



## Barlow Common Nature Reserve Scrutiny Report 2023



*Figure 1: The main path winding through frosted teasels*

**Prepared by Dave Powell, Living Landscapes Officer,  
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## 1. Summary

This report primarily covers the nine months from April 2022 to December 2022 following staff changes in the management of the site, it also provides information from previous years for comparison.

After the resumption of practical reserve management in late summer/early autumn 2020, subsequent lockdowns in the autumn and winter of 2020/2021 led to a further suspension of all work not essential to immediate health & safety and site integrity. Winter site inspections were undertaken by Yorkshire Wildlife Trust (YWT) staff where a few maintenance issues were found, and all addressed at the time. YWT liaised with staff from Selby District Council (SDC) over some concerns raised by nearby residents regarding nature reserve access and anti-social behaviour during these later lockdown periods.

YWT management responsibility for Barlow Common Nature Reserve (BCNR) passed from James Searle (Living Landscapes Officer based in York) to Dave Powell (Living Landscape Officer based in York) during the first quarter of 2022.

## 2. Reserve Management

### 2.1 Volunteering

All nature reserve management at BCNR is coordinated and overseen by a YWT Living Landscape Officer (LLO). However, much of the practical work to deliver reserve management is undertaken by between 10 and 20 dedicated local YWT volunteers. A comparison between typical annual volunteer hours for different tasks at BCNR and the volunteer hours achieved in 2021/2022 is provided in Appendix 1 of this report. Volunteer days have been very successful since recommencing following the pandemic. They're generally held every other Tuesday depending on the time of year, sometimes more, sometimes less. The work carried out is always beneficial to both the site and the social value of the volunteers, as has always been the YWTs aim. The public perception of the site and the work carried out across the previous year has been very apparent and a lot of positive comments are received. The site is looking more cared for, more accessible for all and healthier, as it is generally



Figure 2: Volunteers helped to install leaping logs, with timber from the reserve.

locals who have known the site for many years, these are excellent reviews.

As already mentioned, fortnightly volunteer tasks resumed at the end of March. These have continued to the time of writing (January 2023) allowing us to continue to open up the reserve, creating new sight lines and easily accessible paths which people can remain distanced on, should they prefer. A deal was created between the LLO and the mere manager to make use of their mowing machinery to cut the meadows. Doing this meant the LLO and the volunteers could begin raking the cuttings immediately rather than spending days cutting it first. This meant the 3 meadows were complete cut and cleared in record time. This in turn allowed the group to turn the attention to clearing other areas for the benefit of wildflowers. It's hoped if this work continues, a larger and more diverse spread of wildflowers and grasslands and start to outcompete the bramble encroachment.

In the winter months, the group started on scrub work, including restoring the pond by the boardwalk, which had become filled with Willow growth and leaves from surrounding mature trees. Now it's opened up, it's a benefit to various species and as Great Crested Newts were recorded there in the past, it's hoped they remain and will return.

## 2.2 Habitats & infrastructure

Volunteer tasks resumed on 29<sup>th</sup> March 2022, when 8 volunteers joined the new LLO for introductions and to carry out a site inspection and litter pick. On the same visit, bramble was cut from meadow fences to allow future repairs. This new start of a staff member also drew a close to the scrub work as the following weeks would focus on small infrastructure work. This included damaged boardwalk boards being replaced, and woodland trail signs and route marking repaired. The bulk of the work focussed on footpath repair and widening, to continue the accessibility themes of the reserve.

## 2.3 Health & safety

YWT staff undertook site safety inspections throughout the period and carried out minor site maintenance work. On 21<sup>st</sup> July, a full summer tree safety survey was undertaken to highlight issues and prepare for works in the winter. Generally, there is little risk from trees on the site due to the age of the trees, some issues have been flagged for future monitoring. Infrastructure surveys are regularly carried out by the LLO on a site visit basis as the tasks take place all across the reserve. The current leaseholder at the fishing lake also continued to act as 'eyes and ears' on the nature reserve by reporting any issues or anti-social behaviour that came to his attention.



Figure 3: Volunteers cutting back bramble encroachment from one of the paths

## 2.4 Issues

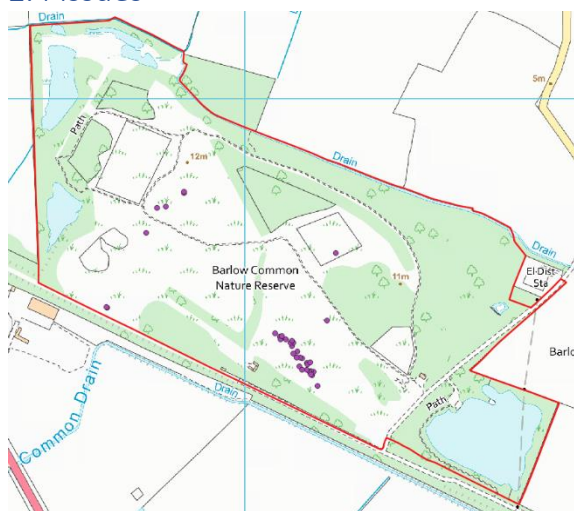


Figure 4: GIS data of Japanese Knotweed stands

Two stand out issues have been discovered during the current LLOs short tenure, which would have had significant implications if not dealt with as they have been. It was known that there was 1 stand of Japanese Knotweed, an aggressive class 1 invasive species, on site. On initial site walk abouts, the LLO began to spot more and more stands. The INNS team from YWT were brought to the site to carry out stem injection of the older established stands and knapsack spraying of the younger smaller stands. In total, 37 stands were treated, Figure 4 shows the spread of these. It is not known how these have spread, become so prevalent, or how they were missed previously, but now treatment and documentation has been started, their reduction can be monitored with repeat treatments expected.

The second was the electricity meter in the visitor centre. This was a hangover from the landfill era of the site, and had 3 meters, which YWT were paying a fixed rate from each meter prior to paying for electricity usage. This was creating increasingly expensive bills. Now that there is a single smart meter installed, a significant decrease should be noticed.

### 3. Public engagement

#### 3.1 Site use by groups

Public engagement and visits to the nature reserve continued to be an important part of the reserves running existence. Groups known to use the site are:

- Forest Tots - on a weekly basis, this group provide outdoor education, not just for children but also introduce parents, carers, and grandparents to the outdoors and its benefits.
- Anglers - pond and parking leased annually and very well administered.
- Scouts - seasonal activity but visited weekly by management group and facility well used.
- Yorkshire Wildlife Trust - fortnightly longstanding volunteer group.
- Yorkshire Wildlife Trust - weekly butterfly surveys April to September.



Figure 5: The Forest Totts School learning den making skills.

The scout camp reopened after a hiatus during the pandemic, the Forest Totts Group continued to make use of the wooded areas of the site and the visitor centre, and a new programme was run between the NHS and the YWT. This new session was made up of 5 sessions, engaging 70 people, which is split between 47 adults, and 23 children:

*“Overall, it’s a fantastic sport to run events on, especially with having the toilet and kitchen available to get a drink from. I think the only downside is the walk from the car park to the building where we based ourselves from, but that’s not a massive issue if you start an event from the car park and make that the meeting point.*

*The site has lots of nature to find, and we heard the green woodpecker regularly which was lovely. The variety of habitats is great too. I am biased though since I used to run events in there years ago, but it is a good spot!” – Kat Woolley, YWT Inspiring People Officer*

#### 3.2 Access for all

Access is good around the reserve with surfaced paths providing an easy circular walk round. Other non-surfaced tracks exist, and some of a previous way marked nature walk remain. The main car park allows access for all. It is estimated that BCNR receives approx. 15,000 visits a year. Regular users seem to come from the local villages, but also from Selby itself and the wider Selby area. It is unlikely that the site is known much further afield. Though naturalist groups such as East Yorkshire RSPB group have visited the site regularly over the last 20 years or so.

The reserve is used a lot for dog walking and there are dog bins at both car parks that are emptied by SDC. Angling is a key interest here with the Mere being well used by local fishermen.



Figure 6: Volunteers refreshed the picnic area by clearing the paths, removing weeds and collecting litter.

## 4. Wildlife monitoring

Since 2016 YWT have organised annual Breeding Bird Surveys and facilitated butterfly monitoring transects organised by the charity Butterfly Conservation as part of a national survey. This work will provide reliable biological and ecological information to inform nature reserve management. The nature reserve and facilities also provide a suitable training venue for survey volunteers from other sites for both monitoring schemes.

### 4.1 Breeding Bird Surveys



Figure 7: A female Blackcap, they are common summer breeding visitors to BCNR.

Bird surveys at BCNR ceased in 2020 due to the pandemic and unfortunately have not recommenced yet due to staff issues. However, the bird species recorded across 4 years of surveys from 2016 to 2019 are still available.

In total 61 species were recorded on the nature reserve during survey visits over this period. The five most common breeding birds at BCNR in order of abundance were Blackbird, Wren, Blackcap, Chiffchaff, and Chaffinch. All are birds of woodland and woodland fringe habitats with a good shrub layer. The nature reserve also holds smaller numbers of breeding birds requiring open/mixed scrub habitats including Willow Warbler, Green Woodpecker and

Linnet along with wetland birds such as Moorhen, Coot and Reed Warbler. It is especially pleasing to note that Cuckoo continued to be recorded as breeding on the nature reserve. It is a species that has undergone severe decline in breeding numbers nationally. Overall, the mix of bird species currently breeding at BCNR attests to the present mosaic of diverse mature and colonising habitats and the management undertaken to maintain them.

### 4.2 Barlow Common butterfly monitoring

A summary of butterfly species and numbers recorded on the nature reserve between 2016 and 2022 can be found in the Appendix 2 of this report.

*“A disappointing year, 5% down on the 5-year average, with only Brimstone and Green Veined White up and the rest of the whites down although this is following the county trend. However, Dingy Skipper made a spectacular return and has been doing well in a few locations where Birds foot trefoil flourishes.*

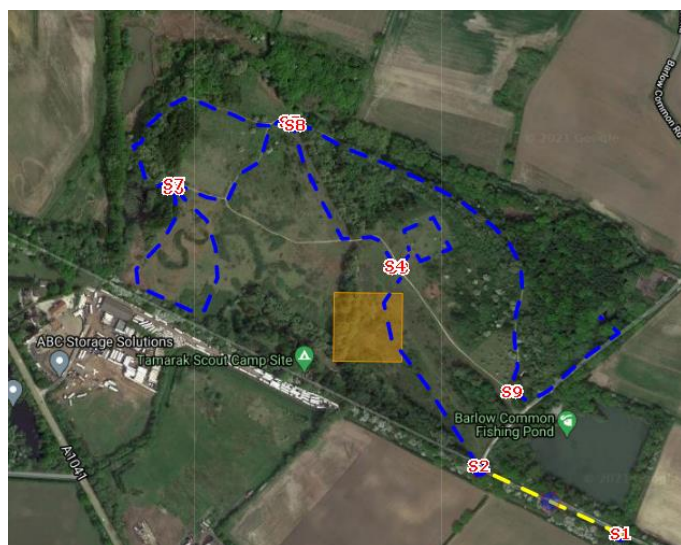


Figure 8: An ariel map of BCNR showing the butterfly transects, these give nest coverage of the different habitats across the site.

*All the blues were down but Holy Blue stands out as on many sites, are way up. Common Blue had another bad year and the trend since 2019 has been unusually rapidly downwards which could indicate site conditions. All the Vanessids were well down and, unusually, so was Comma but less so than the others down 15%. In contrast Small Tortoiseshells were only an eighth of their 2021 boom count. Speckled Wood was almost universally up barely held ground. As with county trends all the browns did well particularly the Gatekeeper and Meadow Brown having record years. Only Small Heath fell back as on most sites. The real reason for the fall in numbers overall is being woodlands contains a large population of Vanessids which did particularly badly as they did not produce a second generation, partly due to the heat but also due to poor nettle quality and higher than normal parasite (Sturmia Tachinid Fly)". – UK Butterfly Monitoring Scheme 2022.*

## 5. Looking Forward

Over the course of the new 10-year management plan, the LLO will endeavour to:

- Positively manage the area of established and emerging woodland on the site.
- Manage approximately two-thirds of the site as native broadleaved woodland with transitional woodland edge habitats.
- Maintain the areas of integral open space as semi-natural, managed grassland and wildflower meadows.
- Maintain and enhance the open water habitats of the site, expanding them where possible.
- Achieve a balance between wildlife conservation, environmental education, and social value, while maintaining the character and local distinctiveness of the reserve.



Figure 9: A Bumblebee visiting Vipers Bugloss, a common plant upon the reserve.

If BCNR can become the wooded island, interspersed by open wildflower patches, that is envisaged it can be, the benefits to the local area, the local wildlife, the local community and the national conservation efforts as a whole will be enormous. Providing an important haven and home amongst the heavy agricultural landscape which surrounds it, it is forecast to thrive in an increasing habitat for birds, invertebrates and small mammals, whilst also being a strong stop point amongst the blue and green corridors which move nature around the country.

A place where people can easily get into the heart of nature, with their families and friends, to start that interactive learning of the environment and the wildlife which is on their doorstep.

## Appendix 1

### Typical annual volunteer hours by activity 2022

- Practical nature reserve tasks e.g., habitat and infrastructure maintenance (1 x 5 hours per fortnight, average attendance 7-8 volunteers): **391.5 hours**
- BCNR Butterfly Surveyors: **6 hours**
- Volunteer Site Patrols - 1 x 1 hour per visit: **52 hours**
- **Grand total: 449.5 hours**

Barlow Common by individual Practical Conservation Task for 2022 Calendar Year includes the following:

- Picnic Area refresh
- Maintaining path edges
- Bench, bins, and signage maintenance
- Invasive species control – Himalayan Balsam and Japanese Knotweed
- Wildflower Meadow management
- Grassland Mosaic creation
- Pond Restoration
- Scrub Reduction



## Appendix 2

Butterfly totals per species recorded during surveys 2016-2022 and average change:

| YEARS:                   | 2016       | 2017        | 2018        | 2019        | 2020       | 2021       | 2022        | 5 Yr Avg    | Change     | % 5 Yr     |
|--------------------------|------------|-------------|-------------|-------------|------------|------------|-------------|-------------|------------|------------|
| Small Skipper            | 2          | 2           | 0           | 0           | 1          | 0          | 0           | 1           | -1         |            |
| Essex Skipper            |            |             |             |             |            |            |             |             |            |            |
| Large skipper            | 0          | 0           | 2           | 0           | 0          | 0          | 0           | 0           | 0          |            |
| Dingy Skipper            | 0          | 0           | 6           | 0           | 0          | 0          | 17          | 1           | 16         | 1317%      |
| Brimstone                | 7          | 12          | 15          | 7           | 5          | 9          | 23          | 10          | 13         | 140%       |
| Large White              | 87         | 67          | 199         | 95          | 100        | 45         | 75          | 101         | -26        | -26%       |
| Small White              | 63         | 159         | 394         | 185         | 158        | 146        | 138         | 208         | -70        | -34%       |
| Green-v-White            | 71         | 65          | 96          | 21          | 24         | 27         | 98          | 47          | 51         | 110%       |
| Orange Tip               | 7          | 7           | 6           | 12          | 8          | 7          | 3           | 8           | -5         | -63%       |
| Duke of Burgundy         |            |             |             |             |            |            |             |             |            |            |
| Green Hairstreak         |            |             |             |             |            |            |             |             |            |            |
| Purple Hairstreak        |            |             |             |             |            |            |             |             |            |            |
| White L. Hairstreak      |            |             |             |             |            |            |             |             |            |            |
| Small Copper             | 3          | 10          | 12          | 7           | 0          | 3          | 3           | 6           | -3         | -53%       |
| Northern Brown Argus     |            |             |             |             |            |            |             |             |            |            |
| Brown Argus              |            | 0           | 9           | 4           | 6          | 2          | 1           | 4           | -3         | -76%       |
| Common Blue              | 11         | 50          | 102         | 20          | 49         | 25         | 9           | 49          | -40        | -82%       |
| Holy Blue                | 2          | 5           | 18          | 4           | 9          | 2          | 5           | 8           | -3         | -34%       |
| Red Admiral              | 13         | 78          | 10          | 36          | 26         | 22         | 13          | 34          | -21        | -62%       |
| Painted Lady             | 5          | 7           | 2           | 96          | 0          | 4          | 12          | 22          | -10        | -45%       |
| Small Tortoiseshell      | 6          | 9           | 14          | 28          | 67         | 81         | 11          | 40          | -29        | -72%       |
| Peacock                  | 69         | 68          | 39          | 295         | 116        | 99         | 39          | 123         | -84        | -68%       |
| Comma                    | 19         | 64          | 33          | 33          | 27         | 13         | 29          | 34          | -5         | -15%       |
| Small Pearl B. Frit.     |            |             |             |             |            |            |             |             |            |            |
| Dark Green Fritillary    |            |             |             |             |            |            |             |             |            |            |
| Silver-washed Fritillary |            |             |             |             |            |            |             |             |            |            |
| Speckled Wood            | 65         | 103         | 148         | 101         | 81         | 56         | 93          | 98          | -5         | -5%        |
| Wall                     | 0          | 7           | 0           | 0           | 0          | 0          | 0           | 1           | -1         |            |
| Scotch Argus             |            |             |             |             |            |            |             |             |            |            |
| Grayling                 |            |             |             |             |            |            |             |             |            |            |
| Marbled White            |            |             |             |             |            |            |             |             |            |            |
| Gatekeeper               | 38         | 131         | 137         | 101         | 46         | 117        | 150         | 106         | 44         | 41%        |
| Meadow brown             | 173        | 176         | 257         | 257         | 180        | 241        | 304         | 222         | 82         | 37%        |
| Ringlet                  | 125        | 47          | 80          | 97          | 6          | 65         | 104         | 59          | 45         | 76%        |
| Small Heath              | 27         | 99          | 117         | 81          | 103        | 35         | 32          | 87          | -55        | -63%       |
| <b>Totals</b>            | <b>766</b> | <b>1067</b> | <b>1579</b> | <b>1399</b> | <b>909</b> | <b>964</b> | <b>1127</b> | <b>1184</b> | <b>-57</b> | <b>-5%</b> |