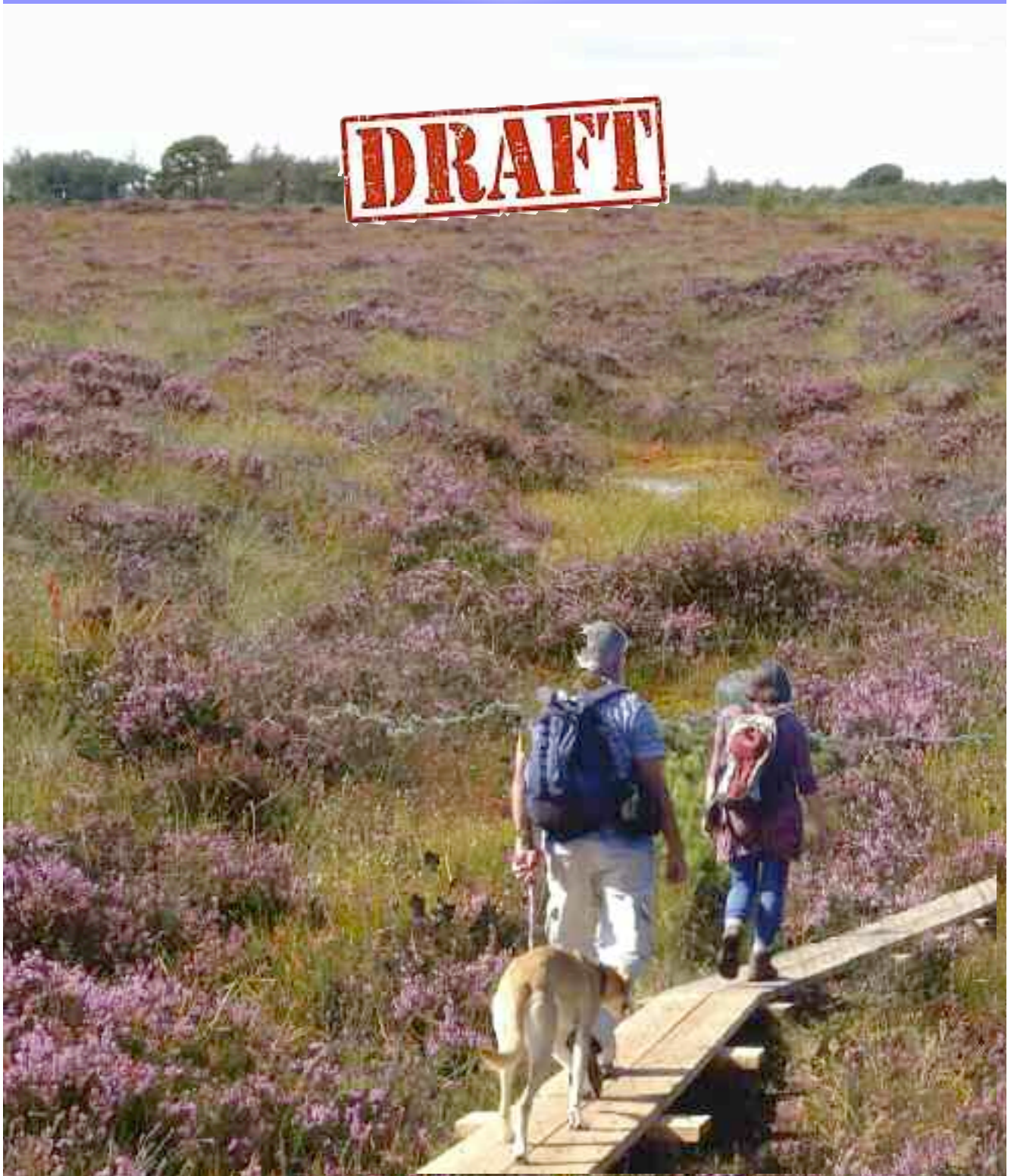




Girley Bog Conservation Action Plan

Girley Bog NHA No.1580, Co. Meath, Ireland

2016-2020



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Lullymore, Rathangan, Co. Kildare, Ireland
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Cover Image: Surface view of Girley Bog with boardwalk inset. Catherine O'Connell

Contents

Acknowledgement	2
Message from Girley Bog Meitheal	3
Vision for the Plan	3
Girley Bog Site Summary	4
Raised Bog Fact Sheet	5
Girley Bog Timeline	10
Site Description, Status and Condition of Girley Bog	11
Public Engagement	20
Conservation Objectives for Girley Bog	24
Amenity Conservation Objectives	27
Management Restoration Methods	28
Girley Bog Management Actions 2016-2020	32
References	37
Glossary and Acronyms	38
Appendix 1: Figures	40
Appendix 2: Girley Gallery	

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Friends of the Bog

All those individuals who participated in the opinion survey on the content and focus of this plan.

Message from Girley Bog Meitheal

This Conservation Action Plan 2016-2020 sets out the significance of Girley Bog, a valuable heritage asset in County Meath. It describes how that significance is to be retained by the different stakeholders in Girley Bog in any future use, management, alteration or restoration action. The Plan is based on a simple thinking process which starts with a description of what is there, why it matters, what is happening to it and the principles by which it is to be managed over the next five years. It also sets out more detailed work programmes for its maintenance, scientific monitoring, management, public access and educational use.

An holistic approach is taken to the plan as Girley Bog has more than one type of value - the site is of value for both heritage and recreation. IPCC, one of the stakeholders in Girley Bog and acting on behalf of the Girley Bog Meitheal Team received an overwhelming mandate from the public to develop this action plan as the first steps in a bright future for this wonderful community asset.

We have been very fortunate at Girley that some of the top hydrologists, ecologists and historians in the country have studied our bog and have shared their findings with us. Thanks to the hydrological assessment by Flynn and Regan (2012), the peat forming vegetation survey of Denyer (2014) and the environmental and social history research of Flood (2015) we have an integrated and robust knowledge on which to base our Conservation Action Plan that will help to bring better results for nature and people.

There is strong and sufficient evidence in this plan to support the notion that, with on-going tree removal and the creation of favourable hydrological conditions through drain blocking, it will be possible to restore active raised bog habitat within Girley Bog. Where slope and hydrological conditions preclude the possibility of active raised bog and supporting habitats developing, there is scope to create or facilitate the natural regeneration of areas of semi-natural deciduous woodland, orchid rich grassland and bog woodland.

With careful management the local community and visitors will continue to enjoy the natural and cultural history of Girley Bog through the use of the site for walking, education and recreation.

Vision for the Plan

The aim of this Conservation Action Plan for Girley Bog is:

to bring about the restoration and conservation of raised bog habitats and biodiversity and to work together with the community to ensure there are opportunities for everyone to learn about and care for the heritage of Girley Bog and to take part in understanding and protecting it.

Girley Bog Site Summary

Site Name: Girley Bog NHA 1580

County: Meath

Grid Reference: N 705 680

GPS: Lat- 53.68483, Long- -6.94971

Location: Girley Bog is located 8km south west of Kells off the N52, Co. Meath

Discovery Map: (1:50,000) No. 42

Area: 100 hectares, 247 acres (high bog 72.48ha NHA Review 2014)

Ownership: Irish Peatland Conservation Council, National Parks & Wildlife Service, Coillte, Native Woodland Trust and private owners

Status: Natural Heritage Area No. 1580, SI 2003

Endangered Habitats Present: 3 Annex I habitats as defined under the Habitats Directive 92/43/EEC Active Raised Bog 7110 (1.8ha NHA Review 2013), Degraded Raised Bog 7120 (1.8ha NHA Review 2014), Bog Woodland 91D0

Rare/Indicator Species Present: *Rana temporaria* (Common Frog), *Gallinago gallinago* (Snipe), *Alauda arvensis* (Skylark), *Coenonympha tullia* (Large Heath), *Lepus timidus hibernicus* (Hare), *Sphagnum* spp., *Cladonia* spp., *Drosera anglica* (Sundew), *Lacerta vivipara* (Common Lizard)

Conservation Assessment: The site is a midlands raised bog on the eastern extreme of the range of raised bog distribution in Ireland. It is the only site in County Meath which supports EU priority peatland habitats and species and is managed solely for the purpose of conservation.

Conservation Management Plan Aim: To bring about the restoration and conservation of raised bog habitats and biodiversity and to work together with the community to ensure there are opportunities for everyone to learn about and care for the heritage of Girley Bog and to take part in understanding and protecting it.

Interpretation: The perimeter of the bog is a national loop walk (No. 51), interpretive signs, visitor parking

Threats: Drainage, Fire, Scrub Encroachment, Dumping, Visitor Trampling, Theft

Girley Bog Timeline

A timeline of the history and milestone achievements in the conservation of Girley Bog

- 1655 Girley Bog mapped as part of the Down Survey 1656-1658 and the area of the bog was estimated to be 334 acres, 2 roods, 32 perches
- 1802 Statistical Survey of the County of Meath 1802 describes turf cutting on Girley followed by small scale land reclamation by the poor
- 1836 Six inch Ordnance Survey map show trees planted at the edge of the Drewstown section of Girley bog to the south west by the landowner Ferdinand Meath McVeagh
- 1836 Field Survey for the first edition Ordnance Survey maps show six drains running from the centre to the perimeter of the bog demarcating townlands, forested areas to the south and south west, houses (mud cabins) and turf cutting plots on the north west, north and north eastern edges of the in the townlands of Ethelstown and Chamberlainstown. The survey calculates the area of Girley bog at 191ha or 472 acres
- 1850-80 Balrath Estate who managed the portion of Girley Bog in Ethelstown record shooting Red Grouse, Partridge, Quail, Snipe, Woodcock, Rail, Teal and Plover
- 1910 25" Ordnance Survey Map shows drainage and tree planting on the high bog to the southwest, extension of turf cutting and drainage to the east and a general expansion in the planted areas to the west of the bog to establish Bell's Wood, Bog Wood and Larch Wood
- 1931 Death of a man who lived on the edge of Girley Bog in a fire
- 1941 Turf Cutting during the Emergency: 4,833 tons of turf were harvested from Girley Bog in the townland of Chamberlainstown bog show that 4,833 tons of turf were harvested in the 1941
- 1972 Scientific Interest of Girley Bog first recorded and recognised
- 1990 Girley Bog Environmental Committee organise clean up of Girley Bog supported by a FAS Scheme
- 2002 Girley Bog surveyed as part of the Natural Heritage Areas
- 2003 S.I. No. 600 declares Girley Bog an NHA 1580.
- 2005 Illegal drainage affecting 20-25ha of the high bog
- 2009 EULIFE09 NAT/IE/000222 Demonstrating best practice in raised bog restoration in Ireland by Coillte
- 2009 Bog EcoWalk/Loop Walk No. 51 established on site
- 2011 Conifer plantation felled by Coillte and the last turf cut on Girley Bog
- 2012 James Keegan from University College Dublin completes an MSc thesis on Girley Bog entitled: *Assessment of Current Status and Proposed Restoration Plan for a Lowland Raised Bog (Girley Bog) in the Irish Midlands.*
- 2012 Ray Flynn (Queens University) and Shane Regan (Trinity College) complete a Hydrological Baseline Assessment of Girley Bog supported by the East Bord Region Action for Biodiversity, the EU and the Department of Arts Heritage and the Gaeltacht
- 2013 IPCC purchase 8.5ha of Girley Bog
- 2013 Native Woodland Trust purchase **7ha** of Girley Bog
- 2013 Drains blocked in the former forest plantation area by Coillte and bog bridge constructed with interpretive signs and visitor welcome information sign at the Drewstown entrance to the bog
- 2013 **1.5km** Drains in the cutover bog owned by IPCC blocked by NPWS
- 2014 Girley Bog Meitheal set up
- 2014 Girley Bog Map and Guide published by IPCC
- 2014 IPCC block **xx** km of drains on the high bog at Girley, begin water monitoring and establish a *Sphagnum* moss restoration area in the cutover bog
- 2014 Native Woodland **????**
- 2014 A boardwalk upgrade to the part of the Loop Walk is completed by NPWS and Meath County Council
- 2014 Girley Bog Bridge opened across the high bog by Coillte
- 2014 Girley Bog Ecotopes Mapped by Denyer Ecology
- 2015 IPCC complete drain blocking on land owned in the high bog of Girley and establish two further *Sphagnum* restoration areas in the cutover bog
- 2015 Kate Flood completes study entitled: Integrating scientific, historic, and local knowledge for conservation and management of peatlands in Ireland. MSC Thesis, School of Biology & Environmental Science, University College Dublin.
- 2015 IPCC present a poster paper entitled: Collaborative Conservation of Girley Bog to Peatlands: A New Conversation Conference in Tullamore organised by the Irish Peat Society on behalf of the International Peatland Society.
- 2015 Development of a 10 year Conservation Action Plan for Girley Bog by Girley Bog Meitheal.

Hugh Cushnan Ph.D. work

Girley Bog Management Actions 2016-2020

Habitat Location	Action	Timeline, Priority	Responsible Body
High Bog Habitat	Block all active drains	High	NPWS, IPCC
High Bog Habitat	Fell trees in superdrain, block this drain and all of its off shoot drains	High	NPWS
High Bog Habitat	Remove regenerating birch trees across the site to prevent drying out of the bog surface and to create open habitat for specialist bird species	High	NPWS, Coillte, IPCC
High Bog Habitat	Remove invasive pine across the site to prevent drying out of the bog surface and to create open habitat for specialist bird species	High	NPWS, Coillte, IPCC
High Bog Habitat	Monitor regeneration of invasive tree and shrub species including Laurel, birch, pine and willow in the Coillte land area and in the brush on the high bog, remove annually	High	NPWS, Coillte, IPCC
High Bog Habitat Hydrology	Monitor Water Levels in ?? piezometers across the site each month including groundwater levels, conductivity and surface water discharge. Obtain rainfall data from Mullingar met station and measure evaporation. Produce hydrographs for the site each year	High	NPWS, IPCC, Coillte, QUB
High Bog Habitat	Monitor the distribution and extent of raised bog ecotopes by survey every five years referring to Denyer Survey of 2014.	High	NPWS
High Bog Habitat	Establish a fire control zone by clipping vegetation in a belt in areas prone to fire	High	NPWS
Cutover Bog Birch Woodlands	Establish through natural regeneration	Medium	Coillte
Cutover Bog	Commission a vegetation survey and map of the habitats present in the cutover areas of the bog	Medium	NPWS
Cutover Bog	Drain blocking	Medium	IPCC
Cutover Bog	<i>Establish Sphagnum</i> restoration habitats in the cutover bog and monitor three areas set up in 2014 and 2015.	Medium	IPCC
Cutover Bog Orchid-rich Area	Remove biomass in selected areas using traditional sythe method annually	High	NWT
Cutover Bog Orchid-rich Area	Fence off habitat area. Arrange to graze area with cattle to poach ground one month after mowing	Annual	NWT in liaison with Causey Farm

Habitat Location	Action	Timeline, Priority	Responsible Body
Cutover Bog Orchid Rich Area	Plant hen rattle in meadows to control grass domination	Medium, Annual	NWT
Woodland	Plant alder, crab apple, willow and birch	Low, on-going for how long?	NWT
Orchard		Low	Annette, NPWS
Linnet Plot	Fence off and manage for skylark through grazing regime	Low	Annette, NPWS
Bog Woodlands	Remove <i>Rhododendron</i> and treat with herbicide	High	Coillte
Bog Woodland	Remove Laurel	High	Coillte
Bog Woodland	Survey	Medium	NPWS
Hydrology	Monitor piezometers monthly, quarterly	High,	IPCC, Coillte, QUB
Geological Data	obtain geological data on the site from cores and boreholes, to better understand the inter-relationship between the bog and its surroundings	Medium	NPWS, QUB
Butterfly Transect	Investigate potential to create a butterfly transect across the different habitats of the site	Medium	IPCC, NBDC, in liaison with Jesmond Harding of Butterfly Conservation Ireland
Butterfly Habitat Creation	Investigate creating suitable habitat on cutover bog for Marsh Fritillary - a combination of <i>Succisa</i> and <i>Molinia</i>	Low	IPCC
Species	Action	Timeline, Priority	Responsible Body
Birds	Survey by transect of the different habitats on site	Annual	Oliver Usher, Birdwatch Ireland
Bats	Contact Tina Aughney for Bat Data relating to site	Annual	IPCC
Bryophyte Survey	Survey	Annual	NPWS
Other Baseline surveys	Conduct as appropriate	Annual	All
Biodiversity Surveys	Conduct in orchid-rich areas	Annual	NWT
Moths	Annual monitoring survey across woodland, grassland and bogland habitats. Survey	Annual	Eamonn O'Donnell, Moths Ireland
Spiders	Obtain results from spider survey project 2015	High	Meath County Council, IPCC
Raised Bog Services	Action	Timeline	Responsible Body
Carbon Storage	Encourage reseracher to measure the carbon stored in the bog	Medium	Meath County Council, NPWS, IPCC
Water Reservoir	Encourage reseracher to measure the extent of the water reservoir in the bog	Medium	Meath County Council, NPWS, IPCC

Other Heritage	Action	Timeline, Priority	Responsible Body
Archaeology	Compile list of site and monuments records	Once off,	IPCC
Local History Study/Survey	Encourage Student Researcher	Once off	
Palaeological Studies	Encourage Student Researcher	Once off	
Ecosystem Services Study	Encourage Student researcher	Medium	All
Education and Amenity	Action	Timeline, Priority	Responsible Body
Loop Walk	Maintain and Repair in a safe condition for walkers annually	High	Meath County Council, NPWS
Loop Walk	Extend through NWT land	Medium, Once-off	NWT
Loop Walk	Remove invasive Japanese Knotweed from car park and monitor regeneration and spread	Annual	NPWS and all
Loop Walk	Walkers directional, timing and walk location signage needed to prevent visitors getting disorientated or lost on walk.	Once-off	NPWS, Meath EcoTours and Meath County Council
Loop Walk	Maintain overgrown, soft ground areas with bark chip or boardwalk	Annual	NPWS, Meath EcoTours and Meath County Council
Loop Walk	Erect warning signs regarding risk of fire	High	NPWS, Meath County Council
Loop Walk	Establish panoramic view point from the Coillte boardwalk over the high bog. Remove trees and brash blocking view	High	NPWS, IPCC, Coillte
Poem Stones	Maintain and promote	Annual	All
Dumping	Clean up litter and report incidents to Meath County Council litter warden	Annual	All
Dumping	Close and lock gate access to bog from Causey Farm side. Distribute keys to users	Annual	Causey Farm
Dumping	Erect no dumping signs at public access points to the bog	Annual	All
Commemorative Benches	Install a bench to dedicate to site VIPs	Annual	Meath County Council in liaison with Mens Shed group
Hay Festival June	Run 1 Event	Annual	All
International Bog Day	Run 1 Event	Annual	IPCC, Meath EcoTours
Heritage Week	Run 2 Events	Annual	IPCC, Meath EcoTours, NWT
Biodiversity Week	Run 2 Events	Annual	IPCC, Meath EcoTours, NWT

Education and Amenity	Action	Timeline, Priority	Responsible Body
Work Camps	Run one or more events	Annual	IPCC, NWT
Health and Safety	Conduct Audit and report to Girley Bog Meitheal	Annual	NPWS
Information Signs	Maintain existing level of signs and survey their condition once a year	Annual	NPWS
Information Signs	Install ?? signs on NWT land for the woodland and orchid habitats	Once-off	NWT
Site Access	Maintain brown finger sign on N52 and install another finger sign from Fordstown	Annual	Meath County Council
Fire Signs	Acquire and install alert signs regarding fire at the public entrances to the bog	Once off	Meath County Council
Car Parks	Survey each year to assess condition and report to Girley Bog Meitheal	Annual	Meath County Council
Gates	Repair gate posts at the Fordstown entrance and replace and maintain, install coded padlocks	Annual	
Girley Publications	Compile list of publications and maintain up to date	Annual	IPCC
Girley Site History	Compile and publish	Once Off	NPWS, Causey Farm, Oliver Usher and local community
Communication	Action	Timeline	Responsible Body
Press	Promote all events	Annual programme	Organsing body
Web Sites	Maintain and update	Monthly	IPCC, Meath EcoTours, Coillte
Web Sites	Encourage linking	Annual	IPCC, Meath EcoTours, Coillte
My Girley Communication	Investigate possibility based on My Tara	Once off	Meath County Council and Meath EcoTours
Group Name, email and identity	Establish name for management group and contact emails	Once off and monitor annually	All

Human Resources	Action	Timeline	Responsible Body
Reserve Warden	Employ	Annual	
Volunteers	Recruit, train and develop work programmes	Annual	IPCC, NWT
Management			
Management work	Keep annual records	Medium	IPCC
Management Plan	Monitor effectiveness	Annual	All
Coillte After Life Plan	Obtain in 2016 and monitor effectiveness	High	Coillte