‘BioBlitz’ Days on Castle Hill, Almondbury Hillfort, Huddersfield

A number of ‘BioBlitz Days’ were undertaken in 2018/19 with more planned for 2020 which is an intense period of biological surveying in an attempt to record all the living species within a designated area. The National BioBlitz Network is a group of professionals and amateurs working to engage people with biological recording across the UK including Castle Hill.

Children and adults of all ages took part, with two volunteer experts in the ecology field to identify species over the afternoons on the hill’s summit and adjacent to the footpaths on Castle Hill.

The ‘Bio-blitz’ Days helped to find the Shield bug, which has never been seen in Kirklees before, and also found a Leaf Beetle which is only known at four other Kirklees locations.

In 2018 the rare Mountain Bumble Bee Bombus monticola and the Wall Brown Butterfly was recorded on the summit of Castle Hill.

In the last sixty years we have allegedly lost some 40 per cent of all the world species. Holding bio-blitz days provide us with a snap shot of what we have and what we need to conserve. It also shows if there have been any changes in the climate with new species coming along that have adapted and enables us to manage these findings to respect this ecology of the Local Nature Reserve

Any ‘Bio Blitz Day’ is a snap shot of what Castle Hill has and what we need to conserve. It can show any change in the climate due to new species being recorded that have adapted. Any management or potential development would need to research these findings to respect the ecology of Castle Hill (a Local Nature Reserve) and to manage appropriately.

In the last 60 odd years we have allegedly lost some 40% of all the world species so it would be prudent to find out what's going on and all the ‘Bio Blitz’ days help do this.

Together we hope to find and identify as many different species of birds, bugs, plants and beasties as we can. Just like a real scientific expedition, everything found and what we will find in the future will be documented and passed on to local and national wildlife databases including West Yorkshire Ecological Service.

Julian Brown
Castle Hill Ranger
Castle Hill & Victoria Tower
Parks and Green Spaces
Kirklees Council

Invertebrates Recorded at Castle Hill on 31st July 2018 ('Bio Blitz' Day)

GRASSHOPPERS (Orthoptera)	
Acrididae	
Common Green Grasshopper	*Omocestus viridulus* (Linnaeus,1758)
EARWIGS (Dermaptera)	
Forficulidae	
Common Earwig	*Forficula auricularia* Linnaeus,1758
TRUE BUGS (Hemiptera)	
Acanthosomatidae	
Parent Bug	*Elasmucha grisea* (Linnaeus,1758)
Pentatomidae	
Common Green Shieldbug	*Palomena prasina* (Linnaeus,1761)
BEETLES (Coleoptera)	
Cryptophagidae	
A silken fungus beetle	*Micrambe ulicis* (Stephens,1830)
Coccinellidae	
Seven-spot Ladybird	*Coccinella septempunctata* Linnaeus,1758
Curculionidae	
Small Nettle Weevil	*Nedyus quadrimaculatus* (Linnaeus,1758)
BUTTERFLIES & MOTHS (Lepidoptera)	
Pieridae	
Large White	*Pieris brassicae* (Linnaeus,1758)
Lycaenidae	
Small Copper	*Lycaena phlaeas* (Linnaeus,1761)
Nymphalidae	
Wall	*Lasiommata megera* (Linnaeus,1767)
Meadow Brown	*Maniola jurtina* (Linnaeus,1758)
Noctuidae	
Silver Y	*Autographa gamma* (Linnaeus,1758)
ANTS, BEES & WASPS (Aculeate Hymenoptera)	
Apidae	
White-tailed Bumble Bee	*Bombus lucorum* (Linnaeus,1761)
Buff-tailed Bumble Bee	*Bombus terrestris* (Linnaeus,1758)

Red-tailed Bumble Bee	*Bombus lapidarius* (Linnaeus,1758)
Mountain Bumble Bee	*Bombus monticola* Smith,1849
Common Carder Bee	*Bombus pascuorum* (Scopoli,1763)
Honey Bee	*Apis mellifera* Linnaeus,1758

SPIDERS (Araneae)

Theridiidae

A comb-footed spider	*Enoplognatha ovata* (Clerck,1757)

Araneidae

Garden Orb-web Spider	*Araneus diadematus* Clerck,1757

SPECIES ACCOUNTS

GRASSHOPPERS (Orthoptera)

Common Green Grasshopper *Omocestus viridulus* (Linnaeus, 1758)

A medium-sized grasshopper, variably coloured but usually predominantly green. It is found in a wide range of grassland situations, and is generally common over the whole of Britain, though it is extremely local in some parts of the south-east.

EARWIGS (Dermaptera)

Common Earwig *Forficula auricularia* Linnaeus, 1758

The common earwig is found under stones, in plant litter, etc., in most habitats, including gardens and arable. It is sometimes a minor pest, particularly of garden flowers. Unusual in the insect world, in that it shows a high degree of maternal care.

TRUE BUGS (Hemiptera)

Parent Bug *Elasmucha grisea* (Linnaeus, 1758)

Common throughout most or all of Britain, feeding on birch *Betula* spp., wherever it grows.

Common Green Shieldbug *Palomena prasina* (Linnaeus, 1761)

Widely distributed in England and Wales, and recorded from Scotland, but very much rarer in the north, and very local in parts of its range. It occurs in a wide range of habitats, but towards the edge of its range it seems to be more confined to woodland.

BEETLES (Coleoptera)

A silken fungus beetle *Micrambe ulicis* (Stephens, 1830)

A 1.7-2.0mm long beetle which is usually found in association with gorse *Ulex* spp. and Broom *Cytisus scoparius.*

Seven-spot Ladybird *Coccinella septempunctata* Linnaeus, 1758

A 6.5-8.0mm long red ladybird with seven black spots. It occurs in gardens, hedgerows etc. The larvae are aphidophagous. It is very common, often with vast immigrations from the Continent.

Small Nettle Weevil *Nedyus quadrimaculatus* (Linnaeus, 1758)

A small (2.6-3.2mm) brown and black weevil which lives on the flowers of Stinging Nettle *Urtica dioica*; the larvae in the roots and rhizomes. It is very common, just about everywhere nettles grow.

BUTTERFLIES & MOTHS (Lepidoptera)

Large White *Pieris brassicae* (Linnaeus, 1758)

A widely distributed and often common butterfly whose numbers vary greatly from year to year because of migrants. The caterpillar feeds gregariously at first, chiefly on crucifers, and can be a pest on cabbages *Brassica* spp., though it will feed on water-cress *Rorippa* spp. in gardens. When fully grown it pupates on the food plant or crawls to a nearby fence or wall, sometimes entering outhouses. There are two or three broods a year from May until October and it overwinters as a pupa, though many are parasitized by braconid and chalcid wasps (Aculeate Hymenoptera).

Small Copper *Lycaena phlaeas* (Linnaeus, 1761)

This is a common butterfly which is found throughout Britain wherever its food plant grows. The adult butterfly can be active in temperatures as low as 10o C and the male selects a basking spot for his territory, often on a stony path or bare soil, which he fiercely guards, seeing off other males who invade his 'patch' and pursuing any passing females. The eggs are laid very selectively on a fresh growth of sorrels *Rumex* spp. and hatch after about one or one and a half weeks. The slug-like caterpillar feeds by day and rests at the base of the food plant. At first it only eats the cuticle, in grooves from beneath the leaves, but later the whole leaf is eaten.

Wall *Lasiommata megera* (Linnaeus, 1767)

This is a common species in grassy places throughout most of southern Britain, but it becomes more localised in northern England and Scotland and there has been a marked national decline during the past decade.

Meadow Brown *Maniola jurtina* (Linnaeus, 1758)

A very common to abundant butterfly which is found throughout Britain, inhabiting almost any habitat and utilising even minimal areas of grassland to breed. The caterpillar will feed on any species of grass through the summer and autumn before overwintering, but early instars prefer fine grasses before moving on to coarser ones.

Silver Y *Autographa gamma* (Linnaeus, 1758)

This is mainly a migrant moth, which is most abundant in southern and eastern England, but reaches all the British Isles where it breeds to produce an autumn generation. Adults can be found from late January, when large swarms have been known from North Africa, but May is more typical. They

sometimes return south for the winter but, although overwintering moths have also been recorded, the early stages cannot survive the cold and so die with the first frosts. The moths mostly feed during the day and at dusk. The caterpillars feed on low growing plants and can sometimes be a pest on cultivated crops and garden plants, especially Kale *Brassica oleracea* and peas.

ANTS, BEES & WASPS (Aculeate Hymenoptera)

White-tailed Bumble Bee *Bombus lucorum* (Linnaeus, 1761)

A common black, white and yellow bumble bee which is found in gardens, hedgerows, etc. Only the young fertilized queen survives the winter, having hibernated in a protected place such as in a hole or under moss. She emerges in spring and starts up her own colony, often in an old vole nest, making pots of wax and pollen into which the first eggs are laid. When these hatch the queen provides them with honey whilst making storage cells for honey and more cells for further eggs. After about three weeks the first infertile females (workers) emerge and take over the nectar and pollen gathering and cell building, while the queen concentrates on egg laying. Eventually both female and male bees are produced as well as more workers and a large colony will support several hundred bees. Towards the end of summer male and female bumblebees fly out and mate. The male is not allowed to re-enter the nest after mating and soon dies. The fertilized queen starts searching for a safe place to hibernate and the workers and old queen die with the first frosts or spell of cold weather.

Buff-tailed Bumble Bee *Bombus terrestris* (Linnaeus, 1758)

This is one of our commonest larger bumble bees and is widespread and common north to the central lowlands of Scotland. It is black and golden in colour with a white or buff ‘tail’ and nests below ground. The biology is the same as the above mentioned species, *Bombus lucorum*.

Red-tailed Bumble Bee *Bombus lapidarius* (Linnaeus, 1758)

A common bumble bee of gardens, hedgerows, etc. It is mainly black with a red ‘tail’ and the male has a broad yellow collar. The nests are often under stones, but the biology is the same as for *Bombus lucorum* above.

Mountain Bumble Bee *Bombus monticola* Smith, 1849

A small bumble bee with a dull yellow thorax and bright orange ‘tail’. It is mainly found on Bilberry *Vaccinium myrtillus* moorland at high altitude. It is a locally distributed species and is restricted to northern and western Britain.

Common Carder Bee *Bombus pascuorum* (Scopoli, 1763)

A rather small black and yellow bumble bee with a red ‘tail’. The nest is often well above ground, in bird nests or nest boxes for example. It is a widely distributed and common species.

Honey Bee *Apis mellifera* Linnaeus, 1758

The Honey Bee is a domesticated species, although occasional colonies may persist in the wild for a few years in hollow trees, etc. Under an ancient law it is classed as livestock, but the owner is the person on whose property the colony has settled, thus it is not illegal to eradicate a colony, merely unethical.

SPIDERS (Araneae)

A comb-footed spider *Enoplognatha ovata* (Clerck, 1757)

A very common and widespread orb spider which is found on bushes and low plants. It is small (4.0-5.0mm) and pale and its web is a simple structure, consisting only of a tangle of threads crossing each other in all directions with no hammock or platform. The spider spins a small shelter of leaves drawn together with silk near the threads of the web and the egg cocoon is usually hung in or near this

Garden Orb-web Spider *Araneus diadematus* Clerck, 1757

A widespread and very common large orb-web spider with a prominent cross of pale spots on the abdomen. It makes large (up to 40cm diameter) webs stretched between bushes, trees and posts in gardens and on woodland edges. The young spiders have a globular yellow abdomen with a dark patch and, when newly hatched, they collect together in a closely-packed mass of spiderlings. If disturbed these scatter wildly but soon reassemble when the 'danger' is passed. After the first moult they separate and become solitary.

Flora and Fauna recorded at Castle Hill, Huddersfield (Bio Blitz Day)

14th August 2018

Flora	
Sorrel	*Rumex acetosa*
Rosebay willowherb	*Chamaenerion angustifolium*
White Clover	*Trifolium repens*
Dock	*Rumex obtusifolius*
Creeping thistle	*Cirsium arvense*
Spear Thistle	*Cirsium vulgare*
Foxglove	*Digitalis purpurea*
Yarrow	*Achillea millefolium*
Dandelion	*Taraxacum officinale*
Hogweed	*Heracleum sphondylium*
Hard Fern	*Blechnum spicant*
Bracken Fern	*Pteridium aquilinum*
Ivy	*Hedera helix*
Ragwort	*Senecio jacobaea*
Nettle	*Urtica dioica*
Maltow	*Malva sylvestris*
Cat's Ear Vetch	*Hypochaeris radicata*
Burdock	*Arctium minus*
Wood sage	*Teucrium scorodonia*
Hardhead napweed	*Centaurea nigra*
Heath Bedstraw	*Galium saxatile*
Trees	
Sessile oak	*Quercus petraea*
Sycamore	*Acer pseudoplatanus*
Hawthorn	*Crataegus monogyna*
Elderberry	*Sambucus nigra*
Common Gorse	*Ulex europaeus*
Western gorse	*Ulex gallii*
Silver birch	*Betula pendula*
Holly	*Ilex aquifolium*
Broom	*Cytisus scoparius*
Bramble	*Rubus fruticosus*
Dog Rose	*Rosa canina*
Rowen	*Sorbus aucuparia*
Animals	
Rabbit	*Oryctolagus cuniculus*
Mole	*Talpa europaea*

Invertebrates found at Castle Hill on 21st August 2019 (Bio Blitz Day)

Grasshoppers	
Chorthippus brunneus (Thunberg,1815)	Common Field Grasshopper
True Bugs	
Aelia acuminata (Linnaeus,1758)	Bishop's Mitre Shieldbug
Palomena prasina (Linnaeus,1761)	Common Green Shieldbug
Beetles	
Rhagonycha fulva (Scopoli,1763)	Common Red Soldier Beetle
Coccinella septempunctata Linnaeus,1758	Seven-spot Ladybird
Cartodere nodifer (Westwood,1839)	A mould beetle
Sermylassa halensis (Linnaeus,1767)	A leaf beetle
Neocrepidodera ferruginea (Scopoli,1763)	A leaf beetle
Otiorhynchus sulcatus (Fabricius,1775)	Vine Weevil
Butterflies & Moths	
Pyronia tithonus (Linnaeus,1771)	Gatekeeper
Maniola jurtina (Linnaeus,1758)	Meadow Brown
Tyria jacobaeae (Linnaeus,1758)	Cinnabar
Noctua pronuba (Linnaeus,1758)	Large Yellow Underwing
Mamestra brassicae (Linnaeus,1758)	Cabbage Moth
Flies	
Syrphus ribesii (Linnaeus,1758)	A hoverfly
Bees	
Bombus lapidarius (Linnaeus,1758)	Red-tailed Bumble Bee
Harvestmen	
Leiobunum rotundum (Latreille,1798)	A harvestman

SPECIES ACCOUNTS

Chorthippus brunneus (Thunberg, 1815) **Common Field Grasshopper.**

A variable coloured grasshopper, green, brown, sometimes purple which occurs in a wide range of grasslands. It is generally common over the whole of Britain and can be found in a variety of dry, grassy habitats, though it is seldom found in damp or lush areas. It is often seen sunning itself on walls, paths

and bare ground on sunny days, including concreted and asphalted areas in the vicinity of buildings. When egg laying it has a preference for bare, dry and compact soil, often in ant (Aculeate Hymenoptera) hills.

Aelia acuminata (Linnaeus, 1758) **Bishop's Mitre Shieldbug.**

A species of dry grassland which is found in a range of habitat types, particularly dunes, calcareous grassland, neutral grassland and heaths. There is a single generation per year, with adults mating and laying eggs in spring and early summer. The larvae feed on the ripening seeds of a range of grasses.

The species is southern in distribution but has spread northwards in recent years. Stuart Foster, the YNU recorder, informs me that it is still rarely recorded in Yorkshire but is spreading slowly northwards. This is the first record for Kirklees.

Palomena prasina (Linnaeus, 1761) **Common Green Shieldbug.**

Widely distributed in England and Wales, and recorded from Scotland, but very much rarer in the north, and very local in parts of its range. It occurs in a wide range of habitats, but towards the edge of its range it seems to be more confined to woodland.

Rhagonycha fulva (Scopoli, 1763) **Common Red Soldier Beetle.**

A 7.0-10.0mm long orange-red soldier beetle with black tips to the wing cases. The adults are very common on umbelliferous flowers in late July, where they are predatory on other insects.

Coccinella septempunctata Linnaeus, 1758 **Seven-spot Ladybird.**

A 6.5-8.0mm long red ladybird with seven black spots which occurs in most habitat types, including gardens and hedgerows. The larvae aphidophagous. It is very common, often with vast immigrations from the Continent.

Cartodere nodifer (Westwood, 1839) **A mould beetle.**

A 1.5-2.0mm long knobbly brown beetle which lives in fungi, grass litter etc. It is very common in most habitat types.

Sermylassa halensis (Linnaeus, 1767) **A leaf beetle.**

A 5.0-7.0mm long metallic green and orange leaf beetle which feeds on bedstraw *Galium* spp. in sandy places - heaths and dunes. It is widespread but local, more so in northern England and rare in Scotland. Although widely distributed in Yorkshire, this is only the fourth known Kirklees locality for the species.

Neocrepidodera ferruginea (Scopoli, 1763) **A leaf beetle.**

A 3.0-4.0mm long reddish flea beetle which feeds on the foliage of a number of plant families, including grasses, knotweeds *Centaurea* spp., nettles *Urtica* spp. and cabbages *Brassica* spp. It is common and widely distributed.

Otiorhynchus sulcatus (Fabricius, 1775) **Vine Weevil.**

A 7.5-9.5mm long brownish black weevil which lives in leaf litter, under stones, etc, feeding on various low growing plants, probably also on detritus. It is very common, sometimes a garden pest (Vine Weevil), and comes into houses in the autumn to hibernate.

Pyronia tithonus (Linnaeus, 1771) **Gatekeeper.**

This is a common species in southern Britain north to mid-Yorkshire but very rare north of that. It is found in grassy places, including woodland rides, etc, where the larvae feed on coarse grasses.

Maniola jurtina (Linnaeus, 1758) **Meadow Brown.**

A very common to abundant butterfly which is found throughout Britain, inhabiting almost any habitat and utilising even minimal areas of grassland to breed. The caterpillar will feed on any species of grass through the summer and autumn before overwintering, but early instars prefer fine grasses before moving on to coarser ones.

Tyria jacobaeae (Linnaeus, 1758) **Cinnabar.**

The Cinnabar is widespread throughout much of England and Wales, but rather local and mainly coastal in the southern half of Scotland. The larvae feeds on ragwort *Senecio* spp., especially Common Ragwort *Senecio jacobaea.*