



Marsh Flapwort (*Jamesoniella undulifolia*)



Photo by Fred Rumsey

This leafy liverwort (sometimes also known as Marsh Earwort) is found in wet mineral-rich bog (Sphagnum mires). It was formerly widespread in the UK, with a number of sites in Cornwall, Gloucestershire, Cumbria and Argyll, but has recently been recorded from only single sites in Cornwall, Argyll, and near Craven Arms in Shropshire. All of these sites are small and vulnerable to destruction however it is easily confused with the superficially similar species *Odontoschisma sphagni* and may be under-recorded.

The single small population in Shropshire was discovered in 2004 amongst Sphagnum at the head of a base-rich flush on Hopesay Hill near Craven Arms.

1 Objectives and Targets

1.1 Objectives

- A. Protect and maintain the existing population of Marsh Flapwort in Shropshire ensuring no reduction of population size.
- B. Increase the number of populations of Marsh Flapwort in Shropshire by natural propagation.
- C. Establish and maintain a comprehensive understanding of the distribution, status and ecological requirements of the Marsh Flapwort in Shropshire through research, survey and monitoring.
- D. Promote communication, education and awareness of the status and needs of Marsh Flapwort.

1.2 Targets

- Maintain the 1 existing population at Hopesay Hill.
- Survey Hopesay Hill in detail for this species by 2007 and every 5 years onwards.
- Carry out five targeted surveys of potentially suitable habitats in order to seek additional populations by 2010.

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2 Current Status

2.1 Importance

Marsh Flapwort appears to be rare worldwide, occurring in eastern Asia, North America and Greenland. It is listed as Endangered in the GB Red List, and is protected under Schedule 8 of the WCA 1981.

2.2 Trends

It appears that this species has never been very common in Britain or elsewhere although it is likely that this species is under-recorded.

Nationally the species has declined from 11 populations in 7 Vice-Counties to 5 populations in 3 counties.

Being a recent discovery in Shropshire no data on local trends can be provided.

2.3 Population and Distribution

Three of the current UK populations are found on Bodmin Moor. The large population at Argyll is considered stable but vulnerable. The population at Hopesay Hill is thought to be a single small population with the species occurring frequently to abundantly within a patch of only 3x4m.

3 Current Factors Affecting the Species

Locally it is currently not known what factors affect this species. Bracken control measures to taken place in the vicinity and these should be carefully monitored as sparse bracken does occur amongst the population.

Nationally the species has suffered losses to:

- Overgrazing and fertilizer run-off
- Reservoir construction
- Conifer planting

4 Current Action

4.1 Policy and Protection

- Statutory protection is given under the Schedule 8 of the Wildlife & Countryside Act (1981)
- It is also listed under the following categories:
 - Long list of Globally Threatened / Declining Species (1995)
 - Draft Red Data Book of British Bryophytes
 - Pink list of British Plants
 - UKBAP Priority Species List (1998)
 - Red Data Book of European Bryophytes (1995)
 - Species of Conservation Concern List

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- Hopesay Hill is within the Shropshire Hills ESA and is currently under an ESA agreement.
- Hopesay Hill is within Shropshire Hills AONB.
- The site is registered common land and is also known as Hopesay Common.

4.2 Management, Research and Survey

- Hopesay Common is currently managed sympathetically by the National Trust.
- Following discovery on 29/09/2004 an impromptu visit by members of the British Bryological Society on 10/10/2004 (as part of the BBS AGM at Preston Montford) re-found the population and took accurate GPS readings of the locality.
- On 3/11/2005 a small group (including National Trust staff) re-found the population and estimated its size to be a patch of about 3 by 4 metres. This group checked other potential sites on Hopesay Hill without success.
- A small sample was taken on 10/10/2004 by Fred Rumsey for ex-situ cultivation at Kew Gardens. The sample was still alive on 06/10/2005 when Kew was contacted although stable axenic cultures had not been achieved.

5 Key Habitats

- Base-rich flush
- Blanket Bog

6 Complementary Plans

UK	Marsh Earwort SAP
Shropshire	Peat Bogs HAP
Shropshire	Lowland Dry Acid Grassland HAP
Shropshire	Purple moor grass and rush pastures HAP

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7 Action Plan

Habitat / Species	Action code	Action text	Location of action	Start date	End date	Lead	Assisting
Marsh Flapwort	SHR MFL CA 01	Ensure that any advances in understanding regarding appropriate management for Marsh Flapwort is communicated to the National Trust for implementation.	Hopesay Hill	2006	-	BB	SC, SBS
Marsh Flapwort	SHR MFL HS 01	Ensure areas of bracken adjacent to the population are not controlled with herbicide	Hopesay Hill	2006	-	NT	
Marsh Flapwort	SHR MFL HS 02	Maintain appropriate grazing levels over Hopesay Common	Hopesay Hill	2006	-	NT	
Marsh Flapwort	SHR MFL SU 02	Monitor changes in vegetation structure every two years using photographs	Hopesay Hill	2006	-	NT	BB
Marsh Flapwort	SHR MFL SU 03	Resurvey the population once every five years to monitor changes in population size.	Hopesay Hill	2007	-	NT	SC, BB, SBS
Marsh Flapwort	SHR MFL SU 04	Survey 1 potentially suitable site per year in order to seek additional populations (e.g. South end of the Long Mynd)	Hopesay Hill	2006	2010	SC	BB, SBS

Key to organisations

BB Border Bryologists
 NT National Trust
 SBS Shropshire Botanical Society
 SC Shropshire Council

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Plan last revised: July, 2006

Plan updated by Fran Lancaster 12 December 2007

Pdf correct 25.03.2009