowering plant
Accipiter nisus	Sparrowhawk	bird
Cirsium arvense	Creeping Thistle	flowering plant
Trifolium repens	White Clover	flowering plant
Taraxacum	Dandelion	flowering plant
Urtica dioica	Common Nettle	flowering plant
Ustilago avenae	Loose Smut of Oats & Oat Grass	fungus
Cerastium tomentosum	Snow-in-summer	flowering plant
Rosa canina agg.		flowering plant
Leymus arenarius	Lyme-grass	flowering plant
Rumex acetosa	Common Sorrel	flowering plant
Arrhenatherum elatius	False Oat-grass	flowering plant