

CROMWELL BOTTOM WILDLIFE GROUP

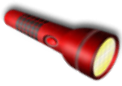
AUTUMN 2019

NEWSLETTER



Beautiful Roe Deer seen at CromwellBottom early one autumn morning

**Credit Dave
Brotherton**



SPOTLIGHT ON VOLUNTEERS



MEET ALISTAIR SEDMAN, VOLUNTEER & MEMBER, T HURSDAY WORK PARTIES.

I've been a volunteer at Cromwell Bottom Nature Reserve for four years and I really enjoy it as I feel that I am working with other people for the bene-

fit of the community. I am the son of a farmer and I spent all my time out in the countryside until I was about 18. I was good at mending things and went on to do an Engineering degree with David Brown's, leaving in 1972.

At the Thursday morning work parties we do all sorts of work around the reserve, four of us passed our test to drive the tractor and if there is any work that needs doing requiring the tractor we share it between us. A recent change has been the new workshop building which we put up two years ago; this has made a vast change to the way we work.

We make a lot of wood objects, for instance we have recently made 60 kits nesting boxes for the children at Old Earth School, Elland and we went to the school to help all the children assemble these. The children come to the reserve on a monthly basis and carry out activities such as butterfly counts, pond dipping so they develop an interest in nature from a very early age. I will be volunteering at this brilliant nature reserve for as long as possible, and my wife has offered to volunteer here too on a Sunday serving refreshments in the cabin. We love it - Cromwell Bottom Nature Reserve is a wonderful place to be!

NEWS ROUND-UP TERRAPIN TALES!

It's just amazing what turns up at Cromwell Bottom Nature Reserve! It had been brought to the attention of the Wildlife Group that someone had dumped three Terrapins in the pond next to the Platform where children love to spend time with their nets. Now that would be ok, you might think, a good place to put your unwanted Terrapins, but a bit of research revealed the following, copied from www.froglife.org.

"Terrapins require specific water temperatures, a good depth and flow of oxygenated water in their habitats and basking areas orientated towards the sun, not to mention good accessibility to suitable food. Furthermore, as terrapins like all reptiles are cold blooded, if they are released into an area with a lot of shade, such as tree lined banks of a canal, or a pond in a wood, they can really struggle".

They primarily eat plants, though will opportunistically take invertebrates and small mammals where they can get them. Where terrapins are released into small ponds, or where a large number of them are present, they can over consume vegetation in the pond. This may seem trivial, but not only does this mean they exhaust their own food

source, but pond plants also play a vital role for our native wildlife. Newts, including the protected great crested newt, rely on plant leaves to fold over and lay their eggs in. Dragonfly and other invertebrate larvae, in addition to tadpoles, also depend on pond plants to shelter from predators, but also for food as they eat the algae that grows on



JEFF, SPOTTER OF TERRAPIN NO. 1
TERRAPIN NO. 2
caught later that day
by David.



CHARLIE STREETS (moth expert) WADED INTO THE POND TO CATCH ONE (BUT JUST FOR ACCURATE REPORTING, THIS WAS JEFF'S CATCH!



MEMBERS OF THURSDAY WORKING PARTY SEARCHING THE POND.

Good outcome for 2 of the 3 terrapins - they were re-homed at Kirklees College

PLEASE DO NOT ABANDON PETS ON THE RESERVE. THEY UPSET THE BIODIVERSITY AND WILL NOT SURVIVE.

MORE NEWS

We are sad to announce that the **Chair of Cromwell Bottom Wildlife Group** - Allan Wolfenden has decided to stand down. Allan has been a brilliant leader of the group for 3 years and we are pleased that he is remaining a Trustee, Allan has a wealth of knowledge, diplomacy and fairness so its great that he is staying with the Group. We welcome Graham Haigh as chair and wish him every success.

Ongoing Projects

- Disabled access around the reserve is to be increased.
- Disabled toilet to be built and installed in the Cabin area.

Brighouse Ladies Circle held a successful pond dipping and craft afternoon in the summer, raising money for Yorkshire Children's Trust with over 20 children taking part.

Cromwell Bottom Outdoor Education Programme has been in full swing, led by Simon Day and David Langley. In partnership with Old Earth Primary School each year group has visited the reserve over the last school year and completed a variety of outdoor activities, for example building bird boxes at school and assembling them at the reserve. There are plans for a full programme of activities during the current school year.

Andy Eccles History Walk took place for the Brighouse History Society. This was very well attended and Andy is hugely knowledgeable about the area. His insights into how the area has developed from its industrial heritage to present



Christmas Bash at the Reserve - keep your eye on the Blog for details and we hope you can come. If you are not sure about how to access the Blog, just google **Cromwell Bottom Wildlife Group** or **click the link below:**

<http://cromwellbottom.blogspot.com>

FORMATION OF A COLLABORATIVE RELATIONSHIP WITH THE UNIVERSITY OF HUDDERSFIELD

Shelagh Brooke

About a year ago, several members of Cromwell Bottom Wildlife Group, together with Robin Dalton (the Lower Valley Area Countryside Officer for Calderdale MBC) met with a small group of academic staff from the University of Huddersfield's School of Applied Sciences. The event included a walk around the Reserve, and informal discussions about whether it might be mutually beneficial to develop a collaborative relationship between the University, and those working to conserve and enhance the Reserve.

continued over ...

The lecturers from the University were enthusiastic about using the Reserve as a site for enabling their students to undertake a range of fieldwork, and believed that it offered great potential for a variety of research projects that could be undertaken by both students and staff. They also agreed that they had the expertise and facilities to, for example, carry out investigations that were of specific interest to those working on the Reserve.

Since that time, several groups of staff and students have visited Cromwell Bottom to carry out such activities as observations and measurements relating to the chemistry and microbiology of the water in Tag Cut. The staff have undertaken some analyses that relate to conservation measures being considered for the Reserve. Also, one of the lecturers who is a freshwater ecologist ran a training session for a group of Cromwell Bottom Wildlife Group volunteers that focused on the identification of freshwater macroinvertebrates (using microscopy and identification keys). The number of species observed in a particular location can be used to provide an indication of the quality of the water.

The collaboration to date has been very much enjoyed, and has been hugely appreciated by Cromwell Bottom Wildlife Group, and by Robin. We should like to thank all of those involved at the University, and we hope that the relationship will continue, and will grow.

AUTUMN ON THE RESERVE

JULIE JACKSON, VOLUNTEER, WORK PARTIES & CABIN

As we move from summer into autumn there are lots of noticeable changes around the reserve as leaves change colour and flowers are replaced with fruits and berries.

The leaves alter as chlorophyll, the green pigment in the leaves, starts to break down and is not replaced because the plants are no longer photosynthesising. This leaves the other pigments called carotenoids visible giving yellows and oranges. The reds and purples are produced by anthocyanins which are made in the autumn.

Berries are an important food source for the resident birds as well as those that pass through on their migration. Many birds, such as blackbirds and thrushes, which feed on insects during the spring and summer, will be eating berries in the autumn. Many berries are red or black which makes them stand out from the leaves. They are full of vitamins and energy making them as tasty for us as for the wildlife. As you walk round the reserve see how many different berries you can find. A basic list might include: sloes, blackthorn, hawthorn, rosehips and blackberries.



The plants are using the birds to help distribute their seeds. Birds will digest the flesh of the berries but the seeds pass through the digestive system undamaged and are passed from the body in a handy dollop of fertiliser!

MORE OF DISPERSAL OF TREES SEEDS

JANE UTTLEY

“If seeds were to fall straight off trees and germinate where they fell each tree would be suffering from a population crisis. Luckily, plants have developed a range of techniques to send their seeds off into the unknown”. The Woodland Trust.

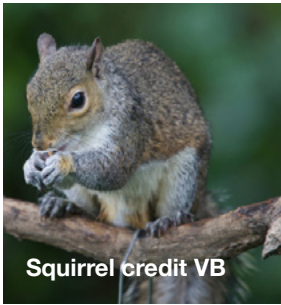
There are a number of ways that seeds can be dispersed from the tree.

WIND

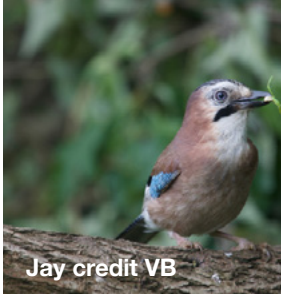
Many tree seeds have wings attached which the wind catches as it falls from the tree and takes them away from the parent e.g. lime, sycamore, ash.

Seeds stored in cones eg. alder, hazel and pinecones are released when the cones dry and open up. Birds may eat them and in the process disturb them and the wind will catch the seeds and take them away
Some very tiny seeds have filaments on them e.g. Willow - these are caught again by the wind and dispersed widely

BIRDS FORWARD/ANIMALS - jays collect acorns and stash them away for winter food; of course not all of these acorns are retrieved.
Squirrels also collect acorns and other nuts example beach nuts and horsechestnut and store them away for winter time again many of these are forgotten.



Squirrel credit VB



Jay credit VB

WATER

Those trees that grow on riverbanks make use of the river to disperse their seeds. The seeds float down away from the tree and hopefully land on suitable habitat.

GRAVITY

A number of tree seeds have protective coatings around them example horse forward/sweet chestnut And beach. This protects the seed as it falls from the tree and often make them bounce away from the Parent. Small children collect horsechestnut conkers with which to play games. Then they are phone away when finished with

It is fortunate that trees produce thousands of seeds because many of the seat do not find a suitable habitat to germinate. Perhaps otherwise we would be inundated with woodland.



Lime seeds with wings
- taken from internet



Rowan berries
credit Jane Uttley



CROMWELL, COAL AND CHEMISTRY

Our nature reserve is in an area once used for quarrying stone and mining of coal. Beneath the reserve are remains of the ash lagoons of the former Elland Power Station and an area once used for as landfill site for domestic waste. As such, Cromwell Nature Reserve is a first class example of how land can be reclaimed from earlier industrial use.

If we walk to the edge of the reserve, parallel to the railway line near Strangstry Wood, we see a narrow stretch of water that is red/brown and smells of sulphur. The water flows from a cutting in the hillside where 19th century coal mines once thrived.

The brown water is part of Tag Cut, a narrow canal built to take barges so as to by-pass an awkward section of the Calder where there are two loops. We can see remains of the locks where the cut enters and leaves the river and the pack horse bridge over the cut at the 'up river' end. Tag Cut soon fell into disuse when superseded by the Calder and Hebble Canal.

The chemistry of the brown water is due to iron pyrite (iron sulphide) in the coal seams reacting with ground water to produce the rust like cloudiness (iron hydroxide) and the smelly gas (hydrogen sulphide). In coal mining areas it is common to find brown turbid streams having a sulphide smell. For example, near Shibden Park we find a stream called Red Beck and note that there was a lot of coal mining in that area. However, that stream now appears free from the mine water leakage.

The hills around Halifax had hundreds of coal mines: drift mines, adits, day holes, bell pits and shafts. They were near to the surface of the coalfield that runs from Huddersfield to Bradford, mostly to the east of the Hebble. Here we find mines at Southowram, Shibden, and Boothtown.

At Shibden, Anne Lister (Gentleman Jack) and her wife Ann Walker established and managed a mine in the mid1800s.

If we look from Beacon Hill towards Shibden Hall estate we see the ornate stone ventilation shaft of Ann Walker's coal pit.

The hills in this area provided much of the coal that enabled early industry in Halifax prosper. But a sad fact is that the coalmines were worked by children from pauper families.

Children, from the age five loaded the carts with coals and operated the trap doors to control the ventilation shaft of Ann Walker's coal pit.

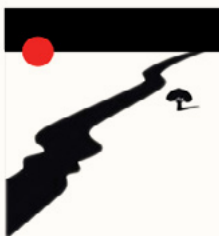
The hills in this area provided much of the coal that enabled early industry in Halifax prosper. But a sad fact is that the coalmines were worked by children from pauper families.

The colliers working the coalface were adult men. Children, from the age of five loaded the carts with coals and operated the trap doors to control the ventilation.

Colliers often worked naked as ground water was forever pouring in. There was much concern about young boys and girls working down the pit. This lead to changes in the law that prevented younger children and girls being used as labour.

TONY HARGREAVES

CROMWELL BOTTOM LIVE POETS SOCIETY



AUTUMN

Gone are the days of bright foliage
 when colour flared from pastures fresh.
 Gone is the buzz of bumble bee
 and pale blue damsels flying free.
 Gone is the scent from summer bloom
 that gave the air such rich perfume.
 Gone is the joy of sweet birdsong;
 migrating ones are now far gone.

Now come the days of morning mist
 that lingers on until the last.
 Now failing light brings colours few
 as spectrum takes on solemn hue.
 Now green leaves turn to browns and reds
 and rustle round in chilling winds.
 Now smell the smoke from those bonfires
 and hear twigs crackle in the blaze.
 Now brace yourself for what's to come
 when days draw in and steal the sun.

©TONY HARGREAVES

please
 send your
 brilliant poetry to
 the newsletter
 team



We welcome
 back to **WILL**
GRIFFIN as
 quiz compiler
 and thank lots
 the outgoing
 compiler Julia
 Colley.

WILL'S WILDLIFE QUIZ

1. Which wild plum never moves quickly?
2. Where would you find Honey Fungus growing?
3. Rosehips are rich in which vitamin?
4. Name a butterfly you would hope to see at Cromwell Bottom in the Autumn?
5. Which colourful bird can be seen eating the seeds of thistles and teasels?
6. Which animals plant acorns?

- ANSWERS
1. Sloe
 2. Around the base of a tree stump
 3. Vitamin C
 4. Speckled Wood, Comma, Peacock, Small Tortoiseshell
 5. Goldfinch
 6. Jays, Humans and Grey Squirrels



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