



Peacock
Aglais io

Bonding with Butterflies

Enhancing habitat for breeding butterflies in Co. Kildare

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Lullymore West Bog Nature Reserve is located in Co. Kildare. The site is owned and managed by the Irish Peatland Conservation Council (IPCC). Our conservation objective for the reserve is to enhance butterflies and in particular the rare and endangered Marsh Fritillary that breed there.

IPCC are working to enhance the habitat for breeding butterflies on Lullymore West Bog and are engaging with the local community through training workshops and open days to transfer skills and build awareness for butterfly conservation in Ireland. Our work is guided by a conservation management plan - 'Lullymore West Bog, Co. Kildare Conservation Management Plan 2018-2025'



Marsh Fritillary
Euphydryas aurinia



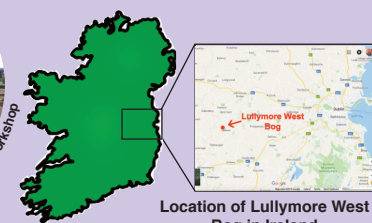
Mechanical scrub clearance in 2018 by tree services contractor



Annual Marsh Fritillary Habitat Condition Assessment



Marsh Fritillary larval nest monitoring training workshop



Location of Lullymore West Bog in Ireland

Table 1: A summary of the results of the butterfly monitoring scheme on Lullymore West Bog, Co. Kildare from 2007-2018. The number of each butterfly species seen during the year is given.

Species/Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of each butterfly species recorded												
Brimstone	19	6	32	54	35	15	71	62	65	58	40	102
Common Blue	42	30	18	34	48	33	13	42	31	15	13	143
Dark Green Fritillary	-	1	-	-	-	-	-	-	-	5	3	-
Dingy Skipper	31	12	14	17	12	34	12	11	28	14	53	38
Gatekeeper	-	-	-	-	-	-	-	-	-	-	-	-
Grayling	-	-	1	-	-	-	-	-	-	-	-	-
Green-veined White	19	23	27	90	46	87	93	50	26	34	50	67
Holly Blue	-	1	-	-	-	-	-	-	-	-	-	-
Large Heath	-	-	-	-	-	-	-	-	-	-	-	-
Large White	2	10	12	17	7	2	13	7	7	3	4	17
Marsh Fritillary	32	34	35	30	12	6	13	12	10	6	20	49
Meadow Brown	33	42	53	81	29	55	100	122	84	64	79	137
Orange-tip	27	6	8	26	44	20	12	29	10	13	36	5
Painted Lady	10	-	57	17	-	-	-	-	-	-	-	-
Peacock	76	15	152	87	14	107	356	193	117	242	319	538
Red Admiral	13	-	47	11	9	3	3	20	13	22	48	16
Ringlet	42	101	220	241	175	163	220	213	208	273	329	306
Silver-washed Fritillary	-	1	-	22	5	6	21	30	24	27	60	268
Small Copper	-	-	-	14	2	5	2	5	-	1	4	16
Small Heath	29	27	36	25	47	29	19	15	7	6	2	-
Small Tortoiseshell	133	12	24	221	21	193	130	38	38	111	61	143
Small White	2	85	69	30	4	-	22	21	30	13	20	11
Speckled Wood	101	54	153	148	80	105	103	151	135	209	296	285
Wall Brown	5	2	2	5	-	-	1	-	-	-	-	1
Cryptic Wood white	44	23	11	13	18	4	6	24	17	11	25	17
Number of walks	27	21	27	26	26	24	20	21	22	25	24	24
Total number of species	18	19	20	21	18	19	19	19	19	20	21	19
Total number of butterflies	660	485	973	1184	608	869	1210	1036	854	1082	1487	2171

Year	Number of occupied Marsh Fritillary Nests
2007	12
2008	9
2009	27
2010	30
2011	11
2012	6
2013	10
2014	12
2015	4
2016	13
2017	21
2018	59

Table 2: The number of occupied Marsh Fritillary nests recorded during Autumn surveys from 2007-2018



Annual Marsh Fritillary larval nest survey



Butterfly monitoring training workshops



Public awareness open days on the bog



Two donkeys grazing the site during the summer months

Habitat Condition Assessment

The first habitat condition assessment for breeding Marsh Fritillary on Lullymore West Bog was undertaken in 2016. Lack of grazing and the encroachment of scrub including: Birch, Willow and Gorse were degrading the habitat.

Grazing

In 2017 IPCC introduced a grazing regime on the reserve. Two donkeys grazed the site from May to August. They ate the grass controlling the height of the vegetation and created an uneven (structured) vegetation height through poaching.

Habitat condition assessments in 2017 and 2018 showed an improvement in the habitat with an increase in the abundance of Devil's Bit Scabious, the food plant of Marsh Fritillary larvae. However, the assessment indicated that grazing must continue and that scrub encroachment was a major issue.

Scrub Removal

In October 2018, thanks to funding from the Community Foundation for Ireland, IPCC hired a contractor to mechanically clear all scrub from 1 ha of the site. This work has opened up the site and increased the suitable habitat for the Marsh Fritillary and many other butterfly species. IPCC will continue to cut back scrub by organising bi-annual volunteer scrub clearance work camps.

Butterfly Survey

Weekly butterfly surveys are undertaken from April to October each year as part of the Irish Butterfly Monitoring Scheme run by the National Biodiversity Data Centre. The numbers of each butterfly species recorded annually on the site since 2007 are shown in Table 1. There has been an increase in the overall abundance since grazing was introduced. IPCC conduct an annual Marsh Fritillary larval nest survey on the site. There has also been an increase in the number of nests recorded on the reserve since the grazing regime was put in place. Marsh Fritillary data is presented in Table 2.

Community Engagement

IPCC are engaging with the community through hosting Marsh Fritillary monitoring workshops and public awareness events during Heritage Week and Biodiversity Week.

Future Actions

- * Grazing and scrub removal to continue
- * Monitoring butterflies to continue
- * Increases in butterfly abundance expected
- * Community engagement events to continue
- * Bonding with butterflies expected



Common Blue
(Polyommatus icarus)



Poster Paper 2019 © Catherine O'Connell & Katie Geraghty, Irish Peatland Conservation Council, Lullymore, Rathangan, Co. Kildare, R51 V293, www.ipcc.ie.

Presented at New Horizons for Nature - The National Biodiversity Conference, Dublin Castle, Dublin 20th & 21st February 2019.

Acknowledgments: IPCC would like to acknowledge all the volunteers, staff and supporters who helped with habitat condition assessment, grazing, scrub removal and butterfly monitoring work on Lullymore West Bog.

Photos: courtesy of IPCC supporters.

Financial Support: This project is supported by The Community Foundation for Ireland under the Community Biodiversity Grant Scheme 2018.

The Community Foundation for Ireland