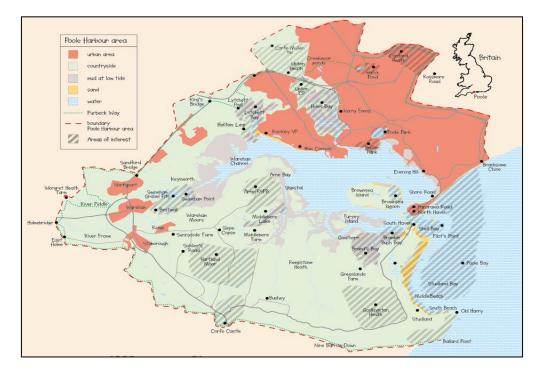


Moths of Poole Harbour is a project of Birds of Poole Harbour

Moths on Slepe Heath 2017 – 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.



Birds of Poole Harbour recording area

Slepe Heath is a large expanse of lowland heathland contiguous with Hartland Moor and forming an integral part of the Purbeck Heaths National Nature Reserve established in 2020. The site is owned and managed by the National Trust.

The site has undergone extensive pine removal within the last decade or so and has a variety of heathland types within it. Extensive dry heathland slopes are bordered to the north by a fringe of damper communities. To the western edge a marshy area is fringed by secondary woodland.

Slepe Heath was initially visited following discussions with Mark Parsons at Butterfly Conservation. This site is the known stronghold for the seriously declined Speckled Footman, which became a target species for the project. MoPH visited the heath regularly from mid-July 2017.

One of the target species for the Plantlife led 'Back from the Brink' Project is the Purbeck Mason Wasp whose larvae feed on the micro-moth *Acleris hyemana* larvae. MoPH targeted the adult moth in early spring 2018 and 2019 in two of the known sites for Purbeck Mason Wasp on Slepe Heath.

Three main areas were regularly visited. The main central heath with the highest concentrations of Bristle bent, the assumed foodplant of Speckled Footman, was best accessed using a four-wheel drive vehicle and whenever it was possible to liaise with NT staff this was done. However, in mid-summer this is quite a demanding time commitment, late in the evening for assisting staff. Access for the main body of the site – including moving traps towards the wetter heath in the north-east corner was from the gate on Soldier's Road, keys for this gate are held by the NT Purbeck Estate team. On subsequent visits, in late summer and autumn it proved perfectly feasible to move equipment from this gateway with repeated wheelbarrow journeys. In this way areas of the track and heath within 400m of the gateway were trapped a number of times.

A number of visits were made in late spring and summer 2018 accessing the site from the eastern side using the gate along the road that runs from Arne triangle to the Middlebere Farm track at grid reference SY957860. Keys for this gate are held by the NT Purbeck Estate team and the traps were taken up the hill using a wheelbarrow. This part of the site produced a number of significant heathland species including several Grass Eggar, Small Chocolate-tip and Bordered Grey.

The main site for looking for *Acleris hyemana* was accessed from the gateway at SY961856, again using NT Purbeck Estate team keys and it was possible to drive vehicles along the track here.

Along Soldiers Road there is an additional Purbeck Mason Wasp location that was accessible from the road by wheelbarrow and this was visited on 4 occasions in March and April 2018. A lay-by on the road allowed the van to be slept in within sight of the traps and generator.

Following the discovery of the Red Data Book Southern Chestnut on Goathorn and subsequently at Holton Lee, Slepe was sampled for the species in October 2017 and again in October 2019. The moth is easy to record as it has a tendency to appear on the wing for about an hour after dusk and was easily found here, and indeed on all the heathland sites where it was looked for.

Due to commitments of the project elsewhere, Slepe was visited only 12 times aside from the 8 species-specific surveys for *Acleris hyemana* and Southern Chestnut.

In total 248 species were recorded with a number of particularly notable records. These are summarised in Table 1 and Table 2. The bulk of this report is a full account for all species.

14 species are designated Nationally Scarce B (Nb, recorded from 31-100 10km squares since 1980), Nationally Scarce A (Na, recorded in 16-30 10km squares since 1980) or Red Data Book (RDB), recorded in 15 or fewer 10km squares. These are listed in the table below.

Table 1. Notable species recorded on Slepe Heath 2017-2019

SPECIES	STATUS	TIMES	NUMBER	YEAR
		RECORDED	RECORDED	RECORDED
Bordered Grey	Na	1	1	2017
Crambus hamella	Nb	2	29	2017
Cydia coniferana*	Nb	1	1	2019
Dingy Mocha	RDB	1	1	2017
Dotted Border Wave	Nb	2	3	2017 & 2018
Dotted Chestnut	Nb	1	1	2018
Four-spotted Footman	Na	5	5	2017 & 2018
Grass Eggar	Na	3	10	2017
Horse Chestnut	Nb	17	93	2017, 2018, 2019
Kent Black Arches	Nb	1	1	2018
Marsh Oblique-barred	Nb	1	1	2017
Pempelia genistella	Nb	3	21	2017 & 2018
Small Chocolate-tip	Nb	1	1	2017
Southern Chestnut	RDB	2	5	2017 & 2019

*Confirmed by Dr Phil Sterling

14 species from Slepe Heath have been recorded in 5 or fewer of the 1km squares of the Poole Harbour recording area on Living Record (LR). These are summarised in Table 2 below.

Table 2. Species from Slepe Heath recorded in 5 or fewer 1km squares in Living Record 2000-2019

SPECIES	NUMBER OF L.R. SQUARES	TIMES RECORDED	NUMBER RECORDED	YEAR RECORDED
Acleris notana *	4	1	1	2018
Ancylis geminana	1	1	1	2019
Bordered Grey	3	1	1	2017
Coleophora deauratella*	0	1	1	2018
Cydia coniferana*	1	1	1	2019
Dotted Clay	2	1	1	2018

Ectodemia argyropeza	0	1	1+	2020†
Endothenia	2	1	1	2018
quadrimaculana*				
Flounced Chestnut	4	3	3	2017 & 2019
Grass Eggar	4	3	10	2017
Marsh Oblique-barred	5	1	1	2017
Pleurota bicostella*	5	1	1	209
Small Chocolate-tip	3	1	1	2017
Udea lutealis	4	2	2	2017

*Confirmed by Dr Phil Sterling. † Leaf-mine recorded from Aspen in November 2020, confirmed by Jack Oughton

Table 3. Species recorded by the Moths of Poole Harbourproject only at Slepe Heath

	TIMES	NUMBER	YEAR
SPECIES	RECORDED	RECORDED	RECORDED
Acleris aspersana	1	2	2017
Acleris notana*	1	1	2018
Bordered Grey	1	1	2017
Coleophora deauratella*	1	1	2018
Common Heath	1	1	2019
Cydia coniferana*	1	1	2019
Ectoedemia argyropeza	1	1+	2020†
Dotted Chestnut	1	1	2018
Dotted Clay	1	1	2018
Feathered Thorn	1	1	2017
Pleurota bicostella*	1	1	2019
Sycamore	1	1	2018

*Confirmed by Dr Phil Sterling.

+ Recorded as leaf-mine on Aspen, November 2020.

SPECIES ACCOUNTS

The following pages list every species recorded on site from 2017 – 2020. Each species has its individual 'Bradley & Fletcher' (BF) moth number. Micro-moths are recorded by Latin name with common name in brackets (where given). Macro moths are recorded by common name with Latin name following. Distribution, local status and larval food plant is given where this knowledge exists. Numbers in brackets following each account represent frequency of times caught, followed by number of individuals caught in total.

Acleris aspersana – An uncommon and thinly distributed resident in Dorset. The larvae feed on a range of herbaceous plants in open areas such as grassland, downs and heath. Single record, 2 on 17th July 2017. This was the sole record for the MoPH project. (1,2)



Acleris forsskaleana – An uncommon and thinly distributed resident in Dorset. The larvae feed on Field Maple and Sycamore. One on 19th July 2019 the only record. (1,1)

Fig.1 Acleris forsskaleana

Acleris hyemana – A scarce and thinly distributed heathland resident, the larvae feeding on heather species. This species was extensively looked for on the heaths in the early seasons of 2018 and 2019, in collaboration with the 'Back from the Brink' project for Purbeck Mason Wasp which feed their own larvae on the caterpillars of this species. 2 known Wasp breeding sites were targeted looking for *A. hyemana*, both successfully. 1 on 10th April 2018 at Wasp site A, and 2 on 8th April 2019 at Wasp site B. Further details of the Back from the Brink work for Purbeck Mason Wasp are summarised in a separate report: 'Acleris hyemana on Purbeck Heaths in spring 2018 and 2019' produced by the Moths of Poole Harbour project. (2,3)



Fig.2 Acleris hyemana

Acleris notana – A scarce and local resident, the larvae feed on Birch. This species and *Acleris ferrugana* (1044) are normally aggregated in the absence of genital dissection. One on 19th July 2018, confirmed by Dr Phil Sterling, is the only definitive record for the MoPH project. Recorded in 4 x 1km squares on Living Record 2000-2019. (1,1)

Agriphila geniculea – Fairly common but thinly distributed or restricted resident, the larvae feed on short fine grasses. 7 recorded on 3 occasions in 2017. (3,7)

Agriphila inquinatella – Fairly common and widely distributed resident. Larvae feed on grasses. 50 recorded on 10 occasions in 2017 and 2018. Maximum 17 on 31st July 2017. (10,50)

Agriphila latistria – An uncommon and thinly distributed and restricted resident. Larvae feed on grasses. 2 on 21st and 2 on 28th July 2017 the only records. (2,4)

Agriphila straminella – Very common and widespread resident. The larvae feed on various short grasses, especially Sheep's-fescue. 136 recorded on 7 occasions in 2017 and 2018. Maximum 71 on 19th July 2018. (7,136)

Agriphila tristella – A very common and widespread resident. Larvae feed on various grasses. 10 on 5 occasions in 2017 and 2018. Maximum 4 on 14th August 2018. (5,10) **Amblyptilia acanthadactyla** (Beautiful Plume) – An uncommon and thinly distributed or restricted resident. Larvae feed on a large range of plants. One on 24th July 2017 the only record. (1,1)

Anania hortulata (Small Magpie) – Very common and widespread resident, the larvae feed on nettles. One on 12th July 2018 the only record. (1,1)

Ancylis geminana – Very rare resident. A single record on 30th May 2019. This is the only record for the MoPH project. There are no other records in Living Record 2000-2019. (1,1)

Angle Shades *Phlogophora meticulosa* – A very common and widespread resident, larvae feed on herbaceous and woody plants. Singles recorded on 5 occasions in 2017 and 2018. (5,5)

Annulet *Charissa obscurata* – A scarce and restricted resident, larvae feed on Sea Campion, Thrift and Common Rock-rose. 2 on 17th July 2017 and 1 on 31st July 2017. Elsewhere recorded by the MoPH project only on Ballard. (2,3)

Anomalous *Stilbia anomala* – Scarce and restricted resident, the larvae feed on various grasses especially Wavy Hair-grass. Singles on 28th August 2018 and 4th September 2018 the only records. Elsewhere recorded by the MoPH project only at Goathorn. (2,2)



Antler Moth *Cerapteryx graminis* – Scarce and restricted resident in Dorset. Larvae feed on Grasses, Sedges and Rushes. One on 24th July 2017 the only record. Elsewhere recorded by the MoPH project only at Arne Moors, and considered to be becoming increasingly uncommon locally. (1,1)

Fig.3 Antler Moth

Aphomia sociella (Bee Moth) – Common and widespread resident, the larvae feed on honeycomb in hives. 2 on 12^{th} July 2018 the sole record. (1,2)

Apotomis turbidana – An uncommon and thinly distributed resident. Larvae feed on Silver and Downy Birches. One on 17th July 2017. (1,1)

Archer's Dart *Agrotis vestigialis* – An uncommon and restricted resident, the larvae feed on herbaceous plants. Singles recorded on 4 occasions in August and September 2017. (4,4)



Fig.4 Archer's Dart

Argyresthia goedartella – Uncommon and thinly distributed resident, larvae feed on Birch and Alder. 10 recorded from the northern wetter heath on 17th July 2017. The sole record. (1,10)

Argyrotaenia ljungiana – Uncommon and thinly distributed and restricted resident, larvae feed on Bog-myrtle and Heather. One on 24th July 2017 and 4 on 19th July 2018 the only records. (2,5)

Aristotelia ericinella – Uncommon and restricted resident, larvae feed on Heather. 320 recorded on 7 occasions in July and August 2017 and July 2018. High counts of 103 on 24th July 2017 and 118 on 19th July 2018. (7,320)

Aroga velocella – Scarce and restricted resident, the larvae feed on Sheep's Sorrel. Singles on 12th and 19th July 2018. (2,2)

Bactra lancealana – Fairly common and widespread resident. Larvae feed on various Rushes. 6 recorded on 5 occasions in July and August 2017 (5,6)

Batia lambdella – Uncommon and thinly distributed resident. Larvae feed on Gorse. One on 17th July 2017 the sole record. (1,1)

Beautiful Hook-tip *Laspeyria flexula* – An uncommon and thinly distributed resident, the larvae feed on lichens. One on 19th July 2018. John Winterbottom recorded 4 on Slepe on 7th June 2018. (2,5)

Beautiful Yellow Underwing *Anarta myrtilli* – Scarce and restricted resident, the larvae feed on Heather and Bell Heather. 121 recorded on 9 occasions in 2017 and 2018. Maximum 43 on 24th July 2017. (9,121)

Birch Mocha *Cyclophora albipunctata* – Scarce and restricted resident, the larvae feed on Downy and Silver Birch. Singles on 17th and 24th July 2017 and 19th July 2018. (3,3)

Black Arches *Lymantria monacha* – Common and widespread resident, the larvae feed on various trees. One on 14^{th} August 2017 the only record. (1,1)

Black Rustic Aporophyla nigra – Common and widespread resident, the larvae feed on herbaceous and woody plants. 6 on 14th October 2017, 1 on 2nd October 2019. (2,7)

Blastobasis adustella – Fairly common and widespread resident, larvae feed on a variety of foodstuffs and decaying matter. One on 17th July 2017 the only record. (1,1)



Bordered Grey *Selidosema brunnearia* (Nationally Scarce A) – Scarce and restricted resident, apparently declining. Larvae feed on heathland plants including Heather species and Bird's-foot Trefoil. One on 7th August 2017, from the eastern side of the heath was the sole record for the MoPH project. Recorded in 3 x 1km squares on Living Record 2000-2019. (1,1)

Fig.5 Bordered Grey

Bordered Sallow *Pyrrhia umbra* – Scarce and local resident, the larvae feed on Spiny Restharrow. One on 17th July 2017 and 4 on 19th July 2018. (2,5)

Brachmia blandella – Uncommon and thinly distributed resident, larvae feeding on Gorse. Singles on 17th and 24th July 2017 and 12th and 19th July 2018. (4,4)

Bright-line Brown-eye *Lacanobia oleracea* – Abundant and widespread resident, the larvae feed on herbaceous and woody plants. 4 recorded on 3 occasions in 2017 and 2018. (3,4)

Brimstone Moth *Opisthograptis luteolata* – Widespread and abundant resident, larvae feed on Blackthorn, Hawthorns, Plum and Bullace. 6 recorded on 5 occasions in 2017 and 2018. (5,6)

Brindled Beauty *Lycia hirtaria* – Uncommon and thinly distributed resident, the larvae feed on broadleaved trees. One on 8th April 2019 the only record. (1,1)

Brindled Pug *Eupithecia abbreviata* – Uncommon and widespread resident, the larvae feed on Pedunculate and Sessile Oaks and Hawthorns. One 7th May 2018 the only record. (1,1)

Broad-bordered Yellow Underwing *Noctua fimbriata* – Common and widespread resident, larvae feed on herbaceous plants. 61 recorded on 8 occasions in 2017. Maximum 29 on 24th July 2017. (8,61)

Broom Moth *Melanchra pisi* – Fairly common but restricted resident, the larvae feed on various herbaceous plants. Singles on 12th and 19th July 2018, one recorded by John Winterbottom on 7th June 2018. (3,3)

Brown Silver-line *Petrophora chlorosata* – Fairly common and widespread resident, the larvae feed on Bracken. One on 7th May 2018 the sole record. (1,1)

Brown-tail *Euproctis chrysorrhoea* – Uncommon and local resident, the larvae feed on Bramble, Hawthorn, Blackthorn, Dog-rose, Sallow. 11 recorded on 3 occasions in 2017 and 2018. Maximum 5 on 12th July 2018. (3,11)

Brussels Lace *Cleorodes lichenaria* – Fairly common and widespread resident, the larvae feed on lichens. One recorded by John Winterbottom on 7th June 2018. (1,1)

Buff Arches *Habrosyne pyritoides* – Very common and widespread resident, the larvae feed on Bramble and Dewberry. One on 19th July 2018. (1,1)

Buff Ermine *Spilosoma lutea* – Very common and widespread resident, larvae feed on herbaceous plants. One on 19th July 2018, 2 recorded by John Winterbottom on 7th June 2018. (2,3)

Buff Footman *Eilema depressa* – Fairly common and widespread resident, larvae feed on lichens. 2 on 17th July 2017 the sole record. (1,2)

Buff-tip *Phalera bucephala* – Very common and widespread resident, the larvae feed on broadleaved trees, Birches, Sallow, Oaks, Hazel. 4 on 17th July 2017 and one recorded by John Winterbottom on 7th June 2018. (2,5)

366a *Cameraria ohridella* (Horse-chestnut Leaf Miner) – Fairly common and thinly distributed recent resident, the larvae feed on Horse Chestnut. 2 on 19th July 2018 the sole record. (1,2)

Canary-shouldered Thorn *Ennomos alniaria* – Common and fairly widespread resident, the larvae feed on Downy and Silver Birch, Alder, Limes and Elms. 6 on 3 occasions in 2017 and 2018. (3,6)



Fig.6 Canary-shouldered Thorn

Catoptria pinella – Fairly common and widespread resident, larvae feed on Grasses in damp areas. 8 recorded on 3 occasions in 2017 and 2018. Maximum 5 on 17th July 2017. (3,8)

Celypha lacunana – A very common and widespread resident, larvae feed on herbaceous plants. One on 7th May 2018 the sole record. (1,1)

Chestnut *Conistra vaccinii* – Common and widespread resident, larvae feed on Oaks, Elms, Blackthorn, Hawthorn, Birch and Docks. 11 on 14th October 2017 the only record. (1,11)

Chevron *Eulithis testata* – Scarce and restricted resident, occasional wanderer, the larvae feed on Sallow, Willows, Aspen and Poplars. 17 recorded on 5 occasions in 2017 and 2018. Maximum 9 on 19th July 2018. (5,17)

Chinese Character *Cilix glaucata*, Fairly common and widespread resident, the larvae feed on Blackthorn, Hawthorn, Crab Apple. Singles on 17th July 20917, 12th July 2018 and 30th May 2019. (3,3).

Chocolate-tip *Clostera curtula* – Fairly common and widespread resident, the larvae feed Aspen, Poplars, Sallow and Willows. One on 7th May 2018. (1,1)

Chrysoteuchia culmella (Garden Grass-veneer) – Abundant and widespread resident, the larvae feed on various grasses. 95 recorded on 4 occasions in 2017 and 2018. Maximum 50 on 24th July 2017. (4,95)

Clay *Mythimna ferrago* – Common and widespread resident, the larvae feed on Grasses. Singles on 17th July 2017 and 12th July 2018, 4 on 19th July 2018. (3,6)

Coleophora deauratella – Scarce and thinly distributed resident, larvae feed on Red Clover. One on 19th July 2018 confirmed by Dr Phil Sterling. This was the sole record for the MoPH project. None others recorded on Living Record 2000-2019. (1,1)

Common Carpet *Epirrhoe alternata alternate* – Very common and widespread resident, the larvae feed on Cleavers, Hedge and other Bedstraws. One on 24th July 2017 the only record. (1,1)

Common Footman *Eilema lurideola* – Abundant and widespread resident, the larvae feed on lichens. 13 recorded on 4 occasions in 2017 and 2018. High counts of 5 on 17th July 2017 and 12th July 2018. (4,13)

Common Heath *Ematurga atomaria* – Scarce and restricted resident, the larvae feed on Heathers. One on 30th May 2019, flying by day, was the sole record for the MoPH project. (1,1)

Common Pug *Eupithecia vulgata* – Common and widespread resident, the larvae feed on trees including Hawthorn and Sallow. One on 30th May 2019 the only record. (1,1)

Common Quaker *Orthosia cerasi* – Abundant and fairly widespread resident, the larvae feed on broadleaved trees, Birches, Sallow, Oaks and Hazels. 3 on 10th April 2018, 2 on 8th April 2019. (2,5)

2343 / 2343a **Common Rustic / Lesser Common Rustic aggregate** *Mesapamea secalis / didyma* – Abundant and widespread resident the Common Rustic and Lesser Common Rustic are treated as aggregate species without dissection of the genitalia. Larval foodplant is grasses. 29 recorded on 6 occasions in 2017 and 2018. Maximum 14 on 19th July 2018. (6,29)

Common Wainscot *Mythimna pallens* – Abundant and widespread resident, the larvae feed on grasses. One on 4th September 2017 the only record. (1,1)

Common Wave *Cabera exanthemata* – Common and widespread resident, the larvae feed on Goat Willow, Grey Willow, Sallow and Poplars. One on 21st August 2017 the only record. (1,1)

Coptotriche marginea – Uncommon and thinly distributed resident, the larval foodplant is Bramble. One on 12th July 2018 the sole record. (1,1)

Coronet *Craniophora ligustri* – Fairly common and widespread resident, the larvae feed on Ash and Wild Privet. One on 12th July 2018 the sole record. (1,1)

Coxcomb Prominent – *Ptilodon capucina* – Common and widespread resident, the larvae feed on broadleaved trees. One on 24th July 2017 the sole record. (1,1)



Crambus hamella (Nationally Scarce B) – Scarce and thinly distributed and restricted resident, larvae feed on Wavy Hair-grass. 8 on 28th August 2017 from the eastern heath and 21 on 4th September 2017 from the central dry heath. (2,29)

Fig.7 Crambus hamella

Crambus pascuella – Fairly common and widespread resident, the larvae feed on various grasses. One on 17th July 2017 the sole record. (1,1)

Crambus perlella – Common and widespread resident, larvae feed on various grasses. One on 17th July 2017 the only record. (1,1)

Cydia coniferana (Nationally Scarce B) – Scarce and thinly distributed or restricted resident, larvae feed on Scots and Corsican Pines. One on 30th May 2019, confirmed by Dr Phil Sterling. Apparently, the sole record for Poole Harbour this century. (1,1)

Cydia splendana – Fairly common and widely distributed resident, larvae feed on Oak and Sweet Chestnut. 7 recorded on 4 occasions in 2017 and 2018. Maximum 3 on 19th July 2018. (4,7)

Cydia ulicetana – Fairly common and widely distributed resident, larvae feed on Gorse and Broom. 5 recorded on 3 occasions in 2017, 2018 and 2019. Maximum 3 on 28th August 2017. (3,5)

Dark Arches *Apamea monoglypha* – Abundant and widespread resident, the larvae feed on grasses. 58 recorded on 6 occasions in 2017, 2018 and 2019. Maximum 29 on 19th July 2018. (6,58)

Dark Sword-grass Agrotis ipsilon – Common and fairly widespread migrant / wanderer, the larvae feed on herbaceous plants. 16 recorded on 5 occasions in July and August 2017. Maximum 7 on 17th July. (5,16)

Dingy Footman *Eilema griseola* – Very common and widespread resident, the larvae feed on lichens. 8 recorded on 4 occasions in 2017 and 2018. (4,8)

Dingy Mocha *Cyclophora pendularia* (Red Data Book 3) – Scarce and restricted resident, the larvae feed on young-stage Willow species. One from the wet northern heath on 17th July 2017. Elsewhere recorded by the MoPH project only on Holton Heath. Recorded in 6 x 1km squares on Living Record 2000-2019. (1,1)

Dioryctria abietella – Uncommon and thinly distributed or restricted resident, the larvae feed on Scots Pine. One on 17th July 2017 and 2 on 30th May 2019. (2,3)

Dioryctria simplicella – Uncommon and thinly distributed or restricted resident, the larvae feed on Scots Pine. One on 19th July 2018 the sole record. (1,1)

Dog's tooth *Lacanobia suasa* – Uncommon and very local resident, the larvae feed on herbaceous plants. One on 24th July 2017 the only record. (1,1)

Donacaula forficella – Uncommon and thinly distributed and restricted resident, the larvae feed on Common Reed. One on 24th July 2017 the sole record. (1,1)

Dotted Border Wave *Idaea sylvestraria* (Nationally Scarce B) – Scarce, larval foodplant unknown in the wild. 2 on 24th July 2017 and 1 on 12th July 2018 the only records. Recorded on 4 other heathland sites by the MoPH project. (2,3)

Dotted Chestnut *Conistra rubiginea* (Nationally Scarce B) – Scarce and thinly distributed resident, the larvae feed on various deciduous trees including Apple, Oak and Sallow. One on 22^{nd} April 2018 was the sole record for the MoPH project. Recorded in 6 x 1km squares on Living Record 2000-2019. (1,1)



Fig.8 Dotted Chestnut

Dotted Clay *Xestia baja* – Local, the larvae feed on various herbaceous plants. One on 19th July 2018. Elsewhere recorded by the MoPH project only at Holton Lee. Recorded in 2 x 1km squares on Living Record 2000-2019. (1,1)

Double-striped Pug *Gymnoscelis rufifasciata* – Common and widespread resident, the larvae feed on many plants. 15 recorded on 8 occasions in 2017 and 2018. Maximum 5 on 7th August 2017. (8,15)

Drinker *Euthrix potatoria* – Common and fairly widespread resident, larvae feed on coarse grasses and reeds. 6 recorded on 4 occasions in 2017 and 2018, maximum 3 on 19th July 2018. (4,6)

Dun-bar *Cosmia trapezina* – Very common and widespread resident, the larvae feed on broadleaved trees and shrubs. Singles on 3 occasions in 2017 and 2018. (3,3)

Dwarf Cream Wave *Idaea fuscovenosa* – Scarce and very local resident foodplant is little known in the wild. 2 on 17th July 2017 the sole record. (1,2)

2358 – 2360 **Ear Moth aggregate** *Amphipoea oculea agg.* – Uncommon and thinly distributed or restricted resident, the larvae feed on grasses. The Ear Moth species are only identifiable from genitalia dissection, so are treated as an aggregate species. Singles on 17th and 24th July 2017. 11 on 19th July 2018. (3,13)

Early Grey *Xylocampa areola* – Common and widespread resident, the larvae feed on Honeysuckle. Singles on 10^{th} and 22^{nd} April 2018 and 8^{th} April 2019. (3,3)

Ectoedemia argyropeza – Very rare resident, the larvae feed on Aspen. Recorded from a grove of Aspen adjacent to Soldier's Road as leaf-mines on 22nd November 2020. Confirmed by Jack Oughton. This may constitute the first record for Poole Harbour this century. (1, leaf-mine)

Elephant Hawk-moth *Deilephila elpenor* – Common and widespread resident, the larvae feed on Rosebay Willowherb, other willowherbs and bedstraws. 6 recorded on 3 occasions in 2017 and 2018. Maximum 4 on 17th July 2017 (3,6)

Elophila nymphaeata (Brown China-mark) – Fairly common and widely distributed resident, the larvae feed on various aquatic plants and pondweed. One on 28th August 2017. (1,1)



Emperor Moth *Saturnia pavonia* – Scarce and restricted resident. The larvae feed on woody plants, Heathers, Bramble, Hawthorns etc. 3 on 22nd April 2018 and 5 on 7th May 2018. (2,8)

Fig.9 Emperor Moth, Female

Endothenia quadrimaculana – Uncommon and thinly distributed resident, the larvae feed on Marsh Woundwort and Spearmint. One on 12^{th} July 2018 confirmed by Dr Phil Sterling. (1,1)

Endotricha flammealis – Common and widespread resident, the larvae feed on various plants and deciduous trees including Sallow and Oak. 8 recorded on 4 occasions in 2017 and 2018. Maximum 5 on 12th July 2018. (4,8)

Engrailed *Ectropis crepuscularia* – Fairly common and widespread resident, the larvae feed on woody plants. One on 4th May 2018 the sole record. (1,1)

Epiphyas postvittana (Light Brown Apple Moth) – Abundant and naturalised resident, larvae feed on many plants. One on 4th September 2017 and 2 on 14th October 2017 the only records. (2,3)

Eucosma cana – Fairly common and widely distributed resident, the larvae feed on Thistles, common Knapweed, Black Knapweed. 2 on 17th July 2017 the only record. (1,2)

Eudonia mercurella – Common and widespread resident, the larvae feed on mosses. 9 recorded on 5 occasions in 2017 and 2018. Maximum 3 on 12th July 2018. (5,9)

Eudonia pallida – Fairly common and widely distributed resident, the larvae feed on mosses. 4 recorded on 3 occasions in 2017, 2018 and 2019. (3,4)

Eupoecilia angustea – Uncommon and thinly distributed resident, the larvae feed on Plantains, wild herbs, Heather, Sitka Spruce. 16 recorded on 4 occasions in 2017 and 2018. Maximum 11 on 7th August 2018. (4,16)

Euzophera pinguis – Fairly common and widely distributed resident, the larvae feed on Ash. One on 19th July 2018 the only record. (1,1)

Eyed Hawk-moth *Smerinthus ocellata* – Uncommon and thinly distributed or restricted resident, the larvae feed on Willow, Sallow, Apple, Crab Apple. One recorded by John Winterbottom on 7th June 2018. (1,1)

Feathered Gothic *Tholera decimalis* – Uncommon and thinly distributed or restricted resident, the larvae feed on grasses. One on 4^{th} September 2017 the only record. (1,1)

Feathered Thorn *Colotois pennaria* – Fairly common and fairly widespread resident, the larvae feed on broadleaved trees. One on 14th October 2017 was the sole record for the MoPH project. (1,1)

Flame Shoulder *Ochropleura plecta* – Abundant and widespread resident, the larvae feed on herbaceous plants. 27 recorded on 10 dates in 2017, 2018 and 2019. Maximum 6 on 24th July 2017. (10,27)

Flounced Chestnut *Agrochola helvola* – Scarce and local resident, the larvae feed on broadleaved trees. 2 on 14th October 2017, 1 on 2nd October 2019. Elsewhere recorded by the MoPH project only at Goathorn and Ballard. Recorded in 4 x 1km squares on Living Record 2000-2019. (2,3)



Fig.10 Flounced Chestnut

Four-dotted Footman *Cybosia mesomella* – Fairly common but restricted resident, the larvae feed on algae and lichens on woody plants. One on 17th July 2017 the sole record. (1,1)

Four-spotted Footman *Lithosia quadra* (Nationally Scarce A) – Migrant, recent colonist, the larvae feed on Dog Lichen and other lichens. Singles on 5 occasions in July and August 2017 and July 2018. (5,5)

Fox Moth *Macrothylacia rubi* – Uncommon and restricted resident, the larvae feed on Heathers, Bilberry, Creeping Willow, Brambles. One on 7th May 2018, 12 on 30th May 2019 from the dry central heath. (2,13)

Foxglove Pug *Eupithecia pulchellata* – Uncommon and fairly widespread resident, the larvae feed on Foxglove. 2 on 24th July 2017 the sole record. (1,2)

Garden Tiger *Arctia caja* – Common and widespread resident, the larvae feed on herbaceous plants, Nettle, Docks, Burdocks etc. 2 on 17th and 1 on 24th July 2017 the only records. (2,3)

Gold Spot *Plusia festucae* – Uncommon and local resident, the larvae feed on Sedges, Yellow Iris, Bur-reed, Water Plantain. Singles on 28th August 2017 and 19th July 2018. (2,2)



Grass Eggar *Lasiocampa trifolii* (Nationally Scarce A) – A rare and restricted resident, the larvae feed on various grasses and plants. Recorded on the eastern heath. 3 on 7th August 2018, 4 on 14th August 2018 and 3 on 28th August 2018. Elsewhere recorded by the MoPH project only at Arne Moors. Recorded in 4 x 1km squares on Living Record 2000-2019. (3,10)

Fig.11 Grass Eggar

Grass Wave *Perconia strigillaria* – Scarce and restricted resident, the larvae feed on Heathers & Broom. 3 on 30th May 2019 the sole record for the MoPH project. (1,3)

Great Prominent *Peridea anceps* – Uncommon and restricted resident, the larvae feed on Pedunculate and Sessile Oaks. One on 7th May 2018 the sole record. (1,1)

Fig.12 Great Prominent



Grey Pine Carpet *Thera obeliscata* – Fairly common and widespread resident, the larvae feed on coniferous trees, Pine, Spruce, Cypress. 8 recorded on 3 occasions in 2017 and 2019. Maximum 4 on 30th May 2019. (3,8)

Heart and Dart *Agrotis exclamationis* – Abundant and widespread resident, the larvae feed on herbaceous plants. 2 on 30th May 2019, surprisingly the only record. (1,2)

Hebrew Character *Orthosia gothica* – Abundant and widespread resident, the larvae feed on herbaceous plants, bushes and trees. Recorded twice in 2018 and once in 2019 totalling 5 individuals. (3,5)

Herald *Scoliopteryx libatrix* – Uncommon and thinly distributed resident, the larvae feed on Willows, Aspen and Poplars. Singles on 17th July and 14th October 2017 and also recorded by John Winterbottom on 7th June 2018. (3,3)

1905 Horse Chestnut Pachycnemia hippocastanaria (Nationally Scarce B) – Uncommon and restricted resident, the larvae feed on Heather and Cross-leaved Heath. 93 recorded on 17 occasions in 2017, 2018 and 2019. Maximum 15 On 12th July 2018. (17,93)

Hypsopygia costalis (Gold Triangle) – Common and widespread resident the larvae feed on dry vegetable matter, hay and dead grasses. 2 on 17th and 1 on 24th July 2017 the only records. (2,3)

Iron Prominent *Notodonta dromedarius* – Fairly common and widespread resident, the larvae feed on Birch and Alder. 8 recorded on 4 occasions in 2017 and 2018. Maximum 3 on 12th July 2018. (4,8)

Kent Black Arches *Meganola albula* (Nationally Scarce B) – Uncommon and restricted resident, the larvae feed on Dewberry, Bramble, Raspberry and Strawberry. One on 12th July 2018 the sole record. (1,1)

Knot Grass Acronicta rumicis – Very common and widespread resident, the larvae feed on herbaceous and woody plants. Singles recorded 4 times in 2017 and 2018. (4,4)

1666 **Large Emerald** *Geometra papilionaria* – Uncommon and fairly widespread resident, the larvae feed on Birches, Hazel and Alder. One on the western heath on 19th July 2018 the sole record. (1,1)

2107 Large Yellow Underwing *Noctua pronuba* – An abundant and widespread resident. The larvae feed on herbaceous plants and grasses. 712 recorded on 13 occasions in 2017, 2018 and 2019. Maximum 342 on 17th July 2017. (13,712)

2112 **Least Yellow Underwing** *Noctua interjecta* – Fairly common and thinly distributed resident, the larvae feed on herbaceous plants. 6 recorded on 5 occasions in 2017 and 2018. (5,6)

2111 Lesser Broad-bordered Yellow Underwing *Noctua janthe* – Abundant and widespread resident, the larvae feed on herbaceous plants. 18 recorded on 6 dates in July and August 2017. Maximum 9 on 21st August. (6,18)

1692 **Lesser Cream Wave** *Scopula immutata* – Rare and very local resident, the larvae feed on Meadowsweet, Common Valerian. One on 24th July 2017 and one recorded by John Winterbottom on 7th June 2018. (2,2)

2006 **Lesser Swallow Prominent** *Pheosia gnoma* – Fairly common but restricted resident, the larvae feed on Birch. 12 recorded on 8 occasions in 2017 and 2018. Maximum counts of 2 on 4 dates. (8,12)

2109 Lesser Yellow Underwing *Noctua comes* – Abundant and widespread resident, the larvae feed on herbaceous plants. 11 recorded on 8 occasions in 2017 and 2018. (8,11)

2157 **Light Brocade** *Lacanobia w-latinum* – Common, the larvae feed on herbaceous and woody plants. 2 on 30th May 2019 the sole record. (1,2)



1825 **Lime-speck Pug** *Eupithecia centaureata* – Common and fairly widespread resident, the larvae feed on many plants. One on 19th July 2018 the only record. (1,1)

Fig.13 Lime-speck Pug

2015 Lunar Marbled Brown *Drymonia ruficornis* – Fairly common and thinly distributed resident, the larvae feed on Oaks. One on 4th May 2018 the sole record. (1,1)

2270 Lunar Underwing Omphaloscelis lunosa – Very common and fairly widespread resident, the larvae feed on grasses. 2 on 4th September 2017 and 3 on 2nd October 2019. (2,5)

2410 **Marbled White Spot** *Deltote pygarga* – Uncommon and local resident, the larvae feed on grasses. 5 recorded on 4 occasions in 2017 and 2018. (4,5)

Marsh Oblique-barred *Hypenodes humidalis* (Nationally Scarce B) – A scarce and restricted resident, the larvae are thought to feed on sedges and rushes. One from the western heath on 28^{th} August 2017. Elsewhere recorded by the MoPH project only on Arne Moors. Recorded in 5 x 1km squares on Living Record 2000-2019. (1,1)

Miller *Acronicta leporina* – Uncommon and thinly distributed resident, the larvae feed on Birches and Alder. One on 7th August 2017 the only record. (1,1)

Marbled Minor aggregate *Oligia strigilis* – The Dorset status is considered unknown as the majority are undetermined, requiring dissection. Singles, recorded as aggregate species on 17th July and 14th August 2017 and 30th May 2019. (3,3)

Mirificarma mulinella – Scarce and thinly distributed resident, the larvae feed on Gorse and Broom. One on 4th September 2017 the only record. (1,1)

Monochroa cytisella – Scarce and thinly distributed resident, the larvae feed on Bracken. One on 24th July 2017 and 2 on 19th July 2018. (2,3)

Monopis laevigella (Skin Moth) – Scarce and thinly distributed resident the larvae feed on dead or decaying animal matter, bird's nests, detritus. One on 24th July 2017 the sole record. (1,1)

Mouse Moth *Amphipyra tragopoginis* – Fairly common and widespread resident, the larvae feed on herbaceous plants. Singles on 24th July and 14th August 2017 the only records. (2,2)

Mullein *Cucullia verbasci* – Scarce and thinly distributed or restricted resident, the larvae feed on Mulleins, Figworts and Buddleias. One on 8th April 2019 from the southern heath the sole record. (1,1)



Fig.14 Mullein

Muslin Moth *Diaphora mendica* – Fairly common and widespread resident, the larvae feed on herbaceous plants. One on 4th May and 3 on 7th May 2018 the sole records. (2,4)

Narrow-winged Pug *Eupithecia nanata* – Uncommon and restricted resident, larvae feed on Heather. 68 recorded on 13 occasions in 2017, 2018 and 2019. Maximum 10 on 7th May 2018. (13,68)

Neofaculta ericetella – Uncommon and thinly distributed and restricted resident, the larvae feed on Heathers. 3 on 30th May 2019 the sole record. (1,3)

Nomophila noctuella (Rush Veneer) – Abundant and widespread migrant, the larvae feed on clover and grasses, though the species is not thought to breed in the UK. One on 17th and three on 24th July 2017. (2,4)

Notocelia cynosbatella – Fairly common and widely distributed resident, the larvae feed on Wild and cultivated Rose. One on 30th May 2019, the only record. (1,1)

Notocelia uddmanniana (Bramble Shoot Moth) – Common and widespread resident, the larvae feed on wild and cultivated Rose. One on 4th September 2017 the sole record. (1,1)

Nut-tree Tussock *Colocasia coryli* – Fairly common and widespread resident, the larvae feed on Hazel, Birches, Beech, Oaks, other trees. 6 recorded on 3 occasions in 2017 and 2018. Maximum 3 on 17th July 2017. (3,6)

Nymphula nitidulata (Beautiful China-mark) – Uncommon and thinly distributed or restricted resident, larvae feed on Bur-reed, Yellow water-lily and other aquatic plants. One on 17th July 2017 from the northern wetter heath the sole record. (1,1)



Oak Beauty *Biston strataria* – Uncommon and thinly distributed resident, the larvae feed on broadleaved trees. One recorded by John Winterbottom on 7th June 2018, one on 8th April 2019. (2,2)

Fig.15 Oak Beauty

Oak Hook-tip *Watsonalla binaria* – Fairly common and widespread resident, the larvae feed on Oaks. 3 on 19th July 2018 the sole record. (1,3)

Oak Nycteoline *Nycteola revayana* – Uncommon and thinly distributed resident, the larvae feed on Oaks. Singles on 12th and 19th July 2018 the only records. (2,2)

Obscure Wainscot *Leucania obsoleta* – Scarce and local resident, the larvae feed on Common Reed. One recorded by John Winterbottom from the western heath on 7th June 2018. Elsewhere recorded by the MoPH project only at Arne Moors and Holton Lee. Recorded in 6 x 1km squares on Living Record 2000-2019. (1,1)

Oncocera semirubella (Nationally Scarce B) – Uncommon and thinly distributed and restricted resident, the larvae feed on Bird's-foot Trefoil and Clover species. One on 24th July 2017 the sole record. (1,1)

Orange Footman *Eilema sororcula* – Fairly common and widespread resident, the larvae feed on lichen. One on 30th May 2019 the sole record. (1,1)

Pale Pinion *Lithophane socia* – Uncommon and local resident, the larvae feed on Oaks, Birches, Sallow, Hazel and other trees and shrubs. One on 8th April 2019 the only record. (1,1)

Pale Prominent *Pterostoma palpina* – Common and widespread resident, the larvae feed on Aspen, Poplars and Willows. 6 recorded on 4 occasions in 2017, 2018 and 2019. (4,6)



Fig.16 Pale Prominent

Pandemis corylana (Chequered Fruit-tree Tortrix) – Fairly common and widespread resident, the larvae feed on a wide range of deciduous trees and shrubs. One on 4th September 2017 the only record. (1,1)

Paraponyx stratiotata (Ringed China-mark) – Uncommon and thinly distributed or restricted resident, the larvae feed on pondweeds and other aquatic plants. 5 from the western heath on 17th July 2017, 7 from there on 19th July 2018. (2,13)

Parornix anglicella – Uncommon and thinly distributed resident, the larvae feed on Hawthorn. One on 12th July 2018, verified by Dr Phil Sterling. Elsewhere recorded by the MoPH project only on Ballard. (1,1)

Peacock Moth *Macaria notata* – Rare and very local resident, the larvae feed on Birch. One on 14th August 2017 the sole record. (1,1)

Pebble Hook-tip *Drepana falcataria factorial* – Common and fairly widespread resident, the larvae feed on Birches. 7 recorded on 3 occasions in 2017 and 2018. (3,7)

Pebble Prominent *Notodonta ziczac* – Fairly common and widespread resident, the larvae feed on Sallow, Willow, Aspen and other Poplars. 5 recorded on 4 occasions in 2017 and 2018. (4,5)

Pempelia genistella (Nationally Scarce B) – Uncommon and thinly distributed and restricted resident, the larvae feed on Gorse. 21 recorded on 3 occasions in 2017 and 2018. Maximum 19 on 17th July 2017. (3,21)

Pempelia palumbella – Fairly common but thinly distributed or restricted resident, the larvae feed on Heather species. 2 on 30th May 2019 the sole record. (1,2)

Peppered Moth *Biston betularia* – Very common and widespread resident, the larvae feed on many small plants, trees and shrubs. 2 on 17th July 2017, one recorded by John Winterbottom on 7th June 2018. (2,3)

Pine Beauty *Panolis flammea* – Uncommon and thinly distributed or restricted resident, the larvae feed on Scots, Corsican and Lodgepole Pines, Larch. One on 8th April 2019 the sole record. (1,1)

Pine Carpet *Pennithera firmata* – Fairly common and widespread resident, the larvae feed on Scots Pine and Corsican Pine. 11 recorded on 6 occasions in 2017 and 2018. Maximum 5 recorded by John Winterbottom on 7th June 2018. (6,11)

Pine Hawk-moth *Sphinx pinastri* – Uncommon and restricted resident, the larvae feed on Scots and Corsican Pine, Norway Spruce. 7 recorded on 3 occasions in 2017 and 2018. Maximum 4 on 12th July 2018. (3,7)

Pink-barred Sallow *Xanthia togata* – Fairly common and fairly widespread resident, the larvae feed on Sallow, Poplars and herbaceous plants. One on 14th October 2017 the sole record. (1,1)

Plain Wave *Idaea straminata* – Scarce and thinly distributed or restricted resident, the larval foodplant is unknown. 8 recorded on 3 occasions in 2017 and 2018. Maximum 4 on 17th July 2017. (3,8)

Pleuroptya ruralis (Mother of Pearl) – Very common and widespread resident, the larvae feed on Nettles. Singles on 17th July 2017 and 19th July 2018 the sole records. (2,2)



Pleurota bicostella – Scarce and restricted resident, the larvae feed on Bell-heather and Cross-leaved Heath. One on 30^{th} May 2019, confirmed by Dr Phil Sterling. This is the sole record for the MoPH project. Recorded in 5 x 1km squares on Living Record 2000-2019. (1,1)

Fig.17 Pleurota bicostella – note erect terminal segment to labial palps

Plutella xylostella (Diamond-back) – Very common and widespread migrant / wanderer, the larvae feed on various vegetables and cruciferous plants. 13 recorded on 3 occasions in 2017 and 2018. Maximum 8 on 24th July 2017. (3,13)

Poplar Grey *Subacronicta megacephala* – Fairly common and widespread resident, the larvae feed on Poplars, Aspens and Willows. One on 17th July 2017 the sole record. (1,1)

Poplar Hawk-moth *Laothoe populi* – Very common and widespread resident, the larvae feed on Poplars, Aspen, Willows and Sallow. Singles on 17th July and 7th August 2017. (2,2)

Poplar Kitten *Furcula bifida* – Scarce and thinly distributed resident, the larvae feed on Poplars, Aspen, Willows. The following record was identified using now discredited external identification features. In future Dorset records will now be aggregated with Sallow Kitten unless determined by other means. This record should be considered in the light of this. One on 12th July 2018 is entered in Living Record as this species. (1,1)

Powdered Quaker *Orthosia gracilis* – Common and thinly distributed or restricted resident, the larvae feed on herbaceous and woody plants. One on 8th April 2019 the sole record. (1,1)

Privet Hawk-moth *Sphinx ligustri* – Fairly common and widespread resident, the larvae feed on Wild and Garden Privet, Ash, Lilac and Guelder-rose. One on 24th July 2017 the only record. (1,1)

Purple Thorn *Selenia tetralunaria* – Fairly common and thinly distributed resident, the larvae feed on broadleaved trees, Hazel, Birches etc. Singles on 17th and 24th July 2017. (2,2)

Pyrausta aurata – Fairly common and widely distributed resident, the larvae feed on various mint species. One on 24th July 2017 the sole record. (1,1)

Red Chestnut *Cerastis rubricosa* – Common and fairly widespread resident, the larvae feed on herbaceous and woody plants. 15 recorded on 4 occasions in April 2018 and April 2019. (4,15)

Red Sword-grass *Xylena vetusta* – Scarce and local resident, the larvae feed on herbaceous and woody plants. Singles on 14th October 2017, 10th April 2018 and 8th April 2019. Elsewhere only recorded by the MoPH project only on adjacent Hartland Moor. (3,3)

Red-line Quaker *Agrochola lota* – Common and fairly widespread resident, the larvae feed on Willows. One on 14th October 2017 the sole record. (1,1)

Rhyacionia pinivorana (Spotted Shoot Moth) – Uncommon and thinly distributed resident, the larvae feed on Scots Pine. 11 on 30th May 2019 the only record. (1,11)

Riband Wave *Idaea aversata* – Abundant and widespread resident, the larvae feed on herbaceous plants. 13 recorded on 2 occasions in 2017 and 2018. Maximum 11 on 17th July 2017. (2,13)

Rosy Footman *Miltochrista miniata* – Common and widespread resident, the larvae feed on Dog lichen and other lichens. 8 recorded on 3 occasions in July 2017. Maximum 5 on 17th July. (3,8)

Round-winged Muslin *Thumatha senex* – Scarce and restricted resident, the larvae feed on lichens and mosses. 2 on 17th and 1 on 24th July 2017, from the wetter northern heath the sole records. (2,3)



Fig.18 Round-winged Muslin

Ruby Tiger *Phragmatobia fuliginosa* – Common and widespread resident, the larvae feed on herbaceous plants. 33 recorded on 7 occasions in 2017 and 2018. Maximum 21 on 17th July 2017. (7,33)

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. 62 recorded on 8 occasions in 2017 and 2018. Maximum 26 on 19th July 2018. (8,62)

Sallow *Cirrhia icteritia* – Fairly common and widespread resident, the larvae feed on Poplars and herbaceous plants. 2 on 2nd October 2019 the sole record. (1,2)

Sallow Kitten *Furcula intertie* – Uncommon and thinly distributed resident, the larvae feed on Willows. See above note for Poplar Kitten. 7 recorded on 4 occasions in 2017 and 2018. Maximum 3 on 24th July 2017. (4,7)

Satellite *Eupsilia transversa* – Uncommon and fairly widespread resident, the larvae are omnivorous feeding on broadleaved trees and shrubs and moth larvae. One on 10th April 2019 the sole record. (1,1)

Scalloped Hook-tip *Falcaria lacertinaria* – Fairly common but restricted resident, the larvae feed on Oak. 10 recorded on 7 occasions in 2017 and 2018. Maximum 3 on 17th July 2017. (7,10)

Scalloped Oak *Crocallis elinguaria* – Very common and widespread resident, the larvae feed on broadleaved woody plants, Hawthorn, Blackthorn etc. One on 19th July the sole record. (1,1)

Scarce Footman *Eilema complana* – Fairly common but restricted resident, the larvae feed on lichens. 274 recorded on 5 occasions in 2017 and 2018. Maximum 114 on 12th July 2018. (5,274)

Setaceous Hebrew Character *Xestia c-nigrum* – Abundant and widespread resident, the larvae feed on herbaceous plants, Nettles, Willowherbs etc. 6 recorded on 4 occasions in July and August 2017. (4,6)

Sharp-angled Peacock *Macaria alternata* – Common and widespread resident, the larvae feed on Sallow, Willows, Sea Buckthorn, Alder. 4 recorded on 3 occasions in 2017 and 2018. (3,4)

Shuttle-shaped Dart *Agrotis puta* – Very common and widespread resident, the larvae feed on Docks, Dandelion and other herbaceous plants. Singles on 3 occasions in 2017 and 2018. (3,3)

Silver Y *Autographa gamma* – Abundant and widespread migrant / wanderer, the larvae feed on many plants. 11 recorded on 7 occasions in 2017, 2018 and 2019. (7,11)

Single-dotted Wave *Idaea dimidiate* – Very common and fairly widespread resident, the larvae feed on Cow Parsley, Burnet Saxifrage, Hedge Bedstraw. 4 recorded on 3 dates in in 2017 and 2018. (3,4)

Six-striped Rustic *Xestia sexstrigata* – Very common and fairly widespread resident, the larvae feed on Hedge Bedstraw, Ribwort Plantain, Bramble, Bluebell. 3 on 4th September 2017 the sole record. (1,3)

Slender Brindle *Apamea scolopacina* – Uncommon and thinly distributed resident, the larvae feed on woodland grasses. One on 12th July 2018 the only record. (1,1)



Small Chocolate-tip *Clostera pigra* (Nationally Scarce B) – Rare and very local resident, the larvae feed on Eared Willow and Creeping Willow. One from the eastern heath on 31^{st} July 2017 the sole record. Elsewhere recorded by the MoPH project only at Arne Moors. Recorded in 3 x 1km squares on Living Record 2000-2019. (1,1)

Fig.19 Small Chocolate-tip

Small Fan-footed Wave *Idaea biselata* – Very common and widespread resident, the larvae feed on various low-growing plants. One on 24th July 2017 the sole record. (1,1)

2470 **Small Purple-barred** *Phytometra viridaria* – Scarce and restricted resident, the larvae feed on Common and Heath Milkwort. 3 on 17th July 2017 and 1 on 7th August 2017. (2,4)

2182 **Small Quaker** Orthosia cruda – Common and widespread resident, the larvae feed on Oaks, Downy Birch, Sallow, Hazel. Singles on 5th and 10th April 2018. (2,2)

1712 **Small Scallop** *Idaea emarginata* – Rare and very local resident, the larvae feed on Bedstraws and Field Bindweed. 2 on 17th and 1 on 31st July 2017 the only records. Elsewhere recorded by the MoPH project only on Ham Common. (2,3)

2350 **Small Wainscot** *Denticucullus pygmina* – Uncommon and thinly distributed or restricted resident, the larvae feed on sedges and grasses. 8 recorded on 5 occasions in July to September 2017. (5,8)

2198 **Smoky Wainscot** *Mythimna impura* – Abundant and widespread resident, the larvae feed on grasses. 29 recorded on 6 occasions in 2017 and 2018. Maximum 11 on 19th July 2018. (6,29)

2477 **Snout** *Hypena proboscidalis* – Abundant and widespread resident, the larvae feed on Common Nettle. One on 19th July 2018 the sole record. (1,1)

2264a **Southern Chestnut** *Agrochola haematidea* (Red Data Book 2) – Very scarce and restricted recent colonist. Found to have extensively colonised heaths across the south side of the Harbour and located in all sites surveyed during late autumn. Known to wander widely. 3 on 14th October 2017 and 2 on 2nd October 2019 on both occasions from the dry western heath. Not looked for across the rest of the site but also trapped on Hartland Moor. (2,5)



Fig.20 Southern Chestnut

2197 **Southern Wainscot** *Mythimna straminea* – Uncommon and restricted resident, the larvae feed on Common Reed and Reed Canary Grass. One on 14th August 2018 the sole record. (1,1)

2450 **Spectacle** *Abrostola tripartita* – Very common and widespread resident, the larvae feed on Common Nettle. One on 7th August 2018 the only record. (1,1)

2134 **Square-spot Rustic** *Xestia xanthographa* – Abundant and widespread resident, the larvae feed on grasses and small herbaceous plants. 6 recorded on 3 occasions in 2017 and 2019. (3,6)

50 *Stigmella aurella* – Very common and widespread resident, the larvae feed on Bramble. Found as leaf-mine on Bramble November 2020. (1, leaf-mine)

2474 **Straw Dot** *Rivula sericealis* – Very common and fairly widespread resident, the larvae feed on grasses. 5 recorded on 4 occasions in 2017. Maximum 3 on 14th October. (4,5)

2303 **Straw Underwing** *Thalpophila matura* – Fairly common and thinly distributed or restricted resident, the larvae feed on grasses. One on 21st August 2018 the sole record. (1,1)

2196 **Striped Wainscot** *Mythimna pudorina* – Scarce and restricted resident, the larvae feed on broadleaved grasses. 5 recorded by John Winterbottom on 7th June 2018, 2 on 12th July 2018. (2,7)

Sycamore *Acronicta aceris* – Common, the larvae feed on Sycamore, Field Maple, Maples and Horse Chestnut. One on 12th July 2018 is, surprisingly, the only record for the MoPH project. (1,1)

Synaphe punctalis – Fairly common but thinly distributed and restricted resident, the larvae feed on mosses in dry, sandy, shingle or chalky areas. 53 recorded on 7 occasions 1n 2017 and 2018. Maximum 17 on 12th July 2018. (7,53)

Tawny-barred Angle *Macaria liturata* – Uncommon and fairly widespread resident, the larvae feed on Scots and Corsican Pines, Norway and Sitka Spruce. One on 30th May 2019 the sole record. (1,1)

Treble Lines *Charancya trigrammica* – Common and fairly widespread resident, the larvae feed on herbaceous plants. 7 on 30th May 2019 the only record. (1,7)

True Lover's Knot *Lycophotia porphyrea* – Fairly common but restricted resident, the larvae feed on Heather and Bell Heather. 454 recorded on 10 occasions in 2017, 2018 and 2019. Maximum 117 on 19th July 2018. (10,454)

Turnip Moth Agrotis segetum – Common and widespread resident, the larvae feed on herbaceous plant roots, Turnip, Carrot, Beet etc. One on 12th July 2018 the sole record. (1,1)

Twin-spotted Wainscot *Lenisa geminipuncta* – Scarce and restricted resident, the larvae feed on Common Reed. Singles on 17th and 24th July 2017. (2,2)

Udea ferrugalis (Rusty-dot Pearl) – Very common and widespread migrant, the larvae feed on herbaceous plants. 8 recorded on 5 occasions in 2017. Maximum 4 on 24th July. (5,8)

Udea lutealis – Very common and widespread resident, the larvae feed on herbaceous plants including Bramble. Singles recorded twice, on 17^{th} and 24^{th} July 2017. Elsewhere recorded by the MoPH only on Ballard. Recorded in 4 x 1km squares on Living Record 2000-2019. (2,2)

Vine's Rustic Hoplodrina ambigua – Uncommon and local resident, the larvae feed on herbaceous plants. 5 on 14^{th} and 1 on 28^{th} August 2017. (2,6)

2060 White Ermine Spilosoma lubricipeda – Very common and widespread resident, the larvae feed on herbaceous plants, nettles and docks. 3 on 30th May 2019 the sole record. (1,3)

2081 White-line Dart *Euxoa tritici* – Uncommon and local resident, the larvae feed on herbaceous plants. Singles on 24th July and 7th August 2017. (2,2)

White-point *Mythimna albipuncta* – Fairly common and widely distributed resident and migrant, the larvae feed on grasses. Two on 21st August 2017 and one on 7th June 2018 recorded by John Winterbottom, the only records. (2,3)

Willow Beauty *Peribatodes rhomboidaria* – Abundant and widespread resident, the larvae feed on various trees. One on 17th July 2017 the sole record. (1,1)

1830 Wormwood Pug Eupithecia absinthiata – Fairly common and widespread resident, the larvae feed on Mugwort, Yarrow, Wormwood, Golden-rod and others. One on 24th July 2017 the only record.
(1,1)

2264 **Yellow-line Quaker** *Agrochola macilenta* – Common and fairly widespread resident, the larvae feed on Oaks, Poplars, Beech, Sallow, Hawthorn and other plants. 2 on 14th October 2017 the sole record. (1,2)

2030 **Yellow-tail** *Euproctis similis* – Very common and widespread resident, the larvae feed on broadleaved trees and shrubs. 5 recorded on 3 occasions in 2017 and 2018. (3,5)

424 *Yponomeuta evonymella* (Bird Cherry Ermine) – Uncommon and thinly distributed resident, the larvae feed on Bird Cherry. One on 12th and 2 on 19th July 2018. (2,3)

425/426 **Yponomeuta malinellus / padella** (Apple / Orchard Ermine) – Scarce and thinly distributed resident, the larvae feed on Apple (*mallinellus*) and Blackthorn, Hawthorn and Cherry (*padella*). The 2 species are aggregated due to the extreme difficulty in separating their identities. Singles of the aggregate recorded on 17th July 2017 and 12th July 2018. (2,2)



Fig.21 Identifying moths at Slepe Heath with Abby Gibbs, David Brown and John Winterbottom

Acknowledgements

Moths of Poole Harbour would like to thank the following individuals for help and support: Dr Phil Sterling for identifications of micro-moths. Jack Oughton for confirmation of leaf-mines. David Brown, (National Trust) for access advice, and 4w-d support. Dr Sophie Lake (Back from the Brink) for advice and support regarding *Acleris hyemana* survey. Karl Clennell and John Winterbottom for logistical support and company in the field. Joe Parker, Marcus Lawson, James Lowen, Zoe Caals, Phil Saunders and Will Soar for supporting the Southern Chestnut survey in 2019. All photographs were taken by Abby Gibbs and Chris Thain.