



## Wylfa Newydd Project

### 6.4.36 ES Volume D - WNDA Development App D9-3 - Bryophyte Technical Summary Report

PINS Reference Number: EN010007

---

Application Reference Number: 6.4.36

---

June 2018

Revision 1.0

Regulation Number: 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

[This page is intentionally blank]



## **Wylfa Newydd Project**

### **Consultancy Report: A Baseline Assessment of the Bryophytes of Key Habitats within the Wylfa Study Area**

**November 2014**


**Mark Jackson**

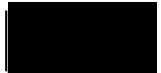
**Document Number: 60PO8007/TER/REP/004  
Horizon Ref: WN03.01.01-S5-PAC-REP-00010  
Document Date: December 2015  
Version: 3**


# Document control sheet

**BPP 04 F8**  
version 16 Oct 2013

<b>Project:</b>	Wylfa Newydd Project		
<b>Client:</b>	Horizon Nuclear Power Ltd.	<b>Project Number:</b>	60PO8007
<b>Document Title:</b>	A baseline assessment of the bryophytes of key areas within the Wylfa study area		
<b>Ref. No:</b>	60PO8007/TER/REP/004		

Originated by		Checked by	Reviewed by
<b>ORIGINAL</b>	NAME <b>Mark Jackson</b>	NAME <b>Jonathan Jackson</b>	NAME <b>Adrian Hutchings</b>
<b>Approved by</b>	NAME <b>Rob Bromley</b>	As Project Manager I confirm that the above document(s) have been subjected to Jacobs' Check and Review procedure and that I <b>approve them for issue</b>	INITIALS 
DATE	<b>12/12/14</b>	Document status: <b>Final</b>	

REVISION		NAME	NAME	NAME
<b>2</b>	<b>Mark Jackson</b>	<b>Jonathan Jackson</b>	<b>Nick Clark</b>	
<b>Approved by</b>	NAME <b>Rob Bromley</b>	As Project Manager I confirm that the above document(s) have been subjected to Jacobs' Check and Review procedure and that I <b>approve them for issue</b>	INITIALS 	
DATE	<b>16/10/15</b>	Document status: <b>Final</b>		

REVISION		NAME	NAME	NAME
<b>3</b>	<b>Suzanne Jenkins</b>	<b>Jonathan Jackson</b>		
<b>Approved by</b>	NAME <b>Rob Bromley</b>	As Project Manager I confirm that the above document(s) have been subjected to Jacobs' Check and Review procedure and that I <b>approve them for issue</b>	INITIALS 	
DATE	<b>16/12/15</b>	Document status: <b>Final</b>		

## Jacobs U.K. Limited

This document has been prepared by a division, subsidiary or affiliate of Jacobs U.K. Limited ("Jacobs") in its professional capacity as consultants in accordance with the terms and conditions of Jacobs' contract with the commissioning party (the "Client"). Regard should be had to those terms and conditions when considering and/or placing any reliance on this document. No part of this document may be copied or reproduced by any means without prior written permission from Jacobs. If you have received this document in error, please destroy all copies in your possession or control and notify Jacobs.

Any advice, opinions, or recommendations within this document (a) should be read and relied upon only in the context of the document as a whole; (b) do not, in any way, purport to include any manner of legal advice or opinion; (c) are based upon the information made available to Jacobs at the date of this document and on current UK standards, codes, technology and construction practices as at the date of this document. It should be noted and it is expressly stated that no independent verification of any of the documents or information supplied to Jacobs has been made. No liability is accepted by Jacobs for any use of this document, other than for the purposes for which it was originally prepared and provided. Following final delivery of this document to the Client, Jacobs will have no further obligations or duty to advise the Client on any matters, including development affecting the information or advice provided in this document.

This document has been prepared for the exclusive use of the Client and unless otherwise agreed in writing by Jacobs, no other party may use, make use of or rely on the contents of this document. Should the Client wish to release this document to a third party, Jacobs may, at its discretion, agree to such release provided that (a) Jacobs' written agreement is obtained prior to such release; and (b) by release of the document to the third party, that third party does not acquire any rights, contractual or otherwise, whatsoever against Jacobs and Jacobs, accordingly, assume no duties, liabilities or obligations to that third party; and (c) Jacobs accepts no responsibility for any loss or damage incurred by the Client or for any conflict of Jacobs' interests arising out of the Client's release of this document to the third party.

## Executive Summary

Horizon Nuclear Power Wylfa Ltd. (Horizon) is currently planning to develop a new nuclear power station on Anglesey (the Wylfa Newydd Generating Station) as identified in the National Policy Statement for Nuclear Power Generation (EN-6). The Wylfa Newydd Project (the Project) will require a number of applications to be made under different legislation to different regulators. Jacobs UK Ltd (Jacobs) was commissioned to collect baseline data to inform the various applications, assessments and permits that will be submitted for approval to construct and operate the Wylfa Newydd Generating Station.

This report details the methods and findings of a bryophyte survey that was undertaken as part of this work. The survey work concentrated on the habitats that were thought to be more significant for bryophytes based on the experience of the surveyors and information provided by a Phase 1 habitat survey. These habitats included:

- rocky outcrops;
- stone walls;
- mire systems;
- trees;
- heathland;
- arable fields;
- watercourses;
- wet seepage zones;
- the upper shore rocks and coastal grassland interface;
- in-stream rocks in watercourses;
- bare earth on banksides of watercourses;
- bark of willow carr; and
- bark of other broadleaved trees.

In total, 126 species were found during the survey, with an additional eight species recorded during other ecological surveys in 2013/14. No nationally notable species were found, but 11 species that are considered to be rare on Anglesey were identified.

The number of bryophyte species found during the survey was considered to be typical for an area of land the size of the study area. This was largely due to the number of micro-habitat types present. The species composition was also considered to be typical for the habitat types present.

The surveys showed that the coastal habitats are ecologically more important for bryophytes due to the diversity of species and assemblages associated with this zone. This habitat type had a low percentage coverage compared to the size of the study area as a whole. The dominant habitat type is improved agricultural land. The best habitats for bryophytes in the study area were therefore among the least abundant.

## Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	Overview	1
1.2	Wylfa Newydd Project	1
1.3	Site Description	1
1.4	Study Aims and Objectives	4
1.5	Previous Work	4
<b>2</b>	<b>Methodology</b>	<b>5</b>
2.1	Desktop Study	5
2.2	Survey Methodology	5
2.3	Glossary of Terms	7
2.4	Notable Species and Species of Principal Importance	7
2.5	Limitations	7
<b>3</b>	<b>Results</b>	<b>9</b>
3.1	Desktop Study	9
3.2	Field Survey	9
3.3	Summary of Results	19
<b>4</b>	<b>Discussion</b>	<b>21</b>
<b>5</b>	<b>Conclusions</b>	<b>23</b>
<b>6</b>	<b>References</b>	<b>24</b>
	<b>Appendix A Incidental Species List</b>	<b>25</b>
	<b>Appendix B Species List Recorded by Survey Site</b>	<b>27</b>
	<b>Appendix C Species List Recorded by Taxon</b>	<b>44</b>

# 1 Introduction

## 1.1 Overview

Horizon Nuclear Power Wylfa Ltd. (Horizon) is currently planning to develop a new nuclear power station on Anglesey as identified in the National Policy Statement for Nuclear Power Generation (EN-6). The Wylfa Newydd Project (the Project) comprises the proposed new nuclear power station (the Wylfa Newydd Generating Station), including the reactors, associated plant and ancillary structures and features, together with all of the development needed to support its delivery, such as highway improvements, worker accommodation and specialist training facilities. The Project will require a number of applications to be made under different legislation to different regulators. As a nationally significant infrastructure project under the Planning Act 2008, the construction and operation must be authorised by a development consent order.

Jacobs UK Ltd (Jacobs) was commissioned by Horizon to undertake a full ecological survey programme within the vicinity of the Power Station Site. This work has included the gathering of baseline data to inform the various applications, assessments and permits that will be submitted for approval to construct and operate the Power Station and Associated Development.

This report details the findings of a baseline survey of bryophytes undertaken on weeks beginning September 12<sup>th</sup> and 19<sup>th</sup> 2014.

The study area is shown in figure 1 and the areas surveyed in figure 2.

## 1.2 Wylfa Newydd Project

The Project includes the Wylfa Newydd Generating Station and Associated Development<sup>1</sup>. The Wylfa Newydd Generating Station includes two UK Advanced Boiling Water Reactors to be supplied by Hitachi-GE Nuclear Energy Ltd, associated plant and ancillary structures and features. In addition to the reactors, development on the Power Station Site (the indicative area of land and sea within which the majority of the permanent Wylfa Newydd Generating Station buildings, plant and structures would be situated) will include steam turbines, control and service buildings, operational plant, radioactive waste storage buildings, ancillary structures, offices and coastal developments. The coastal developments will include a Cooling Water System (CWS) and breakwater, and a Marine Off-Loading Facility (MOLF).

## 1.3 Site Description

The Wylfa Newydd Development Area (the indicative areas of land and sea, including the Power Station Site, the Wylfa NPS Site<sup>2</sup> and the surrounding areas that would be used for the construction and operation of the Wylfa Newydd Generating Station) covers an area of approximately 380ha. It is bounded to the

<sup>1</sup> Development needed to support delivery of the Wylfa Newydd Generating Station is referred to as Associated Development. This includes highway improvements along the A5025, park and ride facilities for construction workers, Logistics Centre, Temporary Workers' Accommodation, specialist training facilities, Horizon's Visitor Centre and media briefing facilities.

<sup>2</sup> The site identified on Anglesey by the National Policy Statement for Energy EN-6/NPS EN-6 as potentially suitable for the deployment of a new nuclear power station.

north by the coast and the Existing Power Station. To the east, it is separated from Cemaes by a narrow corridor of agricultural land. The A5025 and residential properties define part of the south-east boundary, with a small parcel of land spanning the road to the north-east of Tregele. To the south and west, the Wylfa Newydd Development Area abuts agricultural land, and to the west it adjoins the coastal hinterland.

The Wylfa Newydd Development Area includes the headland south of Wylfa Head candidate Wildlife Site. There is one designated site for nature conservation within the Wylfa Newydd Development Area; Tre'r Gof Site of Special Scientific Interest (SSSI). It is also within 1km of the Cae Gwyn SSSI, Cemlyn Bay Special Area of Conservation (SAC) and SSSI, and the Ynys Feurig, the Skerries and Cemlyn Bay Special Protection Area (SPA).

Tre'r Gof SSSI is a small basin mire adjacent to the Existing Power Station, west of Cemaes. The area receives mineral-enriched waters from the surrounding boulder clay leading to the development of notable flora. It is the botanical interest that provides the reason for the designation of the site as a SSSI.

Cae Gwyn SSSI is located immediately to the south of the Wylfa Newydd Development Area to the west of Llanfechell. The SSSI comprises two wetland areas separated by an outcrop of rock with heathland vegetation. The southern wetland is confined by a rock basin and is dominated by bogmoss (*Sphagnum* spp.) and a wide variety of common wetland herbs. The northern wetland has a different flora containing denser areas of willow (*Salix* spp.) and common reed (*Phragmites communis*).



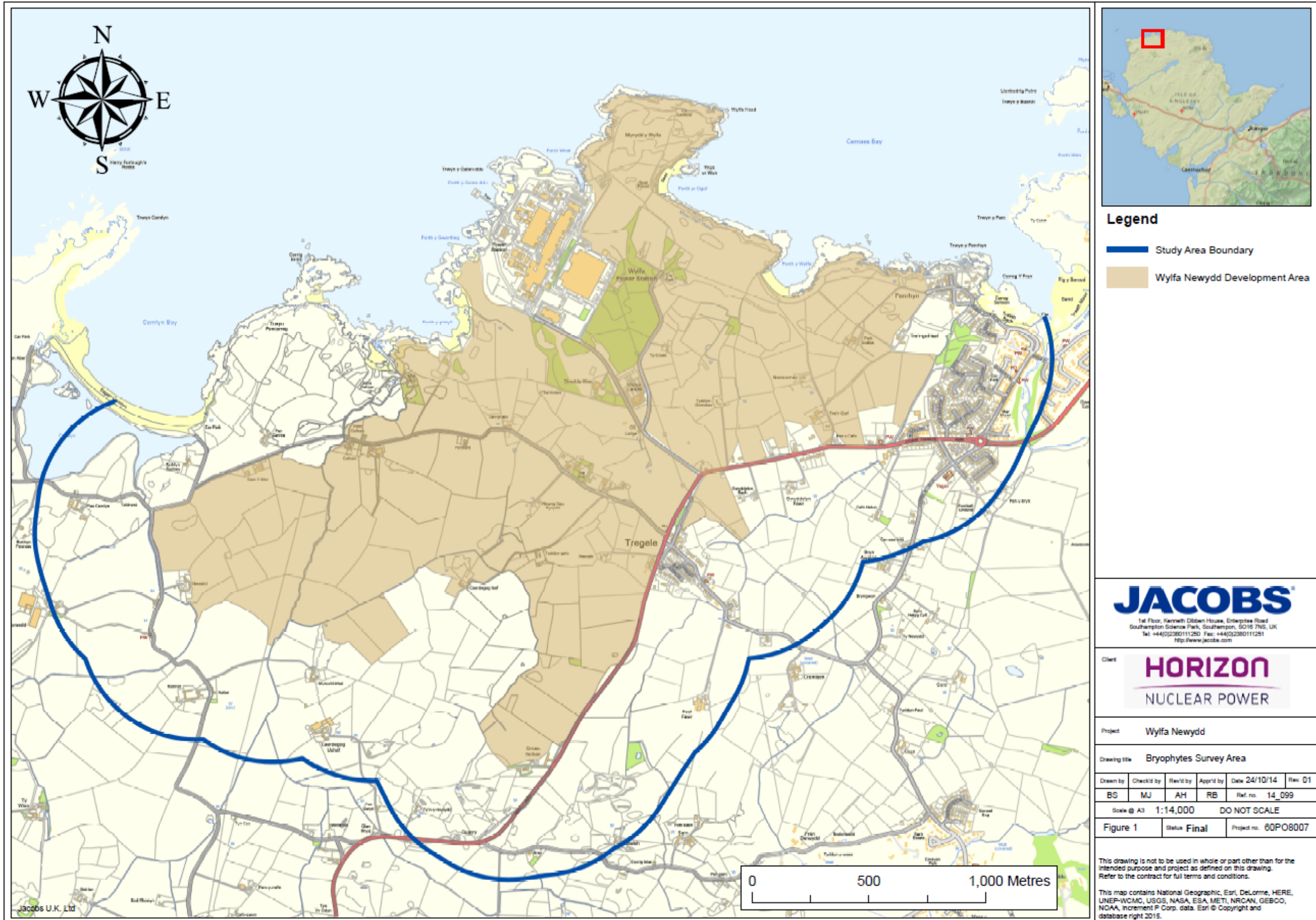


Figure 1: The study area

## **1.4 Study Aims and Objectives**

The objective of the bryophyte survey was to characterise the environment and collect baseline data to inform the range of applications, assessments and permits required to construct and operate the Wylfa Newydd Generating Station.

As part of the Environmental Impact Assessment (EIA) the need for detailed knowledge of temporal and spatial data on bryophytes was identified. This report presents the findings of work undertaken in 2014. This included an assessment of the relative diversity of the bryophyte flora found during the survey within the study area. The survey primarily focussed on the potentially richer bryophyte habitats present in the study area.

## **1.5 Previous Work**

In 2012 Arup produced a Lower Plant Appraisal Report that included a search within and around the Power Station Site for moss, liverwort and lichen species (Arup, 2012). This included searching the following habitats that were considered more likely to support notable species:

- fen – six common species recorded;
- coastal heathland/grassland – six common species recorded;
- rocky outcrops – no moss species recorded;
- stone walls – no moss species recorded; and
- broadleaved trees – no moss species recorded.

This survey is considered to provide only a very basic level of understanding of the bryophyte assemblages present in the study area and hence the requirement for additional more detailed survey work was identified.

## 2 Methodology

### 2.1 Desktop Study

A request for all records of bryophytes within 2km of the centre of the study area was made to the North Wales Environmental Information Service (Cofnod). These data were reviewed and discussed in the context of the habitats present within the study area and the notable species they are likely to support.

A review of all incidental records from the National Vegetation Classification (NVC), freshwater macrophyte and Phase 1 survey reports undertaken by Jacobs was also completed.

### 2.2 Survey Methodology

The study area included both the Wylfa Newydd Development Area and a 500m buffer around the boundary. The purpose of the 500m buffer being included in the study area was so that the results from within the development area could be compared to other similar sites nearby. This would provide a greater degree of confidence in the results and more context for the conclusions. It is also considered that some areas within the 500m buffer could be used for mitigation in the future and so information on the existing conditions could prove useful.

The 2013 Phase 1 habitat survey maps and habitat descriptions were used to identify those areas with a higher likelihood of supporting bryophytes. These habitats included:

- rocky outcrops;
- stone walls;
- mire systems;
- trees;
- heathland;
- arable fields;
- watercourses;
- wet seepage zones;
- the upper shore rocks and coastal grassland interface;
- in-stream rocks in watercourses;
- bare earth on banksides of watercourses;
- bark of willow carr; and
- bark of other broadleaved trees.

The study areas selected and the specific survey sites with these habitats present are shown in figure 2.

The method used for the bryophyte survey was to search, find and identify any species present. Some species were readily identified in the field, but many others were collected for later identification and verification. These were later examined using a 20x magnification hand lens or by stereo light microscope up to 400x magnification.

Identification references used include:

Atherton I., Bosanquet S. & Lawley M., (2010), *Mosses and Liverworts of Britain and Ireland a field guide*, British Bryological Society.

Smith A.J.E., (1996), *The Liverworts of Britain and Ireland*, Cambridge University Press.

Smith A.J.E., (1996), *The Moss Flora of Britain and Ireland*, Cambridge University Press.

## 2.3 Glossary of Terms

Given below is a list of terms used in this report.

**Acrocarpous** – This term relates to mosses that have clustered upright stems with reproductive parts borne at the tip of the stems from a central rosette of leaves.

**Hornwort** – Hornworts are a group of bryophytes. The common name refers to the reproductive horn-like structure which emerges from the flattened green thallus.

**Pleurocarpous** – This term relates to mosses that have mainly horizontal trailing stems and reproductive parts borne laterally from the stem.

**Sallow carr** – This term applies to wet woodland dominated by willow *Salix* spp.

**Thallus (thaloid)** – The main vegetative part of a liverwort – leafy liverworts do not have a thallus but have leaves similar to a moss.

**Sphagnum** – A type of moss that is associated with wet habitats and is responsible for the development of peat.

**Saxicolous** – Growing on and associated with rocks.

## 2.4 Notable Species and Species of Principal Importance

Notable species were those that are considered to be rare on Anglesey, i.e. have only been recorded in one or two 10km squares and those considered to be 'local' on Anglesey, i.e. only recorded in approximately three to eight 10km squares (Hill *et al.*, 1994).

There are 53 bryophyte species of principal importance listed under Section 42 of the Natural Environment and Rural Communities Act 2006, which are material considerations in the planning process.

## 2.5 Limitations

During the survey the weather was extremely dry. This resulted in the majority of the bryophytes being desiccated and thereby difficult to identify. In addition most species encountered were also not showing fertile structures, which, in some genera, are important diagnostic features used in identification. As a result approximately 12 specimens were not identified to species level. This is not thought to have significantly altered the conclusions of the survey.

The survey sampling method scoped out areas that were considered to have a lower likelihood of supporting notable bryophyte species. As a result there is the potential for notable bryophyte species, or areas of importance for bryophytes, to have been missed by the survey. However, this is considered to be unlikely given the predominance of habitats of very restricted botanical diversity i.e. agriculturally improved grassland. Any discoveries of either individual species or small areas of bryophyte interest in the future are therefore unlikely but not impossible. This is not considered to significantly alter the conclusions of this report.

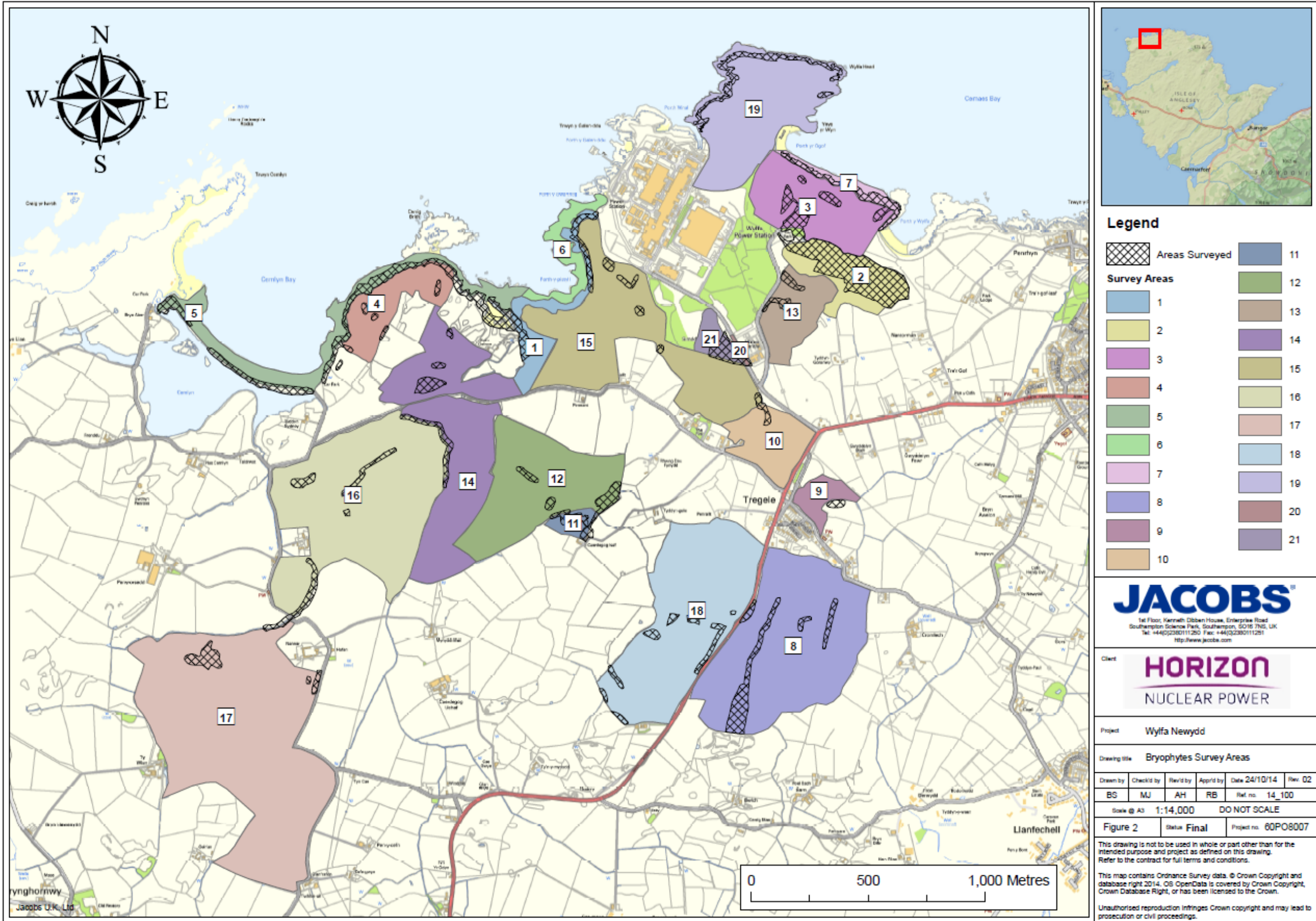


Figure 2: Bryophyte survey areas and specific habitats surveyed

## 3 Results

### 3.1 Desktop Study

The data provided by Cofnod included 42 records of 32 bryophyte species found at five sites in the local vicinity of the Existing Power Station. However, only three of these sites are in close proximity or inside the study area (see table 1). Only one species was recorded as notable (*Calliergon cordifolium*) as it has been found in less than ten 1km squares on Anglesey. This species was also recorded during the current field survey.

**Table 1: Cofnod data search results**

Species	Site	Grid Ref	Date
<i>Brachythecium rutabulum</i>	Tre'r Gof	SH358936	01/08/1983
<i>Calliergon cordifolium</i> *	Tre'r Gof	SH358936	01/08/1983
<i>Calliergonella cuspidata</i>	Tre'r Gof	SH358936	01/08/1983
<i>Fissidens adianthoides</i>	Tre'r Gof	SH358936	01/08/1983
<i>Mnium hornum</i>	Tre'r Gof	SH358936	01/08/1983
<i>Sphagnum subnitens</i>	Tre'r Gof	SH358936	01/08/1983
<i>Brachythecium albicans</i>	Cemlyn Bay	SH331932	06/06/1989 - 2007
<i>Homalothecium lutescens</i>	Cemlyn Bay	SH331932	06/06/1989 - 2007
<i>Hypnum cupressiforme</i>	Cemlyn Bay	SH331932	06/06/1989 - 2007
<i>Eurhynchium praelongum</i>	Cemlyn Bay	SH331932	06/06/1989
<i>Homalothecium sericeum</i>	Cemlyn	SH3393	2007
<i>Weissia perssonii</i>	Wylfa Head	SH3594	1986

\* Notable

Appendix A gives the list of incidental species recorded in other survey reports by Jacobs.

A review of the species incidentally recorded during the NVC and macrophyte surveys found that 26 species had previously been recorded in the study area. Four of these species were notable, all of which were recorded during this field survey. Eight species were recorded during the NVC and macrophyte surveys that were not recorded during the current field surveys. These were all non-notable common and widespread species of low significance and are considered not to fundamentally alter the conclusions of this survey.

### 3.2 Field Survey

#### 3.2.1 Overview

A total of 126 species of bryophyte were recorded during the survey. This included 22 species of leafy liverwort, eight species of thallose liverwort, two species of hornwort, three species of sphagnum moss, 61 species of acrocarpous moss and 30 species of pleurocarpous moss. The survey re-found 18 of the 26 species that had previously been recorded (see above), and failed to find eight previously recorded species. The total number of species found within the study area is therefore currently 134.

None of the bryophyte species found during the survey are listed in accordance with the requirements of Section 42 of the Natural Environment and Rural Communities (NERC) Act 2006 or are listed in the revised red data list of bryophytes in Britain (Hodgetts, 2011). There were also no bryophyte species listed under any rarity categories established by the International Union for Conservation of Nature (IUCN).

However, eleven species are considered to be rare on Anglesey (Hill *et al.*, 1994). These include two leafy liverworts, fragrant crestwort (*Lophocolea fragrans*) and dwarf flapwort (*Jungermannia pumila*); one species of thallose liverwort, blueish veilwort (*Metzgeria fruticulosa*); a species of hornwort, dotted hornwort (*Anthoceros punctatus*); six species of acrocarpous mosses, blunt-fruited Pottia (*Tortula modica*), Hartman's grimmia (*Grimmia hartmanii*), curve-leaved ditrichum (*Ditrichum heteromallum*), marsh forklet-moss (*Dichodontium palustre*), tufted thread moss (*Bryum caespiticium*) and spreading earth moss (*Aphanorrhegma patens*); and one species of pleurocarpous moss, megapolitan feather-moss (*Rhynchostegium megapolitanum*).

A further 34 species were considered to be notable, as they are only found as localised populations and therefore sparsely distributed across Anglesey (Hill *et al.*, 1994).

Several sites in the study area accommodated at least one or more of these notable species. The numbers of notable species found at each site are given in table 2, which rank the sites according to the number of notable species present (then total number of species), and appendix B lists the species recorded at each site.

**Table 2: Total Species and Notable species recorded for each site surveyed.**

Site Ref	Site Name	Total number of species	Notable species
1	Cestyll gardens	35	8
5	Cemlyn Bay and the Coast adjacent to Pencarreg Heath	50	6
16	Farmland south-west and south-east of Swn-y-mor	29	5
14	South of Trwyn Pencarreg	26	5
19	Wylfa Head	26	5
2	Tre'r Gof SSSI	29	4
7	Coastal strip west of Porth Wylfa	24	4
6	Coast at Porth-y-pistyll	21	4
3	Wylfa Manor and fields north of Tre'r Gof SSSI	25	3
15	South-west of Power Station	32	2
11	Field north of Caerdegog Isaf	19	2
12	Farmland south of Cafnan	6	2
13	South of Tre'r Gof SSSI	20	1
8	Farmland at Foel Fawr south of Tregede	15	1
10	Fields south of Wylfa Information Centre	9	1
4	Trwyn Pencarreg Heath	8	0
9	Fields at Tregede	8	0
17	Farmland south, south-west and west of Nanner	25	0
18	Farmland north of Groes Fechan	22	0
20	Wylfa Information Centre – bank by road	5	0
21	Wylfa Social Club	21	0

### 3.2.2 Cestyll Gardens – Site 1

Cestyll Gardens is a landscaped memorial garden situated either side of the Porth-y-Felin stream that had eroded a small gorge through the bedrock. A mixture of mostly non-native trees and garden herbaceous plants had created a humid and sheltered environment which is quite different from the mainly open exposed habitats found across the rest of the study area. A total of 35 species of bryophyte



were recorded, the majority of which were associated with the saxicolous environment, found on the rock walls of the gorge, in-stream and bankside rocks. Notable species included the acrocarpous moss, dotted thyme-moss (*Rhizomnium punctatum*); the leafy liverworts, western pouncewort (*Lejeunea lamacerina*), heath earwort (*Scapania irrigua*) and water earwort (*Scapania undulata*); and the pleurocarpous mosses long-beaked water feather-moss (*Platyhypnidium riparioides*) and rambling tail-moss (*Anomodon viticulosus*). Two species were found that are notable for their rarity on Anglesey and include Hartman's grimmia (*Grimmia hartmanii*) and fragrant crestwort (*Lophocolea fragrans*).

### **3.2.3 Tre'r Gof SSSI – Site 2**

The Tre'r Gof SSSI is a basin mire consisting of common reed (*Phragmites australis*) and saw sedge (*Cladium mariscus*) stands with large areas of willow scrub and marshy grassland. A total of 29 species were recorded, the majority of which were associated with the bark of the willows (*Salix* species). Notable species include the pleurocarpous moss, heart-leaved spear-moss (*Calliergon cordifolium*) and the leafy liverworts, minute pouncewort (*Cololejeunea minutissima*), fairy beads (*Microlejeunea ulicina*) and even scalewort (*Radula complanata*).

### **3.2.4 Wylfa Manor and Fields north of Tre'r Gof – Site 3**

This area included a small woodland and walled garden at Wylfa Manor and one large semi-improved field with scattered exposed rock. A total of 25 species were recorded, the majority of which were associated with the saxicolous environment, found on the rocks themselves and amongst the grassland in close proximity to the rocky outcrops. Notable species included the leafy liverworts, minute pouncewort (*Cololejeunea minutissima*) found on sycamore (*Acer pseudoplatanus*) next to the walled garden and dwarf flapwort (*Jungermannia pumila*) on an area of shaded rocks.

### **3.2.5 Trwyn Pencarreg Heath – Site 4**

The Trwyn Pencarreg Heath was found to be an area of heathland dominated by heather (*Calluna vulgaris*) and western gorse (*Ulex gallii*), interspersed with rocky outcrops and scattered damp depressions, where vegetation associated with wetter conditions exists. A total of eight common and widespread species were recorded, the majority of which were associated with the saxicolous environment, found on the rocks themselves and amongst the vegetation in close proximity to the rocky outcrops. There were no notable species found in this area during the survey or in any incidental records of species seen during other surveys.

### **3.2.6 West and east Cemlyn Bay and coast adjacent to Trwyn Pencarreg – Site 5**

This study area included a search of the acid grassland found at either end of the Esgair Gemlyn, a shingle ridge separating Cemlyn lagoon from Cemlyn Bay and the coastline adjacent to Trwyn Pencarreg heath. A total of 50 species were recorded, the majority of which were associated with acid grassland on Esgair Gemlyn and the coastal seepages adjacent to Trwyn Pencarreg. One notable species was recorded for Esgair Gemlyn, a pleurocarpous moss megapolitan feather moss (*Rhynchostegium megapolitanum*) found in the acid grassland, which is noted for its rareness on Anglesey. Other notable species were found in the coastal seepage areas adjacent to Trwyn Pencarreg and include the three leafy liverworts, ladder flapwort (*Nardia scalaris*), notched pouchwort (*Calypogeia arguta*) and crenulated

flapwort (*Jungermannia gracillima*); and the two acrocarpous mosses, blunt cord-moss (*Entosthodon obtusus*) and marsh forklet moss (*Dichodontium palustre*). Marsh forklet moss is noted for its rarity on Anglesey.



**Plate 1: Bryophyte community found at Esgair Gemlyn**



**Plate 2: Coastal seepage habitat at Trwyn Pencarreg**

### **3.2.7 Coast at Porth-y-pistyll – Site 6**

The coast at Porth-y-pistyll comprised a stretch of coastal cliff with rocky outcrops interspersed with patches of bramble scrub and acid grassland, within the splash zone. A total of 21 species were recorded, the majority of which were associated with the coastal cliff and rocky outcrops. Notable species include the acrocarpous moss, alpine thread-moss (*Bryum alpinum*); the pleurocarpous moss, fox-tail feather-moss (*Thamnobryum alopecurum*); and the leafy liverwort, sea scalewort (*Frullania teneriffae*). One species was found that is notable for its rarity on Anglesey, the acrocarpous moss, curve-leaved ditrichum (*Ditrichum heteromallum*).



Plate 3: Coastal cliff habitat at Porth-y-pistyll



Plate 4: *Bryum alpinum* on coastal rocks at Porth-y-pistyll

### 3.2.8 Coastal strip west of Porth Wylfa – Site 7

The coastal strip west of Porth Wylfa comprised a stretch of coastal cliff with rocky outcrops interspersed with patches of bramble scrub and acid grassland, within the splash zone. The surveyed area of the site also included a small damp valley that joined the shore at the far west of the coastal strip. A total of 24 species were recorded, the species were generally associated with rocky outcrops, coastal rocks and the damp valley. Notable species found at this site include the pleurocarp moss, hair-pointed feather moss (*Cirriphyllum piliferum*); and the three leafy liverworts, Mueller's pouchwort (*Calypogeia muelleriana*), Killarney featherwort (*Plagiochila killarniensis*) and dwarf flapwort (*Jungermannia pumila*). Dwarf flapwort being noted for its rareness on Anglesey.

### 3.2.9 Farmland at Foel Fawr south of Tregle – Site 8

The farmland at Foel Fawr is an area of intensively managed fields comprising improved grassland bisected by a stream. Some fields have walls as boundaries and include small rocky outcrops. A total of 15 species were recorded, the majority of which were associated with the rocky outcrops. One notable species, green pocket moss (*Fissidens viridulus*) was found on a bare earth bank of an old drainage ditch.

### 3.2.10 Fields at Tregle – Site 9

The fields at Tregle comprised several small fields that have been managed as improved grassland for sheep pasture. A small watercourse on the edge of the fields drains an area of marshy grassland to the east. A total of eight common and widespread species were recorded, the majority of which were associated with the bank of the watercourse. There were no notable species found in this area during the survey or in any incidental records of species seen during other surveys.

### 3.2.11 Field south of Wylfa Information Centre – Site 10

The area south of the Wylfa Information Centre comprised two large fields, managed for a hay crop. A pond situated between the two fields is fed by a drainage ditch from the north. A total of nine species were recorded, generally associated with the bare ground habitats in close proximity to the pond and watercourse. The bare ground was considered likely to have been caused by cattle poaching when the fields were previously managed as pasture. Only one notable species, yellow thread-moss (*Pohlia lutescens*) was found on the soil near the pond.



Plate 5: Smooth Hornwort (*Phaeoceros laevis*) amongst old cattle-poached habitat

### 3.2.12 Field North of Caerdegog Isaf – Site 11

At Caerdegog Isaf the study area comprised one small field managed as improved grassland for sheep pasture with a small stand of trees and shrubs. A small watercourse bisected part of the field and drained into a ditch along its northern edge. A total of 19 species were recorded, the majority of which were associated with the bark of trees especially elder (*Sambucus nigra*). Two notable species were

found in this area, the acrocarpous moss Stirton's yolk-moss (*Zygodon stirtonii*) and the pleurocarpous moss, wall feather-moss (*Rhynchostegium murale*). Both species were found on elder bark, although it was unusual to find these species on this substrate. These mosses are normally saxicolous, i.e. found on rocks but are also known to be found on bark where mineral deposition has occurred.

### 3.2.13 Farmland south of Cafnan – Site 12

The farmland south of Cafnan comprised an area of agriculturally improved grassland, consisting of four large fields and a dried pond. A large area of marshy grassland exists to the south in one of the fields. A total of six species of bryophyte were recorded, the majority of which were associated with the soil and bare ground. Two notable species were found in this area: the acrocarpous mosses, spreading earth moss (*Aphanorrhagma patens*) and blunt-fruited Pottia (*Tortula modica*), both noted for their rareness on Anglesey. The mosses were found growing on soil in the dried pond and the marshy grassland respectively.

### 3.2.14 South of Tre'r Gof SSSI – Site 13

South of Tre'r Gof SSSI there was an area of farmland comprising agricultural poor, semi-improved grassland, which was grazed by sheep and cattle. Some of the fields had walls as boundaries and present in one of the fields was a large rocky outcrop. A total of 20 species were recorded, the majority of which were associated with the rocky outcrop and the concrete hard standing of the demolished Ty-Croes buildings. One notable species found at Ty-Croes, blunt-fruited Pottia (*Tortula modica*) is noted for its rarity on Anglesey.



Plate 6: Starry hoar-moss (*Hedwigia stellata*) found on rocky outcrops at Ty-Croes

### 3.2.15 South of Trwyn Pencarreg – Site 14

South of Trwyn Pencarreg was an area of farmland that comprised agricultural improved and semi-improved grassland, grazed by sheep and cattle. The majority of the fields had walls as boundaries. In two of the fields there were large rocky outcrops, a small area of mire and sallow carr fed by the overflow of a stream. A total of 26 species were recorded, the majority of which were associated with the rocky outcrops and the bark of sallows. Two notable species were recorded, the pleurocarp megapolitan feather-moss (*Rhynchostegium megapolitanum*) was found

on bare soil under the sallow carr, and where there was sufficient light the thallose liverwort blueish veilwort (*Metzgeria fruticulosa*) was recorded on trees. Both these species are noted for their rarity on Anglesey. Other notable species were found in the carr on sallow bark and include mamillate plait-moss (*Hypnum andoi*) and fairy beads (*Microlejeunea ulicina*), and in the wet mire heart-leaved spearwort (*Calliergon cordifolium*) was found.

### 3.2.16 South-west of Power Station – Site 15

South-west of the Existing Power Station was an area of poor semi-improved grassland with scattered scrub to the north and several rocky outcrops directly south of the power station. A ditch drained the area from a wetter rush-dominated field to the east. A total of 32 species were recorded in the vegetation in close proximity to the coastal rocks and on the coastal rocks themselves; other species were found on the ground amongst the lichen heath. Notable species found at this site include the leafy liverwort sea scalewort (*Frullania teneriffae*) and the acrocarpous moss hooded bristle-moss (*Orthotrichum cupulatum*).

### 3.2.17 Farmland south-west and south-east of Swn-y-mor – Site 16

Site 16 was an area of farmland that comprised many agriculturally improved grassland fields grazed by cattle and sheep. The majority of the fields had walls for boundaries with few hedges. Two large rocky outcrops were present in a field to the west and a stream ran along the full length of the eastern edge of the land parcel. A total of 29 species were recorded, the majority of which were associated with the rocky outcrops and the banks of the stream. The banks of the stream were heavily poached and this was providing the bare bank habitat for notable species. One species recorded here was noted for its rarity on Anglesey, dotted hornwort (*Anthoceros punctatus*). Other notable species were also found on the banks of the stream including the leafy liverwort, St Winifrid's moss (*Chiloscyphus polyanthos*); the pleurocarp moss, dwarf feather-moss (*Rhynchostegiella pumila*); and the acrocarp mosses Tozer's thread-moss (*Epipterygium tozeri*) and Yellow thread-moss (*Pohlia lutescens*).



**Plate 7: Liverwort and hornwort community on a cattle poached stream bank**



**Plate 8: Dotted Hornwort (*Anthoceros punctatus*) on stream bank**

### **3.2.18 Farmland south, south-west and west of Nanner – Site 17**

Site 17 was an area of farmland that comprised many agriculturally improved fields of grassland grazed by sheep. A large rocky outcrop was present in a field to the far west and a stream ran along the full length of the northern boundary of the land parcel. A total of 25 species were recorded, the majority of which were associated with the saxicolous environment of the rocky outcrops and rocks in the stream. There were no notable species found in this area during the survey or in any incidental records of species seen during other surveys.

### **3.2.19 Farmland north of Groes Fechan – Site 18**

Site 18 was an area of farmland that comprised several agriculturally improved fields of grassland grazed by sheep and several arable fields. A rocky outcrop was present in two fields to the south-west and a heavily shaded ditch flowed along the north-westerly boundary of one of the fields. Two individual marshy grassland areas were found in a field to the south-west and one in the north-east of the land parcel. A small conifer plantation was located between the arable and grazing fields. A total of 22 species were recorded, the majority of which were associated with a damp sheep-poached area adjacent to the pine plantation. There were no notable species found in this area during the survey or in any incidental records of species seen during other surveys.



**Plate 9: Typical bryophyte community on rock outcrops north of Cae Gwyn**

### **3.2.20 Wylfa Head – Site 19**

Site 19 was an area of coastal acid grassland with large areas of dense continuous scrub. To the north was a stretch of coastal cliff with rocky outcrops interspersed with coastal grassland. Two seepage zones were present on the western edge of the land parcel that drained a small patch of marshy ground and emerged at the coastal cliff. A total of 26 species were recorded, generally associated with coastal rocks and the seepage zones. Notable species found at this site include the pleurocarpous moss, matted feather-moss (*Brachythecium populeum*); the leafy liverworts, dwarf flapwort (*Jungermannia pumila*), St Winifrid's moss (*Chiloscyphus polyanthus*) and sea scalewort (*Frullania teneriffae*); and the acrocarpous moss, thin cord-moss (*Entosthodon attenuates*). Dwarf flapwort is noted for its rareness on Anglesey.

### **3.2.21 Wylfa Information Centre – Bank by road – Site 20**

Site 20 was a regularly strimmed grass and herbaceous bank that ran along the side of the road adjacent to the visitor centre. A total of five species were recorded during the survey. All of the species found on the bank are common and widespread on Anglesey.

### **3.2.22 Wylfa Social Club – Site 21**

Site 21 was an area of amenity grassland which had many planted conifer and deciduous trees, bordered by a large wall that surrounded the social club building. A total of 19 species were recorded. The majority of the species were found on the ground in amongst the trees and growing on the wall. There were no notable species found in this area during the survey or in any incidental records of species seen during other surveys.

### **3.2.23 Incidental species records**

During the NVC survey undertaken by Jacobs in 2013 an additional 34 species of bryophyte were recorded, of which seven were species that had not been recorded during the bryophyte survey in 2014. These species included thick-nerved apple moss (*Philonotis calcarea*), lesser notchwort (*Lophozia bicrenata*) common haircap



(*Polytrichum commune*), intermediate hook-moss (*Scorpidium cossonii*), blunt leaved bog-moss (*Sphagnum palustre*), spiky bog moss (*Sphagnum squarrosum*) and common tamarisk-moss (*Thuidium tamariscinum*) (see appendix C).

Four of these species are notable for Anglesey, and include dotted thyme-moss (*Rhizomnium punctatum*) found at Tre'r Gof SSSI (Site 2), dwarf flapwort, (*Jungermannia pumila*) found on the coast adjacent to Trwyn Pencarreg (Site 5), heart-leaved spearwort (*Calliergon cordifolium*) found at Cae Gwyn SSSI and sea scalewort (*Frullania teneriffae*) found on rock outcrops in farmland south of Tre'r Gof (Site 13). These four species were not found at these sites during the bryophyte survey of 2014.

During the macrophyte survey in 2014 two species of liverwort were recorded, of which the great scented liverwort (*Conocephalum conicum*) was not recorded during the bryophyte survey of 2014.

### **3.3 Summary of Results**

The most important sites in the study area for bryophyte communities were considered to be those where rare and less widespread species on Anglesey were found. These were:

- habitat features found at and in close proximity to the coast;
- mire systems; and
- heavily poached watercourses.

Important bryophyte areas are shown in figure 3 and include the mire systems at Tre'r Gof SSSI and west of Pont Cafnan (Area A and Area B respectively), the watercourse at Cestyll gardens (Area C), the seepage zones, upper shore rocks and coastal grassland interface at Porth-y-pistyll (Area G), west of Porth Wylfa (Area H), Wylfa Head (Area E) and Trwyn Pencarreg (including the acid grassland at Esgair Gemlyn – Area D). The ditch in Area F is also an important site for bryophyte communities.

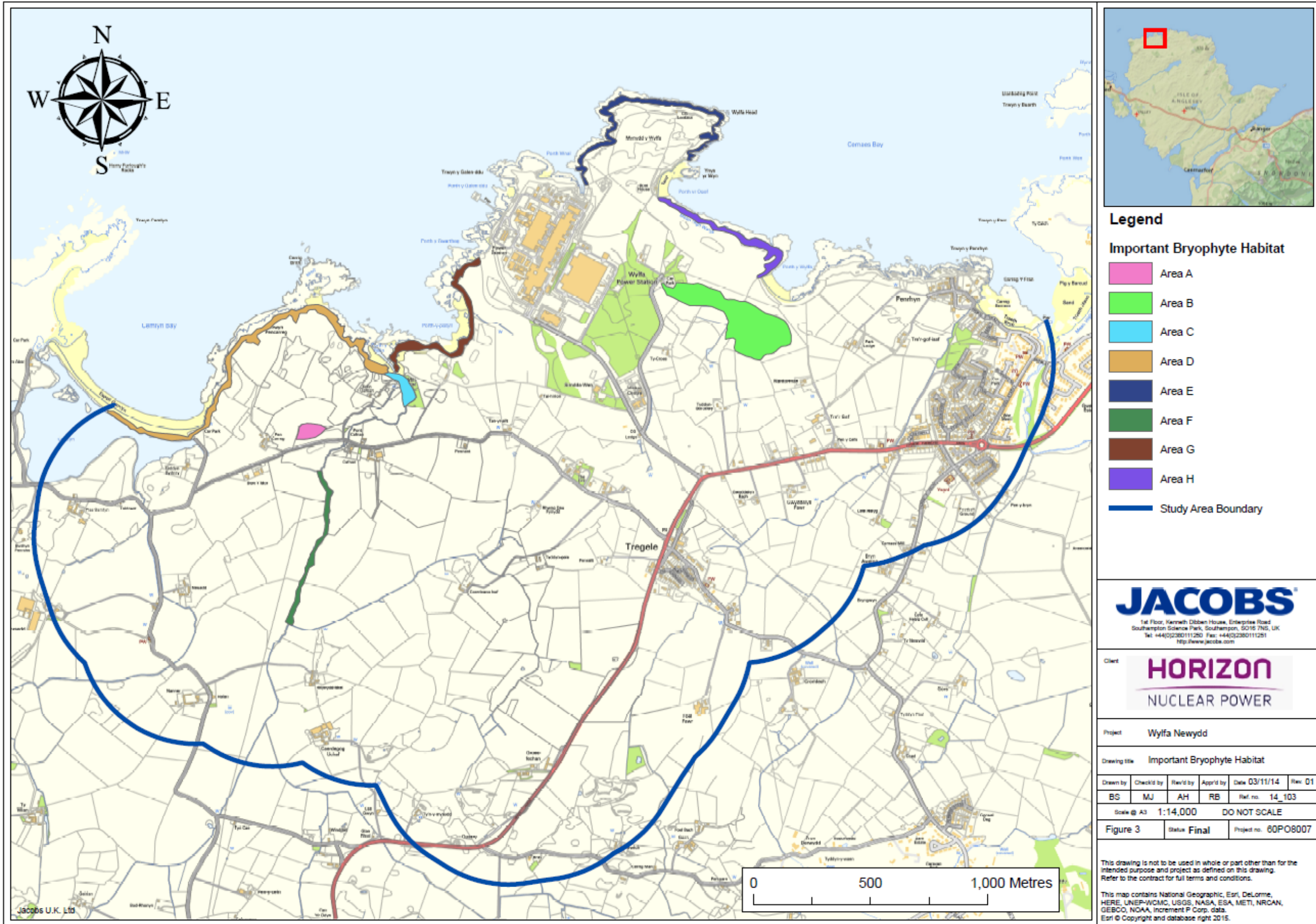


Figure 3: Important bryophyte habitat in the study area

## 4 Discussion

The background data search provided by Cofnod, showed that there was one record of a notable species within the study area. There were no records of protected species. This is indicative of an area without any conservation significance for bryophytes beyond a local level, although it should be noted that background data searches are only representative of the level of survey effort. However, in this instance it is considered that the survey effort, evidenced both historically from Cofnod and surveys in more recent years, supports the conclusion that the study area is not regionally or nationally significant.

Eleven species found during the survey are considered to be rare on Anglesey (Hill *et al.*, 1994) and a further 34 species were considered to be notable, as they are only found as localised populations and therefore sparsely distributed across Anglesey (Hill *et al.*, 1994). Fifteen sites in the study area supported at least one or more notable species. It is therefore considered that the study area in the context of Anglesey may be of greater ecological importance, although as discussed below this is caveated by the low relative abundances of habitats that actually support notable species.

During this survey only one non-native species as listed by Porley and Hodgetts (2005), was recorded and this was the acrocarpous moss *Campylopus introflexus*. This species was found in many locations where the conditions were acidic. However, this moss requires dry, thin and acidic soil, which ensures that its potential as an invasive is low. All other species recorded were native to the UK and none of these are invasive.

The land within the study area surrounding the Existing Power Station provides various habitats for bryophyte communities to become established. Although predominately an agricultural environment, there were several streams and ditches that flow through the fields draining isolated mire systems, patches of heathland, coastal grassland and sallow carr. Scattered across the site there were also many rocky outcrops and combined with the aforementioned habitats created multiple niches for bryophyte assemblages. This diversity of habitats provided a variety of available substrates, high humidity micro-habitats, and varying pH of substrates. It is considered that this diversity of habitats was the main factor for the bryological diversity recorded.

In total, 126 species were found during the survey, with an additional eight species recorded during other ecological surveys in 2013/14. A significant number of these species were associated with certain habitats. The key habitats identified as having the most diverse species assemblages were the rocky outcrops, wet seepage zones and the upper shore rocks and coastal grassland interface. In addition, the cattle poached banks of the watercourses provided an important habitat, more specifically the bare earth and rocks associated with this habitat. Another important landscape feature found in the study area for established bryophyte communities was provided by the barks of sallow carr found at the mire systems. These habitats are not abundant in the study area, but the importance of these micro-habitats to the overall bryophyte assemblages should not be undervalued.

There was a very low diversity of bryophytes associated with the arable habitats, which can be a suitable habitat for annual bryophytes. The reason for this scarcity of arable bryophytes is probably related to there being a much higher percentage of

pasture compared to arable crops in the study area. This trend is also shown in the literature with many arable bryophyte species clearly showing more southern and eastern distributions in Britain (Porley, 2008).

## 5 Conclusions

This survey aimed to update the lower plant survey conducted by Arup in 2012 (Arup, 2012) and to provide baseline data to assess the relevant diversity of the bryophyte fauna in selected habitats across the study area. It is considered that the aims of this survey were achieved.

The total number of species recorded in the study area was 134 (including species recorded incidentally during previous surveys). This included 11 species that were considered to be rare on Anglesey and a further 34 species that were considered to be 'local', as they have only been found as localised populations and therefore sparsely distributed across Anglesey (Hill *et al.*, 1994). Fifteen sites in the study area accommodated at least one or more notable species. None of the species found were of national importance or were protected species.

The number of bryophyte species recorded in the study area was considered to be slightly higher than what would be expected for an area that is predominantly agricultural land. This was largely due to the number of micro-habitat types present and coastal influences. The species composition however, was considered to be typical for the habitat types present.

The surveys showed that the habitats associated with the coast and mire systems were more important for bryophytes due to the higher diversity of species and communities associated with this zone. These habitat types covered a much lower percentage of the study area than the dominant habitat type, which is predominantly improved agricultural land. The best habitats for bryophytes in the study area were therefore among the least abundant.

## 6 References

Arup, (2012), *Lower Plant Appraisal Report*, consultancy report on behalf of Horizon Nuclear Power (Wylfa) Ltd.

Atherton I., Bosanquet S. and Lawley M., (2010), *Mosses and Liverworts of Britain and Ireland a field guide*, British Bryological Society.

Hill M.O., Preston C.D. and Smith A.J.E., (1994), *Atlas of the Bryophytes of Britain and Ireland*, Harley Books, Colchester, Essex.

Hodgetts N., (2011), *A revised Red List of bryophytes in Britain*, Field Bryology No 103.

Institute of Geological Sciences NERC (Natural Environment Research Council), (1980), *Anglesey Special Sheet Solid Edition 1:50,000*, Director General of the Ordnance Survey, Southampton.

Jacobs, (2013), *Consultancy Report: A Phase 1 Habitat Survey*, consultancy report on behalf of Horizon Nuclear Power (Wylfa) Ltd. Ref. W202.01-S5-PAC-REP-00015.

Porley R., (2008), *Arable Bryophytes: A Field Guide to the Mosses, Liverworts and Hornworts of Cultivated Land in Britain and Ireland*, Wildguides Ltd, Old Basing, Hampshire.

Porley R. and Hodgetts N., (2005), *The Naturalist Library Mosses and Liverworts*, Harper Collins Publishers, London.

Smith A.J.E., (1996), *The Liverworts of Britain and Ireland*, Cambridge University Press.

Smith A.J.E., (1996), *The Moss Flora of Britain and Ireland*, Cambridge University Press.

**Appendix A Incidental Species List**

**Table 3: Incidental species list**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Aulacomnium palustre</i>	Bog groove-moss	Cae Gwyn SSSI	SH34489174	23-Jul-13	Recorded during the NVC survey
<i>Aulacomnium palustre</i>	Bog groove-moss	Cae Gwyn SSSI	SH3491	23-Jul-13	Recorded during the NVC survey
<i>Brachythecium albicans</i>	Whitish feather-moss	Heathland at quarry	SH348914	24-Jun-14	Recorded during the NVC survey
<i>Brachythecium rutabulum</i>	Rough-stalked feather-moss	Mynydd Ithel Farm	SH340921	24-Jun-14	Recorded during the NVC survey
<b><i>Calliergon cordifolium</i>**</b>	Heart-leaved spear-moss	Cae Gwyn SSSI	SH3491	23-Jul-13	Recorded during the NVC survey
<i>Calliergonella cuspidata</i>	Pointed Spear-moss	Cae Gwyn SSSI	SH3491	23-Jul-13	Recorded during the NVC survey
<i>Calliergonella cuspidata</i>	Pointed spear-moss	Mynydd Ithel Farm	SH340921	24-Jun-14	Recorded during the NVC survey
<i>Calliergonella cuspidata</i>	Pointed spear-moss	Trwyn Pencarreg heath	SH3493	24-Jul-13	Recorded during the NVC survey
<i>Campylopus introflexus</i>	Heath star moss	Heathland at quarry	SH348914	24-Jun-14	Recorded during the NVC survey
<b><i>Conocephalum conicum</i>*</b>	Great scented liverwort	Watercourse south of Nanner	SH 3356 9220	10-Jul-14	Recorded during the aquatic macrophyte surveys on bank of ditch under overhanging vegetation
<i>Dicranum scoparium</i>	Broom fork-moss	Cae Gwyn SSSI	SH34489174	23-Jul-13	Recorded during the NVC survey
<i>Dicranum scoparium</i>	Broom fork-moss	Cae Gwyn SSSI	SH3491	23-Jul-13	Recorded during the NVC survey
<i>Dicranum scoparium</i>	Broom fork-moss	Heathland at quarry	SH348914	24-Jun-14	Recorded during the NVC survey
<i>Frullania dilatata</i>	Dilated scalewort	Coast east of Wylfa Head	SH3593	27-Nov-13	On rock outcrops - Recorded during the NVC survey
<b><i>Frullania teneriffae</i>**</b>	Sea scalewort	Coast east of Wylfa Head	SH3593	27-Nov-13	On rock outcrops - Recorded during the NVC survey
<i>Hypnum jutlandicum</i>	Heath plait-moss	Heathland at quarry	SH348914	24-Jun-14	Recorded during the NVC survey
<b><i>Jungermannia pumila</i>**</b>	Dwarf flapwort	Coast adjacent to Trwyn Pencarreg	SH33829352	26-Nov-13	Recorded during the NVC survey
<i>Kindbergia praelonga</i>	Common feather-moss	Mynydd Ithel Farm	SH340921	24-Jun-14	Recorded during the NVC survey
<i>Kindbergia praelonga</i>	Common feather-moss	Heathland at quarry	SH348914	24-Jun-14	Recorded during the NVC survey
<b><i>Lophozia bicrenata</i>*</b>	Lesser notchwort	Coast adjacent to Trwyn Pencarreg	SH33829352	26-Nov-13	Recorded during the NVC survey
<i>Lunularia cruciata</i>	Crescent cup liverwort	Watercourse at Cafnan	SH 3415 9300	10-Jul-14	Recorded during aquatic macrophyte surveys on bare earth of ditch bank
<b><i>Philonotis calcarea</i>*</b>	Thick-nerved apple-moss	Tre'r Gof SSSI	SH35969366	17-Jul-13	Recorded during the NVC survey
<b><i>Polytrichum commune</i>*</b>	Common haircap	Cae Gwyn SSSI	SH34679173	24-Jul-13	Recorded during the NVC survey
<b><i>Polytrichum commune</i>*</b>	Common haircap	Cae Gwyn SSSI	SH3491	23-Jul-13	Recorded during the NVC survey
<i>Polytrichum piliferum</i>	Bristly haircap	Trwyn Pencarreg Heath	SH3493	26-Nov-13	Recorded during the NVC survey
<i>Polytrichum piliferum</i>	Bristly haircap	Trwyn Pencarreg Heath	SH3393	26-Nov-13	Recorded during the NVC survey
<i>Pseudoscleropodium purum</i>	Neat feather-moss	Cae Gwyn SSSI	SH3491	23-Jul-13	Recorded during the NVC survey
<b><i>Rhizomnium punctatum</i>**</b>	Dotted thyme-moss	Tre'r Gof SSSI	SH3693	17-Jul-13	Recorded during the NVC survey
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	Cae Gwyn SSSI	SH3491	23-Jul-13	Recorded during the NVC survey
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	Mynydd Ithel Farm	SH340921	24-Jun-14	Recorded during the NVC survey

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Scorpidium cossonii</i> *	Intermediate hook-moss	Cae Gwyn SSSI	SH3491	23-Jul-13	Recorded during the NVC survey
<i>Sphagnum palustre</i> *	Blunt-leaved bog-moss	Cae Gwyn SSSI	SH3491	23-Jul-13	Recorded during the NVC survey
<i>Sphagnum squarrosum</i> *	Spiky bog-moss	Cae Gwyn SSSI	SH3491	23-Jul-13	Recorded during the NVC survey
<i>Sphagnum subnitens</i>	Lustrous bog-moss	Cae Gwyn SSSI	SH3491	23-Jul-13	Recorded during the NVC survey
<i>Thuidium tamariscinum</i> *	Common tamarisk-moss	Cae Gwyn SSSI	SH34489174	23-Jul-13	Recorded during the NVC survey
<i>Thuidium tamariscinum</i> *	Common tamarisk-moss	Cae Gwyn SSSI	SH3491	23-Jul-13	Recorded during the NVC survey

\*Not recorded during bryophyte field surveys

\*\*Notable species



**Appendix B Species List Recorded by Survey Site**

**Table 4: Site 1 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Amblystegium serpens</i>	Creeping feather-moss	Cestyll Gardens	SH345932	18-Sep-14	On or near rocks or stones
<i>Anomodon viticulosus</i>	Rambling tail-moss	Cestyll Gardens	SH345932	18-Sep-14	On wet rocks in stream valley
<i>Brachythecium rutabulum</i>	Rough-stalked feather-moss	Cestyll Gardens	SH345932	18-Sep-14	Present but uncommon
<i>Bryum capillare</i>	Capillary thread-moss	Cestyll Gardens	SH345932	18-Sep-14	On or near rocks or stones
<i>Calliergonella cuspidata</i>	Pointed spear-moss	Cestyll Gardens	SH345932	18-Sep-14	On ground by stream
<i>Calypogeia muelleriana</i>	Mueller's pouchwort	Cestyll Gardens	SH345932	18-Sep-14	On wet rocks in stream valley
<i>Cephalozia bicuspidata</i>	Two-horned pincerwort	Cestyll Gardens	SH345932	18-Sep-14	On damp and shady ground
<i>Dicranoweisia cirrata</i>	Common pincushion	Cestyll Gardens	SH345932	18-Sep-14	On or near rocks or stones
<i>Fontinalis antipyretica</i>	Greater water-moss	Cestyll Gardens	SH345932	18-Sep-14	In the stream
<i>Grimmia hartmanii</i>	Hartman's grimmia	Cestyll Gardens	SH345932	18-Sep-14	On wet rocks in stream valley
<i>Grimmia trichophylla</i>	Hair-pointed grimmia	Cestyll Gardens	SH345932	18-Sep-14	On dry rock lower down stream valley
<i>Hedwigia stellata</i>	Starry hoar-moss	Cestyll Gardens	SH345932	18-Sep-14	On dry rock lower down stream valley
<i>Homalothecium sericeum</i>	Silky wall feather-moss	Cestyll Gardens	SH345932	18-Sep-14	On or near rocks or stones
<i>Hypnum andoi</i>	Mamillate plait-moss	Cestyll Gardens	SH345932	18-Sep-14	On bark of apple tree
<i>Hypnum cupressiforme</i>	Cypress-leaved plait-moss	Cestyll Gardens	SH345932	18-Sep-14	-
<i>Hypnum jutlandicum</i>	Heath plait-moss	Cestyll Gardens	SH345932	18-Sep-14	On or near rocks or stones
<i>Isothecium myosuroides</i>	Slender mouse-tail moss	Cestyll Gardens	SH345932	18-Sep-14	On bark of rowan tree
<i>Kindbergia praelonga</i>	Common feather-moss	Cestyll Gardens	SH345932	18-Sep-14	-
<i>Lejeunea lamacerina</i>	Western pouncewort	Cestyll Gardens	SH345932	18-Sep-14	On wet rocks in stream valley
<i>Lophocolea bidentata</i>	Bifid crestwort	Cestyll Gardens	SH345932	18-Sep-14	-
<i>Lophocolea fragrans</i>	Fragrant crestwort	Cestyll Gardens	SH345932	18-Sep-14	On wet rocks in stream valley
<i>Lunularia cruciata</i>	Crescent-cup liverwort	Cestyll Gardens	SH345932	18-Sep-14	On ground by stream
<i>Metzgeria furcata</i>	Forked veilwort	Cestyll Gardens	SH345932	18-Sep-14	On wet rocks in stream valley
<i>Mnium hornum</i>	Swan's-neck thyme-moss	Cestyll Gardens	SH345932	18-Sep-14	-
<i>Pellia epiphylla</i>	Overleaf pellia	Cestyll Gardens	SH345932	18-Sep-14	On ground by stream
<i>Platyhypnidium riparioides</i>	Long-beaked water feather-moss	Cestyll Gardens	SH345932	18-Sep-14	In the stream
<i>Polytrichum juniperinum</i>	Juniper haircap	Cestyll Gardens	SH345932	18-Sep-14	On or near rocks or stones
<i>Pseudocrossidium revolutum</i>	Revolute beard-moss	Cestyll Gardens	SH345932	18-Sep-14	On rocks by stream
<i>Pseudotaxiphyllum elegans</i>	Elegant silk-moss	Cestyll Gardens	SH345932	18-Sep-14	On damp,shady ground
<i>Rhizomnium punctatum</i>	Dotted thyme-moss	Cestyll Gardens	SH345932	18-Sep-14	In damp,shaded grassland
<i>Rhynchostegium confertum</i>	Clustered feather-moss	Cestyll Gardens	SH345932	18-Sep-14	On ground by stream
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	Cestyll Gardens	SH345932	18-Sep-14	-

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Scapania irrigua</i>	Heath earwort	Cestyll Gardens	SH345932	18-Sep-14	On wet rocks in stream valley
<i>Scapania undulata</i>	Water earwort	Cestyll Gardens	SH345932	18-Sep-14	On wet rocks in stream valley
<i>Thamnobryum alopecurum</i>	Fox-tail feather-moss	Cestyll Gardens	SH345932	18-Sep-14	In the stream

**Table 5: Site 2 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Brachythecium rutabulum</i>	Rough-stalked feather-moss	Tre'r Gof SSSI	SH357936	10-Sep-14	-
<i>Bryum pseudotriquetrum</i>	Marsh bryum	Tre'r Gof SSSI	SH357936	10-Sep-14	-
<i>Calliergon cordifolium</i>	Heart-leaved spear-moss	Tre'r Gof SSSI	SH357936	10-Sep-14	In eastern areas of the site
<i>Calliergonella cuspidata</i>	Pointed spear-moss	Tre'r Gof SSSI	SH357936	10-Sep-14	-
<i>Campylium stellatum</i>	Yellow starry feather-moss	Tre'r Gof SSSI	SH357936	10-Sep-14	Large quantity at SH 3586 9360
<i>Campylopus introflexus</i>	Heath star moss	Tre'r Gof SSSI	SH357936	10-Sep-14	On gorse bark
<i>Cololejeunea minutissima</i>	Minute pouncewort	Tre'r Gof SSSI	SH357936	10-Sep-14	On willow bark
<i>Cratoneuron filicinum</i>	Fern-leaved hook-moss	Tre'r Gof SSSI	SH357936	10-Sep-14	Especially around SH 3586 9360
<i>Fissidens bryoides</i>	Lesser pocket-moss	Tre'r Gof SSSI	SH357936	10-Sep-14	On wall by the adjacent lane
<i>Frullania dilatata</i>	Dilated scalewort	Tre'r Gof SSSI	SH357936	10-Sep-14	On willow bark
<i>Homalothecium sericeum</i>	Silky wall feather-moss	Tre'r Gof SSSI	SH357936	10-Sep-14	Near base of willows
<i>Hypnum cupressiforme</i>	Cypress-leaved plait-moss	Tre'r Gof SSSI	SH357936	10-Sep-14	Near base of willows
<i>Hypnum resupinatum</i>	Supine plait-moss	Tre'r Gof SSSI	SH357936	10-Sep-14	On willow bark
<i>Isothecium myosuroides</i>	Slender mouse-tail moss	Tre'r Gof SSSI	SH357936	10-Sep-14	Near base of willows
<i>Kindbergia praelonga</i>	Common feather-moss	Tre'r Gof SSSI	SH357936	10-Sep-14	-
<i>Lophocolea bidentata</i>	Bifid crestwort	Tre'r Gof SSSI	SH357936	10-Sep-14	-
<i>Metzgeria furcata</i>	Forked veilwort	Tre'r Gof SSSI	SH357936	10-Sep-14	On willow bark
<i>Microlejeunea ulicina</i>	Fairy beads	Tre'r Gof SSSI	SH357936	10-Sep-14	On willow bark
<i>Mnium hornum</i>	Swan's-neck thyme-moss	Tre'r Gof SSSI	SH357936	10-Sep-14	-
<i>Orthotrichum diaphanum</i>	White-tipped bristle-moss	Tre'r Gof SSSI	SH357936	10-Sep-14	On willow bark
<i>Orthotrichum</i> sp. (probably <i>O. affine</i> )	Wood bristle-moss	Tre'r Gof SSSI	SH357936	10-Sep-14	On willow bark - ID not 100% certain without capsules
<i>Pellia epiphylla</i>	Overleaf pellia	Tre'r Gof SSSI	SH357936	10-Sep-14	-
<i>Plagiomnium undulatum</i>	Hart's-tongue thyme-moss	Tre'r Gof SSSI	SH357936	10-Sep-14	-
<i>Radula complanata</i>	Even scalewort	Tre'r Gof SSSI	SH357936	10-Sep-14	On willow bark
<i>Rhynchostegium confertum</i>	Clustered feather-moss	Tre'r Gof SSSI	SH357936	10-Sep-14	-
<i>Riccardia chamedryfolia</i>	Jagged germanderwort	Tre'r Gof SSSI	SH357936	10-Sep-14	-
<i>Sphagnum subnitens</i> var. <i>subnitens</i>	Lustrous bog-moss	Tre'r Gof SSSI	SH357936	10-Sep-14	-
<i>Ulota bruchii</i>	Bruch's pincushion	Tre'r Gof SSSI	SH357936	10-Sep-14	On willow bark
<i>Ulota phyllantha</i>	Frizzled pincushion	Tre'r Gof SSSI	SH357936	10-Sep-14	In large quantity on willow bark

**Table 6: Site 3 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Amblystegium serpens</i>	Creeping feather-moss	Wylfa Manor	SH355939	09-Sep-14	On bark of sycamores
<i>Brachythecium albicans</i>	Whitish feather-moss	Wylfa Manor	SH355939	09-Sep-14	Open area with rocks and acid grassland
<i>Brachythecium rutabulum</i>	Rough-stalked feather-moss	Wylfa Manor	SH355939	09-Sep-14	On bark of sycamores
<i>Campylopus flexuosus</i>	Rusty swan-neck moss	Fields North of Tre'r Gof	SH356940	09-Sep-14	In grassland by rocks
<i>Ceratodon purpureus</i>	Redshank	Fields North of Tre'r Gof	SH356940	09-Sep-14	In grassland by rocks
<i>Cololejeunea minutissima</i>	Minute pouncewort	Wylfa Manor	SH355939	09-Sep-14	On bark of sycamores
<i>Dicranoweisia cirrata</i>	Common pincushion	Wylfa Manor	SH355939	09-Sep-14	Open area with rocks and acid grassland
<i>Dicranum scoparium</i>	Broom fork-moss	Fields North of Tre'r Gof	SH356940	09-Sep-14	In grassland by rocks
<i>Didymodon insulanus</i>	Cylindric beard-moss	Wylfa Manor	SH355939	09-Sep-14	Open area with rocks and acid grassland
<i>Frullania dilatata</i>	Dilated scalewort	Wylfa Manor	SH355939	09-Sep-14	On bark of sycamores
<i>Homalothecium sericeum</i>	Silky wall feather-moss	Fields North of Tre'r Gof	SH356940	09-Sep-14	On shady rocks
<i>Hypnum cupressiforme</i>	Cypress-leaved plait-moss	Fields North of Tre'r Gof	SH356940	09-Sep-14	On grassland by rocks
<i>Hypnum cupressiforme</i>	Cypress-leaved plait-moss	Fields North of Tre'r Gof	SH356940	09-Sep-14	In grassland by rocks
<i>Hypnum jutlandicum</i>	Heath plait-moss	Fields North of Tre'r Gof	SH356940	09-Sep-14	In grassland by rocks
<i>Jungermannia pumila</i>	Dwarf flapwort	Fields North of Tre'r Gof	SH356940	09-Sep-14	On shady rocks
<i>Kindbergia praelonga</i>	Common feather-moss	Fields North of Tre'r Gof	SH356940	09-Sep-14	In grassland by rocks
<i>Lophocolea bidentata</i>	Bifid crestwort	Fields North of Tre'r Gof	SH356940	09-Sep-14	On shady rocks
<i>Mnium hornum</i>	Swan's-neck thyme-moss	Fields North of Tre'r Gof	SH356940	09-Sep-14	On shady rocks
<i>Orthotrichum diaphanum</i>	White-tipped bristle-moss	Wylfa Manor	SH355939	09-Sep-14	On bark of sycamores
<i>Orthotrichum</i> sp. (probably <i>O. affine</i> )	Wood bristle-moss	Wylfa Manor	SH355939	09-Sep-14	On bark of sycamores - ID not 100% certain without capsules
<i>Plagiomnium undulatum</i>	Hart's-tongue thyme-moss	Fields North of Tre'r Gof	SH356940	09-Sep-14	On shady rocks
<i>Polytrichum juniperinum</i>	Juniper haircap	Fields North of Tre'r Gof	SH356940	09-Sep-14	On shady rocks
<i>Ptilidium ciliare</i>	Ciliated fringewort	Fields North of Tre'r Gof	SH356940	09-Sep-14	On shady rocks
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	Wylfa Manor	SH355939	09-Sep-14	Open area with rocks and acid grassland
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	Fields North of Tre'r Gof	SH356940	09-Sep-14	In grassland by rocks

**Table 7: Site 4 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Campylopus introflexus</i>	Heath star moss	Trwyn Pencarreg Heath	SH339935	18-Sep-14	-
<i>Dicranella heteromalla</i>	Silky forklet-moss	Trwyn Pencarreg Heath	SH339935	18-Sep-14	-
<i>Dicranum scoparium</i>	Broom fork-moss	Trwyn Pencarreg Heath	SH339935	18-Sep-14	-
<i>Grimmia pulvinata</i>	Grey-cushioned grimmia	Trwyn Pencarreg Heath	SH339935	18-Sep-14	On inland boundary wall
<i>Hypnum jutlandicum</i>	Heath plait-moss	Trwyn Pencarreg Heath	SH339935	18-Sep-14	-
<i>Hypnum lacunosum</i> var. <i>lacunosum</i>	Great Plait-moss	Trwyn Pencarreg Heath	SH339935	18-Sep-14	-

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Mnium hornum</i>	Swan's-neck thyme-moss	Trwyn Pencarreg Heath	SH339935	18-Sep-14	-
<i>Polytrichum juniperinum</i>	Juniper haircap moss	Trwyn Pencarreg Heath	SH339935	18-Sep-14	-

**Table 8: Site 5 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Amblystegium serpens</i>	Creeping feather-moss	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas
<i>Brachythecium albicans</i>	Whitish feather-moss	Cemlyn Bay - west	SH330935	18-Sep-14	In grassland above the shore
<i>Bryum argenteum</i>	Silver-moss	Cemlyn Bay - east	SH335931	18-Sep-14	In grassland
<i>Bryum argenteum</i>	Silver-moss	Cemlyn Bay - west	SH330935	18-Sep-14	In grassland above the shore
<i>Bryum capillare</i>	Capillary thread-moss	Cemlyn Bay - west	SH330935	18-Sep-14	On a wall
<i>Bryum pseudotriquetrum</i>	Marsh bryum	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas
<i>Calliergonella cuspidata</i>	Pointed spear-moss	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas
<i>Calypogeia arguta</i>	Notched pouchwort	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas
<i>Calypogeia fissa</i>	Common pouchwort	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas
<i>Campylopus introflexus</i>	Heath star moss	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On coastal rocks
<i>Cephalozia bicuspidata</i>	Two-horned pincerwort	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas
<i>Cephaloziella hampeana</i>	Hampe's threadwort	Cemlyn Bay - east	SH335931	18-Sep-14	On bare damp ground
<i>Ceratodon purpureus</i>	Redshank	Cemlyn Bay - west	SH330935	18-Sep-14	In acid grassland
<i>Cratoneuron filicinum</i>	Fern-leaved hook-moss	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas
<i>Dichodontium palustre</i>	Marsh forklet-moss	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas
<i>Dicranoweisia cirrata</i>	Common pincushion	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On coastal rocks
<i>Dicranum scoparium</i>	Broom fork-moss	Cemlyn Bay - west	SH330935	18-Sep-14	In dry acid grassland area
<i>Didymodon luridus</i>	Dusky beard-moss	Cemlyn Bay - west	SH330935	18-Sep-14	On wall top
<i>Entosthodon obtusus</i>	Blunt cord-moss	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas
<i>Fissidens limbatus</i>	Herzog's pocket-moss	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas but ID not 100% certain
<i>Fossombronia</i> sp. (probably <i>F.incurva</i> )	Weedy frillwort	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas but ID not very certain
<i>Fossombronia</i> sp. (probably <i>F.pusilla</i> )	Common frillwort	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Frullania tamarisci</i>	Tamarisk scalewort	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On coastal rocks
<i>Grimmia pulvinata</i>	Grey-cushioned grimmia	Cemlyn Bay - west	SH330935	18-Sep-14	On a wall
<i>Grimmia trichophylla</i>	Hair-pointed grimmia	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On coastal rocks
<i>Homalothecium sericeum</i>	Silky wall feather-moss	Cemlyn Bay - west	SH330935	18-Sep-14	On a wall
<i>Hypnum cupressiforme</i>	Cypress-leaved plait-moss	Cemlyn Bay - west	SH330935	18-Sep-14	In grassland above the shore
<i>Hypnum jutlandicum</i>	Heath plait-moss	Cemlyn Bay - west	SH330935	18-Sep-14	In dry acid grassland area
<i>Hypnum lacunosum</i> var. <i>lacunosum</i>	Great plait-moss	Cemlyn Bay - east	SH335931	18-Sep-14	In acid grassland
<i>Hypnum lacunosum</i> var. <i>lacunosum</i>	Great plait-moss	Cemlyn Bay - west	SH330935	18-Sep-14	In dry acid grassland area
<i>Hypnum resupinatum</i>	Heath plait-moss	Cemlyn Bay - east	SH335931	18-Sep-14	In acid grassland
<i>Jungermannia gracillima</i>	Crenulated flapwort	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas
<i>Kindbergia praelonga</i>	Common feather-moss	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	
<i>Kindbergia praelonga</i>	Common feather-moss	Cemlyn Bay - west	SH330935	18-Sep-14	In grassland above the shore
<i>Mnium hornum</i>	Swan's-neck thyme-moss	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas
<i>Nardia scalaris</i>	Ladder flapwort	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas
<i>Pseudocrossidium hornschuchianum</i>	Hornschuch's beard-moss	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas
<i>Pseudoscleropodium purum</i>	Neat feather-moss	Cemlyn Bay - west	SH330935	18-Sep-14	In dry acid grassland area
<i>Rhynchostegium megapolitanum</i>	Megapolitan feather-moss	Cemlyn Bay - west	SH330935	18-Sep-14	In grassland
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	Cemlyn Bay - east	SH335931	18-Sep-14	In grassland
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	Cemlyn Bay - west	SH330935	18-Sep-14	In grassland above the shore
<i>Riccardia chamedryfolia</i>	Jagged germanderwort	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On coastal rocks
<i>Schistidium maritimum</i>	Seaside grimmia	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On coastal rocks
<i>Schistidium maritimum</i>	Seaside grimmia	Cemlyn Bay - west	SH330935	18-Sep-14	On coastal rocks
<i>Sphagnum denticulatum</i>	Cow-horn bog-moss	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas
<i>Sphagnum inundatum</i>	Lesser cow-horn bog-moss	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas
<i>Tortella flavovirens</i>	Yellow crisp-moss	Cemlyn Bay - west	SH330935	18-Sep-14	On the edge of the saltmarsh area
<i>Tortula muralis</i>	Wall screw-moss	Cemlyn Bay - west	SH330935	18-Sep-14	On a wall

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Trichostomum crispulum</i>	Curly Crisp-moss	Coast adjacent to Trwyn Pencarreg	SH340936	18-Sep-14	On seepage areas

**Table 9: Site 6 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Amblystegium serpens</i>	Creeping feather-moss	Coast at Porth-y-pistyll	SH345935	18-Sep-14	On coastal rocks
<i>Bryum alpinum</i>	Alpine thread-moss	Coast at Porth-y-pistyll	SH345935	18-Sep-14	On coastal rocks
<i>Bryum</i> sp. ( probably <i>B.caespiticium</i> )	Tufted thread-moss	Coast at Porth-y-pistyll	SH345935	18-Sep-14	On coastal rocks but ID not 100% certain without capsules
<i>Calliergonella cuspidata</i>	Pointed spear-moss	Coast at Porth-y-pistyll	SH345935	18-Sep-14	At base of wet rocks
<i>Dicranella heteromalla</i>	Silky forklet-moss	Coast at Porth-y-pistyll	SH345935	18-Sep-14	On coastal rocks
<i>Dicranoweisia cirrata</i>	Common pincushion	Coast at Porth-y-pistyll	SH345935	18-Sep-14	On coastal rocks
<i>Ditrichum heteromallum</i>	Curve-leaved ditrichum	Coast at Porth-y-pistyll	SH345935	18-Sep-14	On coastal rocks
<i>Fontinalis antipyretica</i>	Greater water-moss	Coast at Porth-y-pistyll	SH345935	18-Sep-14	In seepage over wet rocks
<i>Fossombronia</i> sp. (probably <i>F.pusilla</i> )	Common frillwort	Coast at Porth-y-pistyll	SH345935	18-Sep-14	On coastal rocks
<i>Frullania teneriffae</i>	Sea scalewort	Coast at Porth-y-pistyll	SH345935	18-Sep-14	On coastal rocks
<i>Homalothecium sericeum</i>	Silky wall feather-moss	Coast at Porth-y-pistyll	SH345935	18-Sep-14	On coastal rocks
<i>Hypnum cupressiforme</i>	Cypress-leaved plait-moss	Coast at Porth-y-pistyll	SH345935	18-Sep-14	On coastal rocks
<i>Hypnum jutlandicum</i>	Heath plait-moss	Coast at Porth-y-pistyll	SH345935	18-Sep-14	In coastal grassland
<i>Kindbergia praelonga</i>	Common feather-moss	Coast at Porth-y-pistyll	SH345935	18-Sep-14	In coastal grassland
<i>Lophocolea bidentata</i>	Bifid crestwort	Coast at Porth-y-pistyll	SH345935	18-Sep-14	On coastal rocks
<i>Mnium hornum</i>	Swan's-neck thyme-moss	Coast at Porth-y-pistyll	SH345935	18-Sep-14	On coastal rocks
<i>Pseudoscleropodium purum</i>	Neat feather-moss	Coast at Porth-y-pistyll	SH345935	18-Sep-14	
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	Coast at Porth-y-pistyll	SH345935	18-Sep-14	In coastal grassland
<i>Schistidium maritimum</i>	Seaside grimmia	Coast at Porth-y-pistyll	SH345935	18-Sep-14	On exposed coastal rocks
<i>Thamnobryum alopecurum</i>	Fox-tail feather-moss	Coast at Porth-y-pistyll	SH345935	18-Sep-14	Under gorse on cliff
<i>Trichostomum brachydontium</i>	Variable crisp-moss	Coast at Porth-y-pistyll	SH345935	18-Sep-14	On coastal rocks

**Table 10: Site 7 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Barbula convoluta</i>	Lesser bird's-claw beard-moss	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	-
<i>Bryum capillare</i>	Capillary thread-moss	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	-
<i>Calypogeia fissa</i>	Common pouchwort	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	On shady coastal rocks
<i>Calypogeia muelleriana</i>	Mueller's pouchwort	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	Coastal soil banks
<i>Campylopus introflexus</i>	Heath star moss	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	-

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Cephalozia bicuspidata</i>	Two-horned pincerwort	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	Wet coastal soil banks
<i>Ceratodon purpureus</i>	Redshank	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	-
<i>Cirriphyllum piliferum</i>	Hair-pointed feather-moss	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	By shady rocks near coast
<i>Dicranoweisia cirrata</i>	Common pincushion	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	Coastal rocks
<i>Frullania tamarisci</i>	Tamarisk scalewort	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	On rocks
<i>Hypnum jutlandicum</i>	Heath plait-moss	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	-
<i>Hypnum resupinatum</i>	Supine plait-moss	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	-
<i>Jungermannia pumila</i>	Dwarf flapwort	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	Wet coastal soil banks
<i>Kindbergia praelonga</i>	Common feather-moss	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	-
<i>Lophocolea bidentata</i>	Bifid crestwort	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	-
<i>Mnium hornum</i>	Swan's-neck thyme-moss	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	-
<i>Plagiochila killarniensis</i>	Killarney featherwort	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	Wet coastal soil banks
<i>Polytrichum juniperinum</i>	Juniper haircap	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	-
<i>Polytrichum piliferum</i>	Bristly haircap	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	-
<i>Pseudocrossidium hornschurchianum</i>	Hornschurch's beard-moss	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	-
<i>Pseudoscleropodium purum</i>	Neat feather-moss	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	-
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	-
<i>Schistidium maritimum</i>	Seaside grimmia	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	Coastal rocks
<i>Trichostomum brachydontium</i>	Variable crisp-moss	Coastal strip west of Porth Wylfa	SH360939	09-Sep-14	Coastal rocks

**Table 11: Site 8 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Brachythecium albicans</i>	Whitish feather-moss	Farmland at Foel Fawr south of Tregele	SH356920	17-Sep-14	On rock outcrops
<i>Brachythecium rutabulum</i>	Rough-stalked feather-moss	Farmland at Foel Fawr south of Tregele	SH356920	17-Sep-14	-
<i>Bryum capillare</i>	Capillary thread-moss	Farmland at Foel Fawr south of Tregele	SH356920	17-Sep-14	On dry stone wall and on fence posts
<i>Ceratodon purpureus</i>	Redshank	Farmland at Foel Fawr south of Tregele	SH356920	17-Sep-14	On rock outcrops
<i>Dicranoweisia cirrata</i>	Common pincushion	Farmland at Foel Fawr south of Tregele	SH356920	17-Sep-14	On rock outcrops
<i>Fissidens taxifolius</i>	Common pocket-moss	Farmland at Foel Fawr south of Tregele	SH356920	17-Sep-14	On rock outcrops
<i>Fissidens viridulus</i>	Green pocket-moss	Farmland at Foel Fawr south of Tregele	SH356920	17-Sep-14	On bare ground by a small ditch
<i>Grimmia trichophylla</i>	Hair-pointed grimmia	Farmland at Foel Fawr south of Tregele	SH356920	17-Sep-14	On rock outcrops
<i>Homalothecium sericeum</i>	Silky wall feather-moss	Farmland at Foel Fawr south of Tregele	SH356920	17-Sep-14	On dry stone wall
<i>Kindbergia praelonga</i>	Common feather-moss	Farmland at Foel Fawr south of Tregele	SH356920	17-Sep-14	-
<i>Polytrichum juniperinum</i>	Juniper haircap	Farmland at Foel Fawr south of Tregele	SH356920	17-Sep-14	On rock outcrops
<i>Pseudotaxiphyllum elegans</i>	Elegant silk-moss	Farmland at Foel Fawr south of Tregele	SH356920	17-Sep-14	On bare ground by a small ditch
<i>Rhynchostegium confertum</i>	Clustered feather-moss	Farmland at Foel Fawr south of Tregele	SH356920	17-Sep-14	On dry stone wall and on fence posts
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	Farmland at Foel Fawr south of Tregele	SH356920	17-Sep-14	On rock outcrops
<i>Tortula muralis</i>	Wall screw-moss	Farmland at Foel Fawr south of Tregele	SH356920	17-Sep-14	On dry stone wall and on fence posts

**Table 12: Site 9 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Amblystegium serpens</i>	Creeping feather-moss	Field at Tregele	SH357926	17-Sep-14	On shaded stones on the ground
<i>Barbula convoluta</i>	Lesser bird's-claw beard-moss	Field at Tregele	SH357926	17-Sep-14	On bank by ditch
<i>Barbula unguiculata</i>	Bird's-claw Beard-moss	Field at Tregele	SH357926	17-Sep-14	On bank by ditch
<i>Brachythecium rutabulum</i>	Rough-stalked feather-moss	Field at Tregele	SH357926	17-Sep-14	On shaded stones on the ground
<i>Lophocolea bidentata</i>	Bifid crestwort	Field at Tregele	SH357926	17-Sep-14	On bank by ditch
<i>Oxyrrhynchium hians</i>	Swartz's feather-moss	Field at Tregele	SH357926	17-Sep-14	On shaded stones on the ground
<i>Rhynchostegium confertum</i>	Clustered feather-moss	Field at Tregele	SH357926	17-Sep-14	On bank by ditch



Species	Common Name	Site	Grid Ref	Date	Comment
<i>Tortula muralis</i>	Wall screw-moss	Field at Tregele	SH357926	17-Sep-14	On shaded stones on the ground

**Table 13: Site 10 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Barbula convoluta</i>	Lesser bird's-claw beard-moss	Field south of Wylfa Information Centre	SH356929	10-Sep-14	On bare ground disturbed by cattle
<i>Homalothecium sericeum</i>	Silky wall feather-moss	Field south of Wylfa Information Centre	SH356929	10-Sep-14	On dry stone wall
<i>Hypnum cupressiforme</i>	Cypress-leaved plait-moss	Field south of Wylfa Information Centre	SH356929	10-Sep-14	On dry stone wall
<i>Kindbergia praelonga</i>	Common feather-moss	Field south of Wylfa Information Centre	SH356929	10-Sep-14	On soil of shady bank
<i>Mnium hornum</i>	Swan's-neck thyme-moss	Field south of Wylfa Information Centre	SH356929	10-Sep-14	On soil of shady bank
<i>Phaeoceros laevis</i>	Smooth hornwort	Field south of Wylfa Information Centre	SH356929	10-Sep-14	Five plants on bare ground disturbed by cattle
<i>Pleuridium acuminatum</i>	Taper-leaved earth-moss	Field south of Wylfa Information Centre	SH356929	10-Sep-14	On bare ground disturbed by cattle
<i>Pohlia lutescens</i>	Yellow thread-moss	Field south of Wylfa Information Centre	SH356929	10-Sep-14	On soil near pond
<i>Tortula truncata</i>	Common pottia	Field south of Wylfa Information Centre	SH356929	10-Sep-14	On bare ground disturbed by cattle

**Table 14: Site 11 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Barbula convoluta</i>	Lesser bird's-claw beard-moss	North of Caerdegog Isaf	SH346926	11-Sep-14	On wall
<i>Brachythecium rutabulum</i>	Rough-stalked feather-moss	North of Caerdegog Isaf	SH346926	11-Sep-14	-
<i>Bryum capillare</i>	Capillary thread-moss	North of Caerdegog Isaf	SH346926	11-Sep-14	-
<i>Campylopus introflexus</i>	Heath star moss	North of Caerdegog Isaf	SH346926	11-Sep-14	On heathy ground close to the house at Caerdegog Isaf
<i>Ceratodon purpureus</i>	Redshank	North of Caerdegog Isaf	SH346926	11-Sep-14	On heathy ground close to the house at Caerdegog Isaf
<i>Frullania dilatata</i>	Dilated scalewort	North of Caerdegog Isaf	SH346926	11-Sep-14	On blackthorn
<i>Homalothecium sericeum</i>	Silky wall feather-moss	North of Caerdegog Isaf	SH346926	11-Sep-14	On elder bark
<i>Hypnum resupinatum</i>	Supine plait-moss	North of Caerdegog Isaf	SH346926	11-Sep-14	On elder bark
<i>Kindbergia praelonga</i>	Common feather-moss	North of Caerdegog Isaf	SH346926	11-Sep-14	-
<i>Lophocolea bidentata</i>	Bifid crestwort	North of Caerdegog Isaf	SH346926	11-Sep-14	On damp ground by ditch
<i>Metzgeria furcata</i>	Forked veilwort	North of Caerdegog Isaf	SH346926	11-Sep-14	On elder bark
<i>Orthotrichum diaphanum</i>	White-tipped bristle-moss	North of Caerdegog Isaf	SH346926	11-Sep-14	On elder bark
<i>Orthotrichum</i> sp. (probably <i>O. affine</i> )	Wood bristle-moss	North of Caerdegog Isaf	SH346926	11-Sep-14	On elder bark - ID not 100% certain without capsules

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Pellia epiphylla</i>	Overleaf peltia	North of Caerdegog Isaf	SH346926	11-Sep-14	On damp ground by ditch
<i>Polytrichum juniperinum</i>	Juniper haircap	North of Caerdegog Isaf	SH346926	11-Sep-14	On heathy ground close to the house at Caerdegog Isaf
<i>Rhynchostegium confertum</i>	Clustered feather-moss	North of Caerdegog Isaf	SH346926	11-Sep-14	On wall
<i>Rhynchostegium murale</i>	Wall feather-moss	North of Caerdegog Isaf	SH346926	11-Sep-14	On elder bark but unusual on trees
<i>Tortula muralis</i>	Wall screw-moss	North of Caerdegog Isaf	SH346926	11-Sep-14	On wall
<i>Zygodon stirtonii</i>	Stirton's yoke-moss	North of Caerdegog Isaf	SH346926	11-Sep-14	On elder bark but unusual on trees

**Table 15: Site 12 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Aphanorhagma patens</i>	Spreading earth-moss	South of Cafnan Farm	SH346928	11-Sep-14	Abundant in a completely dried up pond
<i>Brachythecium rutabulum</i>	Rough-stalked feather-moss	South of Cafnan Farm	SH346928	11-Sep-14	-
<i>Homalothecium sericeum</i>	Silky wall feather-moss	South of Cafnan Farm	SH346928	11-Sep-14	On dry stone walls
<i>Kindbergia praelonga</i>	Common feather-moss	South of Cafnan Farm	SH346928	11-Sep-14	-
<i>Tortula modica</i>	Blunt-fruited pottia	South of Cafnan Farm	SH346928	11-Sep-14	On damp bare soil among rush pasture
<i>Tortula truncata</i>	Common pottia	South of Cafnan Farm	SH346928	11-Sep-14	On damp bare soil among rush pasture

**Table 16: Site 13 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Archidium alternifolium</i>	Clay earth-moss	South of Tre'r Gof SSSI	SH356935	11-Sep-14	On broken concrete at site of former house called Tai Hirion
<i>Barbula convoluta</i>	Lesser bird's-claw beard-moss	South of Tre'r Gof SSSI	SH356935	11-Sep-14	On broken concrete at site of former house called Tai Hirion
<i>Brachythecium albicans</i>	Whitish feather-moss	South of Tre'r Gof SSSI	SH356935	11-Sep-14	-
<i>Brachythecium rutabulum</i>	Rough-stalked feather-moss	South of Tre'r Gof SSSI	SH356935	11-Sep-14	-
<i>Bryum capillare</i>	Capillary thread-moss	South of Tre'r Gof SSSI	SH356935	11-Sep-14	On broken concrete at site of former house called Tai Hirion
<i>Bryum pallens</i>	Pale thread-moss	South of Tre'r Gof SSSI	SH356935	11-Sep-14	On broken concrete at site of former house called Tai Hirion
<i>Calliergonella cuspidata</i>	Pointed spear-moss	South of Tre'r Gof SSSI	SH356935	11-Sep-14	On damp track
<i>Ceratodon purpureus</i>	Redshank	South of Tre'r Gof SSSI	SH356935	11-Sep-14	On rocks
<i>Funaria hygrometrica</i>	Common cord-moss	South of Tre'r Gof SSSI	SH356935	11-Sep-14	On broken concrete at site of former house
<i>Grimmia trichophylla</i>	Hair-pointed grimmia	South of Tre'r Gof SSSI	SH356935	11-Sep-14	On rocks
<i>Hedwigia stellata</i>	Starry hoar-moss	South of Tre'r Gof SSSI	SH356935	11-Sep-14	On rocks and growing with <i>Homalothecium sericeum</i>
<i>Homalothecium sericeum</i>	Silky wall feather-moss	South of Tre'r Gof SSSI	SH356935	11-Sep-14	On rocks
<i>Hypnum cupressiforme</i>	Cypress-leaved plait-moss	South of Tre'r Gof SSSI	SH356935	11-Sep-14	On rocks

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Hypnum jutlandicum</i>	Heath plait-moss	South of Tre'r Gof SSSI	SH356935	11-Sep-14	On a wall
<i>Hypnum lacunosum</i> var. <i>lacunosum</i>	Great plait-moss	South of Tre'r Gof SSSI	SH356935	11-Sep-14	On rocks
<i>Polytrichum juniperinum</i>	Juniper haircap	South of Tre'r Gof SSSI	SH356935	11-Sep-14	On rocks
<i>Pseudoscleropodium purum</i>	Neat feather-moss	South of Tre'r Gof SSSI	SH356935	11-Sep-14	-
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	South of Tre'r Gof SSSI	SH356935	11-Sep-14	-
<i>Tortula modica</i>	Blunt-fruited pottia	South of Tre'r Gof SSSI	SH356935	11-Sep-14	On broken concrete at site of former house called Tai Hirion
<i>Tortula truncata</i>	Common pottia	South of Tre'r Gof SSSI	SH356935	11-Sep-14	On broken concrete at site of former house called Tai Hirion

**Table 17: Site 14 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Brachythecium albicans</i>	Whitish feather-moss	South of Trwyn Pencarreg	SH341932	18-Sep-14	At base of wall
<i>Calliargon cordifolium</i>	Heart-leaved spear-moss	South of Trwyn Pencarreg	SH341932	18-Sep-14	On ground in wet mire area
<i>Campylopus introflexus</i>	Heath star moss	South of Trwyn Pencarreg	SH341932	18-Sep-14	On rock outcrops
<i>Ceratodon purpureus</i>	Redshank	South of Trwyn Pencarreg	SH341932	18-Sep-14	On rock outcrops
<i>Dicranella heteromalla</i>	Silky forklet-moss	South of Trwyn Pencarreg	SH341932	18-Sep-14	On rock outcrops
<i>Dicranoweisia cirrata</i>	Common pincushion	South of Trwyn Pencarreg	SH341932	18-Sep-14	On rock outcrops
<i>Dicranum scoparium</i>	Broom fork-moss	South of Trwyn Pencarreg	SH341932	18-Sep-14	On rock outcrops
<i>Frullania dilatata</i>	Dilated scalewort	South of Trwyn Pencarreg	SH341932	18-Sep-14	On willow bark and also on rock outcrops
<i>Frullania tamarisci</i>	Tamarisk scalewort	South of Trwyn Pencarreg	SH341932	18-Sep-14	On rock outcrops
<i>Grimmia trichophylla</i>	Hair-pointed grimmia	South of Trwyn Pencarreg	SH341932	18-Sep-14	On rock outcrops
<i>Homalothecium sericeum</i>	Silky wall feather-moss	South of Trwyn Pencarreg	SH341932	18-Sep-14	On willow bark and on rocks
<i>Hypnum andoi</i>	Mamillate plait-moss	South of Trwyn Pencarreg	SH341932	18-Sep-14	On willow bark
<i>Hypnum cupressiforme</i>	Cypress-leaved plait-moss	South of Trwyn Pencarreg	SH341932	18-Sep-14	-
<i>Hypnum resupinatum</i>	Supine plait-moss	South of Trwyn Pencarreg	SH341932	18-Sep-14	On rock outcrops
<i>Isothecium myosuroides</i>	Slender mouse-tail moss	South of Trwyn Pencarreg	SH341932	18-Sep-14	On rock outcrops
<i>Kindbergia praelonga</i>	Common feather-moss	South of Trwyn Pencarreg	SH341932	18-Sep-14	-
<i>Lophocolea bidentata</i>	Bifid crestwort	South of Trwyn Pencarreg	SH341932	18-Sep-14	On rock outcrops
<i>Metzgeria fruticulosa</i>	Blueish veilwort	South of Trwyn Pencarreg	SH341932	18-Sep-14	On willow bark
<i>Metzgeria furcata</i>	Forked veilwort	South of Trwyn Pencarreg	SH341932	18-Sep-14	On willow bark
<i>Microlejeunea ulicina</i>	Fairy beads	South of Trwyn Pencarreg	SH341932	18-Sep-14	On willow bark
<i>Mnium hornum</i>	Swan's-neck thyme-moss	South of Trwyn Pencarreg	SH341932	18-Sep-14	On willow bark
<i>Orthotrichum</i> sp. (probably <i>O. affine</i> )	Wood bristle-moss	South of Trwyn Pencarreg	SH341932	18-Sep-14	On willow bark - ID not 100% certain without capsules
<i>Polytrichum juniperinum</i>	Juniper haircap	South of Trwyn Pencarreg	SH341932	18-Sep-14	On rock outcrops
<i>Polytrichum piliferum</i>	Bristly haircap	South of Trwyn Pencarreg	SH341932	18-Sep-14	On rock outcrops
<i>Rhynchostegium megapolitanum</i>	Megapolitan feather-moss	South of Trwyn Pencarreg	SH341932	18-Sep-14	On damp ground under willows
<i>Ulota phyllantha</i>	Frizzled pincushion	South of Trwyn Pencarreg	SH341932	18-Sep-14	On willow bark

**Table 18: Site 15 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Barbula convoluta</i>	Lesser bird's-claw beard-moss	Southwest of power station	SH348937	17-Sep-14	On the ground
<i>Barbula sardoa</i>	Lesser bird's-claw beard-moss	Southwest of power station	SH348937	17-Sep-14	Very common on the ground at the site of a former house called Tai Hirion
<i>Barbula unguiculata</i>	Bird's-claw beard-moss	Southwest of power station	SH348937	17-Sep-14	On the ground
<i>Brachythecium albicans</i>	Whitish feather-moss	Southwest of power station	SH348937	17-Sep-14	On the ground
<i>Bryum argenteum</i>	Silver-moss	Southwest of power station	SH348937	17-Sep-14	On the ground
<i>Bryum capillare</i>	Capillary thread-moss	Southwest of power station	SH348937	17-Sep-14	On the ground in areas of acid grassland and lichen heath
<i>Bryum pallens</i>	Pale thread-moss	Southwest of power station	SH348937	17-Sep-14	On the ground
<i>Calliergonella cuspidata</i>	Pointed spear-moss	Southwest of power station	SH348937	17-Sep-14	On the ground
<i>Campylopus introflexus</i>	Heath star moss	Southwest of power station	SH348937	17-Sep-14	On the ground in areas of acid grassland and lichen heath
<i>Cephalozia bicuspidata</i>	Two-horned pincerwort	Southwest of power station	SH348937	17-Sep-14	On or very close to the coastal rocks
<i>Ceratodon purpureus</i>	Redshank	Southwest of power station	SH348937	17-Sep-14	On the ground
<i>Dicranoweisia cirrata</i>	Common pincushion	Southwest of power station	SH348937	17-Sep-14	On broken concrete
<i>Didymodon fallax</i>	Fallacious beard-moss	Southwest of power station	SH348937	17-Sep-14	On the ground
<i>Frullania teneriffae</i>	Sea scalewort	Southwest of power station	SH348937	17-Sep-14	On or very close to the coastal rocks
<i>Grimmia trichophylla</i>	Hair-pointed grimmia	Southwest of power station	SH348937	17-Sep-14	On or very close to the coastal rocks
<i>Homalothecium sericeum</i>	Silky wall feather-moss	Southwest of power station	SH348937	17-Sep-14	On or very close to the coastal rocks
<i>Hypnum cupressiforme</i>	Cypress-leaved plait-moss	Southwest of power station	SH348937	17-Sep-14	On the ground in areas of acid grassland and lichen heath
<i>Hypnum jutlandicum</i>	Heath plait-moss	Southwest of power station	SH348937	17-Sep-14	On or very close to the coastal rocks
<i>Hypnum lacunosum</i> var. <i>lacunosum</i>	Great plait-moss	Southwest of power station	SH348937	17-Sep-14	On the ground in areas of acid grassland and lichen heath
<i>Kindbergia praelonga</i>	Common feather-moss	Southwest of power station	SH348937	17-Sep-14	On the ground in areas of acid grassland and lichen heath
<i>Lophocolea bidentata</i>	Bifid crestwort	Southwest of power station	SH348937	17-Sep-14	On a rock outcrop inland
<i>Mnium hornum</i>	Swan's-neck thyme-moss	Southwest of power station	SH348937	17-Sep-14	On or very close to the coastal rocks
<i>Orthotrichum cupulatum</i>	Hooded bristle-moss	Southwest of power station	SH348937	17-Sep-14	On broken concrete and ID proved by the presence of old capsules
<i>Polytrichum juniperinum</i>	Juniper haircap	Southwest of power station	SH348937	17-Sep-14	On the ground in areas of acid grassland and lichen heath
<i>Polytrichum piliferum</i>	Bristly haircap	Southwest of power station	SH348937	17-Sep-14	On the ground in areas of acid grassland and lichen heath
<i>Pseudocrossidium hornschurchianum</i>	Hornschurch's beard-moss	Southwest of power station	SH348937	17-Sep-14	On the ground
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	Southwest of power station	SH348937	17-Sep-14	On or very close to the coastal rocks
<i>Riccardia chamedryfolia</i>	Jagged germanderwort	Southwest of power station	SH348937	17-Sep-14	On or very close to the coastal rocks
<i>Schistidium maritimum</i>	Seaside grimmia	Southwest of power station	SH348937	17-Sep-14	On or very close to the coastal rocks

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Tortella flavovirens</i>	Yellow crisp-moss	Southwest of power station	SH348937	17-Sep-14	On or very close to the coastal rocks
<i>Tortula truncata</i>	Common pottia	Southwest of power station	SH348937	17-Sep-14	On the ground
<i>Trichostomum brachydontium</i>	Variable crisp-moss	Southwest of power station	SH348937	17-Sep-14	On or very close to the coastal rocks

**Table 19: Site 16 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Bryum capillare</i>	Capillary thread-moss	Southwest of Swn-y-mor	SH335927	16-Sep-14	On rocky outcrops
<i>Didymodon vinealis</i>	Soft-tufted beard-moss	Southwest of Swn-y-mor	SH335927	16-Sep-14	On rocky outcrops
<i>Frullania tamarisci</i>	Tamarisk scalewort	Southwest of Swn-y-mor	SH335927	16-Sep-14	On rocky outcrops
<i>Homalothecium sericeum</i>	Silky wall feather-moss	Southwest of Swn-y-mor	SH335927	16-Sep-14	On rocky outcrops
<i>Hypnum cupressiforme</i>	Cypress-leaved plait-moss	Southwest of Swn-y-mor	SH335927	16-Sep-14	On rocky outcrops
<i>Hypnum jutlandicum</i>	Heath plait-moss	Southwest of Swn-y-mor	SH335927	16-Sep-14	On rocky outcrops
<i>Isothecium myosuroides</i>	Slender mouse-tail moss	Southwest of Swn-y-mor	SH335927	16-Sep-14	On rocky outcrops
<i>Kindbergia praelonga</i>	Common feather-moss	Southwest of Swn-y-mor	SH335927	16-Sep-14	-
<i>Polytrichum juniperinum</i>	Juniper haircap	Southwest of Swn-y-mor	SH335927	16-Sep-14	On rocky outcrops
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	Southwest of Swn-y-mor	SH335927	16-Sep-14	-
<i>Anthoceros punctatus</i>	Dotted hornwort	Southeast of Swn-y-mor	SH341928	16-Sep-14	1 plant on soil banks by stream
<i>Archidium alternifolium</i>	Clay earth-moss	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil banks by stream
<i>Aulacomnium palustre</i>	Bog groove-moss	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil banks by stream
<i>Brachythecium rutabulum</i>	Rough-stalked feather-moss	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil banks by stream
<i>Bryum pallens</i>	Pale thread-moss	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil banks by stream
<i>Campylopus introflexus</i>	Heath star moss	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil near stream
<i>Ceratodon purpureus</i>	Redshank	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil near stream
<i>Chiloscyphus polyanthos</i>	St. Winifrid's moss	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil banks by stream
<i>Didymodon fallax</i>	Fallacious beard-moss	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil banks by stream
<i>Epipterygium tozeri</i>	Tozer's thread-moss	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil banks by stream
<i>Fossombronia</i> sp. (probably <i>F. pusilla</i> )	Common frillwort	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil banks by stream
<i>Lunularia cruciata</i>	Crescent-cup liverwort	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil banks by stream
<i>Phaeoceros laevis</i>	Smooth hornwort	Southeast of Swn-y-mor	SH341928	16-Sep-14	20+ plants between SH34179285 and SH34169279
<i>Pohlia annotina</i>	Pale-fruited thread-moss	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil banks by stream
<i>Pohlia lutescens</i>	Yellow thread-moss	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil banks by stream
<i>Pohlia melanodon</i>	Pink-fruited thread-moss	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil banks by stream
<i>Rhynchostegiella pumila</i>	Dwarf feather-moss	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil banks by stream
<i>Riccardia chamedryfolia</i>	Jagged germanderwort	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil banks by stream
<i>Tortula truncata</i>	Common pottia	Southeast of Swn-y-mor	SH341928	16-Sep-14	On soil banks by stream

**Table 20: Site 17 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Archidium alternifolium</i>	Clay earth-moss	Arable field south of Nanner	SH335918	16-Sep-14	On bare soil in arable field

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Brachythecium rutabulum</i>	Rough-stalked feather-moss	West of Nanner	SH334920	16-Sep-14	By stream
<i>Bryum argenteum</i>	Silver-moss	SW of Nanner	SH329920	16-Sep-14	On soil on rocks
<i>Bryum capillare</i>	Capillary thread-moss	SW of Nanner	SH329920	16-Sep-14	On rock outcrops
<i>Ceratodon purpureus</i>	Redshank	West of Nanner	SH334920	16-Sep-14	On stones by stream
<i>Dicranoweisia cirrata</i>	Common pincushion	SW of Nanner	SH329920	16-Sep-14	On rock outcrops
<i>Frullania tamarisci</i>	Tamarisk scalewort	SW of Nanner	SH329920	16-Sep-14	On rock outcrops
<i>Grimmia trichophylla</i>	Hair-pointed grimmia	SW of Nanner	SH329920	16-Sep-14	On rock outcrops
<i>Homalothecium sericeum</i>	Silky wall feather-moss	SW of Nanner	SH329920	16-Sep-14	On rock outcrops
<i>Hypnum cupressiforme</i>	Cypress-leaved plait-moss	SW of Nanner	SH329920	16-Sep-14	On rock outcrops
<i>Hypnum jutlandicum</i>	Heath plait-moss	SW of Nanner	SH329920	16-Sep-14	On dry wall
<i>Kindbergia praelonga</i>	Common feather-moss	West of Nanner	SH334920	16-Sep-14	By stream
<i>Lophocolea bidentata</i>	Bifid crestwort	SW of Nanner	SH329920	16-Sep-14	On rock outcrops
<i>Metzgeria furcata</i>	Forked veilwort	West of Nanner	SH334920	16-Sep-14	On stones by stream
<i>Orthotrichum anomalum/cupulatum</i>	Anomalous/Hooded bristle-moss	SW of Nanner	SH329920	16-Sep-14	On rock outcrops - ID not 100% certain without capsules
<i>Oxyrrhynchium hians</i>	Swartz's feather-moss	Arable field south of Nanner	SH335918	16-Sep-14	In ditch by lane
<i>Phaeoceros laevis</i>	Smooth hornwort	Arable field south of Nanner	SH335918	16-Sep-14	On bare soil in arable field in small quantity
<i>Pohlia annotina</i>	Pale-fruited thread-moss	Arable field south of Nanner	SH335918	16-Sep-14	On bare soil in arable field
<i>Pohlia melanodon</i>	Pink-fruited thread-moss	West of Nanner	SH334920	16-Sep-14	By stream
<i>Polytrichum juniperinum</i>	Juniper haircap	SW of Nanner	SH329920	16-Sep-14	On rock outcrops
<i>Polytrichum piliferum</i>	Bristly haircap	SW of Nanner	SH329920	16-Sep-14	On rock outcrops
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	SW of Nanner	SH329920	16-Sep-14	On rock outcrops
<i>Tortula truncata</i>	Common pottia	SW of Nanner	SH329920	16-Sep-14	On soil on rocks
<i>Tortula truncata</i>	Common pottia	Arable field south of Nanner	SH335918	16-Sep-14	On bare soil in arable field
<i>Ulota phyllantha</i>	Frizzled pincushion	SW of Nanner	SH329920	16-Sep-14	On rock outcrops

**Table 21: Site 18 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Archidium alternifolium</i>	Clay earth-moss	West of A5025 at Tregale	SH351920	11-Sep-14	In damp area poached by cattle west of the pine plantation
<i>Barbula convoluta</i>	Lesser bird's-claw beard-moss	West of A5025 at Tregale	SH351920	11-Sep-14	In damp area poached by cattle west of the pine plantation
<i>Brachythecium albicans</i>	Whitish feather-moss	West of A5025 at Tregale	SH351920	11-Sep-14	In damp area poached by cattle west of the pine plantation
<i>Bryum argenteum</i>	Silver-moss	West of A5025 at Tregale	SH351920	11-Sep-14	In damp area poached by cattle west of the pine plantation

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Bryum capillare</i>	Capillary thread-moss	West of A5025 at Tregel	SH351920	11-Sep-14	On rocks
<i>Campylopus introflexus</i>	Heath star moss	West of A5025 at Tregel	SH351920	11-Sep-14	On pine bark and on acid rocks
<i>Ceratodon purpureus</i>	Redshank	West of A5025 at Tregel	SH351920	11-Sep-14	On rocks
<i>Dicranella heteromalla</i>	Silky forklet-moss	West of A5025 at Tregel	SH351920	11-Sep-14	On pine bark
<i>Didymodon fallax</i>	Fallacious beard-moss	West of A5025 at Tregel	SH351920	11-Sep-14	In damp area poached by cattle west of the pine plantation
<i>Didymodon insulanus</i>	Cylindric beard-moss	North of Cae Gwyn	SH349918	11-Sep-14	-
<i>Homalothecium sericeum</i>	Silky wall feather-moss	West of A5025 at Tregel	SH351920	11-Sep-14	On dry stone walls and rocks
<i>Hypnum cupressiforme</i>	Cypress-leaved plait-moss	West of A5025 at Tregel	SH351920	11-Sep-14	On rocks, walls and on pine bark
<i>Hypnum jutlandicum</i>	Heath plait-moss	West of A5025 at Tregel	SH351920	11-Sep-14	On pine bark and on acid rocks
<i>Kindbergia praelonga</i>	Common feather-moss	West of A5025 at Tregel	SH351920	11-Sep-14	-
<i>Pellia epiphylla</i>	Overleaf peltia	West of A5025 at Tregel	SH351920	11-Sep-14	In damp area poached by cattle west of the pine plantation
<i>Pleuroidium acuminatum</i>	Taper-leaved earth-moss	West of A5025 at Tregel	SH351920	11-Sep-14	On bare ground in arable field
<i>Pohlia melanodon</i>	Pink-fruited thread-moss	West of A5025 at Tregel	SH351920	11-Sep-14	In damp area poached by cattle west of the pine plantation
<i>Polytrichum juniperinum</i>	Juniper haircap	North of Cae Gwyn	SH349918	11-Sep-14	-
<i>Polytrichum piliferum</i>	Bristly haircap	North of Cae Gwyn	SH349918	11-Sep-14	-
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	West of A5025 at Tregel	SH351920	11-Sep-14	On rocks
<i>Riccardia chamedryfolia</i>	Jagged germanderwort	West of A5025 at Tregel	SH351920	11-Sep-14	In damp area poached by cattle west of the pine plantation
<i>Tortula truncata</i>	Common pottia	West of A5025 at Tregel	SH351920	11-Sep-14	In damp area poached by cattle west of the pine plantation

**Table 22: Site 19 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Archidium alternifolium</i>	Clay earth-moss	Wylfa Head - east	SH356944	09-Sep-14	-
<i>Brachythecium albicans</i>	Whitish feather-moss	Wylfa Head - east	SH356944	09-Sep-14	-
<i>Brachythecium populeum</i>	Matted feather-moss	Wylfa Head - east	SH356944	09-Sep-14	On damp and shady rocks
<i>Bryum pallens</i>	Pale thread-moss	Wylfa Head - east	SH356944	09-Sep-14	-
<i>Bryum pseudotriquetrum</i>	Marsh bryum	Wylfa Head - west	SH352943	09-Sep-14	Wet flushes
<i>Calliergonella cuspidata</i>	Pointed spear-moss	Wylfa Head - west	SH352943	09-Sep-14	Wet flushes
<i>Campylium stellatum</i>	Yellow starry feather-moss	Wylfa Head - west	SH352943	09-Sep-14	Wet flushes
<i>Campylopus introflexus</i>	Heath star moss	Wylfa Head - east	SH356944	09-Sep-14	Only seen by old coastguard station
<i>Ceratodon purpureus</i>	Redshank	Wylfa Head - east	SH356944	09-Sep-14	-
<i>Ceratodon purpureus</i>	Redshank	Wylfa Head - west	SH352943	09-Sep-14	Wet flushes
<i>Chiloscyphus polyanthos</i>	St. Winifrid's moss	Wylfa Head - east	SH356944	09-Sep-14	On damp and shady rocks
<i>Dicranella heteromalla</i>	Silky forklet-moss	Wylfa Head - east	SH356944	09-Sep-14	-
<i>Dicranoweisia cirrata</i>	Common pincushion	Wylfa Head - east	SH356944	09-Sep-14	On rocks
<i>Entosthodon attenuatus</i>	Thin cord-moss	Wylfa Head - west	SH352943	09-Sep-14	Wet flushes
<i>Frullania teneriffae</i>	Sea scalewort	Wylfa Head - east	SH356944	09-Sep-14	On rocks

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Homalothecium sericeum</i>	Silky wall feather-moss	Wylfa Head - east	SH356944	09-Sep-14	On rocks
<i>Hypnum cupressiforme</i>	Cypress-leaved plait-moss	Wylfa Head - east	SH356944	09-Sep-14	-
<i>Jungermannia pumila</i>	Dwarf flapwort	Wylfa Head - east	SH356944	09-Sep-14	On damp and shady rocks
<i>Kindbergia praelonga</i>	Common feather-moss	Wylfa Head - east	SH356944	09-Sep-14	-
<i>Mnium hornum</i>	Swan's-neck thyme-moss	Wylfa Head - east	SH356944	09-Sep-14	-
<i>Pellia endiviifolia</i>	Endive pellia	Wylfa Head - west	SH352943	09-Sep-14	Wet flushes
<i>Pellia epiphylla</i>	Overleaf pellia	Wylfa Head - west	SH352943	09-Sep-14	Wet flushes
<i>Polytrichum juniperinum</i>	Juniper haircap	Wylfa Head - east	SH356944	09-Sep-14	-
<i>Riccardia chamedryfolia</i>	Jagged germanderwort	Wylfa Head - west	SH352943	09-Sep-14	Wet flushes
<i>Schistidium maritimum</i>	Seaside grimmia	Wylfa Head - east	SH356944	09-Sep-14	On rocks
<i>Trichostomum brachydontium</i>	Variable crisp-moss	Wylfa Head - east	SH356944	09-Sep-14	On rocks

**Table 23: Site 20 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Bryum capillare</i>	Capillary thread-moss	Wylfa Information Centre - bank by road	SH354932	10-Sep-14	-
<i>Calliergonella cuspidata</i>	Pointed spear-moss	Wylfa Information Centre - bank by road	SH354932	10-Sep-14	-
<i>Polytrichum juniperinum</i>	Juniper haircap	Wylfa Information Centre - bank by road	SH354932	10-Sep-14	-
<i>Pseudoscleropodium purum</i>	Neat feather-moss	Wylfa Information Centre - bank by road	SH354932	10-Sep-14	-
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	Wylfa Information Centre - bank by road	SH354932	10-Sep-14	-

**Table 24: Site 21 – List of Bryophytes recorded**

Species	Common Name	Site	Grid Ref	Date	Comment
<i>Amblystegium serpens</i>	Creeping feather-moss	Wylfa Social Club	SH353932	10-Sep-14	On the ground in woodland area
<i>Barbula unguiculata</i>	Bird's-claw beard-moss	Wylfa Social Club	SH353932	10-Sep-14	On wall along access road
<i>Brachythecium rutabulum</i>	Rough-stalked feather-moss	Wylfa Social Club	SH353932	10-Sep-14	On the ground in woodland area
<i>Didymodon vinealis</i>	Soft-tufted beard-moss	Wylfa Social Club	SH353932	10-Sep-14	On wall along access road
<i>Fissidens bryoides</i>	Lesser pocket-moss	Wylfa Social Club	SH353932	10-Sep-14	On the ground in woodland area
<i>Frullania dilatata</i>	Dilated scalewort	Wylfa Social Club	SH353932	10-Sep-14	On sycamore bark
<i>Homalothecium sericeum</i>	Silky wall feather-moss	Wylfa Social Club	SH353932	10-Sep-14	On wall along access road
<i>Hypnum cupressiforme</i>	Cypress-leaved plait-moss	Wylfa Social Club	SH353932	10-Sep-14	On sycamore bark
<i>Kindbergia praelonga</i>	Common feather-moss	Wylfa Social Club	SH353932	10-Sep-14	On the ground in woodland area
<i>Metzgeria furcata</i>	Forked veilwort	Wylfa Social Club	SH353932	10-Sep-14	On sycamore bark
<i>Mnium hornum</i>	Swan's-neck thyme-moss	Wylfa Social Club	SH353932	10-Sep-14	On the ground in woodland area
<i>Orthotrichum anomalum/cupulatum</i>	Anomalous/Hooded bristle-moss	Wylfa Social Club	SH353932	10-Sep-14	On wall along access road - ID not 100% certain without capsules
<i>Oxyrrhynchium hians</i>	Swartz's feather-moss	Wylfa Social Club	SH353932	10-Sep-14	On the ground in woodland area



Species	Common Name	Site	Grid Ref	Date	Comment
<i>Plagiomnium undulatum</i>	Hart's-tongue thyme-moss	Wylfa Social Club	SH353932	10-Sep-14	On the ground in woodland area
<i>Pseudocrossidium hornschuchianum</i>	Hornschuch's beard-moss	Wylfa Social Club	SH353932	10-Sep-14	On wall along access road
<i>Rhynchostegiella tenella</i>	Tender feather-moss	Wylfa Social Club	SH353932	10-Sep-14	On wall along access road
<i>Rhynchostegium confertum</i>	Clustered feather-moss	Wylfa Social Club	SH353932	10-Sep-14	On the ground in woodland area
<i>Rhytidiadelphus squarrosus</i>	Springy turf-moss	Wylfa Social Club	SH353932	10-Sep-14	On the ground in woodland area
<i>Tortula muralis</i>	Wall screw-moss	Wylfa Social Club	SH353932	10-Sep-14	On wall along access road

Appendix C Species List Recorded by Taxon<sup>3</sup>

Table 25: List of acrocarpous moss recorded in study area

Acrocarpous Mosses				
Scientific Name	Synonym as recorded by Mapmate if different	Common Name	Abundance on site	Status on Anglesey (from Hill <i>et al.</i> , 1994)
<b>Aphanorhegma patens</b>	-	Spreading earth-moss	Rare (one dried up pond but abundant there)	Rare (as <i>Physcomitrella patens</i> )
<i>Archidium alternifolium</i>	-	Clay earth-moss	Common	Common
<i>Aulacomnium palustre</i>	-	Bog groove-moss	Occasional (very wet areas)	Common
<i>Barbula convoluta</i>	<i>Barbula convoluta</i> var. <i>convoluta</i>	Lesser bird's-claw beard-moss	Common	Common
<i>Barbula sardoa</i>	<i>Barbula convoluta</i> var. <i>sardoa</i>	Lesser bird's-claw beard-moss	Rare (sites of former buildings)	Not mapped in (Hill <i>et al.</i> , 1994)
<i>Barbula unguiculata</i>	-	Bird's-claw Beard-moss	Common	Common
<b>Bryum alpinum</b>	-	Alpine thread-moss	Rare (on coast near Cestyll Gardens)	Local
<i>Bryum argenteum</i>	-	Silver-moss	Common	Common
<b>Bryum sp. ( probably <i>B.caespiticium</i>)</b>	-	Tufted thread-moss	Frequent	Rare
<i>Bryum capillare</i>	-	Capillary thread-moss	Very common	Common
<i>Bryum pallens</i>	-	Pale thread-moss	Frequent	Common
<i>Bryum pseudotriquetrum</i>	-	Marsh bryum	Frequent (in wet flushes)	Common
<i>Campylopus flexuosus</i>	-	Rusty swan-neck moss	Occasional (in acidic areas)	Common (as <i>C.flexuosus</i> )
<i>Campylopus introflexus</i>	-	Heath star moss	Very common (in acidic areas)	Common
<i>Ceratodon purpureus</i>	-	Redshank	Very common	Common
<b>Dichodontium palustre</b>	-	Marsh forklet-moss	Rare (in coastal wet flushes)	Rare (as <i>Dicranella palustris</i> )
<i>Dicranella heteromalla</i>	-	Silky forklet-moss	Frequent	Common
<i>Dicranoweisia cirrata</i>	-	Common pincushion	Common	Common
<i>Dicranum scoparium</i>	-	Broom fork-moss	Common	Common

<sup>3</sup> Scientific names highlighted in bold indicate a species has a rare or local status on Anglesey (after Hill *et al.*, 1994).

Acrocarpus Mosses				
Scientific Name	Synonym as recorded by Mapmate if different	Common Name	Abundance on site	Status on Anglesey (from Hill <i>et al.</i> , 1994)
<i>Didymodon fallax</i>	-	Fallacious beard-moss	Common	Common
<i>Didymodon insulanus</i>	-	Cylindric beard-moss	Frequent	Common (as <i>Barbula fallax</i> )
<b><i>Didymodon luridus</i></b>	-	Dusky beard-moss	Rare	Local (in SE) (as <i>Barbula trifaria</i> )
<i>Didymodon vinealis</i>	-	Soft-tufted beard-moss	Frequent	Common (as <i>Barbula vinealis</i> )
<b><i>Ditrichum heteromallum</i></b>	-	Curve-leaved ditrichum	Rare	Rare
<b><i>Entosthodon attenuates</i></b>	-	Thin cord-moss	Rare (in coastal wet flushes)	Local (coastal) (as <i>Funaria attenuata</i> )
<b><i>Entosthodon obtusus</i></b>	-	Blunt cord-moss	Rare (in coastal wet flushes)	Local (as <i>Funaria obtusa</i> )
<b><i>Epipterygium tozeri</i></b>	-	Tozer's thread-moss	Rare (on cattle poached stream sides)	Local (mainly northern half)
<i>Fissidens bryoides</i>	<i>Fissidens bryoides sens. Lat.</i>	Lesser pocket-moss	Occasional	Common
<i>Fissidens limbatus</i>	<i>Fissidens crispus</i>	Herzog's pocket-moss	Rare (by one inland ditch)	Not recorded in (Hill <i>et al.</i> , 1994)
<i>Fissidens taxifolius</i>	-	Common pocket-moss	Occasional	Common
<b><i>Fissidens viridulus</i></b>	-	Green pocket-moss	Occasional	Local
<i>Funaria hygrometrica</i>	-	Common cord-moss	Rare (sites of former buildings)	Common
<b><i>Grimmia hartmanii</i></b>	-	Hartman's grimmia	Rare (Cestyll Gardens on wet rocks)	Rare (one site in south)
<i>Grimmia pulvinata</i>	-	Grey-cushioned grimmia	Frequent (on walls)	Common
<i>Grimmia trichophylla</i>	-	Hair-pointed grimmia	Very common (on rock outcrops)	Common
<i>Hedwigia stellate</i>	-	Starry hoar-moss	Occasional (on rocks)	Common (mapped as <i>H.ciliata</i> )
<i>Mnium hornum</i>	-	Swan's-neck thyme-moss	Very common	Common
<i>Orthotrichum</i> sp. (probably <i>O.affine</i> )	-	Wood bristle-moss	Common	Common
<b><i>Orthotrichum anomalum/cupulatum/rupestre</i></b>	-	Anomalous/Hooded bristle-moss	Common	Local to common
<b><i>Orthotrichum cupulatum</i></b>	-	Hooded bristle-moss	Frequent or common	Local
<i>Orthotrichum diaphanum</i>	-	White-tipped bristle-moss	Frequent (on trees)	Common
<i>Plagiomnium undulatum</i>	-	Hart's-tongue thyme-moss	Occasional	Common
<i>Pleuridium acuminatum</i>	-	Taper-leaved earth-moss	Frequent	Common

Acrocarpous Mosses				
Scientific Name	Synonym as recorded by Mapmate if different	Common Name	Abundance on site	Status on Anglesey (from Hill <i>et al.</i> , 1994)
			(on bare ground)	
<i>Pohlia annotina</i>	-	Pale-fruited thread-moss	Occasional (damp, bare ground)	Common
<b><i>Pohlia lutescens</i></b>	-	Yellow thread-moss	Frequent (on damp, bare ground)	Local
<i>Pohlia melanodon</i>	-	Pink-fruited thread-moss	Common	Common
<i>Polytrichum juniperinum</i>	-	Juniper haircap	Very common (in acidic areas)	Common
<i>Polytrichum piliferum</i>	-	Bristly haircap	Common (in acid areas)	Common
<i>Pseudocrossidium hornschurchianum</i>	-	Hornschurch's beard-moss	Frequent	Common (as <i>Barbula hornschurchiana</i> )
<i>Pseudocrossidium revolutum</i>	-	Revolute beard-moss	Rare	Common (as <i>Barbula revoluta</i> )
<b><i>Rhizomnium punctatum</i></b>	-	Dotted thyme-moss	Rare (Cestyll Gardens)	Local
<i>Schistidium maritimum</i>	-	Seaside grimmia	Very common (on coastal rocks)	Common (coastal)
<i>Tortella flavovirens</i>	-	Yellow crisp-moss	Occasional (on the coast)	Common (coastal)
<b><i>Tortula modica</i></b>	-	Blunt-fruited pottia	Frequent (bare ground)	Rare (as <i>Tortula intermedia</i> )
<i>Tortula muralis</i>	-	Wall screw-moss	Very common	Common
<i>Tortula truncate</i>	-	Common pottia	Common (on bare ground)	Common
<i>Trichostomum brachydontium</i>	-	Variable crisp-moss	Very common (on the coast)	Common
<i>Trichostomum crispulum</i>	-	Curly crisp-moss	Rare or occasional	Common
<i>Ulota bruchii</i>	-	Bruch's pincushion	Occasional (on trees)	Common (mapped as <i>U. crispa</i> )
<i>Ulota phyllantha</i>	-	Frizzled pincushion	Very common (on trees especially sallow)	Common
<b><i>Zygodon stirtonii</i></b>	<i>Zygodon viridissimus</i> var. <i>stirtonii</i>	Stirton's yoke-moss	Rare (unusually on elder tree bark at one site)	Local

**Table 26: List of pleurocarpous moss recorded in study area.**

<b>Pleurocarpous Mosses</b>				
<b>Scientific Name</b>	<b>Synonym as recorded by Mapmate if different</b>	<b>Common Name</b>	<b>Abundance on site</b>	<b>Status on Anglesey (from Hill <i>et al.</i>, 1994)</b>
<i>Amblystegium serpens</i>	-	Creeping feather-moss	Frequent	Common
<b>Anomodon viticulosus</b>	-	Rambling tail-moss	Rare (but common in Cestyll Gardens)	Local (mainly in the east)
<i>Brachythecium albicans</i>	-	Whitish feather-moss	Very common	Common
<b>Brachythecium populeum</b>	<i>Sciuro-hypnum populeum</i>	Matted feather-moss	Rare (on the coast)	Local (mainly in the south)
<i>Brachythecium rutabulum</i>	-	Rough-stalked feather-moss	Common	Common
<b>Calliergon cordifolium</b>	-	Heart-leaved spear-moss	Frequent (in very wet habitats)	Local
<i>Calliergonella cuspidate</i>	-	Pointed spear-moss	Common	Common
<i>Campylium stellatum</i>	-	Yellow starry feather-moss	Frequent (in very wet habitats)	Common (mainly coastal)
<b>Cirriphyllum piliferum</b>	-	Hair-pointed feather-moss	Rare (on the coast)	Local
<i>Cratoneuron filicinum</i>	-	Fern-leaved hook-moss	Frequent (in very wet habitats)	Common
<i>Fontinalis antipyretica</i>	-	Greater water-moss	Rare (in and near Cestyll Gardens only)	Common
<i>Homalothecium sericeum</i>	-	Silky wall feather-moss	Very common	Common
<b>Hypnum andoi</b>	-	Mamillate plait-moss	Common	Local (as <i>H. mammillatum</i> )
<i>Hypnum cupressiforme</i>	-	Cypress-leaved plait-moss	Very common	Common
<i>Hypnum lacunosum</i> var. <i>lacunosum</i>	<i>Hypnum cupressiforme</i> var. <i>lacunosum</i>	Great plait-moss	Common	Mapped under <i>H. cupressiforme</i>
<i>Hypnum resupinatum</i>	<i>Hypnum cupressiforme</i> var. <i>resupinatum</i>	Supine plait-moss	Common	Mapped under <i>H. cupressiforme</i>
<i>Hypnum jutlandicum</i>	-	Heath plait-moss	Very common (in acidic areas)	Common (mainly coastal)
<i>Isothecium myosuroides</i>	-	Slender mouse-tail moss	Occasional	Common
<i>Kindbergia praelonga</i>	-	Common feather-moss	Very common	Common (as <i>Eurhynchium praelongum</i> )
<i>Oxyrrhynchium hians</i>	-	Swartz's feather-moss	Frequent	Common (as <i>Eurhynchium swartzii</i> )
<b>Platyhypnidium riparioides</b>	-	Long-beaked water feather-moss	Rare (but common in Cestyll Gardens)	Local (as <i>Rhyncostegium riparioides</i> )
<i>Pseudoscleropodium purum</i>	-	Neat feather-moss	Frequent	Common
<i>Pseudotaxiphyllum elegans</i>	-	Elegant silk-moss	Occasional	Common (as <i>Isopterygium elegans</i> )
<b>Rhynchostegiella pumila</b>	<i>Oxyrrhynchium pumilum</i>	Dwarf feather-moss	Rare	Local (as <i>Eurhynchium pumilum</i> )

Pleurocarpous Mosses				
Scientific Name	Synonym as recorded by Mapmate if different	Common Name	Abundance on site	Status on Anglesey (from Hill <i>et al.</i> , 1994)
<i>Rhynchostegiella tenella</i>	-	Tender feather-moss	Rare	Common
<i>Rhynchostegium confertum</i>	-	Clustered feather-moss	Common	Common
<i>Rhynchostegium megapolitanum</i>	-	Megapolitan feather-moss	Rare (two sites, one untypical habitat)	Rare
<i>Rhynchostegium murale</i>	-	Wall feather-moss	Rare (unusually on elder tree bark at one site)	Local
<i>Rhytidiadelphus squarrosus</i>	-	Springy turf-moss	Very common	Common
<i>Thamnobryum alopecurum</i>	-	Fox-tail feather-moss	Occasional	Local (mainly in the east)

Table 27: List of sphagnale mosses recorded in study area

Sphagnales – Sphagnum mosses				
Scientific Name	Synonym as recorded by Mapmate if different	Common Name	Abundance on site	Status on Anglesey (from Hill <i>et al.</i> , 1994)
<i>Sphagnum denticulatum</i>	-	Cow-horn bog-moss	Occasional (very wet areas)	Common (as <i>S.auriculatum</i> )
<i>Sphagnum inundatum</i>	-	Lesser cow-horn bog-moss	Occasional (very wet areas)	Common (as <i>S.auriculatum</i> )
<i>Sphagnum subnitens</i> var. <i>subnitens</i>	-	Lustrous bog-moss	Occasional (very wet areas)	Common

Table 28: List of anthocerothale hornworts recorded in study area

Anthocerotales – Hornworts				
Scientific Name	Synonym as recorded by Mapmate if different	Common Name	Abundance on site	Status on Anglesey (from Hill <i>et al.</i> , 1994)
<i>Anthoceros punctatus</i>	-	Dotted hornwort	Rare (on cattle poached stream sides)	Rare
<i>Phaeoceros laevis</i>	-	Smooth hornwort	Frequent (on bare ground)	Common

Table 29: List of metzgeriale hornworts recorded in study area

Metzgeriales/Marchantiales (Thallose Liverworts)				
Scientific Name	Synonym as recorded by Mapmate if different	Common Name	Abundance on site	Status on Anglesey (from Hill <i>et al.</i> , 1994)
<i>Fossombronia</i> sp. (probably <i>F.incurva</i> )	-	Weedy frillwort	Common (in suitable habitats)	Common
<i>Fossombronia</i> sp. (probably <i>F.pusilla</i> )	-	Common frillwort	Occasional	Not recorded in (Hill <i>et al.</i> , 1994)

<b>Metzgeriales/Marchantiales (Thallose Liverworts)</b>				
<b>Scientific Name</b>	<b>Synonym as recorded by Mapmate if different</b>	<b>Common Name</b>	<b>Abundance on site</b>	<b>Status on Anglesey (from Hill <i>et al.</i>, 1994)</b>
<i>Lunularia cruciata</i>	-	Crescent-cup liverwort	Frequent	Common
<b><i>Metzgeria fruticulosa</i></b>	<i>Metzgeria violacea</i>	Blueish veilwort	Rare or occasional	Rare
<i>Metzgeria furcate</i>	-	Forked veilwort	Frequent (both on trees and rocks)	Common
<i>Pellia endiviifolia</i>	-	Endive peltia	Rare or occasional	Common
<i>Pellia epiphylla</i>	-	Overleaf peltia	Common (in suitable habitats)	Common
<i>Riccardia chamedryfolia</i>	-	Jagged germanderwort	Common (in suitable habitats)	Common

**Table 30: List of jungermanniale hornworts recorded in study area**

<b>Jungermanniales – Leafy Liverworts</b>				
<b>Scientific Name</b>	<b>Synonym as recorded by Mapmate if different</b>	<b>Common Name</b>	<b>Abundance on site</b>	<b>Status on Anglesey (from Hill <i>et al.</i>, 1994)</b>
<b><i>Calypogeia argute</i></b>	-	Notched pouchwort	Occasional (on coast)	Local (coastal)
<i>Calypogeia fissa</i>	-	Common pouchwort	Frequent (mainly on the coast)	Common
<b><i>Calypogeia muelleriana</i></b>	-	Mueller's pouchwort	Frequent (mainly on the coast)	Local
<i>Cephalozia bicuspidate</i>	-	Two-horned pincerwort	Common	Common
<b><i>Cephaloziella hampeana</i></b>	-	Hampe's threadwort	Occasional	Local
<b><i>Chiloscyphus polyanthus</i></b>	-	St. Winifrid's moss	Occasional	Local
<b><i>Cololejeunea minutissima</i></b>	-	Minute pouncewort	Common (on trees)	Local
<i>Frullania dilatata</i>	-	Dilated scalewort	Common	Common
<i>Frullania tamarisci</i>	-	Tamarisk scalewort	Common	Common
<b><i>Frullania teneriffae</i></b>	-	Sea scalewort	Common (near coast)	Local (coastal)
<b><i>Jungermannia gracillima</i></b>	<i>Solenostoma gracillimum</i>	Crenulated flapwort	Occasional (on coast)	Local (mainly coastal)
<b><i>Jungermannia pumila</i></b>	-	Dwarf flapwort	Frequent (near coast)	Rare (coastal)
<i>Lejeunea lamacerina</i>	-	Western pouncewort	Rare (Cestyll Gardens)	Local (mainly eastern side)
<i>Lophocolea bidentata</i>	-	Bifid crestwort	Common	Common
<b><i>Lophocolea fragrans</i></b>	-	Fragrant crestwort	Rare (but common at Cestyll Gardens)	Rare (only SE corner)
<b><i>Microlejeunea ulicina</i></b>	-	Fairy beads	Common (on trees)	Local
<b><i>Nardia scalaris</i></b>	-	Ladder flapwort	Frequent (near coast)	Local
<b><i>Plagiochila killarniensis</i></b>	<i>Plagiochila bifaria</i>	Killarney featherwort	Rare (on coast)	Local
<i>Ptilidium ciliare</i>	-	Ciliated fringewort	Rare	Common

<b>Jungermanniales – Leafy Liverworts</b>				
<b>Scientific Name</b>	<b>Synonym as recorded by Mapmate if different</b>	<b>Common Name</b>	<b>Abundance on site</b>	<b>Status on Anglesey (from Hill <i>et al.</i>, 1994)</b>
			(on rocks near coast)	
<i>Radula complanata</i>	-	Even scalewort	Occasional (on trees)	Local
<i>Scapania irrigua</i>	-	Heath earwort	Rare (Cestyll Gardens)	Local
<i>Scapania undulate</i>	-	Water earwort	Rare (Cestyll Gardens)	Local