

11.1.3 MOSSES AND LIVERWORTS

Application (all bryophyte guidelines)

The most comprehensive and up to date list of bryophytes considered to be of conservation concern is provided by Blockeel in *Endangered Wildlife of Derbyshire* (Elkington et al 1996). The selection criteria for these species is that the species should have no more than 6 known extant stations based on records made since 1970. However, some species with more than 6 localities are included where they are of known international or national importance or where the distribution of the species in the County is well known. This list may be updated in the future depending on the level and coverage of recording activity.

For all guidelines potential sites should be selected based on updated records.

Justification

The bryophyte species lists drawn-up in 1996 for the *Endangered Wildlife in Derbyshire* publication is considered to be of sufficient detail to allow the implementation of these guidelines. The species included on the list are considered to be the most threatened or rarest in the County and their protection in Derbyshire is essential for sustaining biological diversity in the County and throughout the British Isles

Mosses and Liverworts Selection Guidelines

Sites that meet one or more of the following guidelines will be eligible for designation as a Wildlife Site.

Br1 Any site which supports a population of bryophyte species listed under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) or a species listed on the British Red Data Books of Britain and Ireland: Mosses and Liverworts (Stewart et al, in prep) or any subsequent updates.

Application

All sites for bryophytes in the above categories should be included, at present only one Schedule 8 species has been recorded in Derbyshire and this occurs inside the National Park. Information on the presence of Red Data Book species has not yet been compiled.

Justification

The species in the above categories are either threatened or rare in Western Europe or Britain and for which there is either an international or national responsibility for their Conservation. Nationally rare species are generally those which are recorded from 15 or fewer 10km squares in Britain.

Br2 Any site supporting a population of a bryophyte species that is,

- a) **nationally scarce**
 - b) **threatened in Europe where such populations contribute significantly to the distribution pattern or the total population size of that species in Derbyshire.**
 - c) **recorded from 6 or fewer localities in Derbyshire as listed in ‘Endangered Wildlife in Derbyshire’ (Elkington et al 1996) and subsequent amendments and updates .**
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Application

All sites for bryophytes in the above categories are eligible for selection. All ‘nationally scarce’ bryophyte species are listed by Hodgetts (1992). Species which are threatened in Europe have also been listed by Hodgetts, based on Schumacker (1990). A provisional list of species recorded in Derbyshire since 1950 has not yet been compiled. The current species list in ‘Endangered Wildlife in Derbyshire’ (Elkington et al 1996) lists bryophyte species occurring in 6 or fewer ‘stations’ with the number of sites known in 1996. There are over 80 species that currently qualify under this guideline.

Justification

Britain is particularly rich in bryophytes because of its geographical position in the path of the North Atlantic Drift. However, species that occur in 16 – 100 10km squares (inclusive) in Britain are considered to be Nationally scarce. There is a national responsibility for their conservation. Species threatened in Europe may be relatively widespread and abundant in Britain, but where a population contributes significantly to the distribution pattern or the total population size of that species in Derbyshire there is an international responsibility to conserve it. It is also important to conserve species that are rare and/or declining in Derbyshire even if the species is more abundant elsewhere in Britain.

The protection, maintenance and enhancement of the populations of these species in Derbyshire is vital for sustaining biological diversity throughout the British Isles. Sites where the species concerned has been recently deliberately introduced, excluding species recovery programmes should not normally be included.

For clarification of a species inclusion in this guideline reference should be made to the Derbyshire Red Data Book (Elkington et al, 1996) and also the County Bryophyte recorder for updated information.

Br3 Any site that supports a significant proportion of the Derbyshire population, or contributes significantly to the range in Derbyshire, of a bryophyte species that is recorded from more than 3 localities within the County, but which could be at risk because of very small populations, recent rapid decline, or habitat loss or change.

Application

All sites for bryophytes in the above category which are not covered elsewhere may be considered where they significantly extend the range of the species in Derbyshire, or support a significant proportion of the Derbyshire population of that species. There is currently insufficient information to provide a complete listing of these species.

Justification

Species included here whilst not immediately in danger of extinction in the County may, nevertheless, be at risk and could fall into the endangered category without adequate preventative measures.

Br4 Any site that supports a significant assemblage of bryophyte species that contributes significantly to the overall bryophyte flora of Derbyshire.

Application

There are currently no examples of sites that meet this selection guideline. However, further consultation and future surveys may identify suitable sites. Selection should be guided by local and national experts on Britain/Derbyshire's bryophyte flora.

Justification

Assemblages of bryophytes may be representative of particular climatic gradients, habitat types or geology within Derbyshire and may either be highly representative or of restricted occurrence.



Sphagnum sp.

11.1.4 STONEWORTS AND OTHER ALGAE

Application (all algae guidelines)

The following guidelines apply only to stoneworts (charophytes), flowerless aquatic plants of uncertain taxonomic affinities probably distantly related to green algae. Only sites from which relevant species records have been made since 1987 should be considered.

Justification

Although generally little known and under-recorded stoneworts are conspicuous aquatic plants, characteristic of a range of relatively unpolluted lowland waters, especially large ponds, pools and canals. The current level of knowledge on this group of organisms is very poor. It is currently estimated that around 5 species occur in Derbyshire. Further work on the status of species in Derbyshire is in preparation. Insufficient data is presently available on the distribution of other algae (most of which are microscopic) to include guidelines based upon them.

Stoneworts and other algae Selection Guidelines

Sites that meet one or more of the following guidelines will be eligible for designation as a Wildlife Site.

St1 Any site which supports a population of stonewort species that is,

- a) listed under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) or**
 - b) a species listed in Red Data Books of Britain and Ireland: Stoneworts (Stewart and Church, 1993) or any subsequent updates or**
 - c) a species considered to be ‘nationally scarce’ (Hodgetts, 1992).**
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Application

This guideline should be applied to any site supporting one of these species. Species present in Derbyshire that fall into these categories have not yet been identified.

Justification

These species are the rarest and or most threatened in the British Isles. Consequently, the protection, maintenance and enhancement of the populations of these species in Derbyshire is vital for sustaining biological diversity throughout the British Isles.

St2 Any site that supports a species for which Derbyshire is a stronghold within the region or for which there are three or fewer localities known in the County.

Application

All sites for stoneworts in the above category which are not covered elsewhere should be considered.

Justification

Some of these species may be common elsewhere in Britain, but are rare in Derbyshire. We therefore have a responsibility to conserve the most important populations of these species.

St3 Any site that supports a significant proportion of the Derbyshire population, or contributes significantly to the range in Derbyshire, of a stonewort species that is recorded from more than 3 localities within the County, but which could be at risk because of very small populations, recent rapid decline, or habitat loss or change.

Application

All sites for stoneworts in the above category which are not covered elsewhere may be considered where they significantly extend the range of the species in Derbyshire, or support a significant proportion of the Derbyshire population of that species. There is currently insufficient information to provide a complete listing of these species.

Justification

Species included here whilst not immediately in danger of extinction in the County may, nevertheless, be at risk and could fall into the endangered category without adequate preventative measures.