



Find out more about the life in our soil and water

Fund the use of environmental DNA (eDNA) testing to baseline the biological health of our soil and water

Rewilding heals the land from the ground up, with the first changes happening at microscopic levels in the soil and water. We want to deploy more environmental DNA (eDNA) testing at Heal Somerset as part of our baselining work. We have already used eDNA testing in two fields for soil analysis but want to extend that testing further to cover all areas across the site and also test our watercourses and ponds with water eDNA kits.

In the soil analysis component of this work, cutting-edge eDNA technology will be used to extract genetic material shed by organisms into their environment. By collecting soil samples from strategically chosen locations across the Heal Somerset site, we can obtain a comprehensive understanding of the microbial and macrobial communities residing in the terrestrial ecosystem. The eDNA analysis enables us to detect a diverse range of organisms, from fungi and bacteria to insects, providing a holistic view of the soil's biological richness.

We would also use eDNA to understand the diversity of aquatic life in our ponds and watercourses. This involves collecting water samples and employing advanced molecular techniques to identify the genetic traces left behind by aquatic organisms. The targeted water locations offer insights into the diversity of fish, amphibians, aquatic invertebrates and other organisms inhabiting the aquatic ecosystems on the Heal Somerset site.

We would select a reputable supplier with state-of-the-art methodologies that ensure high precision and reliability in species identification, allowing us to uncover the hidden biodiversity at a resolution that conventional surveys cannot achieve.

The outcomes of this eDNA work will not only contribute to a comprehensive understanding of the current ecological makeup of the Heal Somerset site but will also serve as a valuable baseline for future monitoring and nature recovery efforts. We will also share the work so that other charities and landowners can benefit.

Impact

A comprehensive understanding of our soil and water at Heal Somerset informing and empowering us to improve the richness and increase biodiversity within each ecosystem.

Legacy

Improved future monitoring and nature recovery leading to greater biodiversity and better resilience to climate change.