Friends of Eastfield Park

Eastfield Park Management Committee

EASTFIELD PARK MEADOWS

Including a Report on the 2016 'Set-aside' Area

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Hawkbit and knapweed in the set-aside area, August 2016

Preface

This document has been produced for *Friends of Eastfield Park* (FoEP) and the Eastfield Park Management Committee (EPMC) by Dr Vic Smith, Chair of both groups. The views expressed are those of the author and not necessarily those of *The Friends* or the Management Committee. The recommendations, however, are made for consideration by both groups for possible incorporation into the Park's Management Plan.

The Author would like to thank Matthew Johnson, Nathalie Hueber and Rachel Tate from the Wildlife Trust for Bedfordshire, Cambridgeshire and Northamptonshire for their contributions described in the report.

A general view over the set-aside area, August 2016

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Historical Introduction:

Although Eastfield Park incorporates land that had once been ornamental gardens belonging to James Manfield's Weston Favel House, most of the Park was grazed pasture at the time the local authority acquired the land. Well into the 1950s, the land that now forms the western half of the Park was separated from the developing Eastfield Estate by a barbed wire fence and was grazed by cattle.

There is evidence from maps that in the 17th Century a large portion of the western half of the Park was wooded. The presence of ridge and furrow in parts of the Park also show that some areas were once cultivated. However, it seems unlikely that any part of the Park, other than those areas which became ornamental gardens at the beginning of the 20th Century, were subject to intensive agriculture or horticulture.

In modern times, over 95% of Britain's lowland meadows have been lost, largely as a result of measures designed to increase agricultural productivity including ploughing, drainage, early mowing and the use of fertilisers and herbicides. Remaining meadows are often dominated by perennial rye grass with few wild flowers or other grasses.

Although the grassed areas of Eastfield Park have been subjected to early mowing and various attempts to improve drainage, it seems they have escaped ploughing and the widespread use of fertilizers and herbicides. Parts of the open grassland have a rich flora, more characteristic of unimproved meadow than suburban parkland.

In 2008, Rachel Tate and Nathalie Hueber from the Wildlife Trust for Bedfordshire, Cambridgeshire and Northamptonshire carried out a survey of the grassland in Eastfield Park. In April 2009, as a result of this survey, the whole Park became a Local Wildlife Site. (Previously, parts of the Park, including the Lake and ponds, had been recorded as County Wildlife Sites, a designation which no longer exists.)

Rachel and Nathalie had identified a 'species-rich area' lying south-west of the Lake and including the area occupied by the multi-use games area (MUGA) and the 'Eastfield Monster' play mound (Fig. 1). Many of the plants in this area are characteristic of herb-rich neutral grassland with some calcareous (limestone) influence; not surprisingly, others are low growing species characteristic of mown grassland. There was also a 'potentially species rich area' south of the Lake but mainly to the west of Mallard Walk. Together, these two areas are now shown on County Council maps as 'lowland meadow habitat'. Other grassed areas within the Park are not so rich in species.

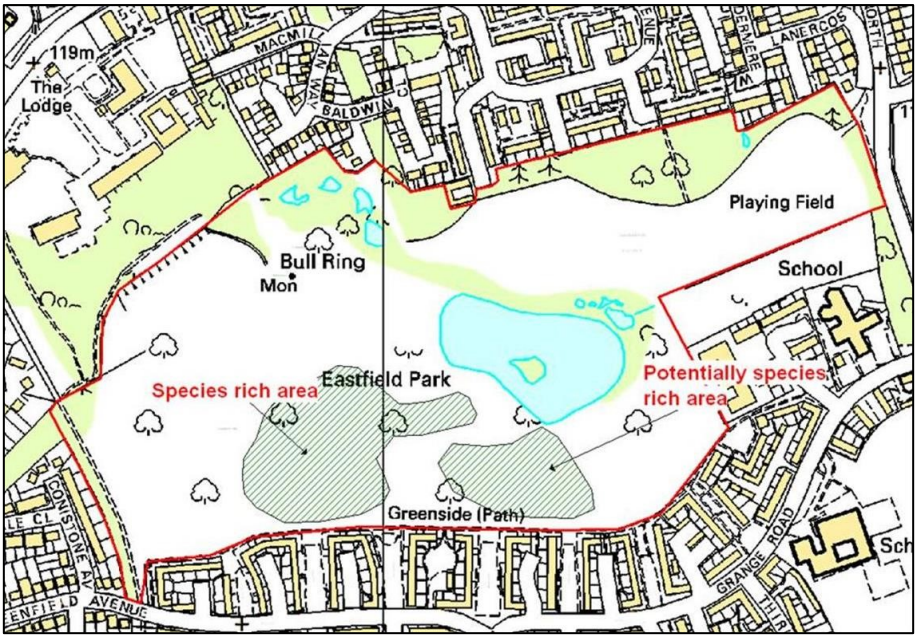

Figure 1: Species-rich areas surveyed by Rachel Tate and Nathalie Hueber (2008)

The 2016 'Set-aside' Project:

In 2015, following the successful creation of a bee-friendly border along the west-facing boundary between the Park and Eleonore House, a wildflower border was established along the north-facing border. The Management Committee agreed that the wildflower border could be extended outwards to form the nucleus of an artificial wildflower meadow (Fig. 2).

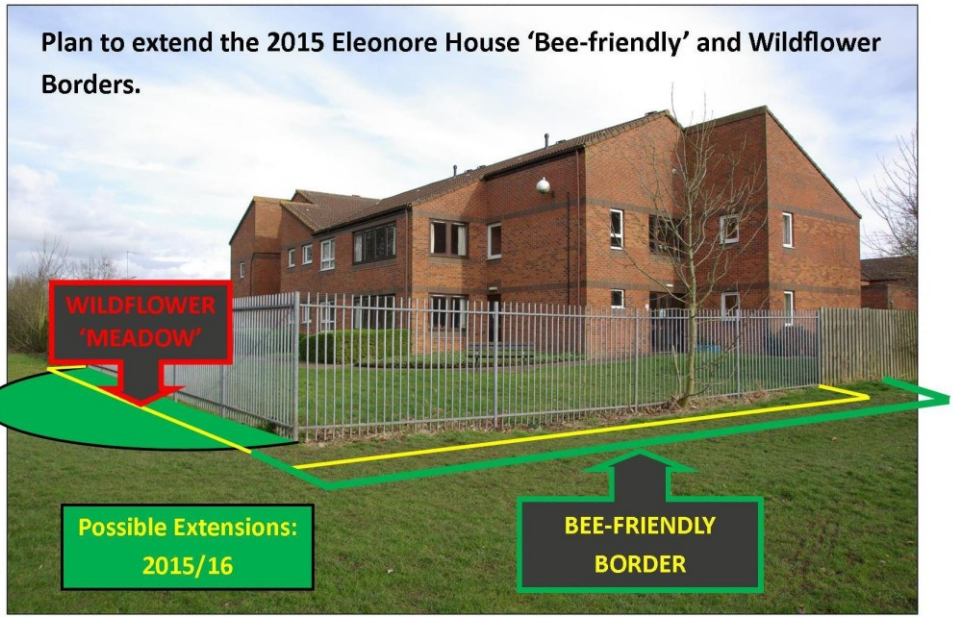

Figure 2: Possible extension of the Eleonore House wildflower border to form a wildflower 'meadow'.

These plans were discussed with Matt Johnson, Living Landscapes Manager at the Wildlife Trust for Bedfordshire, Cambridgeshire and Northamptonshire, in January 2016.

Bearing in mind that Eastfield Park is a public park and not a Nature Reserve, Matt had no objection to the creation of such a 'meadow' including the introduction of wildflowers not native to the Park. We did, however, agree that a more worthwhile project might be to set aside an area of the species-rich grassland identified by Nathalie and Rachel and leave it unmown for the first half of the year. Matt agreed that if such a regime was introduced, subject to staff availability, he would arrange for the Wildlife Trust to monitor the results.

The Management Committee agreed to this project and maintenance staff were told not to cut the set-aside area until instructed. The area selected for the project (Fig 3) was well away from the MUGA and the 'Eastfield Monster' play mound (both of which had unfortunately been constructed within the species-rich area). The intended project area overlapped with the eastward extension of the species-rich area and was within the Lowland Meadow Habitat identified on County Council maps. (The actual set-aside area implemented by maintenance staff was somewhat larger than that originally intended and extended eastward and southward as shown in Fig. 3.)

Figure 3: Intended and actual set-aside areas in relation to species-rich and potentially species-rich areas identified by Wildlife Trust staff and Lowland Meadow Habitat shown on County Council mapping.

Project Results:

The Wildlife Trust's Matt Johnson and Nathalie Hueber examined the area in August and recorded an impressive list of eight grasses and nineteen wildflowers, several of which are indicators of good quality species-rich grassland, mostly suggesting neutral to slightly alkaline soil conditions (Figs. 4). Indicators of good quality neutral grassland are shown in bold type in the list. Matt and Nathalie were both impressed with the range of species found and Botanists at the University of Northampton commented favourably on the project outcomes.

Figure 4: List of species recorded in the set-aside area by Matthew Johnson and Nathalie Hueber, August 2016

Agrimony (*Agrimonia eupatoria*)
Autumn Hawkbit (*Leontodon autumnalis*)
Bulbous Buttercup (*Ranunculus bulbosus*)
Burnet-saxifrage (*Pimpinella saxifraga*)
Cat's-ear (*Hypochaeris radicata*)
Common Bent (*Agrostis capillaris*)*
Common Bird's-foot-trefoil *(Lotus corniculatus)*
Common Knapweed (*Centaurea nigra*)
Common Mouse-ear (*Cerastium fontanum*)
Common Ragwort (*Senecio jacobaea*)
Crested Dog's-tail (*Cynosurus cristatus*)*
Dwarf Thistle (*Cirsium acaule*)
Lady's Bedstraw (*Galium verum*)
Lesser Hawkbit (*Leontodon saxatilis*)
Lesser Stitchwort (*Stellaria graminea*)
Meadow Buttercup (*Ranunculus acris*)
Perennial Rye-grass (*Lolium perenne*)*
Quaking-grass (*Briza media*)*
Red Clover (*Trifolium pratense*)
Red Fescue (*Festuca rubra*)*
Ribwort Plantain (*Plantago lanceolate*)
Selfheal (*Prunella vulgaris*)
Smaller Cat's-tail (*Phleum bertolonii*)*
Sweet Vernal-grass (*Anthoxanthum odoratum*)*
White Clover (*Trifolium repens*)
Yarrow (*Achillea millefolium*)
Yorkshire-fog (*Holcus lunatus*)*

***indicates grass species

The northern part of the set-aside area, including the unintentional eastward extension, was richest in species. The southern extension, shaded by trees, was poor in comparison. This is consistent with Nathalie and Rachel's original survey of the Park's grassland.

Several people commented that they enjoyed seeing the wild flowers in bloom. One or two dog walkers objected to the long grass saying that it made it difficult to collect dog faeces; others said that their dogs enjoyed romping through the long grass. One dog had an allergy to grass pollen; the owner asked for a list of grass species but did not object to the project. There were many complaints about long grass elsewhere in the Park resulting from infrequent mowing and several of the complainants took care to emphasise that they were not referring to the set-aside project.

In conclusion, much of Eastfield Park has not been cultivated for many years. Meadow flora is still present in large areas but usually is not given the chance to reach maturity. Park users appreciated seeing the plants in flower and experts commented favourably on the achievement. The endeavour can therefore be regarded as very successful.

Set-aside Area in 2017:

The FoEP still hope to create an artificial meadow in part of the Park (well away from the species-rich area) but it would be a pity to create something artificial and ignore the natural flora of the Park which is normally hidden from the view of most people.

It is therefore proposed that the set-aside project should be repeated, possibly becoming a regular aspect of park management. However, the set-aside area should be adjusted to exclude the southern extension of the area but should continue to include the eastern extension plus a small enlargement of the area to the west (Fig. 5). This would still involve the minimum of inconvenience to those walking through the Park but would include more of the species-rich area (and less of the species-poor area).

Furthermore, as an experiment, it is suggested that a second set-aside area should be investigated in 2017. This should be located in the northern part of the species-rich area where additional meadow species may be found (Fig. 5).

To make it easier for maintenance staff to recognise the set-aside areas they should be marked out with non-toxic water-soluble paint (such as Pitchcare aerosol line marker paint). By the time this has disappeared the grass will be long enough to identify the areas.

Figure 5: Proposed set-aside areas for 2017

The Artificial Meadow:

One of the key considerations in creating an artificial species-rich meadow is how to reduce the growth of competing grasses especially species such as perennial rye grass. This usually involves reducing soil fertility and one way of doing this is to remove the top layer of soil completely.

This approach was considered for the creating the artificial meadow in Eastfield Park. However, it is labour intensive and could result in a large muddy area while the meadow is being formed. Furthermore, it may not be necessary since it is unlikely that the area has ever been heavily fertilized.

A suggested alternative is to poison the selected area using a glyphosate-based herbicide and then to remove the dead grass from the surface (to remove organic matter that would help fertilize the area). The area could then be sowed with a meadow mix of seed containing a high proportion of yellow rattle, attractive grassland annual. This semi-parasitic plant weakens grasses and produces a better display of wild flowers.

It is proposed that this approach should be taken in Eastfield Park, beginning with the small experimental area indicated in Fig. 2 and possibly extending it into a larger area in future years.

Meadow grasses in Eastfield Park