

WET WOODS LIFE PROJECT
HYDROLOGICAL SURVEY CONTRACT BAT/PA18/99/00/37

MONADH MÓR

Final Report October 1999



Monadh Mór wooded mire

Redgate/NDR (ES), 1999

Submitted to

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WET WOODS HYDROLOGICAL SURVEY

MONADH MÓR

1.0 SUMMARY

As part of the European Commission (EC) funded Wet Woods LIFE Project, on behalf of the Caledonian Partnership, a hydrological survey was commissioned by Scottish Natural Heritage (SNH) to assess the condition of the bog woodland habitat of Monadh Mór. The site the Monadh Mór candidate Special Area of Conservation (cSAC) and Site of Special Scientific Interest (SSSI). A range of management options were identified to preserve or improve site condition.

An initial survey was completed using both desk and field exercises. Desk work covered relevant literature on hydrological studies, interpretation of aerial photographs and examination of photomontages, previous NVC surveys, historical maps and estate records, current site management reports and forest design plans, analysis of maps looking at current land use, geomorphology, topography, soils, geology and water catchment analysis, limited meteorological data and current drainage management plans.

Field exercises consisted of gathering data on the physical attributes of each site, such as peat depths, watercourses, location and condition of drains, vegetation, forest physiognomy and condition, management operations, topography, mire status and surface water movement. Verification of the information found from the desk studies was ascertained, and any new data added.

Principal findings for Monadh Mór indicate that a possible cyclical pattern is emerging with changes in loch-side vegetation. Fluctuations in vegetation cover and areas of open water in the smaller lochans are signs of this.

The widening of the A835 Tore-Maryburgh road appears to have enhanced a definite lowering of the water table outside the western “perforated ridge”.

However, field research in 1999 indicates that the rest of the site is becoming wetter since an NVC survey was undertaken in 1994. A rising water table is indicated with a corresponding change in the plant community along the hydrosere gradient.

Several distinct hydrological units have been identified on the Monadh Mór site – three Topo-hydrological Units (THUs) – Brae of Easter Kinkell, Newlands of Ferintosh and Millbuie; and three Bio-hydrological Units (BHUs) – Monadh Mór, Wester Monadh Mór and Millbuie.

(These units are illustrated in the map appendices, p.36, in map 7 ‘Proposed Management Boundaries’ and map 8 ‘Summary of Hydrological Management Features’.)

NE of the site (identified as Millbuie BHU in this survey) is an area of a wooded bog still well developed and surrounded by Scots pine plantation of varying ages. The plantation is a mosaic of different aged plots ranging from approximately 80 years to 20 years since planting. Within this vicinity, there are many areas which show good potential for restoration.

Recommended essential management to preserve the bog woodland habitat consists of felling non-native conifers, thinning of Scots pine, and blocking of forest drains.

Millbuie BHU has retained sufficient biological interest to, ideally, merit future conservation management.

Further management objectives would be the blocking of all drains that are influencing the hydrology of the site, and the clearfelling of all non-native trees in peatland areas.

Due to the rarity of this kind of raised bog system in the UK, the protection of this mire is of prime conservation interest. The hydrological units as defined within this report can be used to give a flexible approach to the hydrological management of the site, and contribute towards improving and safeguarding the condition of the wooded bog community.

2.0 ACKNOWLEDGEMENTS

This report was co-authored with Neil Redgate and David Holmes, with the principal fieldwork undertaken by:

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