

Holton Lee was chosen due to its proximity to the little-recorded Holton Heath and its variety of habitats, including woodland, wet woodland, heathland and reedbed.

MoPH trapped from August – October 2019 on six occasions, setting three Mercury Vapour (MV’s) traps and one ‘actinic’ (ultra-violet). We located ourselves along the new boardwalk near the hide and reedbed and in the woodland areas between the two bird hides. In 2019 we made more use of the Flourish Garden with its abundance of nectar sources.

In 2017 we trapped from August – October on 17 occasions and in 2018 from May – October on 19 occasions.

To date, MoPH has recorded 337 full species at Holton Lee (does not include aggregates). This includes species designated for their rarity. The designations are Nationally Scarce A or Notable A (recorded in 16 – 30 10km squares since 1980), Nationally Scarce B or Notable B (recorded from 31 – 100 10km squares since 1980) and Red Data Book (recorded from fewer than 15km squares in Britain). These are often shown in a ‘traffic light’ system with the rarest in Red for Red Data Book, Notable A as Amber and Notable B as Green. We have highlighted these in such a way in the table below and in Appendix 1. In general, micro-moths are in italics in Latin and macro moths use the common English name.

The most frequently encountered species was, not surprisingly the Large Yellow Underwing, which is common on all sites surveyed, seen on 31 of 42 trapping visits. This had a total abundance of 280 individuals. Following this was the Setaceous Hebrew Character, encountered on 21 out of 42 visits with a total abundance of 157.

NOTABLE SPECIES FOUND AT HOLTON LEE

Red Data Book	Notable A	Notable B
<i>Crambus silvella</i>	Four-spotted Footman	<i>Bactra robustana</i>
Southern Chestnut		<i>Crambus hamella</i>
		Cream-bordered Green Pea
		<i>Eudonia delunella</i>
		Horse Chestnut
		Kent Black Arches
		Mocha
		<i>Pediasia contaminella</i>
		<i>Pempelia genistella*</i>
		Purple-bordered Gold
		Rosy Wave
		Webb's Wainscot

SPECIES RECORDED AT HOLTON LEE THAT HAVE NOT BEEN RECORDED BY MoPH ELSEWHERE (23 SPECIES):

In an attempt to provide some local context to the species recorded at Holton Lee the following table presents a list of species that the Project has not recorded at other sites within the Harbour. It should be noted that coverage of Poole Harbour (on some 24 additional sites) has been far from exhaustive.

Species	Verified by:	Year found	No. of individuals found on no. of occasions
<i>Acleris kockiella</i>		2018	1/1
<i>Acleris literana</i>		2019	1/1
<i>Acrobasis suavella</i>	Dr Phil Sterling	2018	1/1
<i>Aleimma loeflingiana</i>		2018	1/1
<i>Bucculatrix ulmella</i>		2017	1/1
Bulrush Wainscot		2017	1/1
<i>Cataclysta lemnata</i>		2018	1/1
<i>Cnesphasia asseclana</i>	Dr Phil Sterling	2018	1/1
<i>Coleophora trifoli</i>	Dr Phil Sterling	2018	1/1
<i>Cosmopterix scribaiella</i>	Jack Oughton	2018	5/1
Devon Carpet		2018	1/1
<i>Elachista freyerella</i>	Dr Phil Sterling	2018	1/1
Flame Wainscot		2017 & 2018	5/4
Green Brindled Crescent		2018	1/1
<i>Gypsonoma dealbana</i>		2018	9/3
<i>Gypsonoma sociana</i>		2017	1/1
Marbled Beauty		2018	1/1
<i>Oegoconia caradji</i>	(May not be accepted)	2018	1/1
<i>Oegoconia deauratella</i>	(May not be accepted)	2018	1/1
<i>Phycitodes Saxicola</i>	Dr Phil Sterling	2018	2/2
<i>Prays fraxinella</i>		2018	1/1
Rosy Underwing	Les Evans-Hill	2017	1/1
<i>Ypsolopha parenthesesella</i>		2017	3/3

SECTION 41 SPECIES

In addition, 31 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 for completeness.

Common Name	Latin Name
Knot Grass	<i>Acronicta rumicis</i>
Autumnal Rustic	<i>Eugnorisma glareosa</i>
Beaded Chestnut	<i>Conistra rubiginea</i>
Blood-vein	<i>Timandra comae</i>
Broom Moth	<i>Melanchra pisi</i>
Buff Ermine	<i>Spilosoma luteum</i>
Centre-barred Sallow	<i>Atethmia centrago</i>
Cinnabar	<i>Tyria jacobaeae</i>
Crescent	<i>Celaena leucostigma</i>
Dark-barred Twin-spot Carpet	<i>Xanthorhoe ferrugata</i>
Dusky Thorn	<i>Ennomos fuscantaria</i>
Feathered Gothic	<i>Tholera decimalis</i>
Garden Tiger	<i>Arctia caja</i>
Green-brindled Crescent	<i>Allophyes oxyacanthae</i>
Heath Rustic	<i>Xestia agathina</i>
Large Wainscot	<i>Rhizedra lutosa</i>
Mottled Rustic	<i>Caradrina morpheus</i>
Mouse Moth	<i>Amphipyra tragopoginis</i>
Mullein Wave	<i>Scopula marginepunctata</i>
Neglected Rustic	<i>Xestia castanea</i>
Oak Hook-tip	<i>Watsonalla binaria</i>
Oblique Carpet	<i>Orthonama vittata</i>
Rosy Rustic	<i>Hydraecia micacea</i>
Rustic	<i>Hoplodrina blanda</i>
Shoulder-striped Wainscot	<i>Mythimna comma</i>
Small Emerald	<i>Hemistola chrysoprasaria</i>
Small Phoenix	<i>Ecliptopera silaceata</i>
Small Square-spot	<i>Diarsia rubi</i>
White Ermine	<i>Spilosoma lubricipeda</i>
White-line Dart	<i>Euxoa tritici</i>
	<i>Coleophora trifoli</i>

SPECIES ACCOUNTS – Highlights

Acentria ephemerella – 30 individuals recorded on one occasion on the 1st July 2018. At the time, we were putting the actinic on the platform above the small heathland pond. This is a common species found around ponds and feeds on pondweeds. It was not recorded in 2019, but we did not start trapping until August and did not put the actinic above the pond.

Acleris hyemana – This is a target species for the Back from the Brink project for Purbeck Mason Wasp (*Pseudepipona herrichii*) and MoPH has trapped on Slepe Heath and Hartland Moor in pursuit of this species. It was recorded once at Holton Lee on the 13th May 2018. Although the Purbeck Mason Wasp (the parasitic wasp associated with *A. hyemana*) is not known on Holton Lee, it's good

to know that the micro-moth occurs on heathland sites where the wasp is not present. National status is 'Local', feeds on heathers.



Acleris literana – This species was the only new addition to the 2019 list of moths that has not been recorded elsewhere by the MoPH project. This stunning micro-moth blends in with green lichen and as such is known colloquially as the 'mini-merv' (a mini 'Merveille du jour'). Its national status is local and it feeds on oak.

Acleris literana

Photo credit: @Gillian Nash, Dorset Moths.

<http://www.dorsetmothgroup.info/portal/p/Picture/s/1061+Acleris+literana+04>

Agriphila straminella – A common species for MoPH recorded on 14 out of 25 sites. As the flight season is June – August, none were recorded from August – October on Holton Lee in 2019, but this species was recorded 9 times during 2017 -18 with 162 individuals seen. Feeds on various short grasses.

Bactra robustana – There are four species of *Bactra*, and MoPH has found all four on the Poole Harbour sites visited. *B. lancealana* is common at Holton Lee as well as other sites, but *B. robustana* is Nationally Scarce B and was sent off to expert Dr Phil Sterling for verification. It was recorded once on 26th August 2017 at Holton Lee and once at Arne Moors. It is a rare and restricted coastal resident that feeds on sea club-rush.

Broad-bordered Bee Hawk – Recorded once at Holton Lee, by Paul Mitchell in 2019 and once at Hartland Moor. This Notable B moth feeds on honeysuckle and bedstraw.



Emperor – The iconic heathland moth feeds on woody plants including heathers, bramble and hawthorns. Its national status is common but is a scarce and restricted local resident and a joy to see. We tried using pheromones to attract the males at Holton Lee which worked. Recorded on 8 sites in Poole Harbour.

Emperor Moth

Leopard – Although its national status is common, it is uncommon in Dorset and has only been Recorded at Holton Lee and Arne Moors by MoPH. It feeds on woody plants and trees.

Leopard Moth



Mocha – A stunning Notable B moth that feeds on Field Maple. It is an uncommon and restricted resident in Dorset.

Mocha

Red-necked Footman – Its national status is local. MoPH have found this species at Holton Lee and Carey Estate in Wareham only. The larvae feed on lichens and algae on broad-leaved trees.

Red-necked Footman



Rosy Wave – A nationally scarce Notable B species that feeds on sea-beet. MoPH have recorded this species on 3 sites in Poole Harbour. It's been recorded 6 times at Holton Lee with 16 individuals seen.

Southern Chestnut – This Red Data Book 2 species is a 'very scarce and restricted recent colonist'. However, MoPH have found this species on seven of our sites so far and it appears to be spreading in distribution. Recorded twice at Holton Lee with four individuals found, but not recorded in 2018 or 2019. This is a late season species, flying in September and October and the larvae feed on heathers.

Acknowledgements:

We are very grateful to the staff for allowing us unhindered access, and for their enthusiasm towards our project. Dorset Moths group for technical data. Dr Phil Sterling, Jack Oughton and Les Evans-Hill for verifications. Karl Clennell, Chilali Gizzy-Neither, Malcolm Barrett, Katy Barrett and Christine Arnold for help in the field. Juliet Martin and Paul Mitchell for additional records. All photographs by Abby Gibbs unless otherwise stated.

Appendix 1: Full list of species recorded 2017 – 19

Species	Times recorded	Total number seen
<i>Acentria ephemerella</i>	1	30
<i>Acleris hyemana</i>	1	1
<i>Acleris kochiella</i>	1	1
<i>Acleris literana</i>	1	1
<i>Acleris notana</i>	2	4
<i>Agapeta hamana</i>	4	9
<i>Agriphila geniculea</i>	2	2
<i>Agriphila inquinatella</i>	2	3
<i>Agriphila latistria</i>	2	3
<i>Agriphila selasella</i>	6	8
<i>Agriphila straminella</i>	9	162
<i>Agriphila tristella</i>	15	76
<i>Aleimma loeflingiana</i>	1	1
<i>Anania lancealis</i>	1	1
<i>Anania perlucidalis</i>	1	1
Angle Shades	6	8
<i>Apotomis capreana</i>	2	3
<i>Apotomis turbidana</i>	2	3
<i>Argyresthia brockeella</i>	2	11
<i>Argyresthia goedartella</i>	6	34
<i>Aroga velocella</i>	2	6

Autumnal Rustic	4	4
<i>Bactra lancealana</i>	15	32
<i>Bactra robustana</i>	1	1
Barred Red	2	3
Beaded Chestnut	1	6
Beautiful Hook-tip	1	2
Beautiful Snout	1	1
Birch Mocha	2	2
Bird's Wing	1	1
Black Arches	9	44
Black Rustic	4	10
<i>Blastobasis adustella</i>	2	2
Blood-vein	4	8
Blotched Emerald	2	4
Bordered Beauty	1	1
<i>Brachmia blandella</i>	1	1
Bright-line Brown-eye	6	13
Brimstone	8	9
Brindled Green	2	2
Broad-bordered Bee Hawk**	1	1
Broad-bordered Yellow Underwing	11	17
Broom	1	1
<i>Brown China-mark</i>	9	14
Brown Silver-line	7	24
Brown-tail	1	3
Brown-veined Wainscot	1	9
Brussels Lace	4	6
<i>Bucculatrix ulmella</i>	1	1
Buff Arches	3	5
Buff Ermine	4	13
Buff Footman	5	12
Buff-tip	8	17
Bulrush Wainscot	1	1
Burnished Brass	2	2
<i>Calamatropha palludella</i>	6	11
<i>Caloptilia alchimiella</i>	2	2
<i>Caloptilia populetorum</i>	1	2
<i>Caloptilia robustella</i>	1	2
<i>Caloptilia stigmatella</i>	1	1
<i>Calybites phasianipennella*</i>	2	2
<i>Cameraria ohredella</i>	2	3
Canary-shouldered Thorn	11	15
<i>Carcina quercana</i>	5	5
<i>Cataclysta lemnata</i>	1	1
<i>Catoptria falsella</i>	2	2
<i>Catoptria pinella</i>	1	1

<i>Celypha lacunana</i>	16	49
<i>Celypha striana</i> *	2	2
Centre-barred Sallow	2	2
<i>Chilo phragmitella</i>	4	4
<i>Chrysosteuchia culmella</i>	6	59
Cinnabar	3	7
Clay	2	4
<i>Clepsia spectrana</i>	7	13
Cloaked Minor	1	1
Clouded Border	8	30
Clouded Brindle	1	1
Clouded Buff	1	1
Clouded Silver	3	3
<i>Cnesphasia asseclana</i> *	1	1
<i>Cochylimorpha straminea</i>	1	3
<i>Cochylis atricapitana</i>	7	17
<i>Cochylis nana</i>	1	1
<i>Coleophora trifoli</i> *	1	1
Common Carpet	9	15
Common Footman	5	6
Common Lutestring	1	1
Common Marbled Carpet	3	3
Common Rustic	8	26
Common Swift	3	7
Common Wainscot	18	38
Common Wave	7	11
Common White Wave	7	8
Convolvulus Hawk**	1	1
Copper Underwing	1	1
Coronet	3	6
<i>Cosmopterix scribaiella</i>	1	5
Coxcomb Prominent	1	1
<i>Crambus hamella</i>	3	3
<i>Crambus pascuella</i>	1	1
<i>Crambus perlella</i>	2	3
<i>Crambus silvella</i>	2	2
<i>Crassa unitella</i>	1	1
Cream Wave	1	1
<i>Cream-bordered Green Pea</i>	1	1
Crescent	2	2
<i>Cryptoblabes bistriga</i>	1	1
<i>Cydia splendana</i>	8	33
<i>Cydia ulicetana</i>	3	7
Dark Arches	6	17
Dark Chestnut	1	1
Dark Sword-grass	1	1

Dark-barred Twin-spot Carpet	1	1
Devon Carpet	1	1
<i>Diamond-back</i>	9	33
<i>Digitivalva pulicariae</i>	1	1
Dingy Footman	5	23
Dingy Shell	1	1
<i>Ditula angustoriana</i>	2	4
Dog's Tooth	2	2
<i>Donacaula forficella</i>	4	4
Dotted Clay	1	1
Double-striped Pug	13	21
Drinker	7	16
Dun-bar	3	7
Dusky Thorn	8	10
Ear spp.	3	5
<i>Elachista freyerella*</i>	1	1
Elephant Hawk	6	26
<i>Emmelina monodactyla</i>	1	1
Emperor**	1	1
<i>Endothenia quadrimaculana</i>	1	1
<i>Endotricha flammealis</i>	6	73
<i>Epiblema scutillana</i>	1	1
<i>Epigoge grotiana</i>	1	1
<i>Epinotia cruciana*</i>	1	1
<i>Epinotia ramella</i>	4	9
<i>Epiphyas postvittana</i>	7	14
<i>Eucosma cana</i>	2	2
<i>Eudonia angustea</i>	4	10
<i>Eudonia delunella</i>	3	11
<i>Eudonia lacustrata</i>	3	4
<i>Eudonia mercurella</i>	13	27
<i>Eudonia pallida</i>	17	44
<i>Eudonia truncicolella</i>	6	9
<i>Eupoecilia angustana</i>	1	1
<i>Euzophera pinguis</i>	1	2
<i>Evergestis forficalis</i>	1	1
Evergestis limbata**	1	1
Eyed Hawk	3	3
Fan-foot	3	4
Feathered Gothic	4	8
Fen Wainscot	5	18
Flame	1	1
Flame Shoulder	20	56
Flame Wainscot	4	5
Flounced Rustic	10	21
Four-dotted Footman	3	8

Four-spotted Footman	3	3
Fox Moth	2	3
Foxglove Pug	1	1
Frosted Orange	5	5
Garden Carpet	1	1
Garden Tiger	2	3
Gold Spot	8	19
Gold Swift	4	5
Grass Emerald	2	2
Great Prominent	1	1
Green Carpet	12	27
Green Silver-lines	1	2
Green-brindled Crescent	1	1
Grey Dagger	1	1
Grey Pine Carpet	9	17
<i>Gypsonoma dealbana</i>	3	9
<i>Gypsonoma sociana</i>	1	1
Heart and Dart	12	24
Heath Rustic	1	1
<i>Hedya pruniana</i>	1	1
<i>Hofmannophila pseudospretella</i>	2	3
Horse Chestnut	1	1
<i>Hypsopygia costalis</i>	3	6
Ingrailed Clay	1	1
Iron Prominent	7	10
July Belle	1	1
Kent Black Arches	1	1
Knot Grass	2	3
Large Emerald	1	1
Large Wainscot	4	6
Large Yellow Underwing	31	280
Least Black Arches	2	2
Least Yellow Underwing	2	2
Leopard	2	2
Lesser Broad-bordered Yellow Underwing	9	25
Lesser Cream Wave	1	1
Lesser Swallow Prominent	6	9
Lesser Yellow Underwing	8	8
Light Emerald	12	25
Lilac Beauty	1	1
Lime-speck Pug	3	4
<i>Limnaecia phragmitella</i>	1	2
<i>Lobesia abscisana</i>	2	2
Lobster	1	1
<i>Lozotonioides formosana</i>	4	5
Lunar Underwing	5	16

Maiden's Blush	8	14
Marbled Beauty	1	1
Marbled Brown	1	2
Marbled White-spot	7	34
Merveille du Jour	1	2
Middle-barred Minor	2	2
<i>Mirificama mulinella</i>	3	3
Mocha	1	1
<i>Monochroa cytisella</i>	3	16
Mother of Pearl	6	23
Mottled Pug	1	1
Mottled Rustic	2	4
Mouse Moth	2	2
Mullein Wave	2	3
Muslin	2	5
Narrow-winged Pug	1	1
Neglected Rustic	4	5
<i>Nematopogon swammerdamella</i>	1	1
<i>Nomophila noctuella</i>	2	2
<i>Notocelia uddmanniana</i>	2	3
Nutmeg	1	1
Nut-tree Tussock	2	5
Oak Eggar	1	1
Oak Hook-tip	9	18
Oblique Carpet	4	5
Obscure Wainscot	2	3
Ochreous Pug	1	1
<i>Oecogonia caradji</i>	1	1
<i>Oecogonia deauratella</i>	1	1
Orange Footman	1	1
Orange Swift	16	33
<i>Ostrinia nubilalis</i>	1	1
Pale Mottled Willow	1	1
Pale Tussock	4	7
<i>Pandemis cerasana</i>	4	5
<i>Pandemis corylana</i>	6	8
Peach Blossom	1	1
Peacock	2	3
Pearly Underwing	1	1
Pebble Hook-tip	3	3
Pebble Prominent	7	7
<i>Pediasia contaminella</i>	1	2
<i>Pempelia genistella*</i>	3	3
<i>Pempelia palumbella</i>	4	6
Peppered	2	2
<i>Phycitodes saxicola*</i>	2	2

<i>Phyllonorycter messaniella</i>	2	2
Pine Carpet	5	7
Pine Hawk	1	1
Pinion-streaked Snout	10	15
Pink-barred Sallow	3	3
Plain Wave	2	2
Poplar Hawk	6	8
Poplar Kitten	1	1
<i>Prays fraxinella</i>	1	1
Privet Hawk	1	1
<i>Pseudoswammerdamia combinella</i>	1	1
Purple Bar	1	1
Purple Thorn	2	2
Purple-bordered Gold	1	1
<i>Pyrausta aurata</i>	1	2
<i>Pyrausta despicata</i>	1	1
Red Twin-spot Carpet	1	1
Red-necked Footman	1	1
<i>Rhyacionia pinicolana</i>	1	1
<i>Rhyacionia pinivorana</i>	1	1
Riband Wave	6	22
<i>Ringed China-mark</i>	2	6
Rosy Footman	8	23
Rosy Rustic	6	6
Rosy Underwing	1	1
Rosy Wave	6	16
Round-winged Muslin	4	9
Ruby Tiger	10	23
Rufous Minor	1	1
Rustic / Uncertain	4	26
Sallow Kitten	1	1
Satin Wave	2	2
Scallop Shell	1	1
Scalloped Hook-tip	9	12
Scarce Footman	9	13
<i>Schoenobius gigantella</i>	1	1
<i>Scoparia ambigualis</i>	2	3
<i>Scoparia basistrigalis</i>	2	3
Scorched Wing	2	3
Setaceous Hebrew Character	21	157
Sharp-angled Peacock	6	13
Short-cloaked Moth	1	1
Shoulder-striped Wainscot	1	1
Shuttle-shaped Dart	7	7
Silky Wainscot	3	6
Silver Y	3	12

Single-dotted Wave	5	9
Six-striped Rustic	7	18
Slender Brindle	2	2
Small Angle Shades	2	2
Small Blood-vein	2	2
Small China-mark	13	26
Small Emerald	1	1
Small Fan-footed Wave	5	7
Small Magpie	3	3
Small Phoenix	1	1
Small Purple-barred	1	1
Small Rufous	6	8
Small Seraphim	5	7
Small Square-spot	4	6
Small Wainscot	19	46
Small Yellow Wave	1	1
Smoky Wainscot	5	37
Snout	10	18
Southern Chestnut	2	4
Southern Wainscot	8	26
Spectacle	8	18
Square-spot Rustic	11	40
Straw Dot	15	43
Striped Wainscot	2	5
<i>Swammerdamia pyrella</i>	1	1
<i>Synaphe punctalis</i>	5	14
<i>Tachystola acroxantha</i>	8	10
Tawny-barred Angle	9	11
<i>Teleiopsis diffinis</i>	1	5
<i>Tortrix viridana</i>	2	3
Treble Brown Spot	1	1
Treble Lines	1	1
True Lover's Knot	5	14
Turnip	2	2
<i>Twenty-plume</i>	1	1
Twin-spotted Wainscot	1	5
<i>Udea ferrugalis</i>	2	2
Vapourer	1	1
Vine's Rustic	8	39
Webb's Wainscot	2	2
White Ermine	4	14
White-line Dart	1	1
White-point	9	13
Willow Beauty	3	3
Yellow-line Quaker	3	4
Yellow-tail	1	1

<i>Yponomeuta evonymella</i>	3	7
<i>Ypsolopha dentella</i>	2	2
<i>Ypsolopha parenthesesella</i>	3	3
<i>Acrobasis suavella*</i>	1	1
<i>Cochylis molliculana*</i>	1	1