

Parc Natur Penglais, Brynymor Extension

Moth Survey 2016





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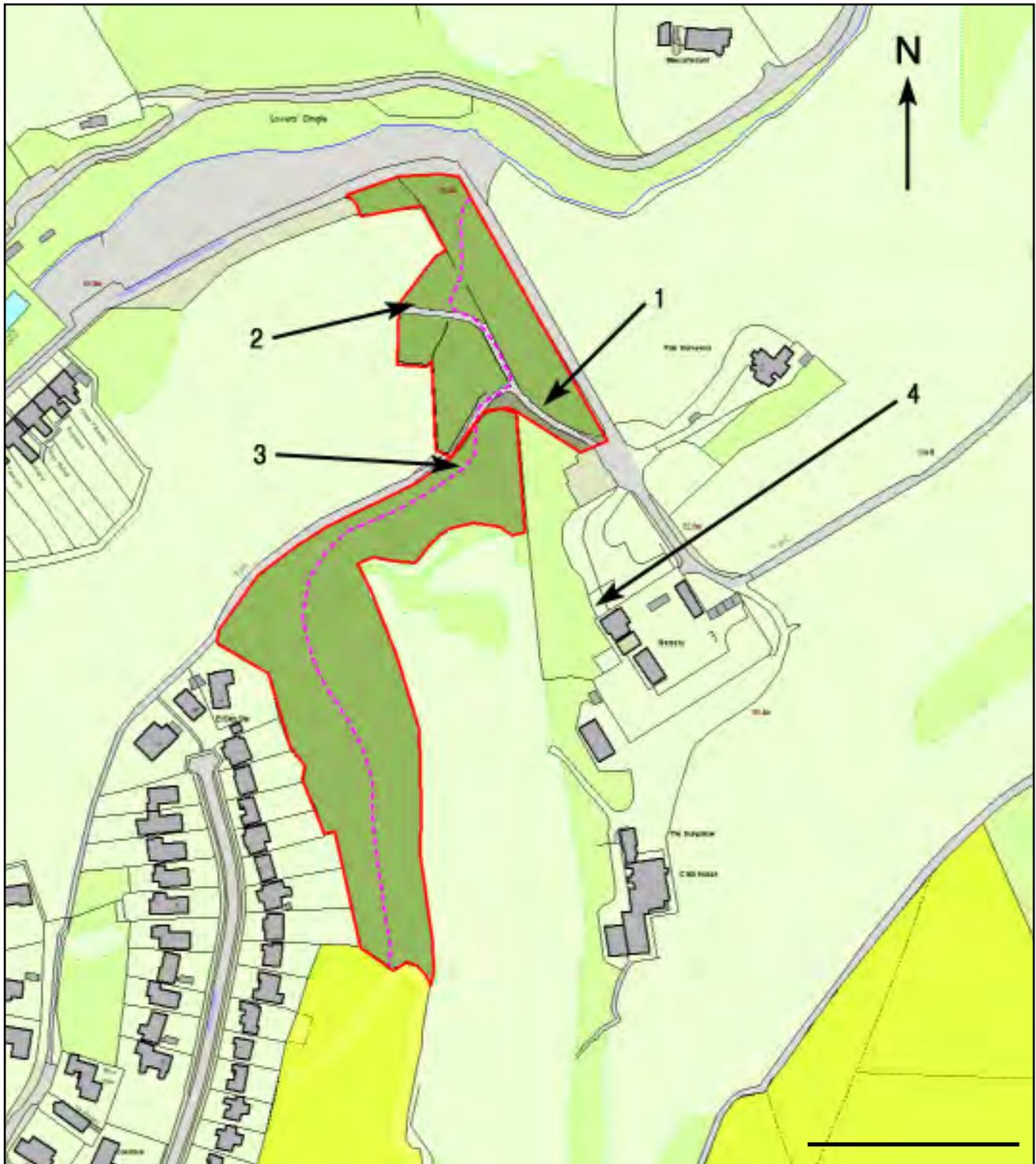
Moth Survey 2016

Report by Peter Major and Peter Walters Davies¹

Fieldwork by Carolyn & Evan Lynn, Peter Major and Peter Walters Davies

The Brynymor Extension to Parc Natur Penglais

Parc Natur Penglais (PNP), on the north side of Aberystwyth, was established as a Local Nature Reserve in 1995. In 2015, a strip of land (approximately 350 m long and 80 m at its widest), to the west of the Aberystwyth Golf Course, was incorporated by Ceredigion County Council into PNP as a northwards extension from the disused quarry area of the reserve (see Map 1).



Map 1. The Brynymor Extension (dark green, boundaries in red), annotated to show the four trapping locations used in the survey (as described in Table 1), with part of the existing PNP (yellow). The scale bar represents 100 metres.²

Habitat

The Extension overlies an undeveloped, sloping terrain, variously exposed to westerly maritime influences, resulting in a mosaic of several habitats, all largely unmanaged for many years (see Map 2).

The southernmost part of the Extension (A on Map 2) is a slope dominated by bracken with grasses (red fescue (*Festuca rubra*), yorkshire-fog (*Holcus lanatus*) and cock's-foot (*Dactylis glomerata*)) and scattered gorse, hawthorn, holly, ash, sycamore, blackthorn, broom, hazel, pine and oak, all interspersed by areas of dense gorse and bramble scrub. The northern end of the Extension, wedged between the Bryn-y-mor Road and an expanse of lightly-grazed grassland, contains several patches of mixed deciduous woodland. In one area (B), there are relatively small trees of oak, hawthorn, holly, sycamore and ash. In another (C), there are larger trees of beech and holly. A third area (D) contains mature woodland of oak and holly. Adjacent to the woodland, there is a patch of bramble scrub (E).



Map 2. Habitats occurring within the PNP Extension (after an illustration prepared by A.O. Chater).

Methods

Between 18th April and 27th October 2016, one, two or three of four light traps were set, on a weekly basis, in one, two or three of four locations within the Extension (see Map 1 and Table 1). Sites 1 and 4 were within the sheltered deciduous woodland; sites 2 and 3 were overlooking the grassland and scrub on the western edge of the woodland.

(Site 4, while on land owned by Ceredigion County Council and adjacent to PNP, is not part of the Extension. Nevertheless it was included in the present moth survey because of its proximity to the Extension and because the habitat at the site is continuous with and similar to the mixed deciduous woodland habitat that forms an important part of the Extension.)

The traps used were an actinic 15W Skinner type (site 1), an actinic 8W Robinson type (site 2), an actinic 15W inverted Moonlander type (sites 2 and 3) and a blended 160W Robinson type (site 4).

Only those moths found in or near the light-traps and identified to species are included in the results. To increase the repeatability of the survey, additional species, identified in the field, but not attracted to the light-traps, have not been included. A systematic survey of such species would, however, be likely to identify many more species of moth living within the Extension.

Results

Table 1. The catches of the four traps used in the survey.

Site	Operator(s)	Grid reference	Trap	Records	Moths	Trap nights	Moths/night
1	C & E Lynn	SN(22)58878254	Actinic 15W	278	556	16	35
2	C & E Lynn	SN(22)58818259	Actinic 8W	232	630	15	42
2	P Major	SN(22)58818259	Actinic 15W	56	381	6	63
3	P Major	SN(22)58838251	Actinic 15W	63	141	2	70
4	P Walters Davies	SN(22)58908246	Blended 160W	448	1072	27	40
			All Traps	1077	2780	66	42

It should be noted that these data tell us little about the relative efficacy of the four traps used in the survey,

as the traps were used on different nights at different locations. The total number of moths excludes any moths not identified to species; a tally of these moths would have been useful additional data.

Altogether, 253 species of moth were identified in the course of the survey. These are listed in Table 3 (Appendix, pages 6-9), along with the status of each species, the date (ddmm) on which the species was first seen, the date on which it was last seen, the total number of moths recorded during the year, and the usual larval food of each species.

A species' status indicates how widespread it is in Britain as a whole, using the number of 10 km squares in which the species has been recorded since 1960 (see Table 2). Status often indicates how exacting are a species' habitat requirements. The five immigrant species, Diamond-back Moth, Rush Veneer, Vestal, Silver Y and Dark Sword-grass, may breed and complete their life cycle within Britain but do not survive the winter; within any one year, the occurrence of the species depends on the arrival of individuals from overseas.

Table 2. The numbers of moth species seen in the survey according to status.

Status category	Occurrence in Britain	Species seen
Common	>300 10 km squares	222
Local	101-300 10 km squares	24
Nationally Scarce B (Nb)	31-100 10 km squares	Cloaked Carpet – 1
Nationally Scarce A (Na)	16-30 10 km squares	<i>Rhigognostis incarnatella</i> – 1
Immigrant	-	5
	Total	253

Of the species seen, approximately 72 can be viewed as specialists, their larvae feeding on three or fewer species of plant while approximately 177 can be viewed as generalists, their larvae feeding on four or more species of plant. Species with specialised dietary requirements are likely to be more vulnerable to environmental change than more generalist feeders. It should however be noted that while the distinction is useful in terms of understanding ecosystem functioning and conservation requirements, it is not, in every case, a clear-cut one, and that the food plants of several moths found in the Extension are unknown.

38 of the species seen can be characterised as woodland species, 70 as species of woodland or scrub, 18 as species of scrub and 47 as species of open habitats, including grassland. A further 73 species are commonly found across a wide range of habitats. In addition, a few species were seen whose typical habitat does not occur within the Extension: 2 are garden species; 2 are species of coastal cliffs and shingle; 3 are species associated with marshes and ponds.

Conclusion

The large number of species recorded in this survey reflects the diversity of habitats occurring within the Extension, and the botanical diversity occurring within each habitat. The large number of individual moths seen indicates the healthy state of those habitats, and the importance of moths within the ecosystems of the Extension.

While some of the moths recorded in this survey have flown into the Extension from other habitats nearby, most will have previously fed as larvae, and then pupated, close to their site of capture.³ The number of species recorded is a highly conservative estimate of the number of species living in the Extension, due to both sampling effects and the many additional species that do not visit light-traps.

Moths belong to the Lepidoptera, one of five highly diverse orders of insects in Britain. Given the numbers of species found in Britain as a whole, it would be reasonable to predict that, compared to the number of Lepidoptera on the site, there are a somewhat lower number of Hemiptera (bugs), somewhat greater numbers of both Coleoptera (beetles) and Hymenoptera (wasps, bees and ants) and more than twice as many Diptera (flies) living within the Extension. Every species in each of these orders has unique ecological requirements. Given their diversity within the British Isles, and relative ease of surveying, moths can be used as an indicator of habitat diversity and health. Moths also constitute a vital component of most ecosystems occurring in Britain; as either adults or larvae, they are an essential food source for many species of birds, small mammals and invertebrates; adult moths pollinate many flowers. It is now well-documented that the numbers of many of the commonest large moth species in Britain have fallen drastically over the last 40 years, with population declines of up to 99%.⁴ Of those species found in the Extension, Lackey, Dusky Thorn, Garden Tiger, Rosy Minor, Dot Moth, White-line Dart and Autumnal Rustic have all suffered population declines in excess of 90%.

The causes of these declines remain poorly understood. They are believed to be multi-factorial, with recent changes in climate, loss and degradation of habitat, chemical pollution and light pollution all likely to have played a part, to varying extents in different species.⁵

To maintain the present abundance and diversity of moths, the habitats within the Extension should be maintained largely in their present state. This would require regular assessment of the vegetation to determine what changes are taking place. It is likely that the bracken-covered slopes are considerably slowed in their rate of change by their exposure to high winds and high salinity arriving from the nearby coastline. However, occasional management interventions may be required to prevent particular plant species, including greater quaking grass (*Briza maxima*), gorse, bramble and sycamore, from encroaching.

It is recommended that the moths of the Extension are periodically re-monitored to assess the impact of any

changes to the local ecology, and of concurrent changes across a broader geographical area, upon the wildlife that lives in the Extension.

A few of the species seen

The length given on each photograph is that of the moth's forewing.



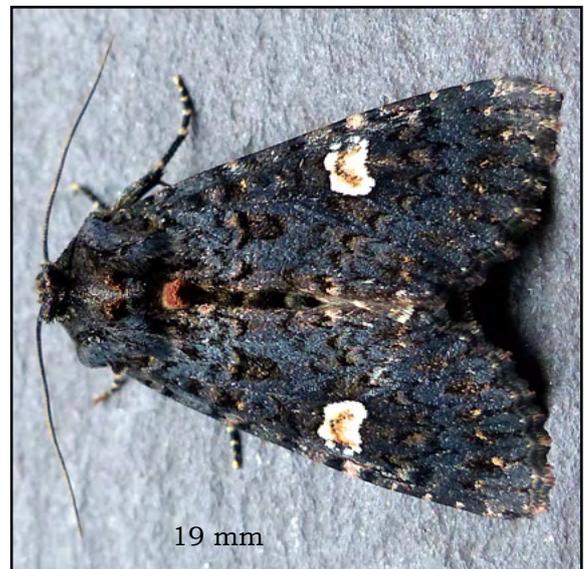
The larvae of *Monopis weaverella* find their food in owl pellets, faeces and dry animal carcasses.



The larvae of the Brown Silver-line feed on bracken. During the day in May and June, the adults are often seen flying short distances across the bracken on the slopes of the Extension.



The striking colours of the Cinnabar act as a warning to birds that it is poisonous. The larvae are often conspicuous while feeding on ragwort in summer.



The Dot Moth, found in many habitats, has declined by 91% in Britain during the last 40 years.



Rhigognostis incarnatella – this nationally scarce moth appears to be spreading along the coasts of West Wales.



The Crescent Dart inhabits coastal cliffs and rocky shorelines – the moths seen have probably flown into PNP as adults.



The Square-spot Rustic, a grassland species of late summer and early autumn, was the most abundant moth in the 2016 survey.



The Dusky Thorn, whose larvae feed on ash, has declined by 98% in Britain during the last 40 years.



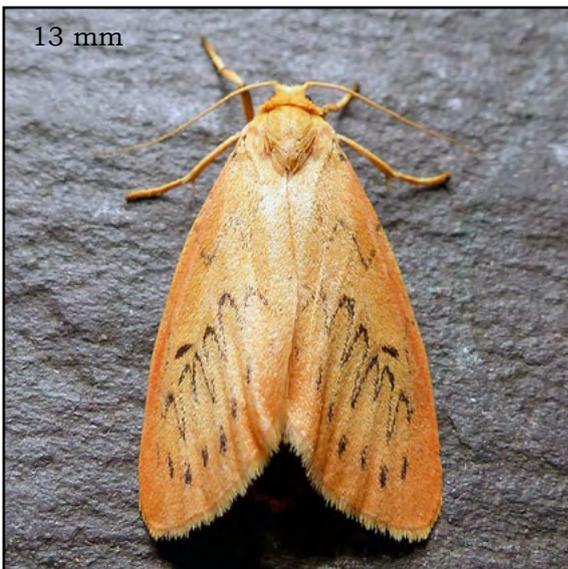
Blastobasis lacticolella is believed to be an adventive species in Britain, where it is now widespread and abundant.



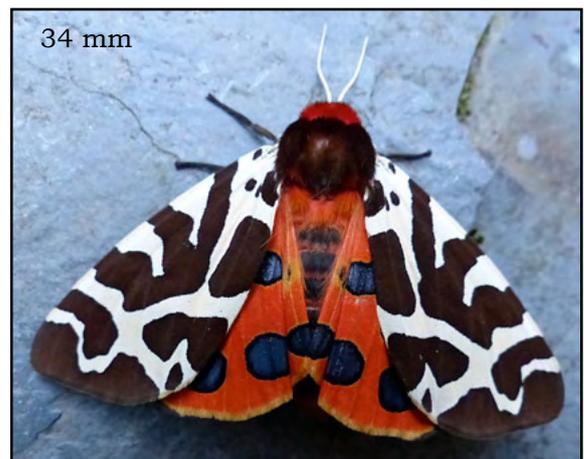
The larvae of *Cydia splendana* feed inside acorns.



The Cloaked Carpet - the damp woodlands of Ceredigion are a notable stronghold of this nationally-scarce moth.



The larvae of the Rosy Footman feed on various lichens.



The Garden Tiger, one of Britain's largest moths, has declined by 92% during the last 40 years.

Acknowledgements

We would like to thank A.O. Chater for his assistance in summarising the botany of the site, Peter Hall and Norman Lowe for their assistance with identification, and Carolyn and Evan Lynn for their suggested improvements to an earlier draft of this report.

References and notes

1. All text is copyright © 2017 the authors. All photographs are copyright © 2017 Peter Major.
2. Map © Crown copyright 2014.
3. Truxa, C. & Fiedler, K. (2012) Attraction to light - from how far do moths (Lepidoptera) return to weak artificial sources of light? *Eur. J. Entomol.*, **109**, 77-84.
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9. Manley, C. (2015) *British Moths (2nd edition)*. Bloomsbury.

Appendix

Table 3. A complete list of the species seen.

ABH ⁶	Species	Vernacular	Status	First	Last	n	Usual larval food ^{7,8,9}
2.001	<i>Dyseriocrania subpurpurella</i>	–	Common	1804	1804	2	Oaks
3.002	<i>Korscheltellus lupulina</i>	Common Swift	Common	3005	2206	37	Grasses, many other herbaceous plants
10.003	<i>Coptotriche marginea</i>	–	Common	1309	1309	1	Bramble
12.032	<i>Tinea semifulvella</i>	–	Common	0706	0706	1	Scavenger in birds' nests
12.033	<i>Tinea trinotella</i>	–	Common	3005	3005	2	Scavenger in birds' nests
12.037	<i>Monopis weaverella</i>	–	Common	0408	0408	2	Owl pellets, animal carcasses, faeces
15.008	<i>Caloptilia alchimiella</i>	–	Common	2706	2706	1	Oaks
15.015	<i>Aspilapteryx tringipennella</i>	–	Common	2208	2208	1	Ribwort plantain
16.001	<i>Yponomeuta evonymella</i>	Bird-cherry Ermine	Common	0408	0408	1	Bird cherry
16.010	<i>Zelleria hepariella</i>	–	Local	1608	1608	1	Ash
16.014	<i>Pseudoswammerdamia combinella</i>	–	Common	0905	1505	3	Blackthorn
17.002	<i>Ypsolopha nemorella</i>	–	Local	0408	0408	1	Honeysuckle
17.012	<i>Ypsolopha sequella</i>	–	Common	2908	0210	3	Field maple, sycamore
18.001	<i>Plutella xylostella</i>	Diamond-back Moth	Immigrant	0706	2109	8	Many brassicaceae
18.006	<i>Rhigognostis incarnatella</i>	–	Na	1804	1804	1	Dame's violet, hoary whitlowgrass
20.007	<i>Argyresthia cupressella</i>	Cypress Tip Moth	Local	1506	1506	2	Cypresses, juniper
28.009	<i>Endrosis sarcitrella</i>	White-shouldered House-moth	Common	0905	0905	1	Dead plant & animal matter
28.010	<i>Hofmannophila pseudospretella</i>	Brown House-moth	Common	1608	1608	2	Dead plant & animal matter
31.001	<i>Carcina quercana</i>	–	Common	1107	2908	6	Many broadleaved trees & shrubs
32.017	<i>Agonopterix arenella</i>	–	Common	0905	1309	5	Thistles, knapweeds, burdocks
32.018	<i>Agonopterix heracliana</i>	–	Common	3005	1309	3	Various apiaceae
32.030	<i>Agonopterix nervosa</i>	–	Common	0408	0408	1	Broom, gorses, other leguminosae
35.093	<i>Mirificarma mulinella</i>	–	Common	0408	0408	2	Gorse, broom
35.160	<i>Stenolechia gemmella</i>	–	Local	2208	2208	1	Oaks
37.063	<i>Coleophora albicosta</i>	–	Common	3005	3005	1	Gorse
41.002	<i>Blastobasis adustella</i>	–	Common	1907	2109	14	Polyphagous
41.003	<i>Blastobasis lacticolella</i>	–	Common	0905	2109	8	Polyphagous
44.001	<i>Alucita hexadactyla</i>	Twenty-plume Moth	Common	0408	2208	2	Honeysuckle
45.044	<i>Emmelina monodactyla</i>	Common Plume	Common	2208	1309	2	Bindweeds
47.005	<i>Epermenia chaerophyllella</i>	–	Common	1804	1804	1	Hogweed, other apiaceae
49.009	<i>Capua vulgana</i>	–	Common	2405	3005	2	Various trees & shrubs
49.024	<i>Pandemis corylana</i>	Chequered Fruit-tree Tortrix	Common	0408	2908	2	Various trees & shrubs
49.025	<i>Pandemis cerasana</i>	Barred Fruit-tree Tortrix	Common	1506	2706	4	Many woody & herbaceous plants
49.026	<i>Pandemis heparana</i>	Dark Fruit-tree Tortrix	Common	1608	2908	3	Many deciduous trees and herbaceous plants
49.028	<i>Syndemis musculana</i>	–	Common	3005	3005	2	Many broadleaved trees & shrubs
49.031	<i>Aphelia paleana</i>	Timothy Tortrix	Common	0407	0407	1	Various grasses & herbaceous plants
49.039	<i>Epiphyas postvittana</i>	Light Brown Apple Moth	Common	0905	2109	9	Polyphagous
49.040	<i>Lozotaeniodes formosana</i>	–	Common	0408	0408	1	Scots pine
49.047	<i>Eana incanana</i>	–	Common	2507	2507	1	Bluebell, oxeye daisy
49.066	<i>Acleris laterana</i>	–	Common	2208	0509	2	Hawthorn,s, rowan, other trees and shrubs
49.069	<i>Acleris sparsana</i>	–	Common	1309	2109	2	Beech, sycamore
49.077	<i>Acleris variegana</i>	Garden Rose Tortrix	Common	1309	1309	1	Various rosaceae
49.083	<i>Acleris ferrugana</i>	–	Common	1907	1907	1	Oaks, sallows
49.091	<i>Pseudargyrotoza conwagana</i>	–	Common	0408	0408	1	Ash, privets
49.109	<i>Agapeta hamana</i>	–	Common	1107	0408	5	Thistles
49.110	<i>Agapeta zoegana</i>	–	Common	1608	1608	1	Common knapweed, small scabious
49.111	<i>Eupoecilia angustana</i>	–	Common	1309	1309	1	Many herbaceous & woody plants
49.139	<i>Cochylis atricapitana</i>	–	Common	0908	1608	2	Common ragwort
49.161	<i>Celypha striana</i>	–	Common	2507	2507	1	Dandelion
49.166	<i>Celypha lacunana</i>	–	Common	1608	2908	2	Many herbaceous plants, some woody plants
49.194	<i>Bactra lancealana</i>	–	Common	3005	3005	1	Various rushes
49.195	<i>Bactra furfurana</i>	–	Local	1506	1506	1	Various rushes
49.260	<i>Zeiraphera isertana</i>	–	Common	1907	1907	1	Oaks
49.266	<i>Eucosma hohenwartiana</i>	–	Common	1107	2507	3	Common knapweed
49.269	<i>Eucosma campoliliiana</i>	–	Common	2706	1107	5	Common ragwort
49.279	<i>Gypsonoma dealbana</i>	–	Common	0408	0408	1	Various broadleaved trees
49.294	<i>Notocelia uddmanniana</i>	Bramble Shoot Moth	Common	2706	2109	13	Bramble, raspberry, loganberry
49.298	<i>Notocella trimaculana</i>	–	Common	1506	1506	2	Hawthorns
49.325	<i>Cydia ulicetana</i>	–	Common	3005	3005	3	Gorse, broom, other leguminosae
49.341	<i>Cydia splendana</i>	–	Common	2208	2208	1	Oaks, sweet chestnut, walnut
49.367	<i>Pammene fasciana</i>	–	Common	1107	1907	2	Oak, sweet chestnut

62.001	<i>Aphomia sociella</i>	Bee Moth	Common	3005	1907	11	Nests of bees and wasps
62.035	<i>Acrobasis advenella</i>	-	Common	1907	1608	5	Hawthorns, rowan
63.018	<i>Anania coronata</i>	-	Common	0408	0408	1	Elder, lilac, viburnums, privets
63.025	<i>Anania hortulata</i>	Small Magpie	Common	0706	2706	3	Nettle, occasionally other herbaceous plants
63.034	<i>Udea prunalis</i>	-	Common	1907	2208	14	Various herbaceous & woody plants
63.038	<i>Pleuroptya ruralis</i>	Mother of Pearl	Common	2507	2208	8	Nettle, elms
63.052	<i>Nomophila noctuella</i>	Rush Veneer	Immigrant	2507	2609	8	Clovers, other herbaceous plants
63.057	<i>Evergestis forficalis</i>	Garden Pebble	Common	0706	0706	1	Various brassicaceae
63.064	<i>Scoparia ambigualis</i>	-	Common	3005	1506	3	Various mosses
63.067	<i>Eudonia lacustrata</i>	-	Common	1506	2507	15	Various mosses
63.069	<i>Eudonia angustea</i>	-	Common	0509	1309	2	Various mosses
63.074	<i>Eudonia mercurella</i>	-	Common	0706	2208	12	Various mosses
63.080	<i>Chrysoteuchia culmella</i>	Garden Grass-veneer	Common	0706	1907	8	Many grasses
63.088	<i>Crambus perlella</i>	-	Common	2208	2208	2	Various grasses
63.089	<i>Agriphila tristella</i>	-	Common	2507	2208	13	Various grasses
63.093	<i>Agriphila straminella</i>	-	Common	1907	2208	17	Various grasses
63.095	<i>Agriphila geniculea</i>	-	Common	2208	1309	13	Various grasses
63.114	<i>Elophila nymphaeata</i>	Brown China-mark	Common	0408	0408	1	Various aquatic plants
65.001	<i>Falcaria lacertinaria</i>	Scalloped Hook-tip	Common	1107	1107	1	Birches
65.002	<i>Watsonalla binaria</i>	Oak Hook-tip	Common	2507	0408	2	Oaks
65.008	<i>Thyatira batis</i>	Peach Blossom	Common	2405	2405	1	Bramble
65.009	<i>Habrosyne pyritoides</i>	Buff Arches	Common	0706	1907	4	Bramble
65.015	<i>Polyploca ridens</i>	Frosted Green	Local	0905	0905	1	Oaks
66.003	<i>Malacasoma neustria</i>	Lackey	Common	1907	0408	3	Many broadleaved trees & shrubs
66.010	<i>Euthrix potatoria</i>	Drinker	Common	1907	1907	1	Many grasses, reeds & sedges
69.016	<i>Deilephila elpenor</i>	Elephant Hawk-moth	Common	1107	1107	1	Willowherbs, bedstraws
70.009	<i>Idaea subsericeata</i>	Satin Wave	Common	1506	1506	1	Unknown
70.011	<i>Idaea dimidiata</i>	Single-dotted Wave	Common	1907	2208	5	Cow parsley, burnet-saxifrage, hedge bedstraw
70.013	<i>Idaea biselata</i>	Small Fan-footed Wave	Common	1107	0509	22	Unknown
70.016	<i>Idaea aversata</i>	Riband Wave	Common	2706	0908	42	Various herbaceous plants
70.024	<i>Scopula imitaria</i>	Small Blood-vein	Common	1107	1107	1	Privet, honeysuckle
70.027	<i>Scopula floslactata floslactata</i>	Cream Wave	Local	0706	0706	1	Bedstraws, woodruff, bush vetch
70.029	<i>Timandra comae</i>	Blood-vein	Common	0706	1506	2	Docks, sorrels, knotgrass, common orache
70.038	<i>Rhometra sacraria</i>	Vestal	Immigrant	1309	1309	1	Knotgrasses
70.049	<i>Xanthorhoe fluctuata</i>	Garden Carpet	Common	0905	1309	4	Many brassicaceae
70.051	<i>Xanthorhoe spadicearia</i>	Red Twin-spot Carpet	Common	0408	1608	2	Bedstraws, other herbaceous plants
70.053	<i>Xanthorhoe designata</i>	Flame Carpet	Common	0405	2908	12	Unknown
70.054	<i>Xanthorhoe montanata montanata</i>	Silver-ground Carpet	Common	0905	1506	18	Bedstraws, other herbaceous plants
70.061	<i>Epirrhoe alternata alternata</i>	Common Carpet	Common	1506	2208	13	Cleavers, other bedstraws
70.064	<i>Euphyia biangulata</i>	Cloaked Carpet	Nb	1907	0408	8	Stitchworts
70.067	<i>Anticlea derivata</i>	Streamer	Common	0105	0105	1	Dog-rose
70.074	<i>Hydriomena furcata</i>	July Highflyer	Common	1107	2208	11	Heather, sallows, other woody plants
70.079	<i>Thera britannica</i>	Spruce Carpet	Common	0509	2609	5	Many coniferous trees
70.081	<i>Thera obeliscata</i>	Grey Pine Carpet	Common	2609	2609	2	Many coniferous trees
70.087	<i>Cosmorhoe ocellata</i>	Purple Bar	Common	3005	2908	2	Bedstraws
70.093	<i>Gandaritis pyraliata</i>	Barred Straw	Common	2706	1907	6	Cleavers, other bedstraws
70.094	<i>Ecliptopera silaceata</i>	Small Phoenix	Common	1505	0509	19	Various willowherbs, enchanter's nightshade
70.095	<i>Chloroclysta siterata</i>	Red-green Carpet	Common	1309	1309	1	Oaks, other broadleaved trees
70.097	<i>Dysstroma truncata truncata</i>	Common Marbled Carpet	Common	3005	1410	61	Many woody plants, some herbaceous plants
70.098	<i>Dysstroma citrata citrata</i>	Dark Marbled Carpet	Common	2507	2908	3	Birches, bilberry, other woody plants
70.100	<i>Colostygia pectinataria</i>	Green Carpet	Common	0706	1309	3	Bedstraws
70.103	<i>Lampropteryx suffumata</i>	Water Carpet	Common	0105	0905	7	Bedstraws
70.114	<i>Hydrelia flammeolaria</i>	Small Yellow Wave	Common	0407	1608	4	field maple, sycamore, alder
70.121	<i>Hydria undulata</i>	Scallop Shell	Local	2206	2206	1	Sallows, aspen, bilberry
70.132	<i>Perizoma affinitata</i>	Rivulet	Common	3005	0408	10	Red campion
70.133	<i>Perizoma alchemillata</i>	Small Rivulet	Common	0408	0408	4	Common hemp-nettle
70.134	<i>Perizoma bifaciata</i>	Barred Rivulet	Local	0408	0408	4	Red bartsia, eyebrights
70.138	<i>Perizoma flavofasciata</i>	Sandy Carpet	Common	3005	1907	4	Red, white & bladder campion
70.141	<i>Gymnoscelis rufffasciata</i>	Double-striped Pug	Common	1107	0509	8	Many flowering plants
70.142	<i>Chloroclystis v-ata</i>	V-pug	Common	3005	2208	3	Various herbaceous & woody plants
70.151	<i>Eupithecia pulchellata</i>	Foxglove Pug	Common	3005	1107	8	Foxglove
70.156	<i>Eupithecia abbreviata</i>	Brindled Pug	Common	0905	0905	2	Oaks, hawthorns
70.161	<i>Eupithecia virgaureata</i>	Golden-rod Pug	Local	0905	0905	1	Goldenrod, ragworts
70.179	<i>Eupithecia absinthiata</i>	Wormwood Pug	Common	2507	0408	2	Many asteraceae, heather

70.183	<i>Eupithecia vulgata</i>	Common Pug	Common	3005	2706	5	Various woody & herbaceous plants
70.184	<i>Eupithecia exiguata</i>	Mottled Pug	Common	1506	1907	3	Hawthorns, blackthorn, dogwood, barberry
70.187	<i>Eupithecia icterata</i>	Tawny Speckled Pug	Common	1608	2208	3	Yarrow, sneezewort
70.190	<i>Eupithecia subfuscata</i>	Grey Pug	Common	2206	2208	7	Many herbaceous & broadleaved woody plants
70.200	<i>Acasis viretata</i>	Yellow-barred Brindle	Local	2208	2208	3	Holly, ivy, other woody plants
70.202	<i>Trichopteryx carpinata</i>	Early Tooth-striped	Common	1804	2404	2	Honeysuckle, birches, sallows, alder
70.205	<i>Abraxas grossulariata</i>	Magpie	Common	1907	2908	13	Various small trees & shrubs
70.207	<i>Lomaspilis marginata</i>	Clouded Border	Common	1506	0408	3	Aspen, sallows, poplars, willows
70.222	<i>Petrophora chlorosata</i>	Brown Silver-line	Common	0405	1506	26	Bracken
70.224	<i>Plagodis dolabraria</i>	Scorched Wing	Local	3005	3005	1	Oaks, birches, other broadleaved trees
70.226	<i>Opisthographis luteolata</i>	Brimstone Moth	Common	0905	2609	74	Blackthorn, hawthorns, rowan, plum
70.233	<i>Ennomos quercinaria</i>	August Thorn	Local	0408	1309	3	Oaks, birches, beech, hawthorns
70.235	<i>Ennomos fuscantaria</i>	Dusky Thorn	Common	0509	0509	2	Ash
70.237	<i>Selenia dentaria</i>	Early Thorn	Common	1804	0408	17	Many broadleaved woody trees & shrubs
70.239	<i>Selenia tetralunaria</i>	Purple Thorn	Common	1907	1907	1	Many broadleaved trees
70.240	<i>Odontopera bidentata</i>	Scalloped Hazel	Common	1505	0706	6	Many woody plants
70.241	<i>Crocallis elinguaris</i>	Scalloped Oak	Common	1107	1608	13	Many broadleaved trees & shrubs
70.243	<i>Ourapteryx sambucaria</i>	Swallow-tailed Moth	Common	1107	0408	13	Various trees & shrubs, ivy
70.248	<i>Lycia hirtaria</i>	Brindled Beauty	Common	1804	1804	1	Many broadleaved trees
70.252	<i>Biston betularia</i>	Peppered Moth	Common	3005	2507	7	Many woody plants, some herbaceous plants
70.258	<i>Peribatodes rhomboidaria</i>	Willow Beauty	Common	0706	2208	12	Many woody plants
70.265	<i>Alcis repandata repandata</i>	Mottled Beauty	Common	0706	1107	34	Many woody plants, some herbaceous plants
70.270	<i>Ectropis crepuscularia</i>	Engrailed	Common	0405	2507	14	Many woody plants
70.277	<i>Cabera pusaria</i>	Common White Wave	Common	2706	1907	2	Birches, alder, other trees
70.278	<i>Cabera exanthemata</i>	Common Wave	Common	0408	0408	1	Sallows, aspen, poplars
70.279	<i>Lomographa bimaculata</i>	White-pinion Spotted	Common	3005	3005	1	Blackthorn, hawthorns
70.280	<i>Lomographa temerata</i>	Clouded Silver	Common	0905	2507	7	Hawthorns, plums, cherries, crab apple
70.283	<i>Campaea margaritaria</i>	Light Emerald	Common	0706	1907	25	Many broadleaved trees
70.284	<i>Hylaea fasciaria</i>	Barred Red	Common	0706	2206	2	Scots pine, norway spruce, other conifers
70.288	<i>Cleorodes lichenaria</i>	Brussels Lace	Local	1506	2206	4	Lichens
70.297	<i>Pseudoterpnis pruinata pruinata</i>	Grass Emerald	Common	2706	2706	1	Gorse, broom, petty whin
70.305	<i>Hemithea aestivaria</i>	Common Emerald	Common	2706	1107	4	Hawthorns, blackthorn, other woody plants
71.003	<i>Cerura vinula</i>	Puss Moth	Common	0905	0905	1	Poplars, willows
71.013	<i>Notodonta ziczac</i>	Pebble Prominent	Common	0905	1608	2	Aspen, poplars, sallows, willows
71.021	<i>Ptilodon capucina</i>	Coxcomb Prominent	Common	1506	0408	5	Many broadleaved trees
71.025	<i>Phalera bucephala</i>	Buff-tip	Common	1505	2507	5	Birches, hazel, oaks, other broadleaved trees
72.002	<i>Rivula sericealis</i>	Straw Dot	Common	2507	2507	1	False brome, purple moor-grass, other grasses
72.003	<i>Hypena proboscidalis</i>	Snout	Common	2706	2609	16	Nettle
72.010	<i>Lymantria monacha</i>	Black Arches	Local	0408	2208	2	Oaks, other trees
72.013	<i>Euproctis similis</i>	Yellow-tail	Common	1107	2208	24	Many broadleaved trees & shrubs
72.015	<i>Calliteara pudibunda</i>	Pale Tussock	Common	1505	0706	6	Many broadleaved trees & shrubs
72.019	<i>Spilosoma lutea</i>	Buff Ermine	Common	0706	2507	17	Many herbaceous plants
72.020	<i>Spilosoma lubricipeda</i>	White Ermine	Common	2405	2206	15	Many herbaceous plants
72.022	<i>Diaphora mendica</i>	Muslin Moth	Common	0405	1505	3	Many herbaceous plants
72.024	<i>Phragmatobia fuliginosa fuliginosa</i>	Ruby Tiger	Common	1608	1608	1	Many herbaceous plants, some woody plants
72.026	<i>Arctia caja</i>	Garden Tiger	Common	2507	2507	1	Many herbaceous plants
72.031	<i>Tyria jacobaeae</i>	Cinnabar	Common	1505	3005	3	Ragworts
72.035	<i>Miltochrista miniata</i>	Rosy Footman	Local	2507	2908	45	Dog lichens, other lichens
72.043	<i>Eilema depressa</i>	Buff Footman	Local	1907	2208	6	Lichens, algae
72.044	<i>Eilema griseola</i>	Dingy Footman	Common	1107	0509	48	Lichens, algae
72.045	<i>Eilima lurideola</i>	Common Footman	Common	2507	0408	4	Lichens, algae
72.046	<i>Eilema complana</i>	Scarce Footman	Local	2507	0408	2	Lichens, algae
72.053	<i>Herminia tarsipennalis</i>	Fan-foot	Common	2706	0408	7	Withered leaves of oaks, beech, bramble
72.055	<i>Herminia grisealis</i>	Small Fan-foot	Common	0706	2507	10	Many broadleaved trees & withered leaves
72.061	<i>Schrankia costastrigalis</i>	Pinion-streaked Snout	Local	2208	1309	9	Unknown
73.001	<i>Abrostola tripartita</i>	Spectacle	Common	1506	2206	3	Nettle
73.002	<i>Abrostola triplasia</i>	Dark Spectacle	Common	2507	2507	1	Nettle, hop
73.012	<i>Diachrysis chrysitis</i>	Burnished Brass	Common	1907	1907	1	nettle, other herbaceous plants
73.015	<i>Autographa gamma</i>	Silver Y	Immigrant	2206	0410	56	Many herbaceous plants
73.016	<i>Autographa pulchrina</i>	Beautiful Golden Y	Common	3005	2206	2	Nettle, ragworts, other herbaceous plants
73.032	<i>Colocasia coryli</i>	Nut-tree Tussock	Common	0105	0405	2	Various broadleaved trees
73.047	<i>Craniophora ligustri</i>	Coronet	Local	1506	1107	7	Ash, wild privet
73.062	<i>Amphipyra pyramidea</i>	Copper Underwing	Common	2208	2609	8	Various broadleaved trees & shrubs
73.084	<i>Bryophila domestica</i>	Marbled Beauty	Common	1907	2208	5	Lichens

73.092	<i>Caradrina morpheus</i>	Mottled Rustic	Common	0706	1506	3	Many herbaceous plants
73.096	<i>Hoplodrina octogenaria</i>	Uncertain	Common	1506	1506	1	Various herbaceous plants
73.101	<i>Charanyca trigrammica</i>	Treble Lines	Common	3005	0706	8	Knapweeds, other herbaceous plants
73.102	<i>Rusina ferruginea</i>	Brown Rustic	Common	0706	0706	3	Many herbaceous plants
73.113	<i>Phlogophora meticulosa</i>	Angle Shades	Common	2706	0210	8	Many woody & herbaceous plants
73.114	<i>Euplexia lucipara</i>	Small Angle Shades	Common	3005	2507	5	Many herbaceous & woody plants
73.123	<i>Hydraecia micacea</i>	Rosy Rustic	Common	1608	0509	6	Various herbaceous plants
73.131	<i>Luperina testacea</i>	Flounced Rustic	Common	1608	1309	35	Couches, fescues, other grasses
73.144	<i>Denticucullus pygmina</i>	Small Wainscot	Common	2507	2208	2	Sedges, grasses
73.154	<i>Apamea remissa</i>	Dusky Brocade	Common	2706	2706	1	Common couch, reed canary-grass, other grasses
73.156	<i>Apamea crenata</i>	Clouded-bordered Brindle	Common	0905	0905	1	Cock's-foot, other grasses
73.158	<i>Apamea sordens</i>	Rustic Shoulder-knot	Common	0706	0706	1	Many grasses
73.162	<i>Apamea monoglypha</i>	Dark Arches	Common	1506	1608	46	Various grasses
73.163	<i>Apamea lithoxyla</i>	Light Arches	Common	1107	1907	2	Annual meadow grass, other grasses
73.171	<i>Litoligia literosa</i>	Rosy Minor	Common	1608	2908	3	Lyme-grass, marram, other grasses
73.172	<i>Mesoligia furuncula</i>	Cloaked Minor	Common	1107	2507	2	Tufted hair-grass, sheep's fescue, other grasses
73.189	<i>Agrochola lota</i>	Red-line Quaker	Common	1410	1410	1	Willows
73.193	<i>Omphaloscelis lunosa</i>	Lunar Underwing	Common	0410	2710	33	Yorkshire-fog, annual meadow-grass, other grasses
73.206	<i>Lithophane leautieri hesperica</i>	Blair's Shoulder-knot	Common	0410	1910	2	Cypresses - leyland, lawson's & monterey
73.216	<i>Cosmia trapezina</i>	Dun-bar	Common	0408	2908	2	Many broadleaved trees, also carnivorous
73.219	<i>Atethmia centrigo</i>	Centre-barred Sallow	Common	0509	0509	2	Ash
73.224	<i>Griposia aprilina</i>	Merveille du Jour	Common	0410	0410	5	Oaks
73.233	<i>Aporophyla nigra</i>	Black Rustic	Common	2109	1410	21	Heathers, tufted hair-grass, blackthorn, clovers
73.235	<i>Polymixis lichenea lichenea</i>	Feathered Ranunculus	Local	2109	0410	3	Sea plantain, thrift, other herbaceous plants
73.241	<i>Panolis flammea</i>	Pine Beauty	Common	0105	0905	4	Pines
73.242	<i>Orthosia incerta</i>	Clouded Drab	Common	0405	1505	6	Many broadleaved trees
73.244	<i>Orthosia cerasi</i>	Common Quaker	Common	2404	2405	57	Many broadleaved trees
73.247	<i>Orthosia gracilis</i>	Powdered Quaker	Common	0105	0105	1	Various herbaceous & woody plants
73.249	<i>Orthosia gothica</i>	Hebrew Character	Common	1804	2405	49	Many herbaceous & woody plants
73.250	<i>Anorthoa munda</i>	Twin-spotted Quaker	Common	0405	0405	1	Many woody plants
73.261	<i>Polia nebulosa</i>	Grey Arches	Common	2706	2706	1	Many woody plants, some herbaceous plants
73.264	<i>Lacanobia thalassina</i>	Pale-shouldered Brocade	Common	1505	0706	2	Many woody plants
73.267	<i>Lacanobia oleracea</i>	Bright-line Brown-eye	Common	1107	2507	3	Many herbaceous & woody plants
73.270	<i>Melanchra persicariae</i>	Dot Moth	Common	1907	2507	2	Many herbaceous & woody plants
73.271	<i>Ceramica pisi</i>	Broom Moth	Common	0407	2507	2	Broom, heathers, other herbaceous & woody plants
73.273	<i>Hada plebeja</i>	Shears	Common	3005	3005	1	Smooth hawk's-beard, other herbaceous plants
73.281	<i>Hadena bicurvis</i>	Lychnis	Common	0706	1907	2	Red & white campion, sweet william
73.286	<i>Hadena perplexa</i>	Tawny Shears	Common	0905	0408	2	Campions, other caryophyllaceae
73.291	<i>Mythimna pallens</i>	Common Wainscot	Common	1107	1107	1	Tufted hair-grass, cock's-foot, other grasses
73.293	<i>Mythimna impura</i>	Smoky Wainscot	Common	1107	0908	57	common reed, cock's-foot, other grasses
73.298	<i>Mythimna ferrago</i>	Clay	Common	1107	0408	16	Meadow-grass, cock's-foot, other grasses
73.301	<i>Leucania comma</i>	Shoulder-striped Wainscot	Common	2706	2706	1	Cock's-foot, other grasses
73.313	<i>Euxoa tritici</i>	White-line Dart	Common	2908	2908	1	Various herbaceous plants
73.317	<i>Agrotis exclamationis</i>	Heart and Dart	Common	2405	1107	86	Many herbaceous plants
73.324	<i>Agrotis trux trux</i>	Crescent Dart	Local	1107	1907	3	Thrift, rock sea-spurrey
73.325	<i>Agrotis puta puta</i>	Shuttle-shaped Dart	Common	0905	1505	4	Various herbaceous plants
73.327	<i>Agrotis ipsilon</i>	Dark Sword-grass	Immigrant	2109	2109	1	Many herbaceous plants
73.328	<i>Axylia putris</i>	Flame	Common	0706	1107	10	Many herbaceous plants
73.329	<i>Ochropleura plecta</i>	Flame Shoulder	Common	0905	0509	34	Many herbaceous plants
73.332	<i>Diarsia brunnea</i>	Purple Clay	Common	1506	1907	11	Various herbaceous & woody plants
73.333	<i>Diarsia mendica mendica</i>	Ingrailed Clay	Common	3005	1907	15	Many herbaceous & woody plants
73.334	<i>Diarsia rubi</i>	Small Square-spot	Common	2405	1309	15	Various herbaceous plants
73.342	<i>Noctua pronuba</i>	Large Yellow Underwing	Common	0706	0410	211	Many herbaceous plants
73.345	<i>Noctua comes</i>	Lesser Yellow Underwing	Common	2507	0410	48	Many herbaceous plants, some woody plants
73.348	<i>Noctua janthe</i>	Lesser Broad-bordered Yellow Underwing	Common	1907	0509	153	Many herbaceous plants, some woody plants
73.357	<i>Xestia xanthographa</i>	Square-spot Rustic	Common	1608	2710	356	Various grasses, some herbaceous plants
73.358	<i>Xestia sexstrigata</i>	Six-striped Rustic	Common	2507	1608	21	Various herbaceous plants
73.359	<i>Xestia c-nigrum</i>	Setaceous Hebrew Character	Common	0908	2109	59	Many herbaceous plants
73.360	<i>Xestia ditrapezium</i>	Triple-spotted Clay	Local	1506	2507	8	Various herbaceous & woody plants
73.361	<i>Xestia triangulum</i>	Double Square-spot	Common	0706	2507	47	Many herbaceous & woody plants
73.365	<i>Eugnorisma glareosa</i>	Autumnal Rustic	Common	1309	0410	13	Heathers, bedstraws, bluebell
74.003	<i>Nola cucullatella</i>	Short-cloaked Moth	Common	1107	1907	2	Hawthorns, blackthorn, apple, plum
74.004	<i>Nola confusalis</i>	Least Black Arches	Local	0905	0905	1	Many broadleaved trees
74.008	<i>Pseudoips prasinana prasinana</i>	Green Silver-lines	Common	0407	0407	1	Various broadleaved trees