

Floodplain Meadow Restoration Case Study

The Jackdaw, Stewkley Wildlife Reserve, river Ouzel, Buckinghamshire

Landownership and site background

This field has been managed by Stewkley Parish Council since 2004, rented as part of a grazing licence. It was originally owned by St Michael's Church, Stewkley. It is not in an agri-environment agreement.

The plan is to manage the site as a traditional hay meadow for the benefit of the villagers. It is intended the fields will be an educational resource for local schools and surveys of local bird, butterfly, moth and other insect populations have been and will be undertaken.

Restoration activity

Since 2005, extensive efforts have taken place to increase the range and quality of wild flowers in the fields .

Yellow rattle, was introduced and careful planting of plug plants and collection and spreading of seed on an annual basis has been carried out ever since.

Some seed has also been bought from a commercial supplier., some collected from same fields. This has been a very careful and thoughtful tending of plants, sowing of seeds and managing of meadow.

Current management

It is managed through an annual hay cut with the sward allowed to grow until the grass is cut at the end of July/August. The regrowth is grazed until late autumn by livestock.

There has also been tree planting along the hedgerows and bird and bat boxes erected.

Paths are mown around and through the meadows to allow public access.

Progress by 2023

The FMP visited in 2018 and again in 2021. At each visit 5 1 x 1 m² quadrats were collected. The data are presented in Tables 1 and 2.

Site information

Size: 0.6 ha

Public access: Yes

Phosphorus levels:

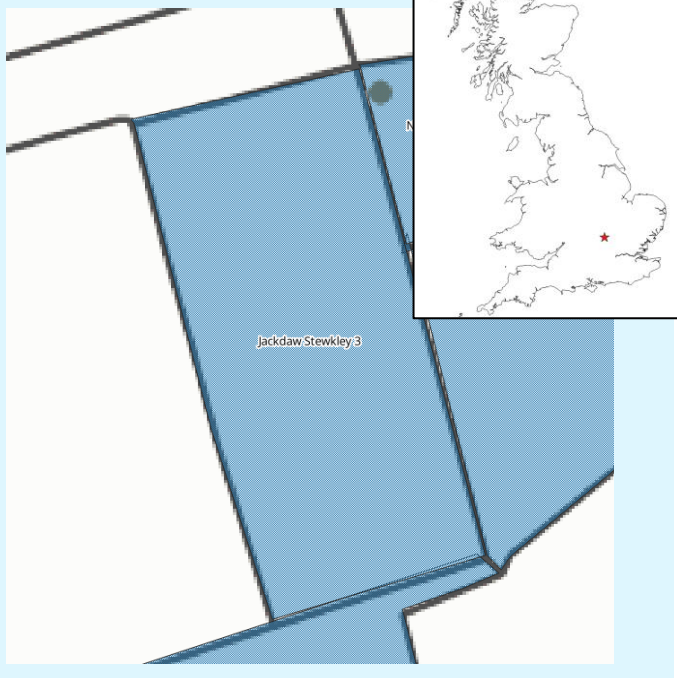
Soil type and profile:

Flood frequency: Likely ground water fed, no flooding, at top of catchment

Cost:

Economics of management:

End use of hay:



Very similar meadow processes were observed in The Jackdaw, to those seen in Old and New Church Furlong meadows. The field is the most wet and fertile soil amongst three surveyed fields. However, the conditions are still very suitable for meadow restoration and new species establishment.

The high abundance of ruderal species in this field is most likely to be linked to the high abundance of yellow rattle, as is the case in all three fields. Its presence works well in support of establishment and spread of the herbs across the meadows currently, with 10-20% bare soil in The Jackdaw, which provides sufficient space for seedlings of the less competitive species.

However if it dominates at the expense of other species, it could be managed with an earlier hay cut, before it sets seed (June).

Table 1 Summary of the botanical data collected

	2021
Ellenberg F (moisture tolerance)	5.3
Ellenberg N (fertility)	5.06
Ellenberg R (Reaction)	6.16
Species/quadrat (mean and range /1 m x 1 m)	22.6 (19–28)
NVC (top 2 MAVIS subcommunities)	MG4b

Table 2 Restoration progress*

Yellow highlighted figures show where The Jackdaw is on the scale of restoration progress by 2021.

Field 1	Progress score 2021				
	1 Poor progress	2	3	4	5 very good progress
Average scores from five botanical quadrats per field. Calculated in MAVIS					
Species richness	<8	8 to 12	13–15	16–20	>20
NVC similarity score	<50%	50–55%	55–60%	>60%	>60%
C:S ratio	1.65	1.39	1.23	1.1	1.09
S:R ratio	0.67	0.79	0.81	0.89	0.93

Management recommendations

Continue with management and restoration as currently. The site is an excellent example of restoration success

* [A summary of the data collection and analysis methods used is available here](#)

