



Moths of Poole Harbour is a project of Birds of Poole Harbour

Moths on Corfe River Meadow 2020

The 'Moths of Poole Harbour' (MoPH) project was set up in 2017 to gain knowledge of moth species occurring in Poole Harbour, Dorset, their distribution, abundance and to some extent, their habitat requirements. The study area shares the same boundaries as the Birds of Poole Harbour (BoPH) project.

The unimproved meadows alongside the Corfe River are owned and managed by the National Trust. The MoPH project visited twice in July 2020, plans for earlier trapping at the site were curtailed by the Coronavirus pandemic.

By mid-July the hay cut had been taken, so plans for further trapping were switched elsewhere. The site is accessed by a gate at SY963849 and follows the track down to Sharford footbridge. The meadow proved readily accessible with a wheelbarrow from the road. Parking overnight was in a layby on the road opposite the access track.

Different areas of the meadow were surveyed each visit and a number of very interesting species were found. The flower meadows themselves are edged by riparian habitat and wet woodland and form part of an extensive network of valuable habitat. It's likely that further survey would reveal many more moth species.

The site was very well used by cyclists and walkers, many of whom were interested in the trapping going on. There is scope for public engagement activities here.

On the first occasion 2nd July, 3 Mercury Vapour (MV) Robinson traps were run along with a single actinic ultra-violet trap. On 7th, July 3 MV traps were run. The totals seen on each visit are an amalgamation from all the traps operated.

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In total, 81 species were recorded from the 2 visits with a total of 744 moths. Hard to identify species of *Gelechiidae* and *Coleophoridae* were not included.

In addition, a visit was made to attempt to attract Clearwing species to pheromone lures but this was not successful. A number of lures were tried for species including Six-belted (foodplant Bird's-foot Trefoil), Red-tipped, Sallow and others.

4 species are designated Nationally Scarce B (Nb, recorded from 31-100 10km squares since 1980). In addition, 7 other species are included on Section 41 (S41) of the 2006 Natural Environment and Rural Communities Act. These species, designated to be "of principal importance for the purpose of conserving biodiversity" are those that are most threatened, in greatest decline, or where the UK holds a significant proportion of the world's total population. These are included in the table below. Each table lists the number of times the moth was recorded on site 'Times recorded' and the total number of moths seen on that occasion 'Number recorded'.

Table 1. Notable species recorded at Corfe River Meadow in 2020

SPECIES	DESIGNATION	TIMES RECORDED	NUMBER RECORDED
Blood-vein	S41	1	1
Buff Ermine	S41	1	2
Cream-bordered Green Pea	Nb	1	1
Crescent	S41	2	5
Festoon	Nb	1	1
Kent Black Arches	Nb	1	3
Knot Grass	S41	1	1
Lackey	S41	1	1
<i>Monochroa lutulentella</i> *	Nb	1	1
Rustic / Uncertain†	S41	1†	4†
White-line Dart	S41	1	1

***Identification confirmed by Dr Phil Sterling**

†Recorded as aggregate species (Rustic is Section 41)

Several of the species important in a national context are locally quite common in Purbeck. In order to look more closely at the locally scarcer species, analysis has been made of the records in the Living Record database. This has been running since the year 2000 and gives a better indication of local context for species. Around 175 square kilometres comprise the BoPH recording area. 5 of the species recorded at Corfe River Meadow are found in 5 or fewer of those squares between 2000 and 2019 are summarised in Table 2 below.

Table 2. Species recorded at Corfe River Meadow found in 5 or fewer 1km squares in Living Record 2000-2019

SPECIES	No. of 1km squares on Living Record	Times recorded	Number recorded
<i>Acrobasis marmorea</i> *	5	1	1
<i>Aethes beatricella</i>	0	1	1
<i>Agapeta zoegana</i>	5	1	2
<i>Endothenia quadrimaculana</i>	2	1	2
<i>Monochroa lutulentella</i> *	0	1	1

*Confirmed by Dr Phil Sterling

Selected species accounts

The following accounts are the more notable, scarce or locally interesting species found at Corfe River Meadow. There follows an entire species list for the site. The numbers in brackets after each species are the number of times seen followed by the total number of individuals recorded.

1044 / 1045 ***Acleris ferrugana* / *notana* aggregate** – The 2 species are effectively indistinguishable without genitalia examination. In Dorset both species are considered scarce and local residents. The larvae of *A. ferrugana* feed on Oaks and Sallow and the larvae of *A. notana* feed on Birch. One on 7th July. Recorded in 4 squares on Living Record 2000-2019. (1,1)

1440 ***Acrobasis marmorea*** – An uncommon and thinly distributed resident. The larvae feed on Blackthorn, Hawthorn and Sorbus spp. One on 7th July 2020 confirmed by Dr Phil Sterling. Elsewhere recorded by the MoPH project only at Hamworthy and Carey Estate near Wareham. Recorded in 5 x 1km squares on Living Record 2000-2019. (1,1)



951 ***Aethes beatricella*** – A rare and very local resident. One on 2nd July 2020. The larval foodplant, Hemlock, is common along the river edge. There are no records on Living Record 2000-2019. (1,1)

Fig. 1 *Aethes beatricella*, Corfe River 2nd July. Photographed inside tube.

937 **Agapeta hamana** – A common and widespread resident, the larvae feed on Thistle. 2 on 2nd and 1 on 7th July. Recorded in 18 x 1km squares on Living Record 2000-2019. (2,3)

938 **Agapeta zoegana** – An uncommon and thinly distributed resident, the larvae feed on Knapweed. One on 2nd and 2 on 7th July. The foodplant is frequent in the meadow. Elsewhere recorded by the MoPH project only at Arne Moors and Carey Estate. Recorded in 5 x 1km squares on Living Record 2000-2019. (2,3)



Fig. 2 *Agapeta zoegana*, Corfe River 7th July

1032 **Aleimma loeflingiana** – Fairly common and widespread resident. Larval foodplant is Oak. 1 on 2nd July. Elsewhere recorded by the MoPH project only at Holton Lee and Hamworthy. Recorded in 6 x 1km squares on Living Record 2000-2019. (1,1)

796 **Aroga velocella** – Scarce and restricted resident, the larvae feed on Sheep's Sorrel. 3 on 7th July. Recorded in 10 x 1km squares on Living Record 2000-2019. (1,3)

1758 **Barred Straw** *Eulithis pyraliata* – Very common and widespread resident, the larvae feed on Cleavers and Bedstraw. One on 7th July. Elsewhere recorded by the MoPH project only at Ballard and Carey Estate. Recorded in 8 x 1km squares on Living Record 2000-2019. (1,1)

1682 **Blood-vein** *Timandra comae* – Common and fairly widespread resident, the larvae feed on Docks, Common Orache, Common Sorrel. One on 7th July. Elsewhere recorded by the MoPH project only at Ballard, Arne Moors, Holton Lee and Carey Estate. Recorded in 23 x 1km squares on Living Record 2000-2019. *Section 41 species ("of principal importance for the purpose of conserving biodiversity" covered under section 41 [England] of the NERC Act 20016).* (1,1)

2302 **Brown Rustic** *Rusina ferruginea* – Fairly common and widespread resident, larvae feed on herbaceous plants. One on 7th July. Elsewhere recorded by the MoPH project only at Arne Moors, Hartland Moor and Talbot Heath. Recorded in 8 x 1km squares on Living Record 2000-2019. (1,1)

2061 **Buff Ermine** *Spilosoma lutea* – Very common and widespread resident, larvae feed on herbaceous plants. 2 on 2nd July. Recorded in 41 x 1km squares on Living Record 2000-2019. *Section 41 species ("of principal importance for the purpose of conserving biodiversity" covered under section 41 [England] of the NERC Act 20016).* (1,2)

288 **Caloptilia stigmatella** – Common and thinly distributed resident, the larvae feed on Willow and Poplar. One on 7th July. Elsewhere recorded by the MoPH project only at Holton Lee and Carey Estate near Wareham. Recorded in 18 x 1km squares on Living Record 2000-2019. (1,1)

1290 **Chilo phragmitella** – Uncommon and thinly distributed or restricted resident, the larvae feed on Common Reed and Reed Sweet-grass. 3 on 7th July. Elsewhere recorded by the MoPH project only at Arne Moors, Holton Lee and Carey Estate. Recorded in 9 x 1km squares on Living Record 2000-2019. (1,3)

2069 **Cinnabar** *Tyria jacobaeae* – Common and widespread resident, the larvae feed on Common Ragwort. One adult on 2nd July. Recorded in 47 x 1km squares on Living Record 2000-2019. *Section 41 species* (“of principal importance for the purpose of conserving biodiversity” covered under section 41 [England] of the NERC Act 20016). (1,1)

993 **Clepsid** *Clepsid spectrana* (Cyclamen Tortrix) – Uncommon and thinly distributed resident, larvae feed on a wide variety of herbaceous plants. One on 7th July. Recorded in 8 x 1km squares on Living Record 2000-2019. (1,1)

2418 **Cream-bordered Green Pea** *Earias clorana* (Nationally Scarce B) – Scarce and restricted resident, larvae feed on Sallow and Willows. One on 7th July. Recorded in 21 x 1km squares on Living Record 2000-2019. (1,1)

2368 **Crescent** *Helotropha leucostigma* – Uncommon and thinly distributed or restricted resident, larvae feed on Yellow Iris, Great Fen-sedge. 2 on 2nd July and 3 on 7th July. Elsewhere recorded by the MoPH project only at Arne Moors, Ballard, Holton Lee and Carey Estate. Recorded in 7 x 1km squares on Living Record 2000-2019. *Section 41 species* (“of principal importance for the purpose of conserving biodiversity” covered under section 41 [England] of the NERC Act 20016). (2,5)



Fig. 3 & 4 Crescent Moth from 2nd July (left) and 7th July (right)

1010 **Ditula angustiorana** (Red-barred Tortrix) – Fairly common and widespread resident, the larvae feed on various plants. One on 7th July. Recorded in 10 x 1km squares on Living Record 2000-2019. (1,1)



1104 **Endothenia quadrimaculana** – Uncommon and thinly distributed resident, the larvae feed on Marsh Woundwort and Spearmint. Two on 7th July. There is a substantial patch of Marsh Woundwort in the south-west corner of the meadow close to the second trapping site. Elsewhere recorded by the MoPH project at Holton Lee and Slepe Heath. Recorded in 2 x 1km squares on Living Record 2000-2019. (1,2)

Fig. 5 *Endothenia quadrimaculana* 7th July

173 **Festoon** *Apoda limacodes* (Nationally Scarce B) – Scarce and restricted resident, the larvae feed on Oak and Beech. One on 7th July. Recorded in 24 x 1km squares on Living Record 2000-2019. (1,1)



Fig.6 Festoon 7th July

2076 **Kent Black Arches** *Meganola albula* (Nationally Scarce B) – Uncommon and restricted resident, the larvae feed on Dewberry, Bramble, Raspberry and Strawberry. 3 on 7th July. Recorded in 29 x 1km squares on Living Record 2000-2019. (1,3)

2289 **Knot Grass** *Acronicta rumicis* – Very common and widespread resident, the larvae feed on herbaceous and woody plants. One on 7th July. Recorded in 38 x 1km squares on Living Record 2000-2019. *Section 41 species* (“of principal importance for the purpose of conserving biodiversity” covered under section 41 [England] of the NERC Act 20016). (1,1)

1634 **Lackey** *Malacosoma neustria* – Common and widespread resident, the larvae feed on broadleaved trees and shrubs including the rose family. One on 2nd July. Elsewhere recorded by the MoPH project only at Ballard and Talbot Heath. Recorded in 7 x 1km squares on Living Record 2000-2019. *Section 41 species* (“of principal importance for the purpose of conserving biodiversity” covered under section 41 [England] of the NERC Act 20016). (1,1)

1692 **Lesser Cream Wave** *Scopula immutata* – Rare and very local resident, the larvae feed on Meadowsweet, Common Valerian. Four on 7th July. Elsewhere recorded by the MoPH project only at Arne Moors, Holton Lee, Slepe Heath and Carey Estate. Recorded in 7 x 1km squares on Living Record 2000-2019. (1,4)

742 **Monochroa lutulentella** (Nationally Scarce B) – Very rare resident, the larval foodplant is Meadowsweet. One on 7th July 2020, confirmed as a male, by Dr Phil Sterling. The foodplant is common on the site. This is the first Poole Harbour record this century, with only one previous record from VC9 (from Portland Bird Observatory) and coincides with its discovery on the Moors River SSSI close to Bournemouth Airport, also in 2020. (P. Sterling pers. comm). (1,1)

1079 **Piniphila bifasciana** – Uncommon and thinly distributed and restricted resident, the larvae feed on Scots Pine. One on 7th July. Recorded in 11 x 1km squares on Living Record 2000-2019. (1,1)

2035 **Round-winged Muslin** *Thumatha senex* – Scarce and restricted resident, the larvae feed on lichens and mosses. One on 2nd July. Elsewhere recorded by the MoPH project at Arne Moors, Holton Lee, Slepe Heath, Upton Heath and Carey Estate. Recorded in 8 x 1km squares on Living Record 2000-2019. (1,1)

2381 / 2382 **Rustic / Uncertain aggregate** *Hoplodrina blanda / octogenaria* – Very common and widespread resident, the larvae feed on herbaceous plants. All species were recorded as aggregates due to the difficulty in separating the species on field characteristics alone. 4 on 7th July. *Rustic is a Section 41 species* (“of principal importance for the purpose of conserving biodiversity” covered under section 41 [England] of the NERC Act 20016). (1,4)



2077 **Short-cloaked Moth** *Nola cucullatella* – Common and fairly widespread resident, the larvae feed on Hawthorns, Blackthorn, Apple, Pear, Plum. One on 7th July. Elsewhere recorded by the MoPH project only at Ballard and Holton Lee. Recorded in 7 x 1km squares on Living Record 2000-2019. (1,1)

Fig. 7 Short-cloaked Moth 7th July

1858 **V-Pug** *Chloroclystis v-ata* – Fairly common and widespread resident, the larvae feed on many plants. One on 7th July. Elsewhere recorded by the MoPH project at Ballard, Sandford Gardens, Carey Estate and Hamworthy. Recorded in 15 x 1km squares on Living Record 2000-2019. (1,1)

2081 **White-line Dart** *Euxoa tritici* – Uncommon and local resident, the larvae feed on herbaceous plants. One on 7th July. Recorded in 17 x 1km squares on Living Record 2000-2019. *Section 41 species* (“of principal importance for the purpose of conserving biodiversity” covered under section 41 [England] of the NERC Act 20016). (1,1)

Table 3. Full species list for Corfe River Meadow

SPECIES	TIMES RECORDED	NUMBER RECORDED	2/7/2020	7/7/2020
<i>Acleris ferrugana / notana</i>	1	1		1
<i>Acrobasis marmorea</i> *	1	1		1
<i>Aethes beatricella</i>	1	1	1	
<i>Agapeta hamana</i>	2	3	2	1
<i>Agapeta zoegana</i>	1	2	1	2
<i>Agriphila straminella</i>	1	5	5	
<i>Aleimma loeflingiana</i>	1	1	1	
<i>Aroga velocella</i>	1	3		3
Barred straw	1	1		1
Bird's Wing	1	2	2	
Blood-vein	1	1		1
Bright-line Brown-eye	1	2		2
Brown Rustic	1	1		1
Brown-tail	1	1		1
Buff Arches	1	1		1
Buff Ermine	1	2	2	
Buff-tip	2	3	2	1

<i>Caloptilia stigmatella</i>	1	1		1
<i>Celypha striana</i>	1	2	1	1
<i>Chilo phragmitella</i>	1	3		3
<i>Chrysoteuchia culmella</i>	2	446	128	318
Cinnabar	1	1	1	
Clay	2	5	4	1
<i>Clepsis spectrana</i>	1	1		1
Clouded Border	2	7	4	3
<i>Cnephasia spp.</i>	2	5	2	3
<i>Coleophora spp.</i>	2	9	3	6
Common Footman	1	1		1
Common Rustic	2	5	2	3
Common Wainscot	1	1	1	
Coronet	1	1	1	
Cream-bordered Green Pea	1	1		1
Crescent	2	5	2	3
<i>Cydia splendana</i>	1	1		1
Dark Arches	2	13	2	11
Dark Sword-grass	1	1	1	
<i>Diamond-back</i>	1	1	1	
<i>Ditula angustiorana</i>	1	1		1
Double Square-spot	2	3	1	2
Dwarf Cream Wave	1	1	1	
Elephant Hawk	2	8	4	4
<i>Endothenia oblongana</i>	1	1		1
<i>Endothenia quadrimaculana</i>	1	2		2
Engrailed	1	1		1
<i>Eudonia mercurella</i>	1	2		2
Festoon	1	1		1
Flame Shoulder	1	2		2
<i>Gelechiidae spp.</i>	1	2	2	
Grass Emerald	1	1	1	
Grey Arches	1	1		1
Heart & Dart	2	16	8	8
Herald	1	1		1
Kent Black Arches	1	3		3
Knot Grass	1	1		1
Lackey	1	1	1	
Large Emerald	1	1	1	
Large Yellow Underwing	2	7	1	6

Lesser Cream Wave	1	4		4
Lesser Swallow Prominent	1	2		2
Lesser Yellow Underwing	1	2		2
Marbled White-spot	1	5		5
Minor agg.	1	3		3
<i>Monochroa lutulentella</i> *	1	1		1
<i>Pempelia palumbella</i>	1	1	1	
Peppered	1	1		1
Pine Hawk	1	1		1
<i>Piniphila bifasciana</i>	1	1		1
Poplar Hawk	1	1	1	
Privet Hawk	2	4	3	1
<i>Pyrausta despicata</i>	2	4	3	1
Round-winged Muslin	1	1	1	
Ruby Tiger	1	2		2
Rustic / Uncertain	1	4		4
Scalloped Oak	1	2		2
Short-cloaked Moth	1	1		1
Small Seraphim	1	1	1	
Smoky Wainscot	2	14	8	6
<i>Synaphe punctalis</i>	2	50	25	25
True Lover's Knot	2	40	13	27
V-Pug	1	1		1
White-line Dart	1	1		1

***Confirmed by Dr Phil Sterling**

SECTION 41 SPECIES

NATIONALLY SCARCE B

Acknowledgements

Moths of Poole Harbour would like to thank David Brown from National Trust for access and advice. Dr Phil Sterling for important identifications and comments. All photographs by Abby Gibbs and Chris Thain.



Fig. 8 Corfe River Meadow