

## Local Wildlife Sites – South East Wales Project

The following information outlines the best practice guidelines for managing the habitat type listed below in a manner that is sympathetic to wildlife. It is part of a series relating to various habitat types and management issues that have been produced by your local Wildlife Trusts.

### No.6 Marshy Grassland (with Marsh Fritillaries)

#### What is Marshy Grassland?

This type of marshy grassland, also known as Purple Moor-grass and Rush Pasture, occurs on poorly drained, mainly acidic sites in lowland areas (valley bottoms and upland fringes) with high rainfall and wet soils. The habitat is usually dominated by tussocks of Purple Moor-grass and various rush species. It is often found with other habitats, such as wet heath, wet flushes, scrub and drier grassland, making up a patchwork mosaic of diverse places that support a correspondingly rich diversity of wildlife.



Devil's Bit Scabious



Marshy Grassland



Marsh Fritillary

#### What wildlife does it support?

Good quality habitats will be rich in flowering plants, with species such as Marsh Violet, Marsh Bedstraw, Meadow Thistle, Southern Marsh Orchids and Devil's Bit Scabious amongst others. The habitat can also support a rich fauna with birds such as Snipe and many invertebrates, the most significant of which is the Marsh Fritillary butterfly who's caterpillars feed on Devil's Bit Scabious.



Sneezewort



Snipe



Marsh Violet

#### Why preserve and enhance it?

Species rich Marshy Grassland, particularly that with the potential to support Marsh Fritillary butterflies, is a much reduced habitat of which South Wales is a real strong-hold and you can justifiably feel proud to have on your land such a superb resource for wildlife. This habitat and the Marsh Fritillary are so special, vulnerable and rare within a European context that they are afforded special protection. It is therefore of great importance that they are protected and enhanced and we would very much like to assist you in achieving this goal by both highlighting the threats to this habitat and providing management recommendations.

## Threats

The following can all lead to the loss/degradation of this habitat:

- Development i.e. building of roads, housing etc.
- Agricultural improvement –particularly drainage but also ploughing, reseeding, fertiliser or herbicide treatment, slurry application, conversion to arable.
- Too little grazing – Taken over by rushes and ultimately scrub.
- Too heavy grazing – Wildflowers being grazed out and ground poached particularly if undertaken when ground is very wet.
- Abandonment and neglect –Taken over by rushes etc. and ultimately scrub.
- Tree planting.

## Marsh Fritillary

To conserve the Marsh Fritillary it is useful to know its life cycle:

- Marsh Fritillary eggs are laid on the leaves of Devil's Bit Scabious in June/July at which time the plant is still just a rosette of leaves with no stalk or flower, the butterfly generally selecting the biggest leaves.
- The eggs soon hatch and feed communally on the leaves throughout the summer within a protective tent. The silken tent becoming very noticeable by the autumn.
- The caterpillars overwinter in a small silk tent close to the ground within a dense grass tussock, hence the importance of tussocky grass (generally Purple Moor-grass).
- The caterpillars re-emerge in spring and continue to feed until pupating in April-May.
- The adults emerge and are on the wing from Mid-May to Mid-July.

The adults generally do not fly far (although a few individuals disperse further) and are prone to large fluctuations in population due to parasitic wasps, which can lead to local extinctions. This means that a network of viable populations/suitable habitat nearby in the wider landscape is very important to allow the long-term survival of this species.

## Management Recommendations

These management recommendations are similar to those provided within a separate Toolkit No.5 for generic Marshy Grassland but are particularly focused on managing the habitat for Marsh Fritillary butterflies.

### Vision of ideal habitat

- The overall aim of managing the land sympathetically for Marsh Fritillaries is to produce an uneven patchwork of short and long vegetation by the end of the grazing period, that ranges between approximately 8 and 25 cm in height.
- The grassland should be dominated by tussock forming grass and rushes with Purple Moor-grass a particular feature.
- The grassland should also be flower-rich with a variety of species to provide nectaring sources for the adult butterflies and frequent/abundant Devil's Bit Scabious to provide food for the caterpillars.

## Preservation/enhancement of Marshy Grassland

### Grazing

The best way of managing the grassland is grazing. Whilst noting that all sites are different the following provides guidelines as to the general grazing regime that is recommended:

- The site should be grazed by cattle or ponies (sheep are not suitable as they remove the large Devil's Bit Scabious plants, though very extensive or occasional sheep grazing can be acceptable but requires close monitoring).
- The following livestock types have been proven to be suitable: hardy breeds of suckler cow, Holstein Friesian dairy replacements or stores, hardier beef stores (such as Welsh Black or Belted Galloway) and native ponies (such as Exmoor or Dartmoor).
- The cattle or pony grazing should be extensive in nature and should be limited to spring and summer on wetter sites, although autumn/winter grazing or all-year grazing can also be suitable, particularly on drier sites.
- In general, a low stocking rate over a longer period is preferable. As the habitat varies between sites and over time stocking rates may also need to vary to reflect prevalent conditions but as a general rule stocking rates should not exceed 0.2-0.3 livestock units/ha/year.
- On seasonally grazed sites, roughly 1 cow every hectare (2.5 acres) for three months per year is recommended.
- Grazing animals should be removed if the drier areas become shorter than 8cm or if the ground is too wet.

### Scrub cutting

Given the extensive nature of grazing there is the potential for some scrub to develop on the site.

- Small amounts of scrub are acceptable and may provide some shelter for butterflies, however a cover of >5% is likely to be detrimental particularly if encroaching into grassland.
- It is best to cut a little each year between October – February (to avoid the bird breeding season).
- It may also be necessary to treat the stumps with a suitable herbicide.
- The total clearance of scrub should be avoided however as it adds to the overall wildlife value of the land for other species.

***Refer to separate Toolkit – No. 11 Scrub Control for more detail.***

## Other management

Whilst grazing and some scrub cutting are likely to be the only management required and recommended there are a number of other techniques which may apply in certain circumstances.

### Burning

Burning is a recognised technique for managing Marsh Fritillary habitat however it can kill caterpillars and other wildlife and if it is necessary then the following should be considered:

- Only burn on sites with a recent history of burning.
- Only burn between January/March.
- Avoid burning more than one third of a field in a year.
- Cool, quick fires are best but are difficult to control so cut firebreaks or use natural fire breaks such as wet areas or ditches.
- Any burning undertaken must be in line with 'The Heather and Grass burning Code'.

### Mowing

Mowing is unsuitable for sites where Marsh Fritillary are known to breed but can be a useful tool to restore sites to a more suitable status if they have become overgrown and very tussocky. Once in a more favourable state then the ongoing management should revert to grazing.

Should you require any further advice regarding the management of your Local Wildlife Site please do not hesitate to contact your local Wildlife Trust:

#### Gwent Wildlife Trust

Tel: 01600 740600

e-mail: [info@gwentwildlife.org](mailto:info@gwentwildlife.org)

#### Wildlife Trust of South & West Wales

Tel: 01656 724100

e-mail: [info@welshwildlife.org](mailto:info@welshwildlife.org)

#### Other toolkits available are:

No.1 Neutral Grassland (Hay Meadow)

No.2 Neutral Grassland (Pasture)

No.3 Acid Grassland

No.4 Calcareous Grassland

No.5 Marshy Grassland

No.7 Heath

No.8 Hedgerows

No.9 Saltmarsh & Coastal Grazing Marsh

No.10 Ponds & Lakes

No.11 Scrub control

No.12 Bracken control

No.13 Invasive weed control (natives – thistle, dock etc.)

No.14 Invasive weed control (aliens – Japanese Knotweed, Himalayan Balsam etc.)

#### Further useful documents include:

- ❖ Advice on managing grasslands for invertebrates: [www.buglife.org.uk/sites/default/files/Grassland\\_web.pdf](http://www.buglife.org.uk/sites/default/files/Grassland_web.pdf)
- ❖ Advice on managing grasslands that are in environmental schemes: [www.eblex.org.uk/wp/wp-content/uploads/2013/04/managementguidelinesforgasslandinenvironmentalschemes\\_210710-final-report.pdf](http://www.eblex.org.uk/wp/wp-content/uploads/2013/04/managementguidelinesforgasslandinenvironmentalschemes_210710-final-report.pdf)
- ❖ Further advice on grazing: [www.grazinganimalsproject.org.uk/](http://www.grazinganimalsproject.org.uk/)
- ❖ Marsh Fritillary information: [www.butterfly-conservation.org/files/marsh\\_fritillary-psf.pdf](http://www.butterfly-conservation.org/files/marsh_fritillary-psf.pdf)
- ❖ Heather & Grass Burning Code: [www.wales.gov.uk/topics/environmentcountryside/farmingandcountryside/plantsseedsbiotechnology/heathergrassburning/heatherandgrassburningpi/burningcode/?lang=en](http://www.wales.gov.uk/topics/environmentcountryside/farmingandcountryside/plantsseedsbiotechnology/heathergrassburning/heatherandgrassburningpi/burningcode/?lang=en)

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