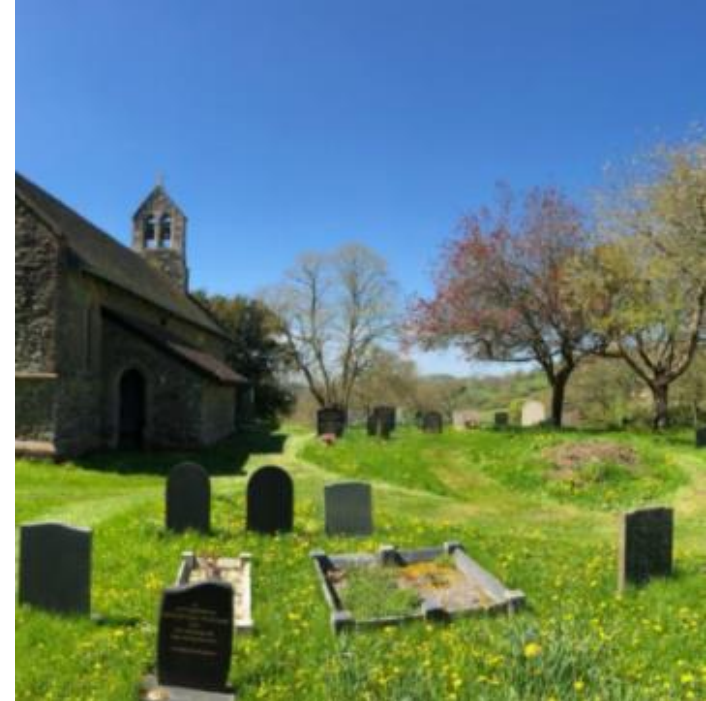
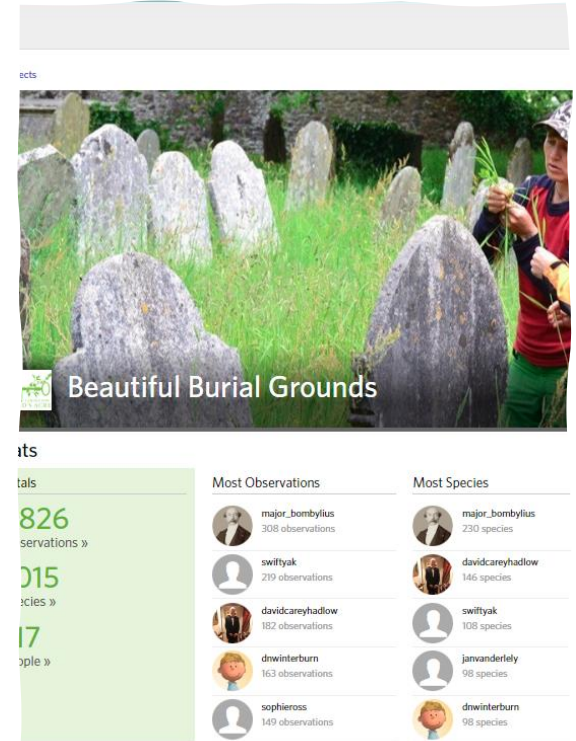


The church of England has 16,134 sites with a total area of 72km² - equivalent to approximately half the area of the Norfolk Broads





- Churchyards – the modern-day Noah's Ark



Upload wildlife records directly using the iNaturalist app

<https://uk.inaturalist.org/projects/beautiful-burial-grounds>

12. Improving the Carbon Footprint of Your Burial Ground



This sheet explains how churchyards and cemeteries are currently storing carbon in their trees, plants and soils, and how you can maximise this process. It gives ideas to help manage burial grounds in ways that reduce the carbon being released into the atmosphere, whilst increasing that stored within plants and soil. Both of these will reduce your burial ground carbon footprint.

Burial grounds can be a good store of carbon. The majority contain soils which have been storing carbon for decades, centuries or even millennia. They also contain trees, native shrubs and sometimes an area of woodland.

The Carbon Cycle and Fossil Fuels

Many of us are striving to reduce our **Carbon Footprint** as a response to climate change. The Anglican Churches of England and Wales have a target of 2030 to reach net zero carbon whilst other denominations and local authorities have similar targets in place. Carbon dioxide is a key greenhouse gas which needs to be reduced in the atmosphere, but it is also crucial to life. Life revolves around the carbon cycle which, when undisturbed, is storing, releasing and using both carbon dioxide and oxygen in a balanced way.

When we think about capturing carbon, most of us think of tree planting but actually this is not always the best thing to do. Trees, shrubs, grassland and soil all store carbon. A tree in the wrong place can damage precious habitats and trigger a release of carbon so care is needed.

Trees, shrubs and woodland

Trees and shrubs store carbon in wood, within their trunk, branches and roots. Trees store more carbon than other plants owing to their size and long lifespan; a veteran tree has been storing carbon within its wood for a great many years. Hedges can be ancient too and also store carbon. Due to this, trees and hedges are often seen as the pinnacle of carbon sequestration (which is another way of saying storage!), and planting schemes are promoted as a way to combat climate change.



Grassland

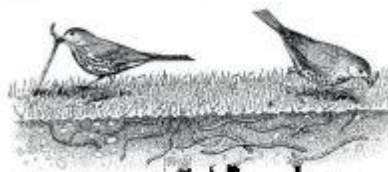
Grasslands are often overlooked as an important store of carbon as they don't contain large visible plants like trees or shrubs. Grasslands do store carbon within the leaves, stems and roots of their plants though, and can hold a great deal of carbon within the soil. It is estimated that up to 30% of the earth's carbon is stored in grasslands as soil carbon.



Soil carbon

Soil carbon is the carbon that enters the soil through decomposing plant matter.

When plants or parts of plants die, they are broken down and used as food by invertebrates such as insects and worms, by fungi and by bacteria and other microbes. Whilst some carbon dioxide is released through this process a great deal of the plant matter is incorporated into the soil. This plant matter is made primarily of carbon and oxygen.



The more mature soil is, the better for carbon storage. A mature, complex, undisturbed soil has a wide range of invertebrates, fungal mycorrhizae, bacteria and other microbes all of which contain carbon. Burial ground grassland tends to be full of different grasses, flowering plants, fungi and lichens. This richness above ground leads to a corresponding richness below.

So, which is the best?

It is not easy to directly compare the carbon within a veteran tree, a group of shrubs and an area of grassland: there are so many variables such as tree size, age and type, number of species within the grassland, soil depth, underlying rock, management and rainfall.



Supporting role

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