

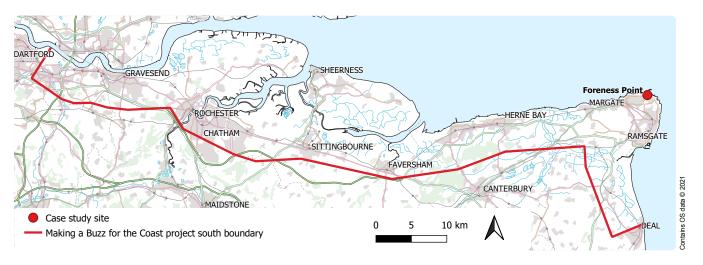
Case Study

Foreness Point

Land management options for coastal chalk grassland for bumblebees and other wildlife

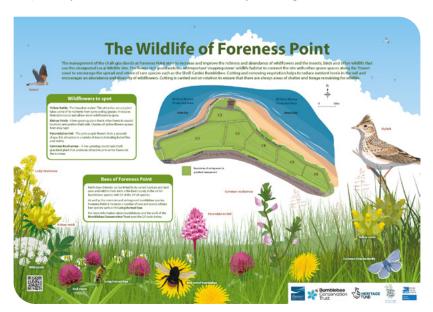
Making a Buzz for the Coast

The north Kent coast is recognised nationally for the diversity of bumblebee species its supports with 22 of the 24 UK species, including five of the seven nationally rare and scarce bumblebees. Much of Kent's cultural and economic heritage is intrinsically linked to bees, with a landscape of orchards, arable flowering crops and grassland. Kent's bumblebee diversity can be linked to its varied habitats and the milder southern climate.



The Making a Buzz for the Coast project was set up to re-address the decline and help to conserve wild bees in north Kent. Making a Buzz for the Coast is working to safeguard Kent's wild bees, focusing on coastal areas from Dartford to Deal. The aims of this ambitious project, are 1) to create and restore flower-rich habitat 2) recruit, train and support volunteers to take action for bumblebees and other wild bees 3) raise awareness about the value of these important insects and their conservation needs.

Making a Buzz for the Coast is a multi-partner project led by Bumblebee Conservation Trust (BBCT) and with key partners including Kent Wildlife Trust, Kent County Council, Natural England, Royal Society for the Protection of Birds, Swale Borough Council, Thames Water and Thanet District Council, as well as numerous landowners and supporters. Its primary funder is the National Lottery Heritage Fund.



In 2020, two interpretation panels were installed on site to engage visitors and describe the value of Foreness Point for Wildlife. Panel design: Nature Signs Designs

Site introduction

Foreness Point is a chalk headland on the Kent coast managed by Thanet District Council. The site is situated on the Isle of Thanet to the east of the seaside town of Margate. It is a well-used coastal grassland, popular with local walkers. A network of surfaced and unsurfaced paths is present across the site. Chalk cliffs lead down to the sandy beaches of Palm Bay and Botany Bay along the northern seaward edge of the site.

The cliff-top grasslands contain wildflower species indicating the calcareous soils and geology of the area. Colonies of pyramidal orchid are present as well as a range of wildflowers which are important forage and foodplants for insect pollinators. Habitats are a mixture of herb-rich grassland, tall herbs, grass-dominated swards and bramble scrub.



The grasslands at Foreness Point are designated as a Local Wildlife Site (Cliftonville Grasslands). The chalk cliffs and intertidal habitats the north-east Kent Marine Protected area (NEKMPA) encompassing the national and international designations of the Thanet Coast SSSI, SAC, SPA, and RAMSAR sites Thanet Coast Marine Conservation Zone (MCZ).

The Shrill carder bee (Bombus sylvarum), one of the UK's rarest bumblebee, was last recorded at the site over ten years ago in 2005 and the Red-shanked carder bee (Bombus ruderarius) was last recorded in 1975. By enhancing habitat on this and other green spaces on the Thanet coast, there is potential to create connectivity for these species to return to the site, as well as benefiting the existing species present.

Habitat management and site condition

18.5 ha of the site are included in Making a Buzz for the Coast management plans written during the development phase of the project.

Previous management

The western-most compartment (C1) is a former pitch and putt golf course, last used for this purpose in 2009. This area was formally returned to being managed for biodiversity by Thanet District Council in early 2014 as part of their Open Spaces Strategy.

Management of the grasslands was carried out by Thanet District Council contractors and up until 2017 Compartments 2-6 were cut once per year in most but not all years. The timing of the cut varied from year to year. Cuttings were generally baled and removed from site as green waste. They were unsuitable for use as hay/fodder due to litter and dog fouling.

Current management

Key priorities identified for this site were to; increase the floristic diversity and the abundance of forage for bumblebees and other pollinators, reduce the dominance of coarse grasses and invasive plants, particularly Tor grass and Alexanders and to provide undisturbed shelter and nesting habitat for bumblebees and other wildlife such as ground nesting birds.

In order to address the dominance of Tor grass on site and to encourage the spread and germination of wildflowers, a twice-yearly 'restoration' management hay-cut regime was introduced. Selected areas where Tor grass and other undesirable species were dominating were cut in July and again in September/October. All cuttings were removed from site.

Other areas were cut just once in September/October and again all cuttings were removed from site. Tor grass in particular, produces a dense layer of dead, dried stems, 'thatch', which can build up without regular management.

Removing cuttings is important to reduce this thatch and to give wildflowers light and space to germinate. Removing cuttings also helps to reduce nutrient levels in the soil which benefits wildflower diversity.

Survey and monitoring overview

Baseline monitoring for plants and bumblebees took place in 2015 and 2016.

During 2018, 2019 and 2020 plant monitoring has taken place on site. Surveys take place three times a year in the bumblebee flight season (early, mid and later season surveys) In total, ca.80 x1m² quadrats were randomly selected across Compartments 1, 4, 5 and 6 and all plant species were recorded within each. The % cover of each species was estimated and other measurements were taken such as vegetation height and percentage of bare ground.

In 2018, a bumblebee monitoring survey transect was set up using the BeeWalk methodology. BeeWalk is the Bumblebee Conservation Trust's national monitoring scheme. Bumblebees are counted monthly along this fixed route between March and October each year. The transect is walked by local volunteers. Other species such as butterflies and solitary bees were recorded on an ad-hoc basis.



Pyramidal orchids, Greater knapweed and Yellow rattle seed heads at Foreness Point grasslands.



Early bumblebee on Greater knapweed.

Results

Baseline survey results

Baseline surveys revealed that parts of the site, especially the eastern compartments, have areas of good floral diversity but that herb cover and abundance had declined in recent years. There are a of number of factors leading to this decline including dominance of invasive grasses particularly Tor grass, dominance of Alexanders and an increase in rank, ruderal herbs and bramble scrub.

There is a good range of positive indicator forage species suitable for a diversity of long and short-tongued bee and other pollinator species particularly in the summer months. Early spring forage is less available due to the lack of scrub forage such as Hawthorn and Blackthorn. Alexanders do provide a valuable source of spring forage however for solitary bees and other pollinating insects.

Summer forage species present include Greater knapweed, Red clover, Restharrow, Wild carrot, Bird's-foot trefoil and Kidney vetch. Many of these were present at low abundance in baseline surveys.

Seven common and widespread bumblebee species were recorded at the site during surveys in 2015 and 2016. The site was found to have especially rich solitary bee diversity, mainly due to the presence of abundant Alexanders in spring and good ground-nesting solitary bee habitat in areas of bare and sparsely-vegetated chalk soils. During 2016 surveys, solitary bee expert Steven Falk recorded 41 solitary bee species including several red-listed rare or nationally scarce species.

Botanical survey results

Botanical surveys in 2017–2020 revealed a large increase in the abundance of key bumblebee forage plants such as Kidney vetch and Bird's-foot trefoil. The annual hemiparasitic species, Yellow rattle also increased in distribution and abundance with the appearance of some extensive patches of the species, particularly in Compartments 4 and 5.

In Compartment 6 at the eastern end of the site, Wild clary was first recorded in 2019 and numbers of the plant increased in 2020. Field scabious which was not recorded from 2017 or 2018 surveys was recorded in Compartment 5 in 2019 and was found to have increased in abundance in 2020 surveys.



Botanical Surveys on site will help to monitor the impact of management in the future.



Flower-rich grassland.

Bee survey results

In 2018, a BeeWalk survey was set up on site, and is walked by dedicated local volunteers. To date, nine species of bumblebee have been recorded. Seven of these species are considered widespread and common species with Red-tailed bumblebee, Common carder bumblebee and Buff-tailed bumblebee the most frequently recorded species. One, the Brown-banded carder bee (*Bombus humilis*) is considered scarce and a further species, the Red-tailed cuckoo bee (*Bombus rupestris*) is also relatively uncommon.

In ad-hoc surveys since 2016, further nationally scarce solitary bee species have been recorded at Foreness point including the rare and declining Long-horned bee (*Eucera longicornis*) recorded in 2019 and 2020 and the Black mining bee (*Andrena pilipes*). Summer 2020 saw the first record of Brown-banded carder bee (*Bombus humilis*) foraging on bird's foot trefoil. The species was recorded in a subsequent BeeWalk survey in August 2020. This was a new site for the species in Kent and the first of the rare or scarce S41 priority bumblebee species recorded at Foreness point in 15 years¹.







Guided walk on Foreness Point.

Ongoing management

Thanet District Council open spaces maintenance team now have new cutting machinery (Rytec P1600 Flail collector, PCHE model) purchased through the Making a Buzz for the Coast project. The 'cut and-collect' machinery enables larger areas of grassland to be managed sympathetically for biodiversity, assisting with the removal of the cut uprisings. Maintaining an appropriate cutting regime with removal of cuttings will be key to the continued enhancement of the grassland and the botanical diversity of the site. The ongoing cutting regime is likely to be similar to that described above with a rotational cutting regime in order to maintain a mosaic of habitats. Some areas will be cut on a 2–3 year rotation in order to retain areas of longer vegetation through the autumn and winter with late-flowering species and sources of food and shelter for seed feeding birds as well as undisturbed nesting habitat for bumblebees. An appropriate cutting regime is also vital to control the spread of species such as Alexanders and Brambles which are important plants for wildlife in their own right but left unchecked could quickly dominate the site. A 10-year management and maintenance plan (2021–2030) has been written to inform ongoing management of the site.



Foreness Point flower-rich grassland.





