



Joining up nature across central Scotland

LIFE 13 BIO/UK/000428 EcoCo LIFE Grangepans Meadow; EcoCoLife Monitoring Impact Report. (Action D.6.)

CONTENTS

1.	Introduction	p.2
2.	Background	p.2
3.	Monitoring.....	p.5
4.	Future monitoring.....	p.6
5.	References.....	p.6
6.	Acknowledgements.....	p.6
7.	Annex 1.....	p. 7



Grangepans meadow

1 Introduction

Meadows with a diverse mix of native wildflowers and grasses provide important forage for a range of pollinating insects and homes for other invertebrates and wildlife.

This project has transformed a large area of amenity grassland into a diverse wildflower meadow which is providing a home for wildlife and an attractive area for the enjoyment of local people (Fig. 1). Previously this area acted like a green desert with very few benefits to pollinating insects and other wildlife. The total area that has been enhanced at this site is 1.5 hectares. The success of the flowering meadow has been enjoyed by many with local photographers flocking to the area to get photos of the flowers as well as it being enjoyed by local dog walkers and users of the John Muir Way which passes along the meadow and through Bo'ness.



Figure 1. Aerial map of the meadow at Grangepans in Bo'ness.

2 Background

This project has transformed a large area of amenity grassland into a colourful and diverse habitat for wildlife (Figs. 2, 3 and 4).



Figure 2. Area of amenity grassland at Grangepans before the meadow was created.



Figure 3. Year one of the meadow with a large mix of flowering annuals on show in June 2016.



Figure 4. Year two of the meadow with perennials in flower in June 2017.

The local community of Bo'ness have been involved in this project from the very start. A meeting with Bo'ness Community Council was held before any ground works took place. This allowed locals to have their say on the project and help with the design of the meadow. At this initial meeting everyone was excited about the plans and glad that something was happening in their area.

It was decided that a diverse seed mix would be used to enhance the site and that this would include a range of wildflowers with annuals, perennials and biennials as well as native grasses; a total of 38 plant species have been in the seed mix. The annuals provided a fantastic display of colour in the first few months and this has given time to the perennials and other species to develop (Fig. 3). Additionally, extra Yellow rattle (a hemi-parasite of grasses), was added to the seed mix to ensure that grasses would be controlled providing further benefits to the wildflowers.

The total area enhanced at Grangepans has been 1.5 hectares of land. Due to thin soils at the site, the meadow was created by preparing the ground with a power harrow to break up the surface. The ground was then flattened with a roller and the seed hand sown. All of this was achieved by a contractor. Initially the meadow sown in autumn 2015 was 0.8 hectares in size, a further area of 0.2 ha was sown in autumn 2016. Since then a further 0.5 hectares at the site has been enhanced through relaxed mowing. The meadow is being managed by being cut in autumn each year and the cuttings removed. This cutting regime is reducing nutrients and is benefitting wildflowers at the site.

The site is adjacent to the community of Bo'ness and is well used by dog walkers, walkers and cyclists every day. The local community has benefitted from the site being made more inviting and wildlife-rich, which in turn has encouraged more people from the local area and visitors to use the site and this is creating a healthier environment within the local community. The well used footpath of the John Muir Way passes alongside the meadow and the colour enhances users experience when passing through Bo'ness. Feedback from the community, regular walkers and photographers has been overwhelmingly positive.

An interpretation panel along the route of the John Muir Way provides details about the site for passers-by (Fig. 5).



Figure 5. The interpretation panel at the wildflower meadow at Grangepans with information on the importance of meadows and some of the bugs that can be found on the flowers.

3 Monitoring

Before work commenced on site to create the meadow, the site was surveyed and no invertebrates were recorded and few plant species were identified within the grassland as it was. Since its creation a number of species have been recorded during site visits with volunteers (See Annex 1).

In summer 2017, a Stirling University Masters student carried out a survey of the site and a comparison between it and the nearby Bridgeness Shipbreakers Yard brownfield site as part of his dissertation. The study compared the effects of wildflower grassland restoration on pollinator conservation in Bo'ness and found that management has positively influenced local ecological diversity.

As well as monitoring pollinators, additionally a number of events have been held at this site. Students from Larbert High School were able to visit the site during their Eco Week in 2017 and take part in litter picking, wildflower identification and learning about the invertebrates that are found on the site.

4 Future monitoring

Buglife plan to continue to visit the meadow at Grangepans yearly to monitor the wildflowers that are present and that the site is being appropriately managed. Falkirk Council Ranger Service as well as the biodiversity officer also regularly monitor the meadow and will continue to do so.

5 References

Eco co Life - Monitoring - OMH - D.6 - Bridgeness Biodiversity report [A2699349](#)

6 Acknowledgements

Buglife would like to thank Bo'ness Community Council and Falkirk Council for their support and help through this project.

7 Annex 1

Species recorded at Grangepans meadow

Common name	Scientific Name	Date
Common carder bee	<i>Bombus pascuorum</i>	20/09/2016
Marmalade hoverfly	<i>Episyrphus balteatus</i>	20/09/2016
Common banded hoverfly	<i>Syrphus ribesii</i>	20/09/2016
Tiger hoverfly	<i>Helophilus pendulus</i>	20/09/2016
Red tailed bee	<i>Bombus lapidarius</i>	20/09/2016
Craneflies	<i>Tipula species</i>	20/09/2016
Drone fly	<i>Eristalis tenax</i>	20/09/2016
Drone fly	<i>Eristalis arbustorum</i>	20/09/2016
7 spot ladybird	<i>Coccinella septempunctata</i>	20/09/2016
Tarnished plant bug	<i>Lygus species</i>	20/09/2016
Marmalade hoverfly	<i>Episyrphus balteatus</i>	20/09/2016
Common banded hoverfly	<i>Syrphus species</i>	20/09/2016
Craneflies	<i>Tipula species</i>	20/09/2016
7 spot ladybird	<i>Coccinella septempunctata</i>	02/08/2017
Common green grasshopper	<i>Omocestus viridulus</i>	02/08/2017
Meadow brown	<i>Maniola jurtina</i>	04/08/2017
Small copper	<i>Lycaena phlaeas</i>	04/08/2017
Large white	<i>Pieris brassicae</i>	04/08/2017
Small white	<i>Pieris rapae</i>	04/08/2017
Red tailed bee	<i>Bombus lapidarius</i>	04/08/2017
Early bee	<i>Bombus pratorum</i>	04/08/2017
White tailed bee	<i>Bombus lucorum</i>	04/08/2017
Common carder bee	<i>Bombus pascuorum</i>	04/08/2017
Hoverfly	<i>Melanostoma scalare</i>	04/08/2017
Marmalade hoverfly	<i>Episyrphus balteatus</i>	04/08/2017
Hoverfly	<i>Platycheirus species</i>	04/08/2017
Alder spittlebug	<i>Aphrophora alni</i>	04/08/2017
Tarnished plant bug	<i>Lygus species</i>	04/08/2017
Pale straw pearl moth	<i>Udea lutealis</i>	04/08/2017
Pearl veneer moth	<i>Agriphila straminella</i>	04/08/2017
Devils coach horse	<i>Ocypus olens</i>	04/08/2017
Common red soldier beetle	<i>Rhagonycha fulva</i>	04/08/2017
Yellow shell	<i>Camptogramma bilineata</i>	04/08/2017
Dusky slug	<i>Arion subfuscus</i>	04/08/2017
Yarrow plume	<i>Gillmeria pallidactyla</i>	06/06/2018
Grass rivulet moth	<i>Perizoma albulata</i>	06/06/2018
Yellow shell	<i>Camptogramma bilineata</i>	06/06/2018
Picture winged fly	<i>Urophora jaceana</i>	06/06/2018
Red tailed bee	<i>Bombus lapidarius</i>	06/06/2018
Common carder bee	<i>Bombus pascuorum</i>	06/06/2018
Common green grasshopper	<i>Omocestus viridulus</i>	06/06/2018

Orange tip butterfly	<i>Anthocharis cardamine</i>	06/06/2018
Early bee	<i>Bombus pratorum</i>	06/06/2018
Garden bee	<i>Bombus hortorum</i>	06/06/2018
Silver y moth	<i>Autographa gamma</i>	06/06/2018
Small copper	<i>Lycaena phlaeas</i>	06/06/2018
Froghopper	<i>Philaenus spumarius</i>	06/06/2018
Honey bee	<i>Apis mellifera</i>	04/07/2018
Silver y moth	<i>Autographa gamma</i>	04/07/2018
Red tailed bee	<i>Bombus lapidarius</i>	04/07/2018
Marmalade hoverfly	<i>Episyrphus balteatus</i>	04/07/2018
Meadow plant bug	<i>Leptopterna dolabrata</i>	04/07/2018
Meadow brown	<i>Maniola jurtina</i>	04/07/2018
Damsel bug	<i>Nabis species</i>	04/07/2018
Common green grasshopper	<i>Omocestus viridulus</i>	04/07/2018
Plant bug	<i>Pithanus maerkelii</i>	04/07/2018
Hoverfly	<i>Scaeva pyrastris</i>	04/07/2018