ChudleighWild Newsletter September 2019

ACT - Action for Climate in Teignbridge

ACT is a new group which has been formed to support Teignbridge District Council's pledge to do everything in its power to become carbon neutral by 2025; it will equally support Town and Parish Councils, interested Teignbridge community groups and everyone living in our District.

Although we mostly talk about the climate emergency, the ecological emergency is part and parcel of it - unless we tackle both, we won't win! So ACT has an Ecology Group who will be suggesting things that we can all do to help the wildlife that we rely on. We also have a Food, Farming and Forestry Group and several others too.

One of the most important aims is that we should strengthen communities and **enjoy** making our District a better, more diverse and more beautiful place to live, so that today's children can live a good life!

Because of the urgency of the situation, we will prioritise our actions by scoring them out of 10 for a) how much they will help climate and ecology; b) how easy they will be to achieve; and c) how popular they will be with all of you!

A good example is starting a tree nursery at our Community Allotment - ACT, Chudleigh Wild, SEARCH and our Town Council can all be involved.

If anyone has any good ideas that are achievable, relatively easy and which our communities are likely to want to do, please send them to audrey@boveyclimateaction.org.uk

Audrey Compton

Shopping for Christmas? Look local, look sustainable, look recycled!

Beautiful children's and adult's socks made from recycled cotton can be at found at Dandelion, Chudleigh and Conkers, Totnes.

Green Toys made from recycled plastic at National Trust shops and Darts Farm, Topsham.

Beeswax food wraps from Chudleigh Post Office.

Colourful re-usable coffee mugs from Sangers, Chudleigh.

Dartmoor Whisky from the distillery, Bovey Tracey - open now for pre-orders of their first batch!

Dartmoor Gin from the Maltings, Newton Abbot.

… and there's so much more!

These are just a few of the ideas I have found so far …

Sue Smallshire - Secretary

ChudleighWild Newsletter September 2019

One of Chudleigh's most important natural features is the outcrop of Devonian limestone that runs from the A38 at Harcombe Cross to Palace Quarry and Chudleigh Rock, where the nationally-important rock exposures, broad-leaved woodland and small areas of natural grassland are designated a Site of Special Scientific Interest (SSSI). In this issue of the newsletter, we focus on this outstanding area.

Chudleigh Wild held a walk through the woodland of Riding Parks on 30 March, guided by naturalist Dave Smallshire. Ravens were carrying food to chicks in their nest at Palace Quarry – this species is renowned for breeding early in the year – and a Peregrine Falcon was in evidence here too. (The Peregrines bred again this year and for the first time their chicks were ringed by a licenced ringer.) Nearby was the first of a number of Toothwort plants, which lack chlorophyll and get nutrition by parasitizing the roots of Hazel. Violets, Wood Anemones and other woodland flowers were much in evidence, as were the abundant leaves of Bluebell and Wild Garlic. We saw more raptors over the treetops: a Sparrowhawk and its Buzzard-sized cousin, a Goshawk, as well as the more conspicuous Buzzards. They were all taking advantage of a lovely sunny day and spring was definitely in the air. A Great Spotted Woodpecker 'drummed' away and Chiffchaffs and Blackcaps, newly-arrived summer migrants, sang to establish their territories. Other sightings included Nuthatch, Treecreeper, Goldcrest, Bullfinch and Mistle Thrush.

Chudleigh Caves and Woods Special Area of Conservation

On top of the protection afforded by the SSSI is the Chudleigh Caves and Woods Special Area of Conservation, international recognition for the Greater Horseshoe Bats that live in the caves at Chudleigh Rock, mainly in Pixie's Hole. About 120 hibernate and a few remain to breed during the summer, protected from disturbance by a metal grille. Radio-tracking of Chudleigh's bats has shown that they fly up to 7.5 kilometres from the roost and use an area of at least 120 square kilometres. Although they forage widely over broad-leaved woodland and pastures rich in chafer and dung beetles, much of the important feeding area close to the caves has now been lost to our ever-expanding town. Extensive work has been carried out in recent years to monitor the flight routes of these bats and this year Chudleigh Wild volunteers have been following this up with their own surveys to find any threats to their survival posed by development, lighting and loss of habitat connectivity in the parish. Survey work will continue next year and beyond. *(cont.)*

Chudleigh Rock is also important for the lichens, mosses and liverworts which grow on the exposed limestone rocks, particularly where they are shaded. They include the Tree Catapyrenium lichen (*Catapyrenium psoromoides*), a nationally rare species otherwise found only in Scotland. On the tops of the Rock and Quarry are tiny remnants of limestone grassland with plants founds rarely elsewhere in Devon, such as Pyramidal Orchid.

The woods hold a nationally-important stand of broad-leaved trees, including Pedunculate Oak, Ash, Field Maple, Small-leaved Lime, Wych Elm and Wild Cherry, with some Wild Service-tree. The luxuriant growth of lichen on the ancient trees includes several uncommon species (e.g. *Catinaria grossa*, *Phlyctis agelaea* and *Schismatomma virgineum*). The ground flora is luxuriant and includes many of the species typically associated with ancient woodland on calcareous soils, such as Woodruff, Yellow Archangel and Stinking Iris. Of particular note are the parasitic plants Ivy Broomrape and Toothwort. Nearby copses of Small-leaved Lime are notable for their exceptionally "natural" character. The elusive Purple, White-letter and Brown Hairstreak butterflies breed on the Pedunculate Oak, Wych Elm and Blackthorn, respectively. The Wych Elms managed to retain White-letter Hairstreaks after the loss of mature English Elms due to Dutch Elm Disease in the 1970s, though the butterflies are rarely seen.

Devon Fly Group field meeting

On 7 July, Chudleigh Wild members were privileged to accompany some experts from the Devon Fly Group. We gathered at Glen Cottage for coffee, kindly provided by Gill Shears, and then investigated Kate Brook, the base of Palace Quarry and finally the top of Chudleigh Rock. Flies (Diptera) are a very large and difficult group to identify and usually need microscopic examination. The Group collected insect samples using nets and 'pooters' to suck interesting-looking flies into specimen tubes, which were later deep-frozen to preserve the contents. The area was of particular interest to the Group because of the presence of limestone. Their discoveries included several Nationally Scarce flies that have rarely been found in Devon. Some of these were associated with water flowing out of the limestone, while others just seemed to turn up because a dipterist was looking for flies!

A few black-and-white soldierflies, *Oxycera pardalina*, were found at a seepage close to Kate Brook; the larvae are known to live in the thin film of water in lime-rich trickles and seepages. Another fly associated with such water is the tiny, bottle-green *Sympycnus spiculatus*, whose larvae probably also live in seepages; it's the only one of 300 species its family (Dolichopodidae) that shows such a strong association with base-rich conditions. A third Nationally Scarce species was another dolichopodid, *Dolichopus virgulatorum*, which is scarcely found west of the Exe.

(continued)

ChudleighWild Newsletter September 2019

The dance fly (Empididae) *Hilara media* was an unusual record for England; the males of most *Hilara* species form swarms that zooming back-and-forth over water, hence the common name for the family. Others included the picture winged fly *Tephritis matricariae*, of which there are very few records in Devon (it has spread from Kent, where it was first discovered in 2000, and its larvae feed on hawk's-beards), and the cranefly *Pilara fuscipennis* and soldier fly *Beris fuscipes*, both of which are more frequently encountered in Devon.


Picture-wing fly *Euleia* species

Photo: Dave Smallshire

The best insect, however, was not a fly but a tiny bee, the Small Scissor Bee *Chelostoma campanularum*, of which there is just one previous record from Devon. It is mainly associated with wild and cultivated Campanulas and since wild bellflowers are rare in Devon, it must have come from garden plants nearby.

To cap this though, one of the dipterists also had an interest in spiders and he used a leaf-blower in reverse to suck invertebrates from tree trunks and leaf litter. He made exciting discoveries in the form of two new species for Devon: the jumping spider *Sibianor aurocinctus* and the money spider *Meioneta mollis*, both of which are typical of calcareous (chalk and limestone) grasslands.

So, that just goes to show what small creatures of national importance could be living on our doorstep – we still have a lot to learn! Finding the smaller life forms is one thing, but what about discovering some very large animals that used to live hereabouts? Read on ...

Recent work in the Chudleigh caves - Chris Proctor

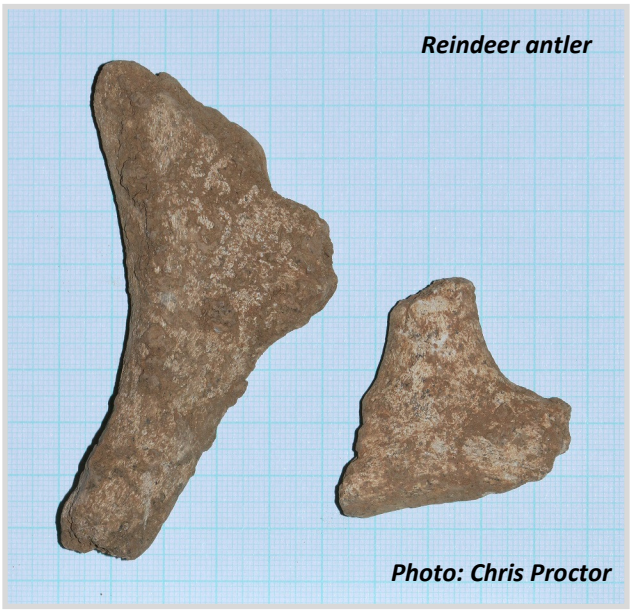
The caves of Chudleigh Rocks have long been known to contain ice age deposits, containing Palaeolithic stone tools and the remains of fossil mammals. There are two main caves in the rocks, Cow Cave and Pixie's Hole, which were created by an ancient stream. They are now separated by a blockage of mud and stones which have fallen down from a higher passage. Both caves are Scheduled Ancient Monuments and form part of the Chudleigh Caves and Woods SSSI.

Cow Cave was excavated in 1927-1935 and again in 1962-3, yielding ice age mammals and a few flint flakes left by Neanderthal people (two are now on display in Torquay Museum). Hyaena and woolly rhino remains were also recovered in the earlier excavation, probably dating from the middle of the last glacial period, but this part of the cave has not been excavated since. The main entrance of Pixie's Hole was excavated in the 1970s, yielding flints dating from the end of the last glacial period and mammal remains.

Recent (2016) work in the caves followed reports of threats to the deposits in Cow Cave, where large amounts of unexcavated sediment remain, providing an important resource for future researchers. The sediment face was gradually collapsing and vandalism was a major problem, fires having damaged the deposits and any bones or archaeology that they might contain.

Gravels from the ancient stream contain the remains of Bears. Pollen samples revealed that the deposits had been laid down in a warm, interglacial period. A massive stalagmite floor immediately above was uranium-thorium dated to around 228,000 years ago, probably dating from the same interglacial.

ChudleighWild Newsletter September 2019



Above the stalagmite floor is a cave earth, the 'Reindeer Stratum', the lower part of which contained pine and spruce pollen characteristic of early in the last glacial period. Bones from above this layer, radiocarbon dated at a minimum of 48,000 years, included Bear, Reindeer and Aurochs or Bison. These bones are believed to date from between 85,000 and 50,000 years ago. Capping the Reindeer Stratum is a tufaceous stalagmite; charcoal embedded in this was radiocarbon dated to around 5,900 BC, providing the first evidence of Mesolithic human activity at Chudleigh Rocks.

In Pixie's Hole, work followed the discovery of a human tooth and scattered bones in 2013. Radiocarbon dating of the tooth showed that it came from a Neolithic cave burial around 2,500 BC. Funding enabled recovery of the bones in 2017 and replacement of the rusting bat grille at the main entrance. The bones included those of Red Deer, sheep or goat, dog, Hare, Rabbit and a small fragment of human jaw; the last was radiocarbon dated to around 2,050 BC (Neolithic, possibly from a second burial) and the dog to around 70 AD (later Iron Age).

Following the completion of our work, new bat grilles were installed in both caves. They should protect both the breeding and hibernating Greater Horseshoe Bat colony and the important archaeology for many years to come.

Acknowledgements
The recent work was funded by Historic England and Natural England, and managed by Devon County Council Historic Environment team. Permission to work was generously given by the Clifford estate. Thanks also to all who worked on the project, especially to the field team for their work in often horrible conditions.

ChudleighWild Newsletter September 2019

Ramblings of a Chudleigh naturalist - Dave Smallshire

I've kept a close eye of the wildlife that turns up in my garden for the 32 last years, and every year brings its surprises. Some of the highlights this summer have been:

- Regular Slow-worms basking under 'refugia' (a plastic storage box lid and a plastic plant pot base) placed on grass near the pond.
- A brief visit from a White-letter Hairstreak at the top of a suckering English Elm in late July.
- Emergence of a beautiful Scarlet Tiger moth on 27 June.
- Visits from both 5-spot and 6-spot Burnet Moths.
- Brief sightings of Humming-bird Hawk-moth and Grass Snake
- Regular presence of Hedgehogs, as revealed by camera-trapping and occasional sightings.
- Up to eight Field Grasshoppers (often basking on the refugia) and Speckled, Dark and Oak Bush-crickets.
- Good numbers of Painted Ladies on the Buddleias.


Scarlet Tiger
Photo: Dave Smallshire

After 32 years of regular mowing to reduce nutrient levels, I left both my front and back lawns unmown from May until 22 August. These proved to be a real joy to watch, both for the surprising abundance of meadow flowers that have previously been chopped off by regular lawn-mowing and the insects that they attracted. Successions of clover, Daisy, Dandelion, Common Dog-violet, Self-heal, Creeping Cinquefoil and the locally-important and wonderfully-named Corky-fruited Water-dropwort all bloomed in greater abundance than I could ever have imagined. In turn these attracted large numbers of Honeybees, bumblebees, solitary bees, moths, hoverflies and other flies, many of which are those pollinators that have declined so dramatically in recent decades. The only downside of the experience was killing a Slow-worm with the lawnmower in September: I was horrified and surprised that it was lurking in relatively short grass; in future I will rake over gently before mowing!

It's been hugely rewarding to have a mini-meadow, albeit not so herb-rich as farmland meadows used to be before they were wrecked with lashings of fertiliser. I strongly advise not fertilising your lawn and waiting until the grass becomes sparse and the broad-leaved plants become frequent before allowing your lawn to grow for the summer. Introducing Yellow Rattle, which parasitizes and weakens grasses, can reduce the waiting time, and introducing a few perennial grassland plants (like those mentioned above) will enhance the floral spectacle. Don't forget, though, that even uncut areas of grass can be valuable, provided lawn grasses don't dominate. Species such as bents, meadow-grasses, Sweet Vernal-grass, Yorkshire-fog and Tall Oat-grass all support caterpillars of butterflies and moths, and often hold Slow-worms. Taller grasses are also important for grasshoppers and bush-crickets: the sound of male grasshoppers buzzing away in summer is very relaxing! **Why don't you try it next year?**

PLEASE CHECK BONFIRES CAREFULLY FOR SLEEPING HEDGEHOGS BEFORE LIGHTING

Photo Jonathan Booty

#rememberhedgehogs

If possible the entire pile should be re-sited before being lit, if not possible, use broom handles to lift from the base of the pile, and shine torches, looking and listening carefully for any signs of life.

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