



High Brown Fritillary

Argynnis adippe

DRAFT Species Action Plan

1. Introduction

The high brown fritillary underwent a drastic decline in abundance (-62%) and occurrence (-96%) within the UK between 1976 and 2014, making it one of our most threatened butterfly species. It is now known from only around 50 sites in England and Wales and conservation efforts are trying to save the species from extinction. For example, following a collapse in numbers of one of the butterfly's core meta-populations at Heddon Valley on Exmoor, targeted and intensive conservation management between 2002 and 2014 instigated a strong recovery. The species was listed as a UK BAP priority species and subsequently included in Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

2. Current Status

2.1 Ecology and habitat requirements

The high brown fritillary forms discrete colonies that rarely contain more than a few hundred adults. However, the adults are highly mobile and are often seen feeding on flowers 1-2km away from main breeding areas. The two main habitats used are bracken dominated habitats or grass/bracken mosaics, and limestone rock outcrops usually where scrub or woodland has been cleared or coppiced. Formerly the butterfly occurred in woodland clearings (such as in the Wyre Forest) probably where bracken was also present. Common dog-violet (*Viola riviniana*) is used in all habitats with hairy violet (*V. hirta*) also being used in limestone areas (Asher *et al.*, 2001).

2.2 Population and distribution

The butterfly occurs widely through Europe and across temperate Asia to Japan. Although locally abundant in Europe, it has declined in at least eight countries. In England and Wales it is now reduced to around 50 sites. All Worcestershire records are now historical: between 1995 and 2003 the butterfly was recorded in only the Wyre Forest and the Malvern Hills and following further population declines it is now believed to be extinct in the county. This Species Action Plan has been retained within the Worcestershire BAP in the hopes of a future reintroduction effort to former county sites.

2.3 Legislation

The high brown fritillary is listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Section 41 of the NERC Act 2006.

2.4 Summary of important sites

The Malvern Hills form one of the largest areas of semi-natural vegetation in the West Midlands supporting a mosaic of habitat types, including acid grassland, scrub, woodland and some small areas of heathland. The lower slopes are dominated by bracken and western gorse and the flora under the bracken contains many early flowering species more typical of woodland, such as violets. Other notable

Lepidoptera found on the hills include grayling (*Hipparchia Semele*) and drab looper (*Minoa murinata*) as well as species that are uncommon in the West Midlands such as silver-washed fritillary (*Argynnis paphia*), white letter hairstreak (*Satyrus w-album*) and dingy skipper (*Erynnis tages*). A number of nationally scarce moth species occur such as square-spot dart (*Euxoa obelisca*), silver cloud (*Egira conspicillaris*) and broom-tip (*Chesias rufata*).

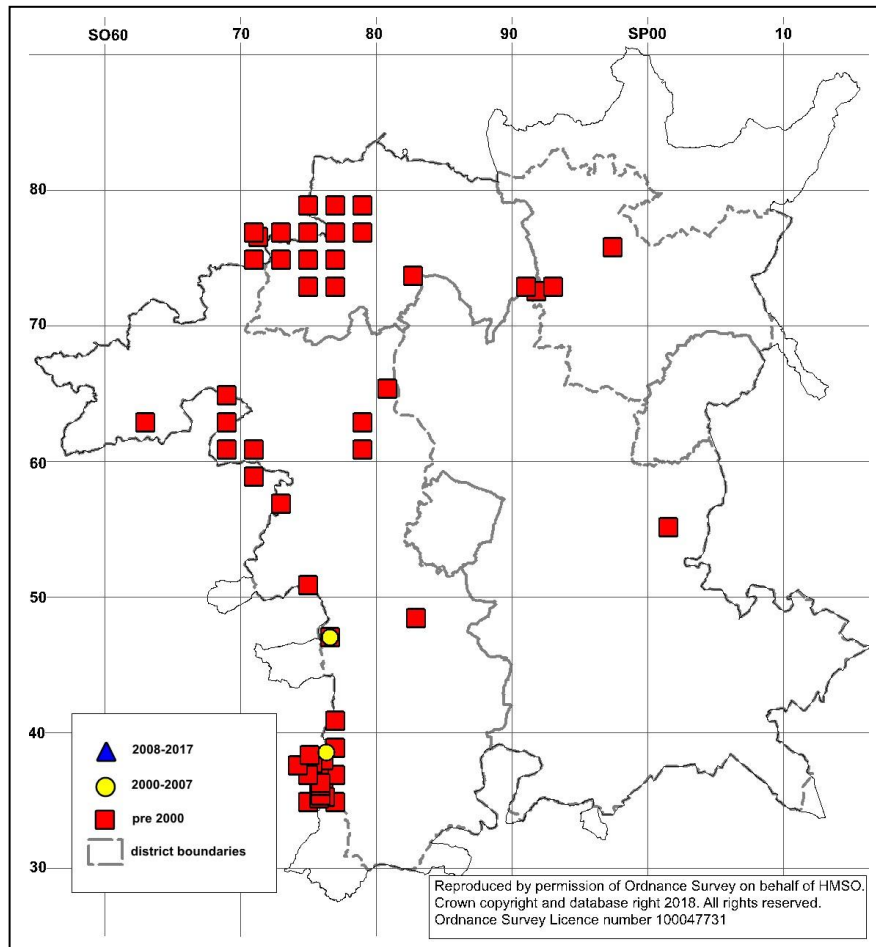


Figure 1. Records of high brown fritillary in Worcestershire. Data supplied and map prepared by Worcestershire Biological Records Centre.

3. Current Factors Affecting the Species

- Lack of grazing/changes in grazing levels in priority areas of habitat impacting on the abundance of the main food plant or scrubbing up of previously open areas.
- Lack of nectar sources (possibly due to thistle cutting).
- Low population size limits the butterfly's ability to take advantage of any new areas of habitat that are created.

4. Current Action

4.1 Local protection

The Malvern Hills are designated as an Area of Outstanding Natural Beauty under the National Parks and Access to the Countryside Act 1949 and the Countryside and Rights of Way Act 2000. The high hills and slopes of the Malverns are designated as a Site of Special Scientific Interest (SSSI).

4.2 Site management and programmes of action

The former high brown fritillary sites on the Malvern Hills are managed by the Malvern Hills Trust. The current Land Management Plan covers the period 2016-2021.

4.3 Survey, research and monitoring

None currently.

5. Associated Plans

Scrub, Woodland, Grassland.

6. Conservation Aim

TBC

7. Conservation Objectives

TBC

References and further information

Asher, J., Warren, M., Fox, R., Harding, P., Jeffcoate, G and Jeffcoate, S (2001). *The Millennium Atlas of Butterflies in Britain and Ireland*. Oxford University Press.

Clarke, S. A (2005). *High Brown Fritillary Breeding Habitat Survey 2004: Malvern Hills*. Butterfly Conservation Report No. SO5-05.

Clarke, S. A and Joy, J (2006). *Fritillary Survey 2005: Malvern Hills*. Butterfly Conservation Report No. SO6-11.

Fox, R., Brereton, T. M., Asher, J., August, T. A., Botham, M. S., Bourn, N. A. D., Cruickshanks, K. L., Bulman, C. R., Ellis, S., Harrower, C. A., Middlebrook, I., Noble, D. G., Powney, G. D., Randle, Z., Warren, M. S and Roy, D. B (2015). *The State of the UK's Butterflies 2015*. Butterfly Conservation and the Centre for Ecology & Hydrology, Wareham, Dorset.

Fox, R., Asher, J., Brereton, T., Roy, D and Warren, M (2006). *The State of Butterflies in Britain and Ireland*. Pisces Publications.

Joy, J and Williams, M (2008). *Butterfly Conservation Regional Action Plan for the West Midlands*. Butterfly Conservation Report S08-19.

Joy, J (2007). *High Brown Fritillary sightings in the West Midlands Region Summary 2006*. Butterfly Conservation.