The Nature Recovery Project Biodiversity Gain 2022– 2024

Delivering Biodiversity Gain

The Nature Recovery Project (TNRP) aims to restore and enhance the natural environment by deliberately creating woodlands, wildflower meadows, and ecologically rich open spaces. TNRP transforms underused land into thriving ecosystems.

This work supports biodiversity gain, encourages natural colonisation, and embeds long-term rewilding strategies that deliver measurable ecological value.

We are restoring landscapes, reviving ecosystems, and bringing nature back one habitat at a time.

The Nature Recovery Project supports the restoration of nature, strengthens existing environmental protections, and contributes to resilient ecological networks and broader environmental outcomes.

It brings this approach to life by delivering measurable biodiversity gains across diverse habitats, all while aligning with long-term ecological restoration goals. These efforts foster thriving environments for native species, support wildlife, and help restore natural balance both above and below ground.

Before Restoration

After Restoration

300,000 Trees Planted

Tree planting is one of the most visible and impactful biodiversity gains. Trees create wildlife corridors, improve air and soil quality, store carbon, and provide essential habitats for birds, insects, and fungi.

300,000 **Trees successfully planted in various sites owned by TNRP**

300,000 trees have been successfully planted across various TNRP sites, significantly boosting carbon storage by locking carbon in trunks, branches, leaves, and roots.

Beyond carbon, these trees filter pollutants, release oxygen, and support beneficial soil organisms. They also offer vital habitats for various species, from insects and fungi to birds and mammals.

As a result, biodiversity units have increased across all project sites. Both the trees and the habitats forming beneath their canopies are helping to build resilient ecosystems and thriving biodiversity hotspots.

10 Micro Ponds Established

Did You Know that Micro ponds are biodiversity hotspots, that support more species per unit area than larger water bodies like lakes or rivers?

TNRP's micro ponds have quickly become vital ecological assets, providing rich habitats that support high species diversity. These small but powerful water bodies offer critical stepping stones for wildlife, enhancing species movement, genetic exchange, and resilience across the landscape, all essential for combating habitat fragmentation.

Beyond biodiversity, these ponds improve environmental quality. They naturally filter water by trapping sediments and absorbing pollutants, leading to cleaner surrounding waterways. Aquatic plants within the ponds also absorb excess nutrients, reducing the risk of harmful algal blooms.

As a result, micro ponds are considered a "quick win" for Biodiversity Net Gain, delivering measurable ecological value in a compact footprint. Their role in modern conservation and sustainable land use makes them a powerful tool for long-term nature recovery.

Major Gains in Soil Microbiome Health

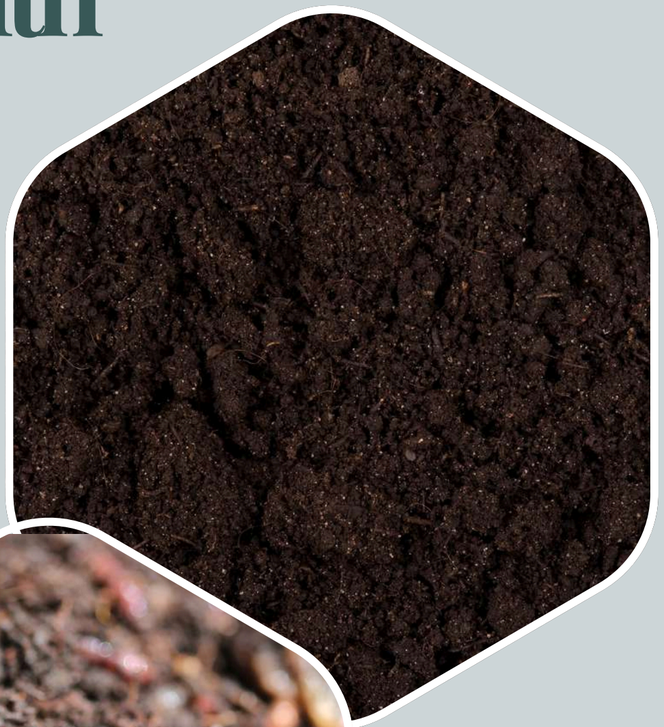
Soils are among the most biodiverse ecosystems on Earth. They host an extraordinary array of life forms, including viruses, protists, nematodes, and microarthropods, all of which interact within a rich and dynamic underground food web.

Did You Know?
Soil is the home of 50% of all bacterial species on Earth, and 90% of fungi.

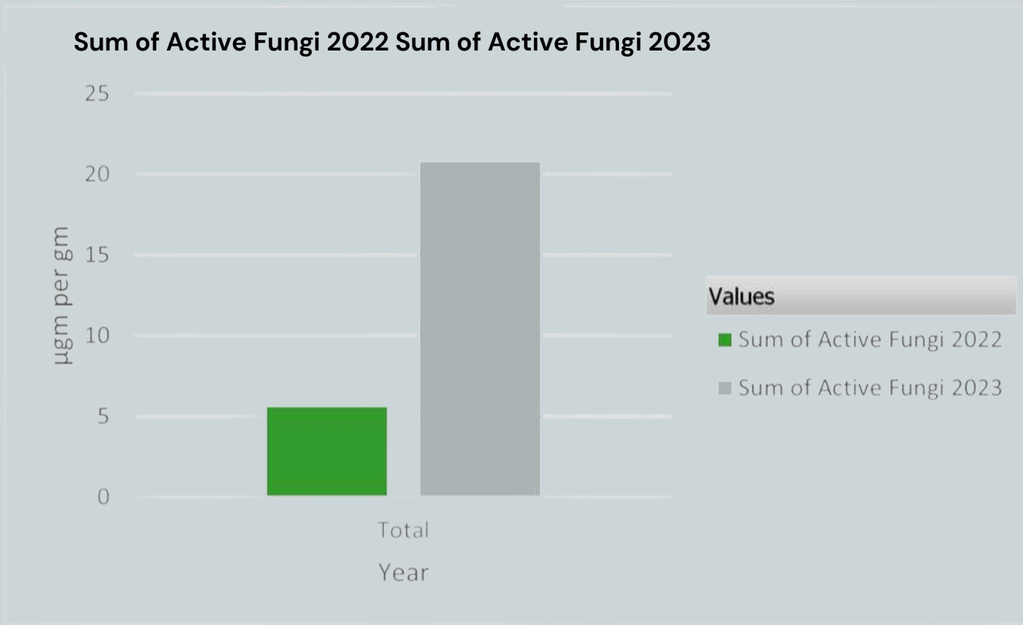
Soil organisms such as bacteria, fungi, nematodes, and earthworms play crucial roles in breaking down organic matter and recycling nutrients like nitrogen and phosphorus, which are essential for healthy plant growth.

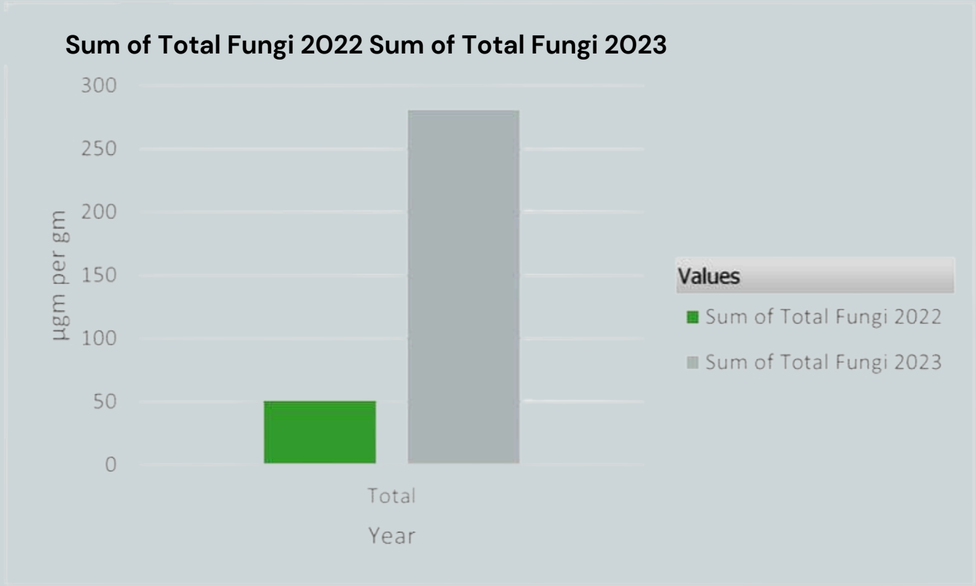
High soil biodiversity also enhances soil structure and water regulation. It improves aeration and drainage, supports deeper root growth, boosts moisture retention, and reduces erosion and flood risks, all key to climate resilience.

Additionally, soil microbes and fungi help lock carbon into the ground by stabilizing organic matter. Research shows that increasing soil carbon by just 0.4% annually could boost crop yields by up to 41%, while contributing to climate change mitigation.



Significant Gains in Soil Microbiome

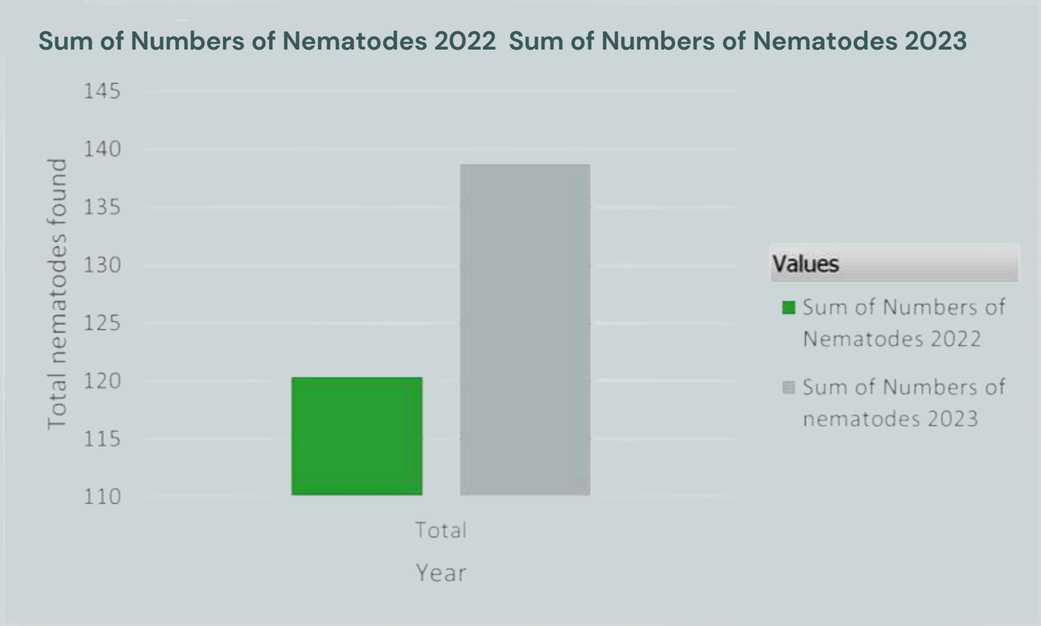




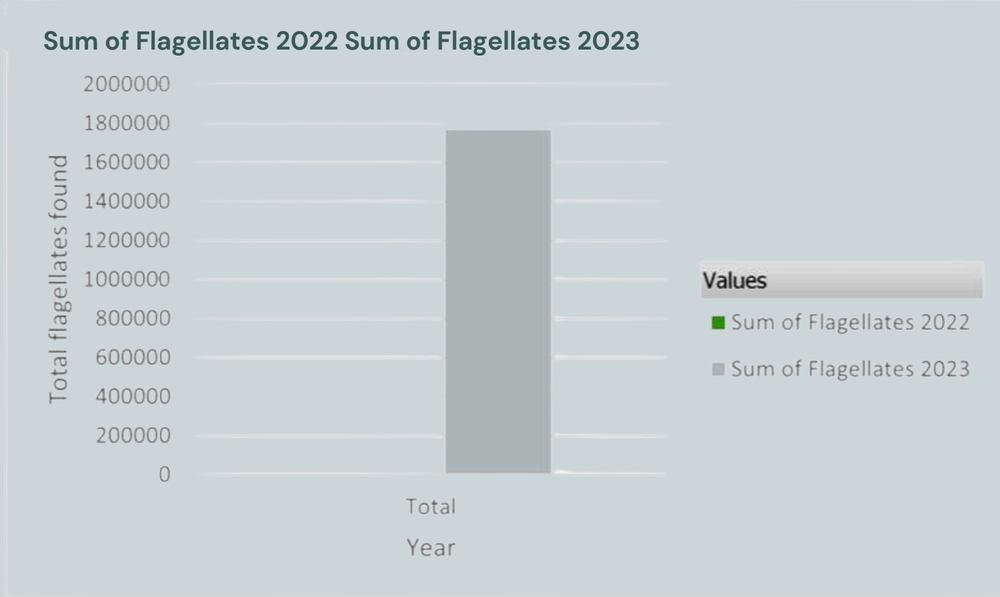
Fungi are essential for healthy soil, aiding nutrient cycling, plant growth, and biodiversity. Between 2022 and 2023, TNRP sites saw significant increases in both active fungi and total fungal biomass, indicating improved soil health. Fungi also help store carbon in soil, and raising soil carbon by just 0.4% per year can boost crop yields by up to 41% and lower greenhouse gas emissions.

The TNRP sites now exhibit thriving, biologically rich soils that support complex ecological processes. These improvements form a strong foundation for long-term ecosystem recovery. As soil health improves, native species thrive, wildlife is drawn back, and the natural balance is restored across the landscape.

Key Microbial Gains in the Soil Microbiome



Nematodes are microscopic worms that play a vital role in soil ecosystems. They help recycle nutrients, suppress harmful microbes, and support a thriving underground food web. An increase in nematode numbers is a reliable indicator of healthier, more biologically active soil.



Flagellates are single-celled organisms that help maintain microbial balance and enhance nutrient availability to plants. They play a key role in breaking down organic matter and feeding higher-level microbes in the soil food chain.

In 2023, the number of flagellates rose sharply to over 1.600000, indicating improved soil health, fertility, and ecological resilience.

Huge Gain in Soil Microbiome

Amoebas, like flagellates, are important protozoa that contribute to nutrient cycling and control bacterial populations.
This rise indicates a flourishing micro-ecosystem. Such changes highlight improvements in microbial diversity and soil ecosystem complexity, which is central to delivering and sustaining gains in biodiversity.

Ciliates are tiny, advanced microbes that help break down organic matter and keep the soil's microbial community in balance. They make nutrients easier for plants to use.
More ciliates mean the soil is getting healthier and more stable. It shows the environment is improving.

Key Discoveries

Glow-worm populations are in decline across the UK and are listed as *Near Threatened*. The discovery of a large glowworm population on-site is a strong indicator of high habitat quality, ecological stability, and successful biodiversity management. Their presence highlights the site's role as a refuge for species in decline.

Large Glowworm population discovered on site

The UK supports some of the largest populations of great crested newts in Europe. This species is internationally endangered and protected by law. Their presence on site signals exceptional habitat quality and high ecological value, particularly in relation to aquatic and surrounding terrestrial environments.

Significant numbers of Great Crested Newts recorded

Key Discoveries

The grey partridge has declined by over 90% in the UK, largely due to habitat loss and changes in agricultural practices. The presence of six breeding pairs of English partridge on this site is a remarkable sign of high-quality, well-managed farmland. It reflects strong habitat conditions that support not only partridges but a broad range of farmland wildlife.

6 breeding pairs of English partridge recorded on site

A large, flourishing population of breeding pairs of yellowhammer, linnet, and skylark on a site is a strong indicator of exceptional farmland habitat quality, effective conservation management, and high overall biodiversity value.
These species signal a rare and valuable example of thriving wildlife-friendly habitat, with significant implications for biodiversity conservation.

Multiple breeding pairs of yellow hammer, linnet, and skylark flourishing

Restoring Nature, Securing the Future

Over the course of this project, we have seen measurable ecological improvements from thriving soil microbiomes and flourishing wildflowers to the return of rare and protected species. These outcomes prove the benefits of Biodiversity Gain to the environment.

With the Nature Recovery Project (TNRP) investing in habitat restoration, protecting native wildlife, and supporting long-term environmental resiliency, we are laying the foundation for a healthier, more balanced landscape.

This is just the beginning. Together, we can continue to turn recovery into regeneration, ensuring nature thrives for generations to come.