

Enhancing public green spaces for pollinators using seed and plug plants



The site

The Auld Kirk churchyard (known locally as Kirkie Steps) is a 0.4ha area of green space in Montrose, Scotland managed by Angus Council. It is not open to the public but is visible from adjoining footpaths.

Project background

In 2022 Angus Council and Buglife chose this site to be enhanced for pollinators as part of the 'Strathmore B-Lines - People & Pollinators in Strathmore' project which was funded by the National Lottery Heritage Fund. This site forms part of a network of connected sites in Montrose and is one of 18 project sites, enhanced on or near B-Lines as part of this two-year project.

Site survey

In 2019 Angus Council reduced the cutting regime of the grassland at the Auld Kirk from regular monthly cuts to one cut per year in autumn. This allowed the existing grasses and wildflowers to flower throughout the spring and summer and set seed. Cuttings were not always removed, due to difficult site access. Before starting enhancement works, a botanical survey was done, along with a site assessment to determine the best methods to enhance the site's wildflowers.

Consultation and engagement

The Council's Parks and Burial Grounds Maintenance Team were involved in developing the plans for the site before project work commenced on the ground. A bespoke workshop on Managing Grassland for Invertebrates was delivered by Buglife & Scotia Seeds staff during the project. This ensured all staff understood and supported the basic principles of wildflower enhancement and methods involved. Local residents and other environmental groups supported the project by attending volunteer days, and the project was introduced to passing members of the public. Many supported the work when it was explained what was changing and why, however, some would have preferred the grass in the graveyard to be kept short all year.



Auld Kirk, Montrose June 2024 © Fiona Guest

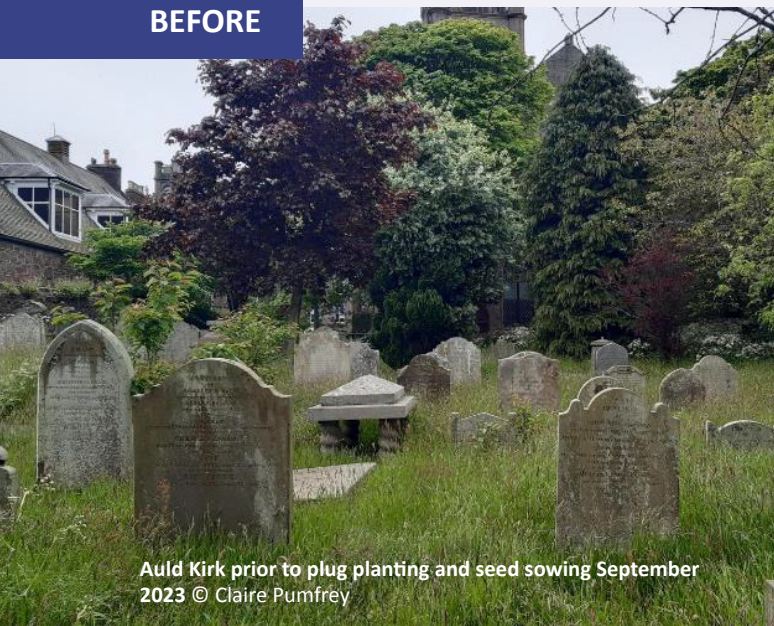
Site work

The site has two areas of green space totalling 0.4 ha with a walled public footpath running through the middle. The area supports trees, shrubs, standing and fallen deadwood and species poor grassland. The southern area (0.25 ha), is slightly more open than the shady northern area and so efforts were focused on this section to carry out the following habitat enhancements:

- In October 2023, the southern area was cut by the Council and raked off by Buglife and volunteers from the Scottish Wildlife Trust, Scotia Seeds, Angus Council, and local residents. Bare patches were prepared for seed and plug plants using garden rakes and a strimmer.
- 558 shade-tolerant plug plants (Foxglove, Red Campion, Wild Carrot, Selfheal and Hedge Woundwort) were planted over two volunteer days, along with a bespoke wildflower seed (containing Yellow Rattle*) donated by Scotia Seeds.

* Yellow Rattle is a hemi-parasite of some grasses and other plants, reducing their growth and giving more opportunities for wildflowers to thrive.

BEFORE



Auld Kirk prior to plug planting and seed sowing September 2023 © Claire Pumfrey

Before changes in management

Auld Kirk graveyard, was historically managed with a standard amenity grassland management regime, cutting regularly to maintain a short sward with arisings left in place. The following plant species were recorded in the southern area:

- Yorkshire Fog
- Ground Elder
- Bistort
- Cow Parsley
- Snowdrops
- Buttercup sp.
- Cocksfoot
- Sweet Vernal
- Common Bent
- Ribwort Plantain

AFTER



Auld Kirk, Montrose June 2024 © Fiona Guest

After changes in management

The site is now managed with a late summer/ autumn cut and lift to remove arisings (August to October), with times to be varied each year to encourage a more diverse sward. The following plants were recorded in the summer after works:

- Wild Carrot (high %)
- Bistort
- Selfheal
- Cock's-foot
- Hedge Woundwort
- Sweet Vernal
- Yellow Rattle
- Yorkshire Fog
- Cow Parsley
- Common Bent
- Ribwort Plantain
- Buttercup sp.
- White Clover
- Common Sorel



Auld Kirk, Montrose August 2024 © Claire Pumfrey



AN INCREASED DIVERSITY AND ABUNDANCE OF WILDFLOWERS WERE RECORDED AFTER CHANGES IN MANAGEMENT AND PLANTING.





Common Carder Bumblebee (*Bombus muscorum*) @ Lucia Chmurova



Planting Montrose, Auld Kirk © Claire Pumfrey

“ Changing management to allow wildflowers to grow tall, flower and set seed, provides more food for insects and birds and increases wildlife for local residents to enjoy. ”

Ongoing management

Going forwards the site will be managed with an annual cut and lift between August and October to remove arisings. Varying the cutting time can help to benefit different plant species, improving plant diversity, which in turn benefits invertebrates. A strip will be left uncut beside the wall each year with the location rotated to provide overwintering habitat for invertebrates.

Benefits from management change

Biodiversity

Wildflower-rich grasslands are one of our most important and biodiverse habitats in the UK. Species-rich grasslands can support a huge range of wildlife including wildflowers, fungi, invertebrates, reptiles, amphibians, small mammals and birds. A fifth of all priority species for conservation in the UK are associated with grassland habitats. Creating and managing native wildflower-rich grasslands on B-Lines is contributing to the creation of a UK-wide network of connected habitats, allowing species to move across landscapes.

Wellbeing

Changing management to allow wildflowers to grow tall, flower and set seed, provides more food for insects and birds and increases wildlife for local residents to enjoy. Though there is no public access into this area, the habitats are visible to passersby, including those with limited mobility or opportunity to travel to more rural areas. Access to green space is linked with cognitive benefits and improved mental and physical wellbeing. Evidence has shown that looking at a wildflower meadow for just six seconds can lower your blood pressure and make you feel happier - find out more [here](#). Walking in nature, including grasslands, no matter how big or small can improve mental health by reducing stress, anxiety and depression as well as reducing risk of physical illnesses such as cardiovascular diseases.

Ecosystem services

Green spaces with long grass and flowers have an increased capacity to soak up rainwater in flood events, reducing run-off and flooding. In drought conditions, these green spaces also retain more water than short mown grassland, helping to support healthy urban trees and keep the 'green' in green spaces.

Lessons learnt

- 1 **Having regular contact with Angus Council's Environment Officer who was dedicated and passionate about the project was instrumental in making this work a success.**
- 2 **Working closely with the Council's Parks and Burial Grounds Maintenance Team throughout the project helped to share the project's message and ambitions.**
- 3 **Standard grassland enhancement techniques can be adapted in challenging spaces like graveyards. Instead of using large machinery to prepare bare ground, a strimmer was effectively used to create patches of bare ground for seed sowing.**
- 4 **Working with existing local community groups helps provide project volunteers, who are invaluable but often hard to find within a short project timeframe.**