

Benefits of Rewilding Green Spaces

A report on the scientific evidence

This paper lays out the benefits of rewilding green spaces, important points to note;

1. Evidence now proves that the biodiversity crisis, along with the climate crisis, is worsening exponentially, and is now at the worst level since records began.
2. Reduced mowing of green spaces and verges is proven to mitigate the biodiversity crisis. and experience throughout the UK supports this as one of the top 3 ways of restoring biodiversity
3. Species-rich green spaces, such as many of those in Otley, are particularly effective at supporting insects, birds and small mammals.
4. The local community in Otley has demonstrated concern for the crisis, and is keen to support measures to restore biodiversity, including allowing green spaces to develop naturally.

As well as a climate crisis, we are also living during a biodiversity crisis. Many scientists now believe we are experiencing the sixth global mass extinction event. The climate and biodiversity crises are engaged in a feedback loop, whilst this means the continual degradation of one compounds the other. This also means taking actions to tackle one, ultimately helps to tackle the other. In Otley we are fortunate to have a public concerned about the future, Otley2030 are working hard to address the climate crisis locally and at Wildlife Friendly Otley we are working hard to address the biodiversity crisis but we need help. In Otley we have identified that the disconnection of ecosystems, of which we have a number of valuable habitats is a massive obstacle to improving biodiversity locally. This year (2021) we have seeded wildflowers in various business and private premises but to create meaningful wildlife corridors, we need Leeds City Council's support. We have also run an online petition to gather public support, which at the time of this report has gained 792 signatures.

Flower-rich meadow and other grassland habitats evolved over thousands of years through a combination of repeated hay cutting and grazing by large ungulates. Over this extended period of time many of our native wildlife species adapted to specialise in these meadow habitats. Since the 1930s the UK has lost 97% of its meadows, nearly half of the UK's wildflower species that once called those lost meadows home can now be found growing in road verges, if allowed to do so road verges could aid the recovery of wildflower meadows. A 2017 scientific review stated, "urban road verges can contain significant biodiversity, contribute to structural connectivity between other urban green spaces, and due to their proximity to road traffic are well placed to provide ecosystem services" (Evans et al., 2017). Ecosystem services are the many and varied benefits to humans provided by the natural environment, from healthy ecosystems (please also see 'Helping wildlife helps people,' WFO report). Another paper expanded on the potential of ecosystem

services provided by wilder road verges, listing just a few; "...biodiversity provision, regulating services; eg. air and water filtration and cultural services; eg. health and aesthetic benefits by providing access to nature" (Bullock, 2019). The current intensive management of verges, "...predominantly for aesthetic reasons... demonstrates negative ecological and environmental effects (Carignan-Guillemette et al., 2019).

With very few people accessing these spaces, as well as the soil typically being nutrient poor, road verges are ideal sites for wildflowers. If managed for wildlife, road verges can provide vital corridors from one habitat to another, this movement creates healthier populations as there is a larger area to forage for food and find new mates to breed and widen the genetic pools. Without wildlife corridors, populations become isolated; this makes them genetically weaker and more vulnerable to disease or sudden changes in their environment. This positive gains can all be achieved by simply reducing mowing frequency. We can enhance biodiversity, aesthetics and the pollination services provided by our road verges in Otley, whilst delivering cost savings to LCC. In line with Plantlife's 'good verge guide,' we recognise that roads must be kept safe for all users, and that cutting sight lines and junctions will continue to be necessary. For all the remaining green space, we would like to see only two annual cuts, one at the beginning of the season (early March) and one at the end of the season (September). It will be essential to also remove cuttings to keep the nutrition in the soil low and ensure biodiversity thrives. With the savings made with the reduction in management, it might be a good idea for the council to invest in 'cut-and-collect' equipment. The cuttings can then be used as biofuel, making the practice economically viable.

In conclusion research has shown that reducing mowing to just once or twice a year provides more flowers for pollinators, allows plants to set seed and creates better habitats for other animals. The potential of road verges for nature conservation is a rapidly growing area of interest in science (eg. Gardiner et al., 2018) and society (Plantlife, 2021). Road verges are well placed to mitigate the negative ecological effects of roads. During the climate and biodiversity crises we have a social responsibility to act and to change our practices to mitigate this.

References

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