

**Butterfly
Conservation**

Saving butterflies, moths and our environment



Mothy Mutterings – December 2015

As this month's newsletter is being written near the beginning of the month, festivities and leave getting in the way of all things mothy (well almost), we felt it was a good opportunity to look back at some of this year's highlights. We wanted this to cover the work of all our conservation staff so we asked each of them for their top two or three moth highlights/successes for the past year. We have also included some examples of publicity relating to moths which we have had a hand in this year. As we only asked for a few examples from each person the results are not comprehensive, and many other activities/projects etc. covering moths are underway. Anyway, we hope the following provides an insight to the range and depth of work being undertaken by Butterfly Conservation on the conservation of moths. The following are in no particular order:

England

A larva of the Sussex Emerald *Thalera fimbrialis* was found at a new site in Kent (in an area where adult moths were seen the previous year), thus bringing the total number of sites for this species to three, although the stronghold is still Dungeness.

At a Country Park in Kent, numbers of Bright Wave *Idaea ochrata* were found in an area some distance away from where the species is currently known indicating it may be locally established at other localities over this 80 hectare site.

A new breeding site for Fiery Clearwing *Pyropteron chrysidiformis* was discovered in Kent, with two further colonies confirmed in 2015, bringing the total to 12 populations (all in Kent).

Phyllonorycter scabiosella was confirmed at two sites on the Kent North Downs this summer, both in conservation management, bringing the number of sites known from 2000 onwards to eight. The remaining six are in Surrey.

Although we will have to wait until 2016 for confirmation, what are thought to be larvae of *Sciota hostilis* were discovered at a site in Kent. If these prove to be this species, this will only be the second breeding population known in this country, the other being in Warwickshire.

A project has been developed in partnership with Natural England in Kent to secure and extend the Black-veined Moth *Siona lineata* UK population, which is currently only found in just seven fields close to Ashford.

A second successful search for Olive Crescent *Trisateles emortualis* larvae at the RSPBs Broadwater Warren reserve, East Sussex, has led to the RSPB agreeing to carry out similar searches, using the same methodology, across many of their reserves in South East England.

The landfill funded project (Biffa Award) to restore the habitat of *Coleophora wockeella* at its sole known UK site came to an end. This project involved control of Bracken, the most immediate threat, and scrub that were encroaching on the breeding site, with the potential area that can be colonised by the foodplant and moth considerably increased.

In an effort to create and expand habitat for the Striped Lychnis *Cucullia lychnitis*, with funding through a landfill tax funded project (Veolia Environmental Trust), we have created a number of bare chalk areas near Winchester, Hampshire, which are being colonised by the larval foodplant, Dark Mullein.

In late summer, 21 sites in Dorset were surveyed for the Dingy Mocha *Cyclophora pendularia* with larvae being recorded at 14 of these. These sites covered eight 10km squares, with larvae found in seven 10km squares. One of these sites is thought to be new for the species, at least in the period from 2000 onwards.

Records of Forester *Adscita statures* on Butterfly Conservation's Lankham Bottom reserve, Dorset, and nearby downland sites in the Sydling Valley are revealing the importance for this species of the unfertilised grassland habitats on the slightly deeper and moister soils of the valley bottoms in this key area.

Surveys for Chalk Carpet *Scotopteryx bipunctaria* on Portland, Dorset, as part of the 'Portland Living Landscapes' project, recorded the moth at four of seven sites in 2015, including the first records at two quarries since 2011. At Trade Quarries, at least nine Chalk Carpet were seen in about fifteen minutes in a small area recently cleared of Cotoneaster.

Project development is underway for a Heritage Lottery Fund project called 'All the Moor Butterflies', a three year project operating across Bodmin, Dartmoor and Exmoor, which will include restoring habitat for the Narrow-bordered Bee Hawk-moth *Hemaris tityus*.

Management advice was provided to 44 landowners on Dartmoor relating to appropriate management of their 'Rhos pasture' habitat, improving the quality of breeding habitat for the Narrow-bordered Bee Hawk-moth *H. tityus* (as well as the Marsh Fritillary *Euphydryas aurinia*). Practical management was delivered across six of these sites.

A training workshop was run on Dartmoor to teach volunteers identification and monitoring methodology for the Narrow-bordered Bee Hawk-moth *H. tityus*, this attended by 21 people.

A moth night was held at the Dartmoor National Park's conservation garden in Princetown in August. This was a pilot workshop as part of the development of the above 'All the Moor Butterflies' project. A small number of people attended, all enjoying learning about moths.

A site meeting at Kynance Cove, Cornwall, was undertaken with Bob Heckford (a national expert on micro-lepidoptera) to demonstrate the importance of the area for a suite of scarce micro-moths to National Trust and Natural England staff. Several very scarce species were seen.

Wild Liquorice seed was collected in autumn 2015 with a view to seeding in 2016 as part of a Biffa Award funded project in the Poldens, Somerset. The aim of this work is to increase the amount of habitat for Liquorice Piercer *Grapholita pallifrontana* and encourage increased recording of the foodplant in the landscape to better understand the potential distribution of the moth.

A member of staff recorded a Waved Black *Parascotia fuliginaria* in his garden in Somerset. This proved to be a new county record.

Surveys involving a number of key volunteers (all with the appropriate licence) for the Barberry Carpet *Pareulype berberata* took place over the year, with 26 sites covered taking in locations in Dorset, Gloucestershire, Wiltshire, Oxfordshire, Berkshire, Hampshire, Norfolk and Suffolk. Extant populations are present in the former four counties, and all these were visited, with the species being found at eight sites (some comprising of several subsites).

Butterfly Conservation's Rough Bank reserve in the Cotswolds is now known to support 42 species of scarce and threatened moths. The three pRDB species in that list (and all recorded since 2012) are the micro-moths *Trifurcula headleyella*, *Coleophora niveicostella* and *Epermenia profugella* whose larval foodplants are all relatively common in the sward. Other new records for the site in 2015 include the local [Ethmia dodecea](http://www.goucestershire-butterflies.org.uk/rbscarce-moths.html) bringing the total of moth species known from the site to 592. For full details see: <http://www.goucestershire-butterflies.org.uk/rbscarce-moths.html>

In 2015, two new locations for White-spotted Pinion *Cosmia diffinis* have been found in Cambridgeshire with the species also confirmed at five other known sites in the county. None were found at the sites selected in

Bedfordshire, even though the elm stands looked suitable, but it is still possible that the moth is present here.

A colony of the Goat Moth *Cossus cossus* was confirmed at The Raptor Foundation in Huntingdon in a row of stressed willow trees behind the raptor display.

The Forester *A. statices* is thriving at several sites in the Brecks, especially where bare ground plots, created as part of a Butterfly Conservation project, have resulted in an abundance of nectar.

As part of our 'Ipswich Heaths Project', a further six bare ground scrapes have been completed at three sites in 2015. Two scrapes completed at the beginning of the project are now occupied by the Lunar Yellow Underwing *Noctua orbona*, along with the Grayling butterfly *Hipparchia semele*.

A survey for the two Aspen feeding moths *Sciota hostilis* and *Phyllonorycter sagitella* was undertaken at Oversley Wood, Warwickshire. The status of the former remains uncertain here as again no adults or larval feeding signs were found. In contrast *P. sagitella* is doing well. The plan is for more coppice work to be undertaken at the site over the 2015/16 winter, this led by the Warwickshire Branch of Butterfly Conservation.

There was confirmation of the continued presence of the Argent & Sable *Rheumaptera hastata* at a previously unknown site in Shropshire first discovered in 2014, with three adults seen in 2015. In the Loggerheads area of Staffordshire, a survey was undertaken of Forestry Commission woodlands to assess whether the ride side management regimes currently being implemented are creating and maintaining habitat for this moth, with two larvae found. A survey of sites in the Churnet Valley, Staffordshire, resulted in three sightings of the adult. Two of these were seen at Coombes Valley RSPB reserve where two patches of birch are managed on a coppice rotation for this moth. The other sighting was on National Trust land at Hawksmoor where they are now keen to implement similar coppice management.

The landscape-scale programme of woodland management (mainly coppicing and ride widening) implemented between 2008 and 2015 on the Morecambe Bay Limestones in North West England has been especially beneficial for the White-spotted Sable *Anania funebris*. This moth, which breeds here on Goldenrod in woodland clearings, has colonised eight sites nearly doubling the number of populations to 17, elevating this landscape to a national stronghold for the species.

At Strensall Common, Yorkshire, fenced enclosures have been put in place in an attempt to gain an insight into the impact of grazing on the Dark Bordered Beauty *Epione vespertaria* population and its foodplant, Creeping Willow, at the site. Preliminary results are indicating that the foodplant is growing more robustly within the enclosures.

Volunteer work parties are increasingly active at Yorkshire's two known Argent & Sable *R. hastata* sites. Management has involved coppicing medium-sized birches to create a varied vegetation structure and ensure that smaller birch trees, favoured by the moth, are available in the woodland rides it inhabits.

Wales

This year has seen a remarkable total of four new sites discovered for Scarce Hook-tip *Sabra harpagula* in the Wye Valley, Monmouthshire, following targeted light trapping. The moth has now been recorded from seven woods in Wales; four of these are now known to support the associated Small-leaved Lime specialist micro-moths *Dichomeris ustalella* and *Salebriopsis albicilla*.

Larval searches of Bog Myrtle are proving productive for finding new Argent & Sable *R. hastata* sites in Snowdonia. A new site in Merioneth was found in 2015 taking the total number of occupied sites in Wales to five.

Public moth trapping events at two of the key fritillary butterfly sites in South Wales produced many new site records. An impressive 181 species were recorded at the Alun Valley event in the Vale of Glamorgan, including the scarce micro-moth *Acompsia schmidtellus*.

Scotland

Despite the poor spring weather four new sites for the Small Dark Yellow Underwing *Coranarta cordigera* were found, all in the Cairngorms, including a site in Angus.

A pheromone lure for Forester *A. statices* was successfully trialled at a number of sites providing the exciting prospect of a new method for undertaking survey and monitoring of this elusive scarce species.

Butterfly Conservation Scotland held volunteer work parties over two weekends to undertake emergency repairs to the perimeter fence at the UK's only site for New Forest Burnet *Zygaena viciae* to make it stock proof, following winter landslips that took out sections of the fence, allowing sheep unhindered access to the site.

Recording/Research/Publicity

Moth Night 2015, run jointly by Atropos and Butterfly Conservation, coincided with a major immigration of moths, including many Convolvulus Hawk-moth *Agrius convolvuli*. Lots of interest on social media and in the mainstream media was generated, including Mark Tunmore on TV, Zoë Randle on the Radio 4 Today programme and Simon Mayo's Radio 2 show doing moth-themed requests (e.g. Blinded by the Light).

In November the 20 millionth unique record was imported into the National Moth Recording Scheme (NMRS), just under nine years since the first dataset (from Hertfordshire VC20) was imported. On average, the NMRS imports about 1 million new records per annum, however, in 2015 this figure rose to just over 1,490,000. Many thanks go to all recorders and County Moth Recorders for making this immense achievement possible.

There has been successful progress on the moths, pollination and light pollution PhD being undertaken by Callum Macgregor in partnership with Butterfly Conservation. A paper with the results of the first summer's fieldwork (in 2014) was written up and submitted to a journal, and a new experiment carried out this summer.

A new Butterfly Conservation Regional Action Plan for moths and butterflies is being developed for the South East region and is currently being worked on by the relevant County Moth Recorders and others with local moth expertise.

In 2014, Butterfly Conservation put out a press release on the Beautiful Brocade *Lacanobia contigua* being seen in Northern Ireland for the first time in more than 120 years. This year BC Northern Ireland were keen to find out more about its distribution in the Mourne Mountains, so another press release was sent out asking people to set up moth traps. Coverage by newspapers like the Down Recorder and Mourne Observer helped encourage people to lend their garden to moth trappers, this resulting in several new locations for the moth being found.

In October, the Upper Thames Branch received publicity for the Striped Lychnis *C. lychnitis* on their project that asked people to grow Dark Mullein to help increase the moths population. The story appeared in the Bucks Herald newspaper with the Branch Chairman interviewed on BBC Radio Oxford. A local TV station filmed a work party at Holtspur Bottom Reserve showing volunteers planting Dark Mullein. As a result, the Branch were inundated with support and handed out more than a million seeds to people across Berkshire and Buckinghamshire. A local school and a nearby mental health charity also supported the project by planting hundreds of Dark Mullein in their grounds.

In early December, Zoë Randle was interviewed by Andrew Neil on the BBC Two [Daily Politics programme](#) commenting on a story relating to a clothes moth infestation in the House of Lords, using the opportunity to point out that there are c.2500 species of moth in this country with only two of these being clothes moths that can occasionally cause problems as well as highlighting the importance of moths.

Moths will still be about, particularly on those mild nights and the Winter Moth and Northern Winter Moth *Operophtera brumata* and *O. fagata* may be species to target to fill in some of those 'white holes' and under-recorded 10km squares (**see below**), but there may be other species lurking closer to home. For example, and as it is that time of year, why not inspect the mistletoe for signs of the *Celypha woodiana*; images of the early stage mine are shown on the [factsheet](#).

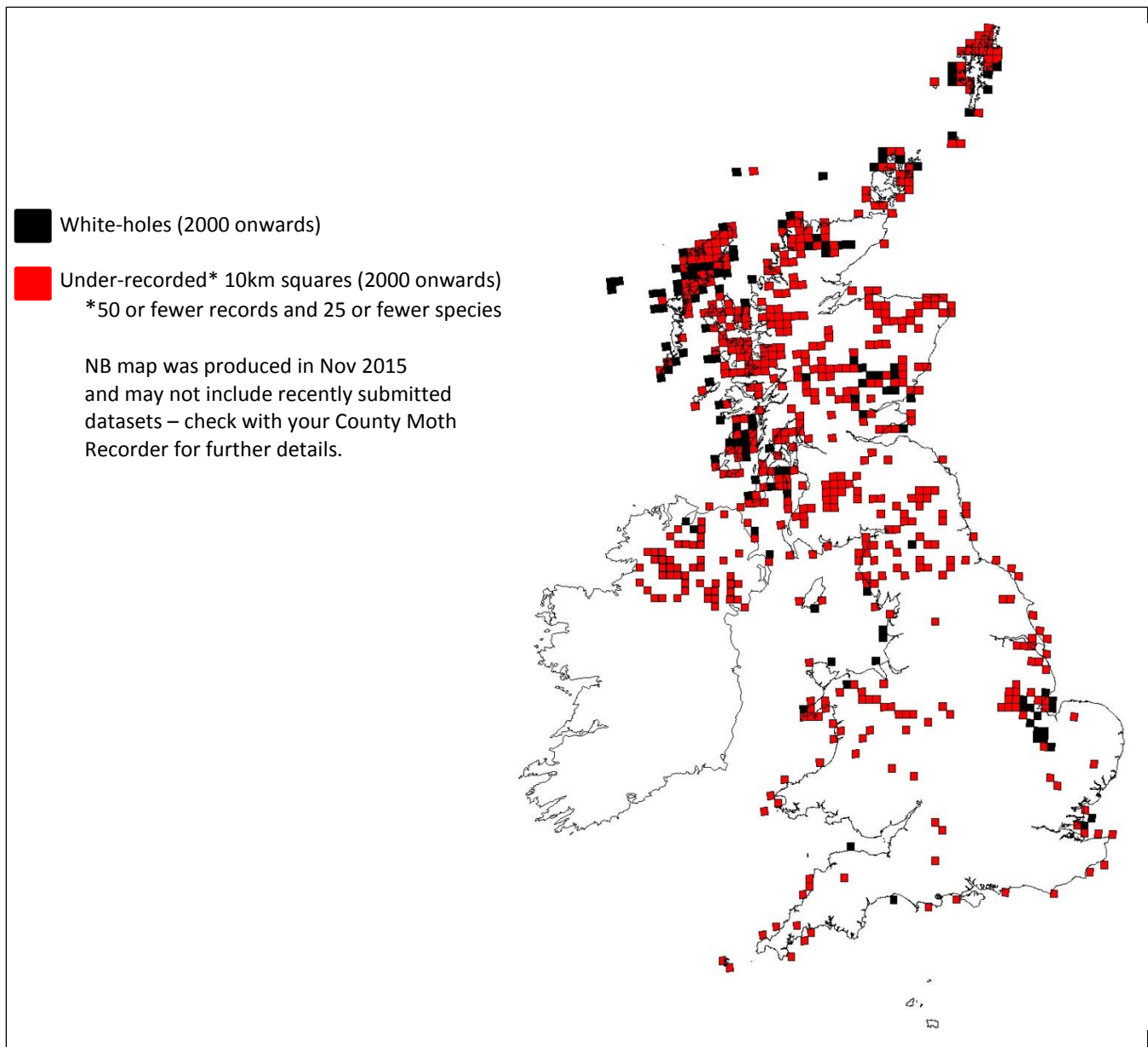
Finally, may we take this opportunity to wish you a Happy Christmas and New Year, and to thank you for all your help and support over the past year.

The Moth Team

PS Don't forget the National Moth Recorders' Meeting which will be held on Saturday 30th January 2016. At the [Birmingham and Midland Institute](#), Central Birmingham. The programme for the day and booking details can be found [here](#). Hopefully we'll see many of you there.

The Moth Team

National Moth Recording Scheme white-holes and under-recorded 10km squares:



White Holes 2000 onwards

VC	10km sq	% Land
3	SY38	0.1
4	SS75	2.2
18	TR08	24.1
18	TR19	6.9
28	TF40	10.5
28	TF53	2.9
28	TL49	0.6
29	TF30	92.4
29	TF40	89.5
29	TL39	94.7
29	TL49	99.4
29	TL58	100
31	TL39	5.3
49	SH13	10.2
49	SH76	92.9
50	SH76	7.1
52	SH59	0.1
53	TF13	100
53	TF14	100
53	TF21	100
53	TF23	100
53	TF30	7.6
53	TF32	100
54	TF45	100
54	TF54	2.9
58	SJ19	1.2
59	SD22	1.8
60	SD22	3.6
60	SD23	0.9
67	NY64	22.7
70	NY64	77.3
70	SD08	11.2
71	SC36	0.4
85	NO01	0.6
85	NT59	0.2
88	NN93	100
88	NO01	99.4
89	NN98	29.8
89	NO05	100
89	NO07	90
89	NO16	56.7
89	NO34	6
90	NO16	43.3
90	NO26	100

VC	10km sq	% Land
90	NO44	100
90	NO46	100
90	NO47	100
90	NO63	5.9
92	NN98	59.5
92	NO07	10
96	NN98	10.6
97	NN36	93.2
98	NN36	6.8
100	NR82	3.1
100	NR94	98.3
100	NS01	0.2
100	NS04	18.2
101	NR51	5.3
101	NR63	37.9
101	NR87	62.4
102	NM40	1.3
102	NM60	10.7
102	NM61	2.8
102	NR16	2.1
102	NR38	9.9
102	NR48	0.2
102	NR56	20.5
102	NR57	78.3
102	NR58	75.6
102	NR59	11.9
103	NM16	0.4
103	NM21	1.8
103	NM23	0.4
103	NM61	0.3
104	NG13	1.1
104	NG38	0.5
104	NG66	2.4
104	NM19	0.4
104	NM29	0.5
105	NG79	14.9
107	NC43	31.6
107	NC62	59.3
107	NC63	2.9
107	NC83	99.9
107	NC93	21.3
108	NC16	6.4
108	NC27	19.6
108	NC43	68.4

VC	10km sq	% Land
108	NC54	100
108	NC62	40.7
108	NC63	97.1
108	NC83	0.1
108	NC93	12.2
109	NC93	66.5
110	HW63	0.1
110	HX62	0.2
110	NA00	2.8
110	NA10	1.3
110	NA81	0.3
110	NA90	1.5
110	NA93	0.1
110	NB00	48.4
110	NB01	84.5
110	NB11	98.9
110	NB21	94.1
110	NB30	47.8
110	NB40	0.2
110	NB46	9.9
110	NB52	1.7
110	NB53	30.1
110	NF09	3.2
110	NF56	0.3
110	NF58	0.1
110	NF61	0.1
110	NF66	6
110	NF68	0.2
110	NF80	0.1
110	NF88	11.2
110	NF89	0.6
110	NG07	1
110	NG18	3.2
110	NL57	0.8
110	NL68	2
110	NL79	0.8
111	HY23	0.1
111	HY34	0.8
111	HY35	0.1
111	HY54	5.1
111	HY73	1.7
112	HU14	1.5
112	HU15	23.9
112	HU16	7.2

112	HU30	1.3
112	HU53	8.2
112	HU55	1.4
112	HU66	1.2
112	HZ17	0.4
H39	D41	
H38	J68	
H40	C52	
H40	C61	

Under-recorded 10km squares
(2000 onwards)

10km sq	# Spp	# Recs	VC
SV81	4	4	1
SV90	2	2	1
SW44	16	30	1
SW65	1	1	1
SW81	4	4	1
SW95	19	43	1
SS10	2	2	2
SS11	2	2	2
SX03	8	18	2
SX09	1	2	2
SX14	1	1	2
SS61	15	17	4
ST98	20	31	7
SU07	22	28	7
ST93	21	30	8
SY87	19	32	9
SZ28	14	14	10
SZ99	24	29	13
TV69	17	28	14
TR07	6	9	15
TR12	9	10	15
TR27	6	8	15
TR33	1	1	15
TR47	2	2	15
TM00	9	21	18
TQ98	20	29	18
TL54	6	28	19
TL63	4	6	19
TM16	12	15	25
TF82	8	8	28
TL48	5	10	29
SO35	17	20	36

10km sq	# Spp	# Recs	VC
SO64	5	5	36
SJ81	11	13	39
SK03	4	7	39
SK12	4	5	39
SJ23	25	49	40
SJ33	11	11	40
SJ42	19	21	40
SJ50	3	3	40
SJ52	11	14	40
SJ62	4	9	40
SN87	3	3	43
SM50	3	3	45
SM62	4	11	45
SM71	23	40	45
SM84	7	11	45
SN36	2	2	46
SJ00	24	36	47
SN99	4	6	47
SH51	10	11	48
SH60	12	15	48
SH94	6	6	48
SH95	20	48	48
SJ04	19	23	48
SJ14	9	13	48
SN59	12	14	48
SH12	15	41	49
SH22	21	23	49
SH23	3	3	49
SH24	1	2	49
SH32	11	13	49
SH43	1	1	49
SH44	24	39	49
SH65	7	7	49
SH86	1	1	49
SJ26	11	13	50
SH29	2	2	52
SK83	18	21	53
SK93	1	1	53
SK94	2	2	53
SK95	5	6	53
TF03	5	5	53
TF04	2	3	53
TF05	3	3	53
TF06	23	28	53
TF12	3	3	53

10km sq	# Spp	# Recs	VC
TF25	19	24	53
TF34	2	2	53
TF43	1	3	53
TF44	15	15	53
TA01	5	7	54
TA11	3	3	54
TA21	3	3	54
TA40	3	3	54
TF29	5	5	54
TF39	4	5	54
TF48	18	20	54
SD94	17	28	59
SD35	17	17	60
SE87	13	17	61
SE97	6	6	61
TA22	1	1	61
TA33	1	1	61
TA42	1	1	61
NZ72	19	40	62
NZ91	11	19	62
NY72	12	12	65
NY81	2	2	65
NZ00	13	30	65
NZ11	14	34	65
NY84	12	12	66
NY94	4	4	66
NZ12	5	5	66
NZ32	14	26	66
NZ45	20	21	66
NT60	25	31	67
NT70	9	12	67
NT80	8	23	67
NY58	5	5	67
NY67	9	16	67
NY75	1	1	67
NY79	2	2	67
NZ07	2	2	67
NZ08	8	10	67
NZ38	7	10	67
NZ39	2	2	67
NT71	8	10	68
NT81	5	5	68
NT91	4	4	68
NU05	7	9	68
NY20	25	45	69

10km sq	# Spp	# Recs	VC
NY41	19	27	69
NY50	6	6	69
NY71	3	3	69
SD16	10	12	69
SD19	19	48	69
NX90	2	2	70
NX92	10	20	70
NX93	4	14	70
NY00	5	7	70
NY03	7	16	70
NY04	12	23	70
NY05	10	10	70
NY12	19	28	70
NY14	3	3	70
NY34	2	2	70
NY36	2	2	70
NY43	3	3	70
NY46	10	13	70
NY57	1	2	70
SD09	12	21	70
SC17	1	1	71
SC47	1	1	71
NS60	4	4	72
NS61	5	7	72
NS71	7	7	72
NS72	4	5	72
NS90	16	21	72
NT10	14	22	72
NT20	23	25	72
NX69	25	31	72
NY28	1	1	72
NY49	17	19	72
NS50	18	47	73
NX54	18	31	73
NX59	15	20	73
NW97	18	25	74
NX03	19	32	74
NX27	11	20	74
NX33	23	37	74
NS00	5	6	75
NS14	10	17	75
NS51	2	2	75
NS52	22	28	75
NS62	6	9	75
NS63	13	33	75

10km sq	# Spp	# Recs	VC
NS73	6	8	75
NX09	21	38	75
NX18	6	6	75
NX28	13	24	75
NX29	6	7	75
NX39	15	29	75
NS17	11	16	76
NS82	6	7	77
NS91	19	23	77
NS93	20	29	77
NT05	1	1	77
NT16	15	15	83
NT35	4	4	83
NO00	1	1	85
NO11	3	4	85
NO60	1	2	85
NO61	8	8	85
NT29	24	24	85
NT39	18	19	85
NT49	5	7	85
NS38	24	28	86
NS68	21	34	86
NN21	9	12	87
NN61	6	6	87
NN34	8	11	88
NN35	8	17	88
NN43	4	4	88
NN44	2	3	88
NN47	5	7	88
NN56	7	11	88
NN57	24	35	88
NN64	19	35	88
NN66	1	1	88
NN67	14	17	88
NN73	1	1	88
NN77	3	3	88
NN83	1	1	88
NN84	5	5	88
NN92	11	11	88
NN94	4	4	88
NO13	8	8	88
NN87	3	3	89
NN97	5	5	89
NO15	1	1	89
NO25	3	6	89

10km sq	# Spp	# Recs	VC
NO36	16	39	90
NO45	1	1	90
NO55	15	29	90
NO56	8	8	90
NO57	1	1	90
NO58	8	13	90
NO64	1	1	90
NO74	1	1	90
NO77	4	4	91
NO87	6	12	91
NJ10	11	12	92
NJ20	10	18	92
NJ30	20	31	92
NJ52	22	25	92
NJ72	15	17	92
NN99	5	7	92
NJ33	11	13	93
NJ34	13	18	93
NJ43	5	5	93
NJ53	4	4	93
NJ63	8	10	93
NJ64	1	1	93
NJ74	2	2	93
NJ75	1	1	93
NJ85	5	5	93
NJ86	12	27	93
NJ95	1	1	93
NJ96	3	6	93
NK04	10	12	93
NK06	11	15	93
NK14	9	9	93
NK15	5	8	93
NJ22	14	17	94
NJ24	24	26	94
NJ25	20	29	94
NJ35	15	22	94
NJ15	23	31	95
NJ16	20	34	95
NJ17	9	16	95
NJ27	15	15	95
NH02	4	5	96
NH12	21	23	96
NH13	5	8	96
NH14	8	8	96
NH24	8	9	96

10km sq	# Spp	# Recs	VC
NH34	23	37	96
NH40	10	11	96
NH50	21	26	96
NH61	7	9	96
NH62	9	12	96
NN39	6	7	96
NN58	23	23	96
NG60	9	9	97
NG80	4	7	97
NG90	6	7	97
NH00	2	3	97
NM47	3	3	97
NM57	2	3	97
NM65	13	13	97
NM67	12	19	97
NM68	25	27	97
NM69	18	24	97
NM74	10	14	97
NM75	4	5	97
NM77	3	3	97
NM78	2	2	97
NM87	1	1	97
NM88	10	10	97
NM89	5	5	97
NM96	14	28	97
NM98	11	14	97
NM99	17	35	97
NN05	12	19	97
NN09	10	13	97
NN26	3	4	97
NN27	22	26	97
NN29	14	21	97
NN38	24	26	97
NM72	18	35	98
NN12	10	13	98
NN20	10	13	98
NR96	5	6	98
NR98	1	3	98
NR99	9	11	98
NS08	24	39	98
NS09	3	3	98
NS19	14	18	98
NS29	4	4	98
NR84	11	11	100
NR92	2	2	100

10km sq	# Spp	# Recs	VC
NR93	2	2	100
NS02	1	1	100
NS03	4	6	100
NR50	4	4	101
NR60	9	11	101
NR61	12	12	101
NR67	1	1	101
NR68	4	8	101
NR70	4	4	101
NR72	3	3	101
NR74	2	2	101
NR75	6	7	101
NR15	22	45	102
NR24	7	17	102
NR34	10	25	102
NR37	13	28	102
NR44	5	8	102
NR46	1	2	102
NR47	4	5	102
NR49	5	7	102
NR69	5	5	102
NL93	25	50	103
NM05	1	1	103
NM33	6	28	103
NM41	6	9	103
NM51	3	6	103
NG15	1	1	104
NG20	22	36	104
NG23	1	2	104
NG25	3	4	104
NG26	15	18	104
NG31	2	2	104
NG32	10	14	104
NG34	1	1	104
NG35	14	14	104
NG37	2	2	104
NG40	7	7	104
NG41	3	3	104
NG43	21	23	104
NG45	17	22	104
NG46	6	7	104
NG50	2	2	104
NG51	6	7	104
NG54	5	5	104
NG55	1	1	104

10km sq	# Spp	# Recs	VC
NG61	5	5	104
NG63	8	13	104
NG64	7	9	104
NG65	5	5	104
NM37	1	1	104
NM38	1	1	104
NM59	1	1	104
NB90	8	15	105
NB91	17	29	105
NC00	4	5	105
NC11	8	17	105
NC21	9	14	105
NG84	8	10	105
NG86	1	3	105
NG93	22	36	105
NG94	4	4	105
NG95	5	6	105
NG98	13	14	105
NH03	1	1	105
NH04	2	2	105
NH05	8	11	105
NH07	3	3	105
NH17	12	16	105
NH28	9	10	105
NH29	2	3	105
NH38	5	5	106
NH97	1	1	106
NC32	6	9	107
NC33	9	9	107
NC72	3	17	107
NC73	5	5	107
NC03	17	24	108
NC12	17	32	108
NC15	3	3	108
NC23	24	27	108
NC24	3	3	108
NC26	16	16	108
NC34	2	2	108
NC35	1	1	108
NC36	3	3	108
NC37	1	1	108
NC44	5	10	108
NC45	2	2	108
NC53	6	7	108
NC64	1	1	108

10km sq	# Spp	# Recs	VC
NC65	6	7	108
NC66	22	28	108
ND07	14	17	109
ND33	23	34	109
ND47	12	16	109
HW83	6	13	110
NA91	1	1	110
NA92	4	4	110
NB02	4	6	110
NB03	9	18	110
NB10	7	10	110
NB12	17	21	110
NB13	2	7	110
NB14	9	16	110
NB20	2	2	110
NB22	2	2	110
NB23	2	2	110
NB24	14	14	110
NB31	2	2	110
NB32	9	10	110
NB33	4	8	110
NB34	1	1	110
NB35	2	2	110
NB41	2	2	110
NB42	1	1	110
NB44	2	2	110
NB45	1	1	110
NB55	3	3	110
NB56	3	3	110
NF67	1	12	110
NF82	2	4	110
NF95	1	1	110
NF96	4	7	110
NF97	1	1	110
NF98	4	6	110
NF99	2	2	110
NG08	2	3	110
NG09	6	10	110
NG19	21	27	110
NG29	1	1	110
NL58	3	5	110
NL69	5	10	110
HY10	10	15	111
HY33	3	3	111
HY43	4	6	111

10km sq	# Spp	# Recs	VC
HY45	1	1	111
HY51	3	6	111
HY52	10	11	111
HY55	4	5	111
HY60	1	1	111
HY61	12	22	111
HY62	22	28	111
HY63	3	3	111
ND19	3	6	111
ND28	13	14	111
ND38	20	48	111
ND59	1	3	111
HP40	3	3	112
HP50	24	31	112
HP51	7	8	112
HT94	2	2	112
HU24	20	28	112
HU25	16	22	112
HU26	14	15	112
HU28	3	4	112
HU33	7	10	112
HU34	25	45	112
HU38	20	26	112
HU39	2	2	112
HU40	7	10	112
HU48	11	16	112
HU49	5	5	112
HU56	9	11	112
HU57	2	2	112
HU58	9	10	112
HU59	15	21	112
HU67	2	5	112
HU68	2	2	112
HZ16	1	1	112
HZ26	1	1	112

Northern Ireland

10km sq	# Spp	# Recs
C30	2	2
C41	21	28
C70	13	15
C71	25	28
C72	12	14
C84	6	9
D03	7	7
D24	1	1
D32	17	18
D40	3	8
G94	4	7
G96	3	4
H03	14	29
H08	1	8
H12	11	11
H17	1	6
H18	9	14
H22	19	23
H25	17	17
H26	6	6
H27	16	30
H28	3	3
H35	21	25
H36	5	5
H37	20	34
H42	11	14
H45	13	24
H46	3	3
H49	8	11
H53	2	2
H54	18	26
H55	7	12
H59	3	3
H66	13	32
H69	7	10
H74	20	20
H76	12	31
H77	22	29
H79	25	26
H82	10	26
H83	7	12
H91	8	8
H92	11	13
H93	8	12

10km sq	# Spp	# Recs
H94	25	30
J07	3	5
J12	3	3
J13	2	2
J14	15	19
J15	8	12
J22	18	41
J24	4	4
J28	16	23
J31	4	21
J67	5	5