

Addingham Civic Society

**Proof of Evidence for Horn Crag Planning Appeal
APP\W4705\W\23\3332884**

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I am Rick Battarbee, Emeritus Professor of Environmental Change at University College London (UCL) and former director of the Environmental Change Research Centre, UCL. My research background is in freshwater ecology and palaeoecology. I now live in Addingham, approximately 2 km from Horn Crag.

I am actively involved in Addingham Civic Society (ACS) and am a Vice President of the Yorkshire Dales Society.

The Civic Society is a registered charity with sub-groups covering heritage, planning and the environment. It has 380 members representing over 10% of the village population.

As a Society we oppose the re-opening of the quarry on several grounds including its effects on the landscape and the physical disturbances caused by quarry working and transport. Here, however, I am concerned with biodiversity issues under the aegis of our environment sub-group (AEG), which I chair.

The group was formed to raise awareness about climate change and biodiversity loss and take practical action to tackle these challenges locally (<https://addinghamenvironmentgroup.org.uk/>). Our work on biodiversity and wildlife protection is centred in Addingham and Addingham Moorside, land immediately adjacent to Horn Crag (Map 1).

We are concerned about biodiversity loss globally, nationally and locally, as set out respectively by the United Nations (IPBES 2019), the UK State of Nature Partnership (Burns et al. 2023), and, locally, by the Yorkshire Wildlife Trust (<https://www.ywt.org.uk/wildlife-recovery-fund>).

Our work supports the Government's biodiversity target, enshrined in the Environment Act 2023, that species abundance loss in the UK needs to be halted by 2030 (<https://www.legislation.gov.uk/uksi/2023/91/made>).

Since 2016 in **Addingham village** we have:

- created **ten mini wildflower meadows** in green spaces. Our approach has been used as a template for other communities in the Yorkshire Dales (Yorkshire Dales Review, 2023).
- completed **six years of bird recording**. Our records include sightings of red-listed species that occur locally in good numbers and for which we therefore have a special concern to protect (AEG, Bird report 2022, Table 3).
- completed **five years of bees and butterfly recording** using national recording schemes. These data allow us to evaluate the success of our wildflower mini-meadows in attracting pollinators (AEG Bumblebee and Butterfly Observations 2022).

In the wider parish we work closely with landowners on **Addingham Moorside**, part of the local upland landscape that includes Horn Crag. It sits adjacent to the South Pennine SSSI, SAC and SPA and within the 2.5 km buffer zone of the SPA. Most of the land forms part of the Bradford Wildlife Habitat Network, and a number of Local Wildlife Sites lie within it (Map 1).

We have specific concerns for ground nesting birds, especially curlew, for the decline in pollinators and for the loss of wildflower-rich hay meadows. We work closely with landowners on the Moorside on biodiversity issues.

- The **curlew** is an iconic bird, but under threat, with populations plummeting globally and nationally (Brown et al. 2015). **Our region, however, remains a stronghold**, leaving us with a heightened sense of responsibility for their protection. They nest and forage in the fields around Horn Crag (Map 2). In the last four years alone, we have seen three local nesting sites lost, one in the village itself (Map 1) and two others in fields only one km away from the Quarry (Map 1).

Supplementary advice for the SPA for conserving and restoring the SPA states that for curlews and the wider assemblage of **breeding birds both within and outside the SPA that disturbance by human activity should be minimised** (Natural England 2018).

- **The decline in insect populations** has been well documented globally and nationally (Buglife 2021). Insect pollinator decline, especially the decline in bee abundance, has been strongly associated with the decline of wildflower-rich habitats (YDMT Bee Together).

We are working with local landowners and the Yorkshire Dales Millennium Trust to create a network of sites sufficiently closely spaced to form **corridors for pollinator populations** connecting sites on the Moorside with our village sites, across the watershed to Silsden and linked into the wider national B-Line network as shown in Map 3. **Horn Crag is a key stepping stone along and between these corridors.**

- In 2022 we were funded by Natural England's Nature Recovery Network to engage with landowners on Addingham Moorside (Map 1) encouraging the adoption of ecologically friendly land management methods. It included a series of training workshops on bird, mammal and wildflower identification (Moorside Connections 2022).

I provide these examples of our work to illustrate the importance we, other community groups and local landowners attach to the problem of biodiversity loss and the importance of the Horn Crag site within the local area.

Focusing on **the quarry site itself:**

- **The acid grassland and heathland** immediately above and to the east of the quarry face is a UK priority habitat (JNCC UK BAP Priority Habitats) that has persisted since the post-glacial forest that grew on Rombalds Moor was cleared in the **Bronze and Iron Ages** (Bannister 1985, Leeds University Unpublished PhD Thesis). It is a fragment of the Medieval “middlemoor” and a remnant of the **pre-enclosure landscape** (Mason, 1996).
- **Gorse scrub**, prominent around the quarry is often dismissed as poor habitat, yet it provides shelter for wildlife and is a **rich source of pollen for bees**. It is also historically important as it can colonise nutrient-deficient disturbed ground characterising long-abandoned quarries and earthworks including Medieval iron working sites (Moorhouse 1996).
- The **scrub woodland** on and around the quarry entrance and tailings to the west of the site is full of micro-habitats and micro-climates. The trees of different species and ages support song-bird populations and invertebrates, especially pollinators. Species will be displaced, perhaps permanently, from this area during at least the lifetime of the quarry operations.
- The **quarry face** has rewilded over the years and has blended into the natural landscape. It contains a variety of crevices, ledges and other microhabitats supporting invertebrate populations and providing roosting sites for birds and potentially for bats.

In summary: (i) the different habitats on site are inter-connected, have many ecological functions and support **an abundance of wildlife not just protected species**; and (ii) the value to society of the site as a whole is not easily captured by metrics, as these contemporary **habitats also embed and reflect cultural and ecological history**.

Finally, and to reinforce these points, the biodiversity of the Horn Crag site today is the outcome of **natural ecological processes operating on long time-scales**. Nature has been allowed to take its course through soil development, species colonisation and ecological succession. These processes continue, building diversity and inter-connections between species and habitats. Nature determines the outcome ensuring the right species live and grow in the right places.

At Horn Crag, the quarry face has been rewilding for 40 years, the scrub woodland and gorse scrub has been regenerating for between 40 and 130 years and the heathland is itself centuries old. If the quarry re-opens most of this will be destroyed, and **biodiversity net gain is unlikely to accrue for many decades, if at all**.

In conclusion, no amount of ecological engineering can recreate such ecological diversity and complexity within a time-frame that addresses the **urgent biodiversity crisis we all face**.

Destruction of the site will increase **landscape fragmentation** and reduce habitat connectivity and there is a danger that site operations will impair wildlife habitat in the surrounding countryside. The **opportunity to enhance** the biodiversity of the site will be foregone.

More personally re-opening the quarry would **undermine and undervalue the work of our community groups** striving to make space for wildlife in line with Government policy and national priorities.

The site should be left to nature, following the lead of the Derbyshire Wildlife Trust at Holybank Quarry in the Peak District (Derbyshire Wildlife Trust, 2022).

References

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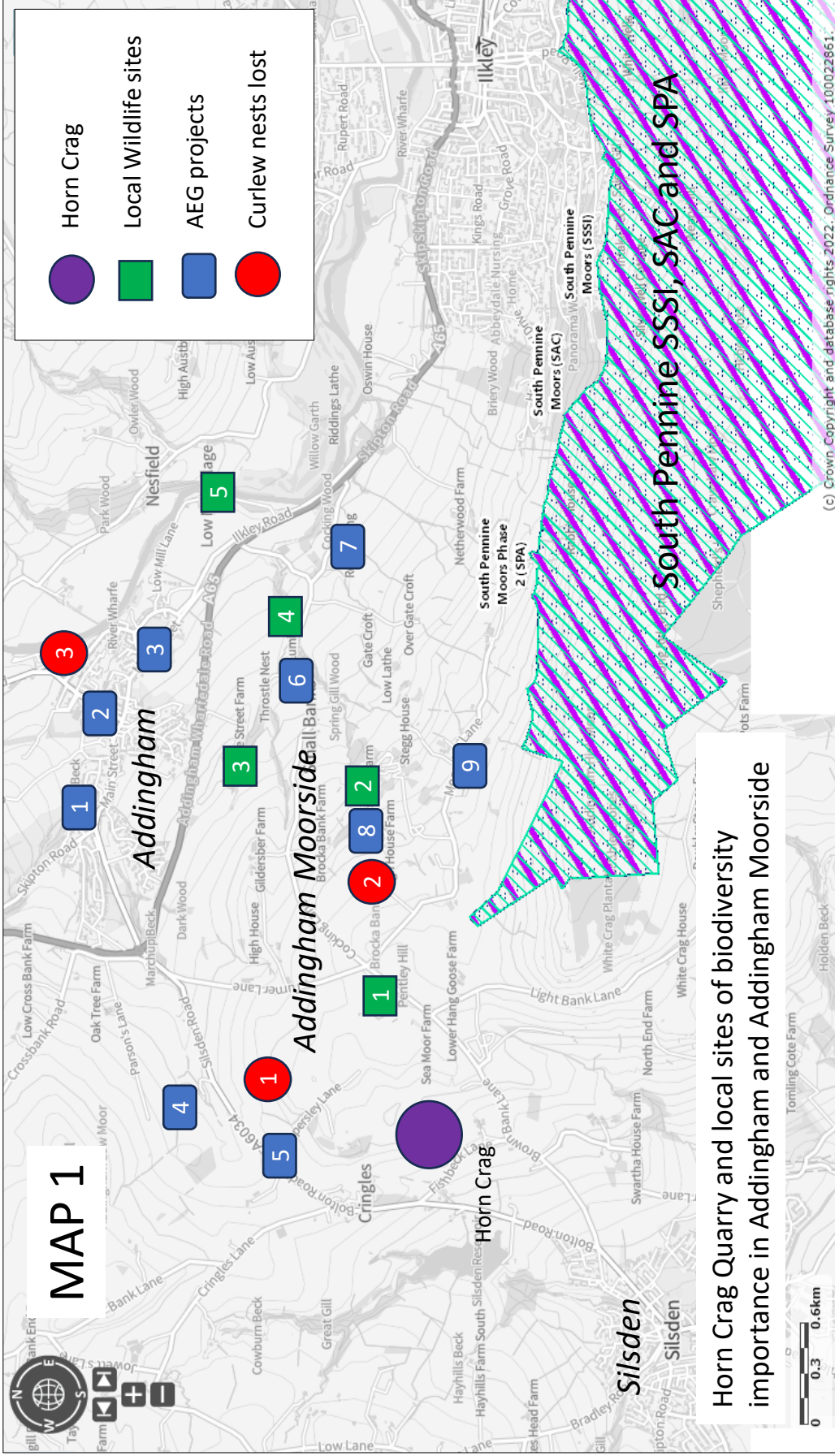
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YDMT Bee Together <https://www.ydmt.org/what-we-do/landscape-and-wildlife/bee-conservation>

Yorkshire Dales Review 2023

https://www.addinghamenvironmentgroup.org.uk/environmentnew/FoTD_Making%20Space%20for%20Nature_Autumn%20Review%202023.pdf



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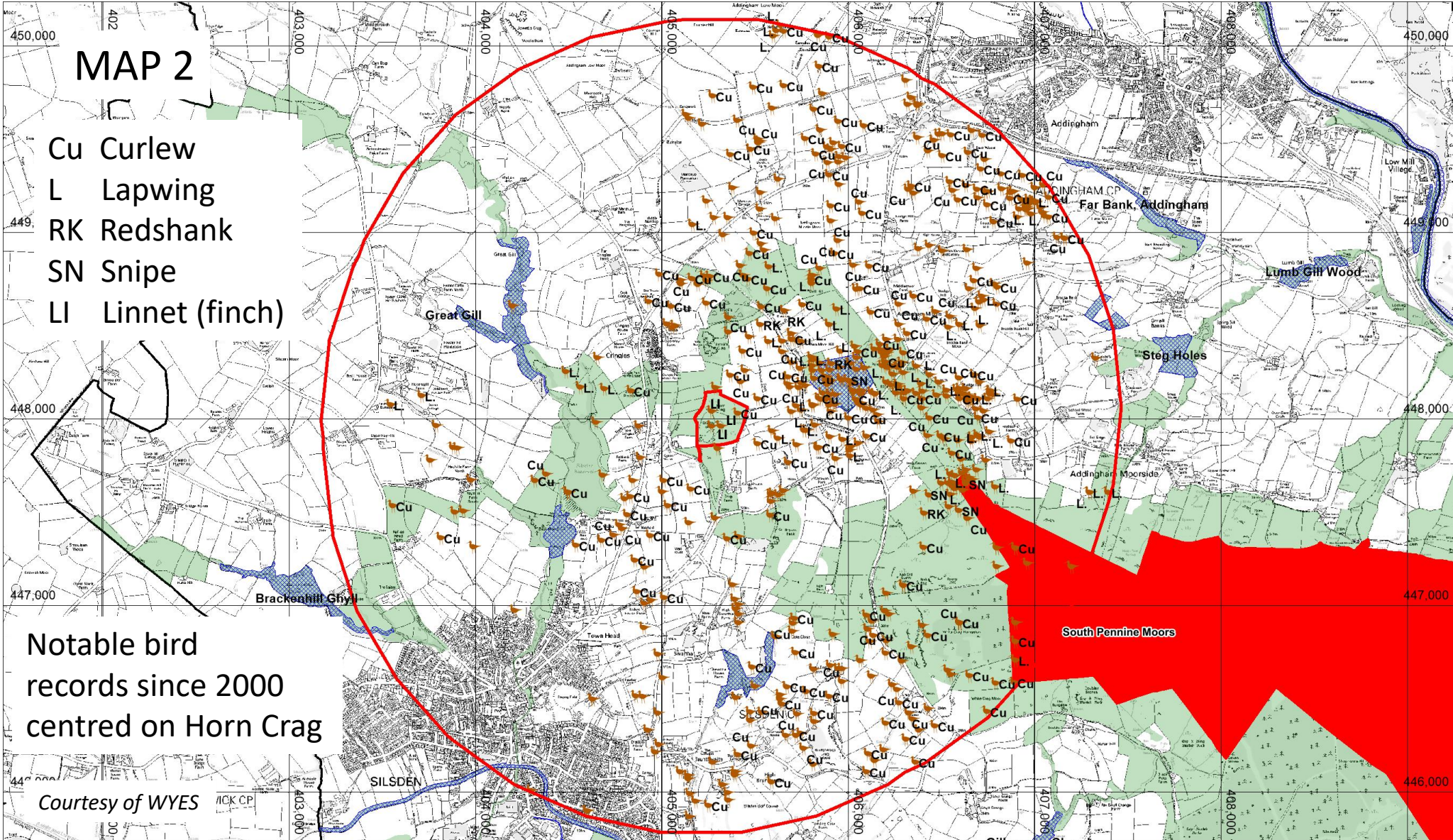
Horn Crag Quarry and local sites of biodiversity importance in Addingham and Addingham Moorside

MAP 2

- Cu Curlew
- L Lapwing
- RK Redshank
- SN Snipe
- LI Linnet (finch)

Notable bird records since 2000 centred on Horn Crag

Courtesy of WYES



The Lancaster to Leeds B-Line showing the location of Horn Crag and wildlife project sites

