

MOTH & BUTTERFLY RECORDS 2008 - TM 226 304

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All records are from our garden, mostly taken (since February 1997) in a Robinson trap with a 125W MV bulb; occasionally an actinic Heath trap was used and on a few summer nights, a free-standing 160W blended bulb was also used. The traps were located in different places within the garden, to try and minimise repeat captures, and to select the likely best area for moths given the prevailing weather conditions, and the presence of particular attractive flowers. Other methods were used as appropriate eg torchlight examination of ivy flowers in the autumn.

In the lists below, the months in which each species was recorded are followed by either the total number of captures that month (no allowance made for repeat captures), or an asterisk, denoting it was recorded but not trapped. The number in square brackets is the total for the year. An asterisk after the log-book number indicates those few species for which confirmed evidence of breeding has been obtained from the garden. Species names printed in **blue** are new species for the list during 2008, those printed in **red** have been recorded from the garden, but only in previous years. Full details of any record are available on request.

MONTH	TOTAL NUMBER OF LEPIDOPTERA SPECIES IDENTIFIED	NUMBER OF TRAP NIGHTS	TOTAL NUMBER OF SPECIMENS TRAPPED	NUMBER OF UNIDENTIFIED SPECIMENS
January	4	1	1	0
February	7	5	12	0
March	11	9	42	0
April	24	16	149	0
May	73	15	349	4
June	137	21	1326	7
July	293	27	6432	75
August	203	22	5564	17
September	90	24	3365	1
October	46	14	209	0
November	8	6	25	0
December	0	1	0	0
TOTALS	456	161	17474	104

**TOTAL NUMBER OF LEPIDOPTERA SPECIES
RECORDED SINCE JULY 1994: 960**

MICROPTERIGIDAE4 *Micropterix aruncella* last recorded 2007**ERIOCRANIIDAE**6 *Eriocrania subpurpurella* last recorded 20079 *E. sparrmannella* last recorded 1998**HEPIALIDAE**14 *Hepialus humuli* **ghost moth** Jul(4) [4]
15 *H. sylvina* **orange swift** last recorded 2005
17* *H. lupulinus* **common swift** May(3) Jun(28) [31]**NEPTICULIDAE**22 *Ectoedemia louisella* last recorded 2001
23 *E. argyropeza* last recorded 2005
37 *E. albifasciella* last recorded 2002
46 *Trifurcula immundella* last recorded 2000
50* *Stigmella aurella* mines in bramble
73 *S. trimaculella* Aug(1) [1]
83 *S. albicapitella* last recorded 2004
89 *S. basiguttella* last recorded 2002
100* *S. oxyacanthella* mines in cotoneaster
112* *S. luteella* last recorded 2000**OPOSTEGIDAE**119 *Opostega salaciella* last recorded 2006**TISCHERIIDAE**123 *Tischeria ekebladella* last recorded 1995
125* *Emmetia marginea* Jun(1) Jul(1) Aug(1) [3]**INCURVARIIDAE**129 *Incurvaria pectinea* last recorded 1999
130 *I. masculella* last recorded 2003
141 *Nematopogon schwarziellus* last recorded 2005
152 *Adela rufimitrella* last recorded 1998**COSSIDAE**161 *Zeuzera pyrina* **leopard moth** Jul(5) [5]**ZYGAENIDAE**169* *Zygaena filipendulae* **six-spot burnet** last recorded 1997
171 *Z. lonicerarum* **narrow-bordered five-spot burnet** last recorded 1995**PSYCHIDAE**185* *Luffia ferchaultella* on greenhouse and fence
186* *Psyche casta* Jul(*) [*]**TINEIDAE**216 *Nemapogon cloacella* last recorded 2005
217 *N. wolffiella* last recorded 2005
227 *Monopis laevigella* last recorded 2004
228 *M. weaverella* Aug(1) [1]
229 *M. obviella* Jul(1) [1]
232 *M. monachella* last recorded 2005
237 *Niditinea fuscella* Jul(3) Aug(1) [4]
240 *Tinea pellionella* last recorded 2007
246 *T. semifulvella* last recorded 2006
247 *T. trinotella* Jul(3) [3]

LYONETIDAE

254	<i>Leucoptera laburnella</i>	last recorded 2006
256	<i>L. spartifoliella</i>	last recorded 2006
263	<i>Lyonetia clerkella</i>	Jun(5) Jul(87) Aug(17) [109]
264	<i>Bedellia somnulentella</i>	last recorded 2003

BUCCULATRICIDAE

266	<i>Bucculatrix nigricomella</i>	last recorded 2005
267	<i>B. maritima</i>	last recorded 2002
270	<i>B. frangutella</i>	last recorded 2005
271	<i>B. albedinella</i>	last recorded 2003
274	<i>B. ulmella</i>	last recorded 2006

GRACILLARIIDAE

282	<i>Caloptilia elongella</i>	Sep(2) [2] – first since 2001
283	<i>C. betulicola</i>	Jul(8) [8]
284	<i>C. rufipennella</i>	last recorded 2006
285	<i>C. azaleella</i>	Jul(1) [1]
286	<i>C. alchimiella</i>	Jul(2) [2]
287	<i>C. robustella</i>	last recorded 2002
288	<i>C. stigmatella</i>	last recorded 2007
293	<i>C. syringella</i>	Jul(1) [1]
294	<i>Aspilapteryx tringipennella</i>	Jul(2) [2]
296	<i>Calybites phasianipennella</i>	last recorded 2006
301	<i>Parornix betulae</i>	last recorded 2003
303	<i>P. anglicella</i>	last recorded 2004
305	<i>P. scoticella</i>	last recorded 2007
304	<i>P. devoniella</i>	Aug(1) [1] – first since 2000
308	<i>P. finitimella</i>	Aug(1) [1] – first since 2002
309	<i>P. torquilella</i>	last recorded 2005
313	<i>Acrocercops brongniardella</i>	last recorded 2002
314	<i>Leucospilapterix omissella</i>	last recorded 2006
315	<i>Phyllonorycter harrisella</i>	last recorded 2006
320	<i>P. quercifoliella</i>	last recorded 1997
321	<i>P. messaniella</i>	last recorded 2006
326	<i>P. blancardella</i>	last recorded 2004
329	<i>P. spinicolella</i>	last recorded 2002
332	<i>P. corylifoliella</i>	last recorded 2002
332a*	<i>P. leucographella</i>	last recorded 2006
333	<i>P. viminella</i>	last recorded 2004
335	<i>P. salicolella</i>	last recorded 2005
352	<i>P. schreberella</i>	last recorded 2003
361	<i>P. trifasciella</i>	last recorded 2003
362	<i>P. acerifoliella</i>	last recorded 2003
366a	<i>Cameraria ohridella</i>	horse-chestnut leaf-miner Jul(1) [1]
367	<i>Phyllocnistis saligna</i>	last recorded 2003
368	<i>P. unipunctella</i>	Aug(1) [1] – first since 2001
369	<i>P. xenia</i>	last recorded 2006

SESIIDAE

373	<i>Synanthedon tipuliformis</i>	currant clearwing	last recorded 1995
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CHOREUTIDAE

385	<i>Anthophila fabriciana</i>	Aug(4) [4]
388	<i>Prochoreutis myllerana</i>	last recorded 1997
389	<i>Choreutis pariana</i>	last recorded 2006

GLYPHIPTERIGIDAE

391	<i>Glyphipterix simpliciella</i>	last recorded 2002
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YPONOMEUTIDAE

409a	<i>Argyresthia trifasciata</i>	last recorded 2006	
409b	<i>A. cupressella</i>	Jun(30) [30]	
410	<i>A. brockeella</i>	last recorded 2006	
411	<i>A. goedartella</i>	Jul(3) Aug(1) [4]	
412	<i>A. pygmaeella</i>	last recorded 1998	
414	<i>A. curvella</i>	last recorded 2004	
415	<i>A. retinella</i>	last recorded 2002	
417	<i>A. spinosella</i>	Aug(1) [1]	
419	<i>A. semifusca</i>	last recorded 2002	
420	<i>A. pruniella</i>	last recorded 2005	
421	<i>A. bonnetella</i>	Jul(1) [1]	
422	<i>A. albistria</i>	last recorded 2005	
424	<i>Yponomeuta evonymella</i>	Jul(3) Aug(1) [4]	
425	<i>Y. padella</i>	Jul(2) [2]	
426	<i>Y. malinellus</i>	Jul(1) [1]	
427*	<i>Y. cagnagella</i>	Jul(15) Aug(1) [16]	
428	<i>Y. rorrella</i>	Jul(8) Aug(1) [9]	
430	<i>Y. plumbella</i>	last recorded 2005	
436	<i>Pseudoswammerdamia combinella</i>	last recorded 2004	
437	<i>Swammerdamia caesiella</i>	Jun(1) [1]	
438	<i>S. pyrella</i>	Aug(1) [1]	
440	<i>Paraswammerdamia albicapitella</i>	last recorded 2007	
441	<i>P. lutarea (nebullella)</i>	Jul(2) [2]	
447	<i>Roeslerstammia erxlebelli</i>	last recorded 2001	
449	<i>Prays fraxinella</i>	last recorded 2000	
450	<i>Scythropia crataegella</i>	Jul(7) [7]	
453	<i>Ypsolopha dentella</i>	last recorded 1998	
455	<i>Y. scabrella</i>	last recorded 2006	
456	<i>Y. horridella</i>	last recorded 1995	
461	<i>Y. ustella</i>	last recorded 2000	
462	<i>Y. sequella</i>	last recorded 2007	
464	<i>Plutella xylostella</i>	diamond-back moth	Jun(13) Jul(94) Aug(77) Sep(25) Oct(1) [210]
465	<i>P. porrectella</i>	last recorded 2007	
469	<i>Eidophasia messingiella</i>	last recorded 2005	
470	<i>Orthotelia sparganella</i>	last recorded 2003	
473	<i>Acrolepiopsis assectella</i>	leek moth	last recorded 2007
476	<i>Acrolepia autumnitella</i>	last recorded 1998	

EPERMENIIDAE

483	<i>Epermenia chaerophylllella</i>	last recorded 2007	
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COLEOPHORIDAE

488	<i>Goniodoma limoniella</i>	last recorded 2005	
490	<i>Coleophora lutipennella</i>	Aug(2) [2]	
491	<i>C. gryhipennella</i>	Aug(1) [2] – first since 2002	
492	<i>C. flavipennella</i>	last recorded 2007	
493*	<i>C. serratella</i>	Jul(1) [1]	
494	<i>C. coracipennella</i>	Jul(1) [1]	
494a	<i>C. prunifoliae</i>	last recorded 2007	
495	<i>C. spinella</i>	last recorded 2005	
497	<i>C. badiipennella</i>	last recorded 2006	
504	<i>C. viminetella</i>	last recorded 2003	
512	<i>C. binderella</i>	last recorded 1998	
513	<i>C. potentillae</i>	last recorded 2003	
515	<i>C. albitarsella</i>	Jul(8) [8]	
516	<i>C. trifolii</i>	Jul(1) [1]	
517	<i>C. frischella/alcyonipennella</i>	last recorded 2007	

518	<i>C. mayrella</i>	last recorded 2005
519	<i>C. deauratella</i>	last recorded 2006
520	<i>C. fuscicornis</i>	Jun(1) [1]
521	<i>C. conyzae</i>	last recorded 2003
522	<i>C. lineolea</i>	last recorded 2007
523	<i>C. hemerobiella</i>	last recorded 2003
526	<i>C. lariciella</i>	last recorded 2003
532	<i>C. albidella</i>	Jul(1) [1]
533	<i>C. anatipennella</i>	last recorded 2004
544	<i>C. albicosta</i>	last recorded 2003
555	<i>C. follicularis</i>	last recorded 2004
556	<i>C. trochilella</i>	last recorded 2005
557	<i>C. gardesanella</i>	last recorded 2004
559	<i>C. peribenanderi</i>	last recorded 2003
560	<i>C. paripennella</i>	last recorded 2000
562	<i>C. asteris</i>	Aug(1) [1]
563	<i>C. argentula</i>	last recorded 2007
565	<i>C. saxicolella</i>	Jul(1) Aug(3) [4]
568	<i>C. versurella</i>	last recorded 2005
573	<i>C. atriplicis</i>	last recorded 2002
575	<i>C. salinella</i>	Jul(1) [1]
577	<i>C. artemisicolella</i>	last recorded 2005
578	<i>C. otidipennella</i>	last recorded 2004
582	<i>C. glaucicolella</i>	last recorded 1996
584	<i>C. alticolella</i>	last recorded 2005
585	<i>C. maritimella</i>	last recorded 2006
588	<i>C. salicorniae</i>	last recorded 2006

ELACHISTIDAE

594	<i>Elachista gleichenella</i>	last recorded 2001
596	<i>E. poae</i>	last recorded 2002
597	<i>E. atricomella</i>	last recorded 2005
601	<i>E. albifrontella</i>	last recorded 2003
602	<i>E. apicipunctella</i>	last recorded 2006
608	<i>E. rufocinerea</i>	last recorded 2002
609	<i>E. maculicerusella</i>	last recorded 2001
610	<i>E. argentella</i>	last recorded 2007
627	<i>Biselachista scirpi</i>	last recorded 2000
629	<i>B. utomella</i>	last recorded 2005
632	<i>Cosmiotes consortella</i>	last recorded 2002
633	<i>C. stabilella</i>	last recorded 2003

OECOPHORIDAE

640	<i>Batia lunaris</i>	Jul(2) [2]
642	<i>B. unitella</i>	Jul(6) Aug(1) [7]
644	<i>Borkhausenia fuscescens</i>	last recorded 2004
647	<i>Hoffmannophila pseudospretella</i>	May(1) Jun(3) Jul(14) Aug(14) Sep(1) [33]
648	<i>Endrosis sarcitrella</i>	Feb(*) Apr(3) May(1) Jul(6) Aug(7) [17]
649	<i>Esperia sulphurella</i>	last recorded 2005
658	<i>Carcina quercana</i>	Jul(5) Aug(5) [10]
663	<i>Diurnea fagella</i>	last recorded 2005
668	<i>Luquetia lobella</i>	last recorded 2002
672	<i>Depressaria heraclei</i>	Jan(*) Mar(1) May(1) [2]
674	<i>D. badiella</i>	last recorded 2004
678	<i>D. sordidatella</i>	Aug(1) [1]
688	<i>Agonopterix heracliana</i>	Apr(1) [1]
689	<i>A. ciliella</i>	last recorded 2004
690	<i>A. cnicella</i>	last recorded 2007
692	<i>A. subpropinquella</i>	Aug(4) [4]
693*	<i>A. putridella</i>	last recorded 1999

695	<i>A. alstromeriana</i>	last recorded 2006
696	<i>A. propinquella</i>	last recorded 1997
697	<i>A. arenella</i>	Aug(2) Sep(1) [3]
698	<i>A. kaekeritziana</i>	last recorded 2004
701	<i>A. ocellana</i>	last recorded 2006
702	<i>A. assimilella</i>	last recorded 2001
704	<i>A. scopariella</i>	Aug(1) [1]
705	<i>A. ulicetella</i>	last recorded 2001
706	<i>A. nervosa</i>	last recorded 2006
709	<i>A. liturosa</i>	last recorded 2006
710	<i>A. conterminella</i>	last recorded 2004
714	<i>A. yeatiana</i>	last recorded 2004
877	<i>Stathmopoda pedella</i>	last recorded 2003

ETHMIIDAE

719	<i>Ethmia quadrillella</i>	last recorded 2002
720	<i>E. bipunctella</i>	last recorded 2006

GELECHIIDAE

724	<i>Metzneria lappella</i>	Jul(8) [8]
726	<i>M. metzneriella</i>	last recorded 2006
729	<i>Isophrictis striatella</i>	last recorded 2002
733	<i>Eulamprotes wilkella</i>	Jul(1) [1]
737	<i>Monochroa palustrella</i>	Jul(1) [1]
740	<i>M. hornigi</i>	last recorded 2005
748	<i>Ptocheuusa paupella</i>	last recorded 2003
762	<i>Athrips mouffetella</i>	last recorded 1998
765	<i>Teleiodes vulgella</i>	last recorded 2006
774	<i>T. luculella</i>	last recorded 2004
772	<i>Carpatolechia fugitivella</i>	last recorded 2006
776	<i>Teleiopsis diffinis</i>	last recorded 2001
778	<i>Bryotropha umbrosella</i>	last recorded 2006
779	<i>B. affinis</i>	Jul(1) [1]
780	<i>B. similis</i>	last recorded 2002
782	<i>B. senectella</i>	last recorded 2003
786	<i>B. desertella</i>	last recorded 2006
787	<i>B. terrella</i>	Jul(11) Aug(1) [12]
789	<i>B. domestica</i>	Jun(1) Jul(12) Aug(3) [16]
796	<i>Aroga velocella</i>	last recorded 2004
800	<i>Gelechia rhombella</i>	last recorded 2002
801a	<i>G. senticetella</i>	last recorded 2005
809	<i>Pexicopia malvella</i>	last recorded 2000
810	<i>Scrobipalpa suaedella</i>	Jul(1) [1]
812	<i>S. instabilella</i>	last recorded 2000
813	<i>S. salinella</i>	last recorded 2005
815	<i>S. nitentella</i>	last recorded 2003
818	<i>S. atriplicella</i>	last recorded 2006
819	<i>S. costella</i>	last recorded 2006
822	<i>S. acuminatella</i>	last recorded 2005
828	<i>Caryocolum viscariella</i>	last recorded 1997
829	<i>C. marmoreum</i>	last recorded 2002
843	<i>Aproaerema anthyllidella</i>	Aug(1) [1]
844	<i>Syncopacma larseniella</i>	last recorded 2002
853	<i>Anacamptis populella</i>	last recorded 2006
854	<i>A. blattariella</i>	last recorded 2004
856	<i>Anarsia spartiella</i>	last recorded 2003
862	<i>Dichomeris marginella</i>	Jul(11) Aug(2) [13]
866	<i>Brachmia blandella</i>	Jun(4) Jul(12) [16]
867	<i>B. inornatella</i>	last recorded 2006
868	<i>B. rufescens</i>	Jun(1) Jul(6) Aug(1) Sep(1) [9]

AUTOSTICHIDAE

870	<i>Oegoconia quadripuncta</i>	Jul(2) [2]
871	<i>O. deauratella</i>	last recorded 2005
871a	<i>O. caradjai</i>	last recorded 2005

BLASTOBASIDAE

873	<i>Blastobasis lignea</i>	Jul(127) Aug(109) [236]
874	<i>B. decolorella</i>	Jun(5) Jul(2) Aug(2) [9]

MOMPHIDAE

878	<i>Batrachedra praeangustata</i>	last recorded 2000
883	<i>Mompha raschkiella</i>	last recorded 1999
886	<i>M. ochraceella</i>	last recorded 2004
891	<i>M. sturnipennella</i>	last recorded 2003
892	<i>M. subbistrigella</i>	last recorded 2004
893	<i>M. epilobiella</i>	Jul(2) [2]

COSMOPTERIGIDAE

894	<i>Cosmopterix zieglerella</i>	last recorded 2006
898	<i>Limnaecia phragmitella</i>	Jul(5) [5]
903	<i>Chrysoclista linneella</i>	last recorded 2001
905	<i>Blastodacna hellerella</i>	Jul(2) [2]
906	<i>B. atra</i>	last recorded 2005

TORTRICIDAE

921	<i>Phitheochroa inopiana</i>	last recorded 2004
925	<i>P. rugosana</i>	May(1) Jun(3) Jul(4) [8]
926	<i>Phalonidia manniana</i>	Jul(1) [1]
932	<i>P. affinitana</i>	Jul(1) [1]
936	<i>Cochylimorpha straminea</i>	last recorded 1999
937	<i>Agapeta hamana</i>	Jun(7) Jul(41) Aug(2) [40]
938	<i>A. zoegana</i>	last recorded 2003
946	<i>Aethes rubigana</i>	Jul(1) [1]
947	<i>A. smeathmanniana</i>	Jul(7) Aug(12) [19]
949	<i>A. dilucidana</i>	last recorded 2007
951	<i>A. beatricella</i>	last recorded 2004
956	<i>Cochylidia implicitana</i>	last recorded 2003
957	<i>C. heydeniana</i>	last recorded 2006
959	<i>C. rupicola</i>	last recorded 2002
962	<i>Cochylis roseana</i>	last recorded 2003
964	<i>C. dubitana</i>	Aug(1) [1]
965	<i>C. hybridella</i>	Jul(2) Aug(3) [5]
966	<i>C. atricapitana</i>	Jul(2) Aug(1) [3]
969	<i>Pandemis corylana</i>	Jun(1) Jul(1) [2]
970	<i>P. cerasana</i>	last recorded 2006
972	<i>P. heparana</i>	Jul(2) [2]
974	<i>Argyrotaenia ljugiana</i>	Apr(1) May(4) Jun(1) Jul(49) Aug(74) Sep(2) [131]
977	<i>Archips podana</i>	Jun(1) Jul(1) [2]
980	<i>A. xylosteanana</i>	last recorded 1999
985	<i>Cacoecimorpha pronubana</i>	May(*) Jul(2) [2]
986	<i>Syndemis musculana</i>	last recorded 2003
988	<i>Aphelia viburnana</i>	last recorded 2005
989	<i>A. paleana</i>	last recorded 2007
993	<i>Clepsia spectrana</i>	Sep(1) [1]
994	<i>C. consimilana</i>	May(1) Jul(2) [3]
998	<i>Epiphyas postvittana</i>	Jan(*) Feb(2) Mar(3) Apr(24) May(37) Jun(87) Jul(99) Aug(717) Sep(207) Oct(26) Nov(17) [1219]
999	<i>Adoxophyes orana</i>	last recorded 2003
1000	<i>Ptycholoma lecheana</i>	last recorded 1995

1001	<i>Lozotaeniodes formosanus</i>	Jul(1) Aug(1) [2]	
1002	<i>Lozotaenia forsterana</i>	Jun(10) Jul(2) [12]	
1007	<i>Capua vulgana</i>	last recorded 1996	
1010	<i>Ditula angustiorana</i>	Jun(1) Jul(2) Aug(2) [5]	
1011	<i>Pseudargyrotoza conwagana</i>	Jul(1) [1]	
1016	<i>Cnephasia longana</i>	Jun(1) Jul(23) Aug(1) [25]	
1018	<i>C. communana</i>	last recorded 2007	
1019	<i>C. conspersana</i>	last recorded 2000	
1020	<i>C. stephensiana</i>	Jun(3) Jul(57) Aug(2) [62]	
1021	<i>C. asseclana</i>	Jul(19) [19]	
1022	<i>C. pasiuana</i>	Aug(4) [4]	
1024	<i>C. incertana</i>	Jul(2) [2]	
1030	<i>Eana incanana</i>	Jul(1) [1]	
1032	<i>Aleimma loeflingiana</i>	last recorded 2006	
1033	<i>Tortrix viridana</i>	green oak-roller	last recorded 2007
1036	<i>Acleris forsskaleana</i>	Jul(11) [11]	
1037	<i>A. holmiana</i>	last recorded 2007	
1038	<i>A. laterana</i>	last recorded 2003	
1039	<i>A. comariana</i>	Jun(2) Jul(9) Oct(1) Nov(5) [17]	
1041	<i>A. sparsana</i>	last recorded 2001	
1042	<i>A. rhombana</i>	last recorded 2004	
1043	<i>A. aspersana</i>	last recorded 2002	
1044	<i>A. ferrugana</i>	last recorded 2002	
1045	<i>A. notana</i>	last recorded 2002	
1048	<i>A. variegana</i>	Jul(8) Aug(3) [11]	
1050	<i>A. boscana</i>	last recorded 2007	
1053	<i>A. hastiana</i>	last recorded 2003	
1061	<i>A. literana</i>	last recorded 2003	
1063	<i>Celypha striana</i>	Jun(2) Jul(16) [18]	
1064	<i>C. rosaceana</i>	last recorded 2006	
1067	<i>C. cespitana</i>	last recorded 2002	
1071	<i>Olethreutes arbutella</i>	last recorded 1997	
1076	<i>O. lacunana</i>	Apr(1) May(2) Jun(26) Jul(6) Aug(40) Sep(10) [87]	
1082	<i>Hedya pruniana</i>	last recorded 2007	
1083	<i>H. dimidioalba</i>	Jun(6) [6]	
1086	<i>H. salicella</i>	last recorded 2004	
1088	<i>Pseudosciaphila branderiana</i>	last recorded 2003	
1091	<i>Apotomis lineana</i>	Jul(1) [1]	
1093	<i>A. betuletana</i>	last recorded 2005	
1097*	<i>Endothenia gentianeae</i>	Jul(1) [1]	
1099	<i>E. marginana</i>	last recorded 1999	
1104	<i>E. quadrimaculana</i>	Jul(4) [4]	
1108	<i>Lobesia abscisana</i>	Jul(12) [12]	
1109	<i>L. littoralis</i>	Jun(1) Aug(1) [2]	
1110	<i>Bactra furfurana</i>	May(1) [1] – first since 2002	
1111	<i>B. lancealana</i>	last recorded 2007	
1112	<i>B. robustana</i>	Jul(1) [1]	
1113	<i>Eudemis profundana</i>	last recorded 2007	
1115	<i>Ancylis achatana</i>	last recorded 2005	
1133	<i>Epinotia bilunana</i>	last recorded 2007	
1134	<i>E. ramella</i>	last recorded 1996	
1136	<i>E. immundana</i>	last recorded 2006	
1138	<i>E. nisella</i>	Jul(1) Aug(2) [3]	
1139	<i>E. tenerana</i>	last recorded 2006	
1144	<i>E. signatana</i>	last recorded 2003	
1145	<i>E. nanana</i>	Jul(1) [1]	
1150	<i>E. abbreviana</i>	last recorded 2004	
1153	<i>E. sordidana</i>	last recorded 2001	
1155	<i>E. brunnichiana</i>	last recorded 2001	
1157	<i>Crociosema plebejana</i>	last recorded 2005	

1159	<i>Rhopobota naevana</i>	last recorded 2003
1163	<i>Zeiraphera ratzeburgiana</i>	last recorded 2003
1165	<i>Z. isertana</i>	last recorded 2007
1168	<i>Gypsonoma sociana</i>	last recorded 2003
1169	<i>G. dealbana</i>	last recorded 2003
1171	<i>G. minutana</i>	last recorded 2007
1174	<i>Epiblema cynosbatella</i>	May(2) Jun(7) [9]
1175	<i>E. uddmanniana</i>	Jun(1) Jul(6) [7]
1176	<i>E. trimaculana</i>	last recorded 1999
1177	<i>E. rosaecolana</i>	last recorded 2002
1178	<i>E. roborana</i>	last recorded 2006
1182	<i>E. turbidana</i>	last recorded 2005
1183	<i>E. foenella</i>	Jul(5) [5]
1184	<i>E. scutulana</i>	Aug(2) [2] – first since 1998
1187	<i>E. costipunctata</i>	last recorded 2000
1191	<i>Eucosma catoptrana</i>	last recorded 1999
1192	<i>E. conterminana</i>	last recorded 2004
1193	<i>E. tripoliana</i>	Aug(1) [1]
1195	<i>E. lacteana (maritima)</i>	last recorded 2006
1197	<i>E. campoliliana</i>	last recorded 2003
1200	<i>E. hohenwartiana</i>	Aug(1) [1]
1201	<i>E. cana</i>	Jul(17) Aug(1) [18]
1202	<i>E. obumbratana</i>	last recorded 2006
1204	<i>Thiodia citrana</i>	last recorded 1999
1205	<i>Spilonota ocellana</i>	Jul(9) Aug(2) Sep(1) [12]
1206	<i>Clavigesta sylvestrana</i>	last recorded 2002
1207	<i>C. purdeyi</i>	Jul(1) [1]
1210	<i>Rhyacionia buoliana</i>	last recorded 2004
1211	<i>R. pinicolana</i>	last recorded 2006
1212	<i>R. pinivorana</i>	last recorded 1996
1216	<i>Enarmonia formosana</i>	Jul(1) [1]
1219	<i>Lathronympha strigana</i>	May(1) Jul(1) [2]
1233	<i>Pammene aurantiana</i>	Jul(1) [1]
1234	<i>P. regiana</i>	Jul(1) [1]
1236	<i>P. fasciana</i>	last recorded 2004
1272	<i>P. aurana</i>	last recorded 2006
1245	<i>Cydia janthinana</i>	last recorded 1999
1246	<i>C. tenebrosana</i>	last recorded 2004
1247	<i>C. funebrana</i>	last recorded 2006
1255	<i>C. succedana</i>	Jul(1) Aug(4) [5]
1257	<i>C. nigricana</i>	Jul(3) [3]
1259	<i>C. fagiglandana</i>	last recorded 2002
1260	<i>C. splendana</i>	Jul(12) Aug(13) Sep(1) [26]
1261*	<i>C. pomonella</i>	codlin moth Jun(1) Jul(29) Aug(30) [60]
1262	<i>C. amplana</i>	last recorded 2004
1273	<i>Dichrorampha petiverella</i>	last recorded 1997
1274	<i>D. alpinana</i>	last recorded 2007
1275	<i>D. flavidorsana</i>	last recorded 2006
1276	<i>D. plumbagana</i>	last recorded 2004
1279	<i>D. acuminatana</i>	Aug(4) [4]
1281	<i>D. simpliciana</i>	last recorded 2003
1284	<i>D. gueneeana</i>	Jul(1) [1] – first since 2002
1285	<i>D. plumbana</i>	last recorded 2002

ALUCITIDAE

1288	<i>Alucita hexadactyla</i>	many-plumed moth	Jul(7) Aug(4) [11]
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PYRALIDAE

1290	<i>Chilo phragmitella</i>	Jul(1) [1]
1292	<i>Calamotropha paludella</i>	Jul(3) [3]

1293	<i>Chrysoteuchia culmella</i>	Jun(20) Jul(1537) Aug(26) [1583]	
1294	<i>Crambus pascuella</i>	Jun(29) Jul(244) Aug(3) [276]	
1301	<i>C. lathoniellus</i>	Jun(1) [1]	
1302	<i>C. perlella</i>	Jun(1) Jul(28) Aug(6) [35]	
1303	<i>Agriphila selasella</i>	Aug(2) [2]	
1304	<i>A. straminella</i>	Jul(48) Aug(35) [85]	
1305	<i>A. tristella</i>	Aug(38) Sep(1) [39]	
1306	<i>A. inquinatella</i>	Aug(1) [1]	
1307	<i>A. latistria</i>	Sep(2) [2]	
1309	<i>A. geniculea</i>	Aug(29) Sep(15) [44]	
1313	<i>Catoptria pinella</i>	Jul(2) [2]	
1316	<i>C. falsella</i>	Jul(20) Aug(12) Sep(1) [33]	
1323	<i>Pediasia contaminella</i>	last recorded 1999	
1324	<i>P. aridella</i>	last recorded 2004	
1325	<i>Platytes alpinella</i>	last recorded 2004	
1326	<i>P. cerussella</i>	last recorded 2004	
1328	<i>Schoenobius gigantella</i>	Jul(2) Aug(2) [4]	
1329	<i>Donacaula forficella</i>	Jul(1) [1]	
1330	<i>D. mucronellus</i>	last recorded 2007	
1331	<i>Acentria ephemerella</i>	water veneer	Jul(12) Aug(33) [45]
1332	<i>Scoparia subfusca</i>	Jul(5) [5]	
1333	<i>S. pyralella</i>	last recorded 2006	
1334	<i>S. ambigualis</i>	Jun(1) Jul(10) Aug(1) [12]	
1334a	<i>S. basistrigalis</i>	last recorded 2006	
1336	<i>Eudonia pallida</i>	Jun(5) Jul(3) [8]	
1338	<i>Dipleurina lacustrata</i>	Jul(2) [2]	
1342	<i>E. angustea</i>	Jun(1) Aug(14) Sep(12) Oct(1) [28]	
1344	<i>E. mercurella</i>	Jul(18) Aug(1) [19]	
1348	<i>Parapoynx stratiotata</i>	ringed china-mark	Jul(1) [1]
1354	<i>Cataclysta lemnata</i>	Jul(1) [1]	
1356	<i>Evergestis forficalis</i>	garden pebble	Apr(1) May(3) Jun(1) Aug(11) Sep(1) [17]
1357	<i>E. extimalis</i>	last recorded 2006	
1358	<i>E. pallidata</i>	last recorded 2004	
1361	<i>Pyrausta aurata</i>	Jun(1) Jul(4) Aug(23) [28]	
1362	<i>P. purpuralis</i>	Aug(1) [1]	
1365	<i>P. despicata</i>	last recorded 2005	
1368	<i>Margaritia sticticalis</i>	last recorded 1996	
1370	<i>Sitochroa palealis</i>	last recorded 2006	
1371	<i>S. verticalis</i>	last recorded 2004	
1375	<i>Ostrinia nubilalis</i>	European corn-borer	Jul(22) Aug(1) [23]
1376	<i>Eurrhynx hortulata</i>	small magpie	May(1) Jun(41) Jul(86) Aug(7) [135]
1378	<i>Phlyctaenia coronata</i>	Jun(2) Jul(36) Aug(3) [41]	
1380	<i>P. perlucidalis</i>	last recorded 2005	
1385	<i>Ebulea crocealis</i>	Aug(1) [1] – first since 2002	
1388	<i>Udea lutealis</i>	last recorded 1998	
1390	<i>U. prunalis</i>	Jul(2) [2]	
1392	<i>U. olivalis</i>	last recorded 2007	
1395	<i>U. ferrugalis</i>	rusty-dot pearl	last recorded 2007
1398	<i>Nomophila noctuella</i>	rush veneer	Jul(1) Aug(4) Sep(2) [7]
1403	<i>Diasemiopsis ramburialis</i>	last recorded 2006	
1403a	<i>Duponchelia fovealis</i>	last recorded 2003	
1405	<i>Pleuroptya ruralis</i>	mother-of-pearl	Jul(72) Aug(112) Sep(2) [186]
1408	<i>Palpita unionalis</i>	last recorded 1997	
1413	<i>Hypsopygia costalis</i>	gold-fringe	Jul(4) Aug(1) [5]
1414	<i>Synaphe punctalis</i>	Jul(3) Aug(1) [4]	
1415	<i>Orthopygia glaucinalis</i>	Jul(1) Aug(1) [2]	
1417	<i>Pyralis farinalis</i>	meal moth	Jun(1) Jul(13) [14]
1420	<i>Aglossa caprealis</i>	small tabby	last recorded 1998
1421	<i>A. pinguinalis</i>	large tabby	last recorded 2007
1424	<i>Endotricha flammealis</i>	Jul(5) Aug(3) [8]	

1425	<i>Galleria mellonella</i>	wax moth	Jul(1) [1]
1428	<i>Aphomia sociella</i>	bee moth	Jun(1) Jul(9) Aug(1) [11]
1429	<i>Melissoblaptes zelleri</i>	last recorded 2004	
1432	<i>Anerastia lotella</i>	last recorded 2006	
1433	<i>Cryptoblabes bistriga</i>	last recorded 2007	
1436	<i>Acrobasis repandana</i>	last recorded 2006	
1437	<i>A. consociella</i>	last recorded 1998	
1438	<i>Numonia suavella</i>	Jul(10) Aug(2) [12]	
1439	<i>N. advenella</i>	Jul(4) Aug(8) [12]	
1440	<i>N. marmorea</i>	last recorded 2007	
1441	<i>Onocera semirubella</i>	last recorded 2005	
1443	<i>Pempelia genistella</i>	last recorded 2007	
1445	<i>P. formosa</i>	Jul(3) [3]	
1447a	<i>Sciota adelphella</i>	Jul(1) Aug(2) [3]	
1449	<i>Elegia similella</i>	last recorded 2007	
1451	<i>Pyla fusca</i>	last recorded 2004	
1452	<i>Phycita roborella</i>	Jul(1) [1]	
1454	<i>Dioryctria abietella</i>	Jul(2) [2]	
1454a	<i>D. schuetzeella</i>	last recorded 2006	
1455	<i>D. mutatella</i>	last recorded 2000	
1458	<i>Myelois cribrella</i>	thistle ermine	Jun(6) Jul(8) [14]
1464	<i>Gymnacyla canella</i>	last recorded 2006	
1465	<i>Nephoterix angustella</i>	last recorded 2006	
1467	<i>Ancylosis oblitella</i>	last recorded 2004	
1469	<i>Euzophera cinerosella</i>	last recorded 1997	
1470	<i>E. pinguis</i>	last recorded 2007	
1473	<i>Ephestia elutella</i>	Jun(3) Jul(1) [4]	
1474	<i>E. parasitella</i>	Jul(2) [2]	
1479*	<i>Plodia interpunctella</i>	Indian meal moth	last recorded 2004
1480	<i>Homoeosoma nebulella</i>	last recorded 2003	
1481	<i>H. sinuella</i>	Jul(2) [2]	
1483	<i>Phycitodes binaevella</i>	Jul(4) [4]	
1485	<i>P. maritima</i>	last recorded 2006	
PTEROPHORIDAE			
1488	<i>Agdistis bennetii</i>	Aug(2) [2]	
1497	<i>Amblyptilia acanthadactyla</i>	Aug(14) Sep(1) [15]	
1500	<i>Platyptilia calodactyla</i>	last recorded 2005	
1501	<i>P. gonodactyla</i>	last recorded 1996	
1503	<i>P. ochrodactyla</i>	last recorded 2004	
1504	<i>P. pallidactyla</i>	last recorded 2005	
1509	<i>Stenoptilia pterodactyla</i>	last recorded 2002	
1513	<i>Pterophorus pentadactyla</i>	white plume-moth	Jun(1) [1]
1517	<i>Adaina microdactyla</i>	Aug(1) [1]	
1518	<i>Leioptilus lienigianus</i>	Jul(1) [1] - first since 1996	
1523	<i>Oidaematophorus lithodactyla</i>	last recorded 2002	
1524	<i>Emmelina monodactyla</i>	Feb(1) Mar(1) Apr(4) May(1) Jun(4) Jul(10) Aug(22) Sep(5) Oct(1) [49]	
HESPERIIDAE			
1526	<i>Thymelicus sylvestris</i>	small skipper	Jul(*) [*]
1527	<i>T. lineola</i>	Essex skipper	last recorded 2004
1531	<i>Ochlodes venata</i>	large skipper	last recorded 2000
PIERIDAE			
1545	<i>Colias croceus</i>	clouded yellow	last recorded 1994
1546	<i>Gonepteryx rhamni</i>	brimstone	May(*) [*] – first since 1997
1549*	<i>Pieris brassicae</i>	large white	Apr(*) May(*) Jul(1) Aug(*) Sep(*) Oct(*) [1]
1550*	<i>P. rapae</i>	small white	Apr(*) May(*) Jun(*) Jul(*) Aug(*) Sep(*)

1551*	<i>P. napi</i>	green-veined white	[*] Jul(*) [*]
1553	<i>Anthocharis cardamines</i>	orange-tip	May(*) Apr(*) [*]
LYCAENIDAE			
1561	<i>Lycaena phlaeas</i>	small copper	last recorded 2004
1574	<i>Polyommatus icarus</i>	common blue	last recorded 2004
1580*	<i>Celestrina argiolus</i>	holly blue	Apr(*) May(*) Jun(*) Jul(*) Aug(*) [*]
NYMPHALIDAE			
1590	<i>Vanessa atalanta</i>	red admiral	Jun(*) Jul(*) Aug(*) Sep(*) Oct(*) [*]
1591	<i>Cynthia cardui</i>	painted lady	last recorded 2007
1593*	<i>Aglais urticae</i>	small tortoiseshell	Jul(*) Aug(*) Sep(*) Oct(*) [*]
1597*	<i>Inachis io</i>	peacock	Mar(*) Apr(*) May(*) Jul(*) Aug(*) [*]
1598*	<i>Polygonia c-album</i>	comma	Jul(*) Aug(*) Sep(*) Oct(*) [*]
SATYRIDAE			
1614	<i>Pararge aegeria</i>	speckled wood	May(*) Jul(*) Aug(*) Sep(*) Oct(*) [*]
1615	<i>Lasiommata megera</i>	wall	last recorded 2004
1625	<i>Pyronia tithonus</i>	gatekeeper	Jul(*) Aug(*) [*]
1626	<i>Maniola jurtina</i>	meadow brown	Jul(*) Aug(*) [*]
1627	<i>Coenonympha pamphilus</i>	small heath	last recorded 1995
LASIOCAMPIDAE			
1631	<i>Poecilocampa populi</i>	December moth	Nov(1) [1]
1634	<i>Malacosoma neustria</i>	lackey	Jul(7) [7]
1635	<i>M. castrensis</i>	ground lackey	Jul(2) [2]
1637	<i>Lasiocampa quercus</i>	oak eggar	Jul(1) [1]
1640	<i>Euthrix potatoria</i>	drinker	Jul(1) [1]
SATURNIIDAE			
1643	<i>Pavonia pavonia</i>	emperor moth	last recorded 2006
DREPANIDAE			
1646	<i>Drepana binaria</i>	oak hook-tip	Aug(2) [2]
1648	<i>D. falcaria</i>	pebble hook-tip	Sep(*) [*]
1651	<i>Cilix glaucata</i>	Chinese character	Jun(1) Jul(1) Sep(1) [3]
THYATIRIDAE			
1652	<i>Thyatira batis</i>	peach blossom	Jul(1) [1] – first since 2002
1653	<i>Habrosyne pyritoides</i>	buff arches	Jul(15) Aug(1) [16]
1654	<i>Tethea ocellaris</i>	figure of eighty	Jun(2) [2]
1655	<i>T. or</i>	poplar lutestring	last recorded 2005
1657	<i>Ochropacha duplaris</i>	common lutestring	last recorded 2000
1659	<i>Achlya flavicornis</i>	yellow horned	May(1) [1] – first since 1997
1660	<i>Polyploca ridens</i>	frosted green	last recorded 2004
GEOMETRIDAE			
1663	<i>Alsophila aescularia</i>	March moth	last recorded 2007
1665	<i>Pseudoterpna pruinata</i>	grass emerald	last recorded 1997
1666	<i>Geometra papilionaria</i>	large emerald	last recorded 2003
1667	<i>Comibaeana bajularia</i>	blotched emerald	last recorded 2002
1669	<i>Hemithea aestivaria</i>	common emerald	Jun(1) Jul(7) [8]
1673	<i>Hemistola chrysoprasaria</i>	small emerald	Jul(3) [3]
1680	<i>Cyclophora punctaria</i>	maiden's blush	last recorded 2006
1682	<i>Timandra griseata</i>	blood-vein	Jun(1) Jul(1) Aug(4) Sep(1) [7]
1688	<i>Scopula rubiginata</i>	tawny wave	last recorded 2003
1689	<i>S. marginepunctata</i>	mullein wave	last recorded 2007
1690	<i>S. imitaria</i>	small blood-vein	Jun(1) Jul(3) Sep(2) [6]
1691	<i>S. emutaria</i>	rosy wave	last recorded 2003

1692	<i>S. immutata</i>	lesser cream wave	Aug(1) [1] – first since 2001
1693	<i>S. floslactata</i>	cream wave	last recorded 2004
1699	<i>Idaea vulpinaria</i>	least carpet	Jul(120) Aug(22) [142]
1702	<i>I. biselata</i>	small fan-footed wave	Jul(5) Aug(1) [6]
1705	<i>I. fuscovenosa</i>	dwarf cream wave	Jul(4) [4]
1707	<i>I. seriata</i>	small dusty wave	Jun(4) Jul(1) Aug(6) [11]
1708	<i>I. dimidiata</i>	single-dotted wave	Jul(62) Aug(37) [99]
1709	<i>I. subsericeata</i>	satin wave	last recorded 2006
1711	<i>I. trigeminata</i>	treble brown-spot	Jun(1) Jul(1) [2]
1712	<i>I. emarginata</i>	small scallop	last recorded 2005
1713	<i>I. aversata</i>	riband wave	Jun(14) Jul(216) Aug(13) [243]
1715	<i>I. straminata</i>	plain wave	last recorded 2005
1716	<i>Rhodometra sacraria</i>	vestal	last recorded 2007
1718	<i>Phibalapteryx virgata</i>	oblique-striped	last recorded 2001
1720	<i>Orthonama obstipata</i>	gem	last recorded 2006
1722	<i>Xanthorhoe designata</i>	flame carpet	last recorded 2003
1724	<i>X. spadicearia</i>	red twin-spot carpet	Jul(3) [3]
1725	<i>X. ferrugata</i>	dark-barred twin-spot carpet	Jul(2) [2]
1727	<i>X. montanata</i>	silver ground carpet	May(2) Jun(1) [3]
1728	<i>X. fluctuata</i>	garden carpet	May(4) Jun(2) Jul(5) Aug(8) Sep(9) [28]
1732	<i>Scolopteryx chenopodiata</i>	shaded broad-bar	last recorded 2006
1736	<i>Catarhoe cuculata</i>	royal mantle	last recorded 2000
1738	<i>Epirrhoe alternata</i>	common carpet	Jun(4) Jul(4) Aug(2) [10]
1742	<i>Camptogramma bilineata</i>	yellow shell	Jul(4) [4]
1745	<i>Larentia clavaria</i>	mallow	Oct(4) [4]
1746	<i>Anticlea badiata</i>	shoulder-stripe	last recorded 2001
1747	<i>A. derivata</i>	streamer	last recorded 2003
1748	<i>Mesoleuca albicillata</i>	beautiful carpet	last recorded 1997
1749	<i>Pelurga comitata</i>	dark spinach	last recorded 2006
1752	<i>Cosmorhoe ocellata</i>	purple bar	last recorded 2004
1754	<i>Eulithis prunata</i>	phoenix	last recorded 2006
1757	<i>E. mellinata</i>	spinach	last recorded 2005
1758	<i>E. pyraliata</i>	barred straw	Jun(3) Jul(6) [9]
1759	<i>Ecliptopera silaceata</i>	small phoenix	last recorded 2006
1760	<i>Chloroclysta siterata</i>	red-green carpet	Oct(1) [1]
1764	<i>C. truncata</i>	common marbled carpet	Jun(11) Sep(14) Oct(6) [31]
1765	<i>Cidaria fulvata</i>	barred yellow	Jun(2) [2]
1766	<i>Plemyria rubiginata</i>	blue-bordered carpet	last recorded 2006
1768	<i>Thera obeliscata</i>	grey pine carpet	May(1) Oct(2) [3]
1769	<i>T. britannica</i>	spruce carpet	Jun(2) Jul(1) [3]
1773	<i>Electrophaes corylata</i>	broken-barred carpet	last recorded 2006
1776	<i>Colostygia pectinataria</i>	green carpet	May(3) Jun(1) Aug(2) [6]
1777	<i>Hydriomena furcata</i>	July highflyer	last recorded 2006
1778	<i>H. impluviata</i>	May highflyer	last recorded 2005
1781	<i>Horisme vitalbata</i>	small waved umber	last recorded 2005
1782	<i>H. tersata</i>	fern	last recorded 2003
1784	<i>Melanthia procellata</i>	pretty chalk carpet	last recorded 2002
1794	<i>Euphyia unangulata</i>	sharp-angled carpet	Jul(1) [1] – first since 1998
1795	<i>Epirrita dilutata</i>	November moth	Oct(3) [3]
1799	<i>Operophtera brumata</i>	winter moth	last recorded 2006
1800	<i>O. fagata</i>	northern winter moth	last recorded 1995
1802	<i>Perizoma affinitata</i>	rivulet	last recorded 2007
1803	<i>P. alchemillata</i>	small rivulet	last recorded 2006
1808	<i>P. flavofasciata</i>	sandy carpet	last recorded 2007
1812	<i>Eupithecia inturbata</i>	maple pug	last recorded 2006
1816	<i>E. linariata</i>	toadflax pug	last recorded 2003
1817	<i>E. pulchellata</i>	foxglove pug	Jun(2) [2]
1819	<i>E. exigua</i>	mottled pug	last recorded 2007
1825	<i>E. centaureata</i>	lime-speck pug	Jun(11) Jul(29) Aug(6) Sep(2) [48]
1827	<i>E. intricata</i>	Freyer's pug	May(4) Jun(3) [7]

1830	<i>E. absinthiata</i>	wormwood pug	Jun(4) [4]
1832	<i>E. assimilata</i>	currant pug	Jun(2) Jul(1) Aug(6) [9]
1834	<i>E. vulgata</i>	common pug	May(2) Jun(7) Jul(1) [10]
1835	<i>E. tripunctaria</i>	white-spotted pug	May(1) [1]
1837	<i>E. subfuscata</i>	grey pug	Jun(1) [1] – first since 1999
1838	<i>E. icterata</i>	tawny-speckled pug	last recorded 2006
1839	<i>E. succenturiata</i>	bordered pug	Aug(1) [1]
1840	<i>E. subumbrata</i>	shaded pug	last recorded 2007
1841	<i>E. millefoliata</i>	yarrow pug	last recorded 2007
1842	<i>E. simpliciatata</i>	plain pug	last recorded 2005
1844	<i>E. indigata</i>	ochreous pug	last recorded 1998
1846	<i>E. nanata</i>	narrow-winged pug	last recorded 2005
1848	<i>E. innotata</i>	ash pug	Aug(1) [1]
1852	<i>E. abbreviata</i>	brindled pug	Mar(1) [1]
1853	<i>E. dodoneata</i>	oak-tree pug	last recorded 2005
1854	<i>E. pusillata</i>	juniper pug	last recorded 2000
1855	<i>E. phoeniceata</i>	cypress pug	Aug(1) [1]
1857	<i>E. tantillaria</i>	dwarf pug	last recorded 2004
1858	<i>Chloroclystis v-ata</i>	v pug	last recorded 2004
1859	<i>C. chloerata</i>	sloe pug	last recorded 2005
1860	<i>C. rectangularata</i>	green pug	Jun(8) Jul(1) [9]
1862	<i>Gymnoscelis rufofasciata</i>	double-striped pug	Apr(18) May(8) Jun(9) Aug(16) [51]
1867	<i>Aplocera plagiata</i>	treble bar	May(1) Jun(3) Sep(1) [5]
1868	<i>A. efformata</i>	lesser treble bar	May(1) [1]
1875	<i>Asthenia albulata</i>	small white wave	last recorded 2007
1876	<i>Hydrelia flammeolaria</i>	small yellow wave	Jul(1) [1]
1883	<i>Acasis viretata</i>	yellow-barred brindle	Aug(1) [1]
1884	<i>Abraxas grossulariata</i>	magpie	Jul(3) [3]
1887	<i>Lomaspilis marginata</i>	clouded border	Jun(1) Jul(4) [5]
1888	<i>L. adusta</i>	scorched carpet	Jul(1) [1] – first since 2000
1889	<i>Semiothisa notata</i>	peacock moth	Aug(1) [1]
1890	<i>S. alternaria</i>	sharp-angled peacock	last recorded 2006
1893	<i>S. liturata</i>	tawny-barred angle	last recorded 2002
1894	<i>S. clathrata</i>	latticed heath	Jul(10) Aug(1) [11]
1902	<i>Petrophora chlorosata</i>	brown silver-lines	last recorded 2005
1904	<i>Plagodis dolabraria</i>	scorched wing	last recorded 2004
1906	<i>Opisthograptis luteolata</i>	brimstone moth	May(3) Jul(1) Aug(51) Sep(14) [69]
1910	<i>Apeira syringaria</i>	lilac beauty	last recorded 1997
1911	<i>Ennomos autumnaria</i>	large thorn	last recorded 2001
1913	<i>E. alniaria</i>	canary-shouldered thorn	Aug(1) [1]
1917	<i>Selenia dentaria</i>	early thorn	Jul(4) Aug(2) [6]
1919	<i>S. tetralunaria</i>	purple thorn	last recorded 2006
1920	<i>Odontopera bidentata</i>	scalloped hazel	May(1) [1]
1921	<i>Crocallis elinguarata</i>	scalloped oak	Jul(14) Aug(1) [15]
1922	<i>Ourapteryx sambucaria</i>	swallow-tailed moth	Jun(2) Jul(6) [8]
1923	<i>Colotois pennaria</i>	feathered thorn	last recorded 2007
1926	<i>Apocheima pilosaria</i>	pale brindled beauty	Jan(1) Feb(1) [2]
1927	<i>Lycia hirtaria</i>	brindled beauty	last recorded 2007
1930	<i>Biston strataria</i>	oak beauty	Apr(2) [2]
1931	<i>B. betularia</i>	peppered moth	Jun(2) Jul(4) [8]
1932*	<i>Agriopsis leucophaearia</i>	spring usher	last recorded 2006
1934	<i>A. aurantiaria</i>	dotted border	last recorded 2006
1935	<i>Erannis defoliaria</i>	mottled umber	last recorded 2004
1936	<i>Menophra abruptaria</i>	waved umber	last recorded 2006
1937	<i>Peribatodes rhomboidaria</i>	willow beauty	Jun(16) Jul(22) Aug(25) Sep(17) [80]
1943	<i>Hypomecis roboraria</i>	great oak beauty	Jul(1) [1]
1941	<i>Alcis repandana</i>	mottled beauty	Jun(2) Jul(1) [3]
1944	<i>Serraca punctinalis</i>	pale oak beauty	Jun(1) [1]
1947	<i>Ectropis bistortata</i>	engrailed	last recorded 2007
1954	<i>Bupalus pinaria</i>	bordered white	last recorded 2005

1955	<i>Cabera pusaria</i>	common white wave	last recorded 2006
1956	<i>C. exanthemata</i>	common wave	last recorded 2007
1957	<i>Lomographa bimaculata</i>	white pinion-spotted	last recorded 1999
1958	<i>L. temerata</i>	clouded silver	Jun(1) Jul(2) [3]
1960	<i>Theria primaria</i>	early moth	last recorded 1999
1961	<i>Campaea margaritata</i>	light emerald	Jun(1) Jul(1) Aug(1) Sep(1) [4]
1962	<i>Hylaea fasciaria</i>	barred red	Jul(1) [1]
1968	<i>Aspitates ochrearia</i>	yellow belle	last recorded 2007
SPHINGIDAE			
1972	<i>Agrius convolvuli</i>	convolvulus hawk-moth	last recorded 1999
1973	<i>Acherontia atropos</i>	death's-head hawk-moth	last recorded 1998
1976	<i>Sphinx ligustri</i>	privet hawk-moth	May(1) Jun(8) Jul(6) [15]
1978	<i>Hyloicus pinastri</i>	pine hawk-moth	Jul(8) [8]
1979	<i>Mimas tiliae</i>	lime hawk-moth	Jun(1) [1]
1980	<i>Smerinthus ocellatus</i>	eyed hawk-moth	May(1) Jun(6) [7]
1981	<i>Laothoe populi</i>	poplar hawk-moth	May(4) Jun(12) Jul(35) Aug(5) [56]
1984	<i>Macroglossum stellatarum</i>	hummingbird hawk-moth	last recorded 2006
1987	<i>Hyles gallii</i>	bedstraw hawk-moth	last recorded 2002
1991	<i>Deilephila elpenor</i>	elephant hawk-moth	Jun(12) Jul(41) Aug(1) [54]
1992	<i>D. porcellus</i>	small elephant hawk-moth	last recorded 2006
NOTODONTIDAE			
1994*	<i>Phalera bucephala</i>	buff-tip	Jun(1) Jul(3) Aug(1) [5]
1995	<i>Cerura vinula</i>	puss moth	last recorded 2002
1997	<i>Furcula furcula</i>	sallow kitten	Jul(1) Aug(1) [2]
1998	<i>F. bifida</i>	poplar kitten	last recorded 2007
2000	<i>Notodonta dromedarius</i>	iron prominent	May(1) [1]
2003	<i>Eligmodonta ziczac</i>	pebble prominent	Jul(1) Aug(2) [3]
2006	<i>Pheosia gnoma</i>	lesser swallow prominent	last recorded 2007
2007	<i>P. tremula</i>	swallow prominent	Aug(7) [7]
2008	<i>Ptilodon capucina</i>	coxcomb prominent	Jul(1) [1]
2009	<i>Ptilodontella cucullina</i>	maple prominent	last recorded 2007
2011	<i>Pterostoma palpina</i>	pale prominent	Jul(1) [1]
2014	<i>Drymonia dodonaea</i>	marbled brown	May(1) [1]
2015	<i>D. ruficornis</i>	lunar marbled brown	May(1) [1]
2019	<i>Clostera curtula</i>	chocolate-tip	Jul(1) [1]
2020	<i>Diloba caeruleocephala</i>	figure of eight	last recorded 2001
LYMANTRIIDAE			
2026*	<i>Orgyia antiqua</i>	vapourer	Aug(2) [2]
2028	<i>Calliteara pudibunda</i>	pale tussock	Jun(2) [2]
2029	<i>Euproctis chrysorrhoea</i>	brown-tail	Jul(29) [29]
2030	<i>E. similis</i>	yellow-tail	Jul(10) Aug(5) [15]
2031	<i>Leucoma salicis</i>	white satin	Jul(2) [2]
2033	<i>Lymantria monacha</i>	black arches	last recorded 2006
ARCTIIDAE			
2035	<i>Thumatha senex</i>	round-winged muslin	last recorded 2005
2037	<i>Mitochrista miniata</i>	rosy footman	last recorded 2006
2043	<i>Eilema sororcula</i>	orange footman	May(1) [1]
2044	<i>E. griseola</i>	dingy footman	Jul(42) Aug(11) [53]
2046	<i>E. pygmaeola pallifrons</i>	pygmy footman	last recorded 2006
2047	<i>E. complana</i>	scarce footman	Jul(10) Aug(5) [15]
2050	<i>E. lurideola</i>	common footman	Jun(1) Jul(108) [109]
2051	<i>Lithosia quadra</i>	four-spotted footman	last recorded 2006
2057	<i>Arctia caja</i>	garden tiger	last recorded 2007
2058	<i>A. villica</i>	cream-spot tiger	last recorded 2007
2060	<i>Spilosoma lubricipeda</i>	white ermine	Jun(16) [16]
2061	<i>S. lutea</i>	buff ermine	May(6) Jun(39) Jul(62) Aug(5) [112]

2062	<i>S. urticae</i>	water ermine	Jul(1) [1]
2063	<i>Diaphora mendica</i>	muslin moth	Apr(2) May(15) [17]
2064*	<i>Phragmatobia fuliginosa</i>	ruby tiger	Jul(14) Aug(18) [32]
2069	<i>Tyria jacobaeae</i>	cinnabar	Jun(2) [2]
NOLIDAE			
2076	<i>Meganola albula</i>	Kent black arches	last recorded 2006
2077	<i>Nola cucullatella</i>	short-cloaked moth	Jul(1) [1]
2078	<i>N. confusalis</i>	least black arches	last recorded 2007
NOCTUIDAE			
2081	<i>Euxoa tritici</i>	white-line dart	Aug(2) [2]
2082	<i>E. nigricans</i>	garden dart	Jul(1) [1]
2085	<i>Agrotis vestigialis</i>	Archer's dart	last recorded 2002
2087	<i>A. segetum</i>	turnip moth	Jun(3) Jul(1) Aug(75) Sep(67) Oct(4) [150]
2088	<i>A. clavis</i>	heart and club	Jul(3) [3]
2089	<i>A. exclamationis</i>	heart and dart	May(12) Jun(223) Jul(48) [283]
2091	<i>A. ipsilon</i>	dark sword-grass	Aug(1) Sep(27) Oct(1) [29]
2092	<i>A. puta</i>	shuttle-shaped dart	Apr(3) May(81) Jun(13) Jul(206) Aug(592) Sep(42) Oct(5) [942]
2093	<i>A. ripae</i>	sand dart	last recorded 2004
2098	<i>Axylia putris</i>	flame	Jun(54) Jul(68) Aug(1) [123]
2102	<i>Ochropleura plecta</i>	flame shoulder	Apr(1) May(28) Jun(38) Jul(38) Aug(337) Sep(17) [459]
2105	<i>Rhyacia simulans</i>	dotted rustic	last recorded 2004
2107*	<i>Noctua pronuba</i>	large yellow underwing	May(2) Jun(61) Jul(243) Aug(871) Sep(922) Oct(22) [2121]
2108	<i>N. orbona</i>	lunar yellow underwing	last recorded 2004
2109*	<i>N. comes</i>	lesser yellow underwing	Jun(2) Jul(86) Aug(57) Sep(220) Oct(4) [369]
2110	<i>N. fimbriata</i>	broad-bordered yellow underwing	Jul(12) Aug(5) Sep(12) [29]
2110a	<i>N. janthina</i>	Langmaid's yellow underwing	last recorded 2006
2111	<i>N. janthe</i>	lesser broad-bordered yellow underwing	Jul(17) Aug(155) Sep(1) [173]
2112	<i>N. interjecta</i>	least yellow underwing	Aug(3) [3]
2113	<i>Spaelotis ravida</i>	stout dart	last recorded 1999
2117	<i>Paradiarsia glareosa</i>	autumnal rustic	last recorded 2000
2118	<i>Lycophotia porphyrea</i>	true lover's knot	last recorded 2006
2119	<i>Peridromia saucia</i>	pearly underwing	Aug(1) [1]
2120	<i>Diarsia mendica</i>	ingrailed clay	Jun(1) [1]
2123	<i>D. rubi</i>	small square-spot	Jun(10) Aug(44) Sep(63) [117]
2126	<i>Xestia c-nigrum</i>	setaceous Hebrew character	May(4) Jun(13) Jul(4) Aug(173) Sep(730) Oct(22) [946]
2127	<i>X. diatrapezium</i>	triple-spotted clay	last recorded 2005
2128	<i>X. triangulum</i>	double square-spot	Jul(2) [2]
2133	<i>X. sexstrigata</i>	six-striped rustic	last recorded 2007
2134	<i>X. xanthographa</i>	square-spot rustic	Jul(2) Aug(202) Sep(399) Oct(3) [606]
2137	<i>Eurois occulta</i>	great brocade	last recorded 2006
2139	<i>Cerastis rubricosa</i>	red chestnut	Mar(1) [1]
2145	<i>Discestra trifolii</i>	nutmeg	Jun(1) Jul(6) Aug(4) Sep(1) [12]
2147	<i>Hada nana</i>	shears	last recorded 2006
2150	<i>Polia nebulosa</i>	grey arches	last recorded 1997
2152	<i>Sideridis albicolon</i>	white colon	Jun(1) [1]
2154	<i>Mamestra brassicae</i>	cabbage moth	May(1) Jun(7) Jul(8) Aug(46) Sep(29) Oct(2) [93]
2155*	<i>Melanchra persicariae</i>	dot moth	Jun(2) Jul(58) Aug(1) [61]
2157	<i>Lacanobia w-latinum</i>	light brocade	last recorded 2007
2158	<i>L. thalassina</i>	pale-shouldered brocade	May(1) [1]
2159	<i>L. suasa</i>	dog's tooth	Aug(1) [1]
2160	<i>L. oleracea</i>	bright-line brown-eye	May(6) Jun(30) Jul(149) Aug(21)

2163	<i>Ceramica pisi</i>	broom moth	Sep(3) [209]
2164	<i>Hecatera bicolorata</i>	broad-barred white	last recorded 2002
2165	<i>H. dysodea</i>	small ranunculus	last recorded 2007
2166	<i>Hadena rivularis</i>	campion	Jun(2) Jul(6) Aug(3) [11]
2167	<i>H. perplexa</i>	tawny shears	last recorded 2005
2170	<i>H. compta</i>	varied coronet	Jun(1) [1]
2173	<i>H. bicruris</i>	lychnis	Jun(1) [1]
2176	<i>Cerapteryx graminis</i>	antler moth	last recorded 2007
2177	<i>Tholera cespitis</i>	hedge rustic	last recorded 2002
2178	<i>T. decimalis</i>	feathered gothic	last recorded 2006
2179	<i>Panolis flammea</i>	pine beauty	last recorded 2005
2182	<i>Orthosia cruda</i>	small quaker	Mar(1) Apr(2) [3]
2183	<i>O. miniosa</i>	blossom underwing	last recorded 2005
2184	<i>O. opima</i>	northern drab	May(3) [3]
2185	<i>O. populeti</i>	lead-coloured drab	last recorded 2005
2186	<i>O. gracilis</i>	powdered quaker	Apr(3) May(1) [4]
2187	<i>O. cerasi</i>	common quaker	Feb(4) Mar(20) Apr(28) May(5) [57]
2188	<i>O. incerta</i>	clouded drab	Apr(5) May(1) [6]
2189	<i>O. munda</i>	twin-spotted quaker	last recorded 2007
2190	<i>O. gothica</i>	Hebrew character	Feb(1) Mar(12) Apr(27) May(23) [63]
2192	<i>Mythimna conigera</i>	brown-line bright-eye	Jul(6) Aug(2) [8]
2193	<i>M. ferago</i>	clay	Jun(2) Jul(20) Aug(4) [26]
2194	<i>M. albipuncta</i>	white point	Jun(1) Jul(4) Aug(44) Sep(85) Oct(3) [137]
2195	<i>M. vitellina</i>	delicate	Sep(3) [3]
2196	<i>M. pudorina</i>	striped wainscot	last recorded 1999
2197	<i>M. straminea</i>	southern wainscot	Aug(2) [2]
2198	<i>M. impura</i>	smoky wainscot	Jul(34) Aug(10) [44]
2199	<i>M. pallens</i>	common wainscot	May(3) Jun(9) Jul(7) Aug(12) Sep(31) Oct(1) [63]
2200	<i>M. favicolor</i>	Mathew's wainscot	Aug(1) [1]
2202	<i>M. l-album</i>	l-album wainscot	Jul(1) Sep(7) Oct(2) [10]
2203	<i>M. unipuncta</i>	white-speck	Sep(1) [1] – first since 2002
2205	<i>M. comma</i>	shoulder-striped wainscot	May(1) [1]
2211	<i>Cucullia absinthii</i>	wormwood shark	last recorded 2007
2214	<i>C. chamomillae</i>	chamomile shark	last recorded 2007
2216	<i>C. umbratica</i>	shark	last recorded 2007
2217	<i>C. asteris</i>	star-wort	Jul(3) Aug(1) [4]
2221*	<i>C. verbasco</i>	mullein moth	last recorded 2006
2223	<i>Calophasia lunula</i>	toadflax brocade	last recorded 2007
2225	<i>Brachylomia viminalis</i>	minor shoulder-knot	last recorded 1998
2230	<i>Aporophyla australis</i>	feathered brindle	Sep(3) [3]
2231	<i>A. lutulenta</i>	deep-brown dart	last recorded 2006
2232	<i>A. nigra</i>	black rustic	Sep(4) Oct(2) [6]
2235	<i>Lithophane semibrunnea</i>	tawny pinion	last recorded 1996
2237	<i>L. ornitopus</i>	grey shoulder-knot	Oct(1) [1]
2240	<i>L. leautieri</i>	Blair's shoulder-knot	Sep(3) Oct(18) Nov(1) [22]
2243	<i>Xylocampa areola</i>	early grey	Mar(1) Apr(21) May(5) [27]
2245	<i>Allophyes oxycanthae</i>	green-brindled crescent	Oct(2) [2]
2247	<i>Dichonia aprilina</i>	merveille-du-jour	last recorded 2007
2248	<i>Dryobatodes eremita</i>	brindled green	Sep(4) Oct(1) [5]
2252	<i>Polymixis flavicincta</i>	large ranunculus	Sep(1) [1]
2255	<i>Eumichtis lichenea</i>	feathered ranunculus	Sep(7) Oct(10) [17]
2256	<i>Eupsilia transversa</i>	satellite	Sep(1) [1]
2258	<i>Conistra vaccinii</i>	chestnut	Mar(1) Sep(2) [3]
2259	<i>C. ligula</i>	dark chestnut	Feb(1) [1]
2261	<i>C. erythrocephala</i>	red-headed chestnut	last recorded 2003
2262	<i>Agrochola circellaris</i>	brick	Sep(1) [1]
2263	<i>A. lota</i>	red-line quaker	Oct(6) [6]

2264	<i>A. macilenta</i>	yellow-line quaker	Oct(2) [2]
2266	<i>A. litura</i>	brown-spot pinion	last recorded 2007
2267	<i>A. lychnidis</i>	beaded chestnut	Sep(4) Oct(13) [17]
2269	<i>Atethmia centrigo</i>	centre-barred sallow	Sep(5) [5]
2270	<i>Omphaloscelis lunosa</i>	lunar underwing	Sep(44) Oct (11) [55]
2271	<i>Xanthia citrigo</i>	orange sallow	last recorded 2007
2272	<i>X. aurago</i>	barred sallow	Oct(2) [2]
2273	<i>X. togata</i>	pink-barred sallow	last recorded 2000
2274	<i>X. icterata</i>	sallow	Sep(1) [1]
2275	<i>X. gilvago</i>	 dusky-lemon sallow	last recorded 1999
2278	<i>Acronicta megacephala</i>	poplar grey	Jul(1) Aug(2) [3]
2279	<i>A. aceris</i>	sycamore	Jul(4) [4]
2280	<i>A. leporina</i>	 miller	Jul(1) [1]
2281	<i>A. alni</i>	alder moth	last recorded 1998
2283	<i>A. tridens</i>	dark dagger }	May(1) Jun(2) Jul(24) Aug(9) [36]
2284	<i>A. psi</i>	grey dagger }	<i>presence of both species confirmed by dissection</i>
2289	<i>A. rumicis</i>	knot-grass	Jul(2) Aug(2) [4]
2290	<i>Simyra albovenosa</i>	reed dagger	Jul(5) Aug(1-melanic) [6]
2292	<i>Cryphia algae</i>	tree-lichen beauty	Jul(1) Aug(4) [5]
2293	<i>C. domestica</i>	marbled beauty	Jul(20) Aug(9) [29]
2295	<i>C. muralis</i>	marbled green	last recorded 2005
2297	<i>Amphipyra pyramidea</i>	copper underwing	Aug(6) Sep(1) [7]
2298	<i>A. berbera</i>	Svensson's copper underwing	last recorded 2006
2299	<i>A. tragopogonis</i>	mouse moth	Jul(2) Aug(22) [24]
2300	<i>Mormo maura</i>	old lady	Aug(6) [6]
2301	<i>Dipterygia scabriuscula</i>	bird's wing	Jun(1) [1]
2302	<i>Rusina ferruginea</i>	brown rustic	last recorded 2007
2303	<i>Thalpophila matura</i>	straw underwing	Aug(7) [7]
2305	<i>Euplexia lucipara</i>	small angle shades	Jul(1) [1]
2306	<i>Phlogophora meticulosa</i>	angle shades	May(9) Jun(7) Aug(40) Sep(130) Oct(8) Nov(*) [194] last recorded 2006
2312	<i>Ipimorpha subtusa</i>	olive	last recorded 2006
2314	<i>Parastichtis ypsilon</i>	dingy shears	Jul(1) [1]
2316	<i>Cosmia affinis</i>	lesser-spotted pinion	last recorded 2003
2318	<i>C. trapezina</i>	dun-bar	Jul(16) Aug(4) [20]
2319	<i>C. pyralina</i>	lunar-spotted pinion	Jul(1) [1]
2321	<i>Apamea monoglypha</i>	dark arches	Jun(19) Jul(446) Aug(71) Sep(1) [537]
2322	<i>A. lithoxylea</i>	light arches	Jun(2) Jul(38) [40]
2325	<i>A. oblonga</i>	crescent-striped	last recorded 2000
2327	<i>A. epomidion</i>	clouded brindle	last recorded 2007
2330	<i>A. remissa</i>	dusky brocade	last recorded 2005
2331	<i>A. unanimitis</i>	small clouded brindle	Jun(1) [1]
2333	<i>A. anceps</i>	large nutmeg	Jul(1) [1]
2334	<i>A. sordens</i>	rustic shoulder-knot	May(6) Jun(7) [13]
2335	<i>A. scolopacina</i>	slender brindle	Jul(1) [1] – first since 2002
2336	<i>A. ophiogramma</i>	double-lobed	Jul(1) [1]
2337	<i>Oligia strigilis</i>	marbled minor	May(2) Jun(29) Jul(4) [35]
2338	<i>O. versicolor</i>	rufous minor	Jun(1) [1]
2339	<i>O. latruncula</i>	tawny marbled minor	May(4) Jun(61) Jul(12) [77]
2340	<i>O. fasciuncula</i>	middle-barred minor	Jun(3) [3]
2341	<i>Mesoligia furuncula</i>	cloaked minor	Jul(5) Aug(16) Sep(1) [22]
2342	<i>M. literosa</i>	rosy minor	last recorded 2006
2343	<i>Mesapamea secalis</i>	common rustic }	Jul(58) Aug(429) Sep(3) [490]
2343b	<i>M. didyma</i>	lesser common rustic }	<i>presence of both species confirmed by dissection</i>
2345	<i>Photedes minima</i>	small dotted buff	last recorded 2007
2348	<i>P. elymi</i>	lyme-grass	last recorded 1999
2350	<i>P. pygmina</i>	small wainscot	last recorded 2004
2352	<i>Eremobia ochroleuca</i>	dusky sallow	Jul(9) Aug(6) [15]
2353	<i>Luperina testacea</i>	flounced rustic	Aug(12) Sep(22) [34]
2354	<i>L. nicklerlii</i>	sandhill rustic	Aug(1) Sep(1) [2]

2358	<i>Amphipoea fucosa</i>	saltern ear	last recorded 2007
2360	<i>A. oculea</i>	ear moth	last recorded 2001
2361	<i>Hydraecia micacea</i>	rosy rustic	Jul(1) Aug(2) [3]
2364	<i>Gortyna flavago</i>	frosted orange	Sep(6) [6]
2365	<i>G. borelii lunata</i>	Fisher's estuarine moth	Sep(1) [1]
2368	<i>Celaena leucostigma</i>	crescent	last recorded 2006
2369	<i>Nonagria typhae</i>	bulrush wainscot	Sep(1) [1]
2370	<i>Archanara geminipunctata</i>	twin-spotted wainscot	last recorded 2007
2371	<i>A. dissoluta</i>	brown-veined wainscot	Jul(3) Aug(4) [7]
2373	<i>A. sparganii</i>	Webb's wainscot	Jul(1) Sep(1) [2]
2375	<i>Rhizedra lutosa</i>	large wainscot	Oct(2) [2]
2377	<i>Arenostola phragmidis</i>	fen wainscot	Jul(7) [7]
2379	<i>Coenobia rufa</i>	small rufous	last recorded 2006
2380	<i>Charanyca trigrammica</i>	treble-lines	May(1) [1]
2381	<i>Hoplodrina alsines</i>	uncertain	Jun(7) Jul(210) Aug(19) [236]
2382	<i>H. blanda</i>	rustic	Jul(51) Aug(32) [83]
2384	<i>H. ambigua</i>	Vine's rustic	May(9) Jun(50) Jul(12) Aug(186) Sep(177) Oct(4) [436]
2385	<i>Spodoptera exigua</i>	small mottled willow	last recorded 2006
2387	<i>Caradrina morpheus</i>	mottled rustic	Jun(17) Jul(14) Aug(3) Sep(3) [37]
2387a	<i>Platyperigea kadenii</i>	Clancy's rustic	last recorded 2006
2389	<i>Paradrina clavipalpis</i>	pale mottled willow	Apr(1) May(3) Jun(4) Jul(1) Sep(29) Oct(2) [40]
2391	<i>Chilodes maritima</i>	silky wainscot	last recorded 2005
2392a	<i>Proxenus hospes</i>	Porter's rustic	Sep(1) [1]
2399	<i>Pyrrhia umbra</i>	bordered sallow	last recorded 2002
2400	<i>Heliothis armigera</i>	scarce bordered straw	Aug(1) Oct(1) [2]
2403	<i>H. peltigera</i>	bordered straw	last recorded 2006
2410	<i>Protodeltote pygarga</i>	marbled white-spot	last recorded 2006
2413	<i>Deltote bankiana</i>	silver-barred	last recorded 2003
2418	<i>Earias clorana</i>	cream-bordered green-pea	Jun(2) Jul(4) [6]
2421	<i>Bena prasinana</i>	scarce silver-lines	last recorded 1999
2422	<i>Pseudoips fagana</i>	green silver-lines	Jun(4) Aug(1) [5]
2423	<i>Nycteola revayana</i>	oak nycteoline	last recorded 2007
2425	<i>Colocasia coryli</i>	nut-tree tussock	last recorded 1997
2428	<i>Chrysodeixis chalcites</i>	golden twin-spot	last recorded 2005
2432	<i>Trichoplusia ni</i>	ni moth	last recorded 2006
2434	<i>Diachrysia chrysitis</i>	burnished brass	Jun(9) Jul(20) Aug(5) Sep(37) [71]
2437	<i>Polychrysia moneta</i>	golden plusia	last recorded 2004
2439	<i>Plusia festucae</i>	gold-spot	last recorded 2003
2441	<i>Autographa gamma</i>	silver y	May(2) Jun(10) Jul(20) Aug(38) Sep(105) Oct(6) Nov(1) [182]
2449	<i>Abrostola trigemina</i>	dark spectacle	Jul(2) Aug(2) Sep(3) Oct(1) [8]
2450	<i>A. triplasia</i>	spectacle	Apr(2) May(8) Jun(17) Jul(37) Aug(21) Sep(4) [89]
2452	<i>Catocala nupta</i>	red underwing	Sep(1) [1]
2465	<i>Tyta luctuosa</i>	four-spotted	last recorded 1998
2466	<i>Lygephila pastinum</i>	blackneck	last recorded 2005
2469	<i>Scoliopteryx libatrix</i>	herald	May(1) Jul(2) Oct(1) [4]
2474	<i>Rivula sericealis</i>	straw dot	Jun(2) Aug(4) [6]
2477	<i>Hypena proboscidalis</i>	snout	Jun(22) Jul(24) Aug(9) Sep(75) Oct(1) [131]
2480*	<i>H. rostralis</i>	buttoned snout	larval feeding signs
2484	<i>Schrankia taenialis</i>	pinion-streaked snout	last recorded 1997
2489	<i>Herminia tarsipennalis</i>	fan-foot	last recorded 2007
2492	<i>H. grisealis</i>	small fan-foot	last recorded 2007
2493	<i>Macrochilo cribrumalis</i>	dotted fan-foot	last recorded 2005

TENTATIVE IDENTIFICATIONS (if confirmed, these would represent new species to the list)

275	<i>Bucculatrix bechsteinella</i> ?	1999
727	<i>Metzneria littorella</i> ?	1996
741	<i>Monochroa suffusella</i> ?	1997
1214	<i>Petrova resinella</i> ?	1999

REVIEW OF 2008

THE TOP THIRTY

Below are listed all species, in descending order, with 117 or more captures in 2008, in round brackets the percentage of the total year's catch and in square brackets last year's position in the top 30:

1	[1]	large yellow underwing	2121	(12.1)
2	[7]	<i>Chrysoteuchia culmella</i>	1583	(9.1)
3	[2]	<i>Epiphyas postvittana</i>	1219	(6.9)
4	[4]	setaceous Hebrew character	946	(5.4)
5	[5]	shuttle-shaped dart	942	(5.4)
6	[8]	square-spot rustic	606	(3.5)
7	[12]	dark arches	537	(3.1)
8	[9]	lesser/common rustic	490	(2.8)
9	[14]	flame shoulder	456	(2.6)
10	[6]	Vine's rustic	436	(2.5)
11	[16]	lesser yellow underwing	369	(2.0)
12	[3]	heart and dart	283	(1.6)
13	[15]	<i>Crambus pascuella</i>	276	(1.6)
14	[17]	riband wave	243	(1.4)
15=	[11]	uncertain	236	(1.4)
15=	[24]	<i>Blastobasis lignea</i>	236	(1.4)
17	[-]	diamond-back	210	(1.2)
18	[13]	bright-line brown-eye	209	(1.2)
19	[28=]	angle shades	194	(1.1)
20	[-]	mother-of-pearl	186	(1.1)
21	[23]	silver y	182	(1.0)
22	[-]	lesser broad-bordered yellow underwing	173	(1.0)
23	[20]	turnip moth	150	(0.8)
24	[22]	least carpet	142	(0.8)
25	[25]	white point	137	(0.8)
26	[-]	small magpie	135	(0.8)
27=	[21]	snout	131	(0.7)
27=	[26]	<i>Argyrotaenia ljugiana</i>	131	(0.7)
29	[-]	flame	123	(0.7)
30	[-]	small square-spot	117	(0.7)

Since last year, the following species have dropped out of the top 30:

- common wainscot [10], cabbage moth [18], buff ermine [19], spectacle [27], *Cnephasia stephensiana* [28=], *Emmelina monodactyla* [30]

Past occupants of top 30 positions include:

- ❖ *Agriphila straminella*, common footman, dot moth, rush veneer, *Olethreutes lacunana* (last in 2007)
- ❖ *Agriphila geniculea*, Hebrew character, common quaker, mottled rustic, flounced rustic (last in 2006)
- ❖ *Agriphila tristella*, latticed heath, *Argyresthia cupressella*, lunar underwing, feathered ranunculus (last in 2005)
- ❖ water veneer, rustic (last in 2004)
- ❖ tawny marbled minor, common swift (last in 2003)
- ❖ brimstone moth, willow beauty (last in 2001)
- ❖ lime-speck pug (last in 2000)
- ❖ light arches, smoky wainscot (last in 1997)
- ❖ garden carpet (last in 1996)
- ❖ *Crambus perlella*, *Endotricha flammealis*, marbled beauty (last in 1995).

To set this year's totals in context, the table below lists the top 15 species over the past fourteen years (1995-2008). The figures in the right hand column are the positions in previous top 30s (in reverse order, starting with 2008): - indicates the species was not in the top 30 that year, and x indicates it was not recorded at all in that year.

Position		Total	Rankings 2008→1995
1	large yellow underwing	29397	1,1,2,1,2,2,1,1,2,3,1,5,1,2
2	setaceous Hebrew character	18782	4,4,1,3,6,3,6,9,1,1,5,11,17,7
3	common wainscot	18062	-,10,3,4,3,4,7,2,4,2,3,3,11,3
4	<i>Chrysoteuchia culmella</i>	17301	2,7, 5,2,1,1,3,8,9,8,4,6,2,4
5	dark arches	13144	7,12,7,10,5,5,5,7,7,5,2,2,4,22
6	heart & dart	12958	12,3,8,6,10,7,2,3,3,6,6,4,3,5
7	shuttle-shaped dart	10056	5,5,13,14,13,10,9,6,8,4,10,7,7,11
8	lesser/common rustic	9505	8,9,14,11,12,6,4,4,5,7,7,13,16,21
9	Vine's rustic	8239	10,6,10,5,4,9,20,18,18,18,20,19,6,15
10	uncertain	6041	15=,11,16=,12,7,11,16,14,26,15,25,12,27,25
11	bright-line brown-eye	5585	18,13,16=,13,24,19,14,11,12,11,8,14,-,-
12	<i>Epiphyas postvittana</i>	5459	3,2,4,9,20,-,-,-,-,x,x,x,x
13	lesser yellow underwing	5424	8,16,19,22,15,-,-,26,13,9,9,10,5,6
14	<i>Blastobasis lignea</i>	5414	15=,24,9,17,16,8,10,5,22,27,-,-,-,x
15	<i>Crambus pascuella</i>	5278	13,15,20,8,21,12,15,13,23,21,15,23,26,-

In less detail, the remaining species with more than 2000 captures in total are:

16	silver y	4849	27	buff ermine	3015
17	square-spot rustic	4713	28	<i>Agriphila geniculea</i>	2918
18	flame	4263	29	small magpie	2742
19	latticed heath	4225	30	<i>Agriphila straminella</i>	2727
20	flame shoulder	4074	31	dot moth	2621
21	mottled rustic	3841	32	feathered ranunculus	2611
22	diamond-back	3578	33	flounced rustic	2546
23	mother-of-pearl	3440	34	common footman	2485
24	<i>Olethreutes lacunana</i>	3350	35	<i>Agriphila tristella</i>	2429
25	angle shades	3340	36	<i>Argyrotaenia ljunghiana</i>	2284
26	riband wave	3308			

There are few surprises in this list, though there are several points worth noting:

- The majority (20) of the species are noctuids (with 12 micros, 2 geometrids and 2 other macros); this may be a result in part of the attractiveness of MV light to noctuids
- Most of the species have polyphagous larvae, or display at least restricted polyphagy eg common wainscot on a range of grasses
- The most abundant geometrid is latticed heath, but this is due only to its abundance in two years, 2004 and the 'great invasion' of 1997. The only other member of the same family is riband wave, down at number 26
- Our two commonest regular immigrants, silver y and diamond-back, feature at numbers 16 and 22, despite widely fluctuating annual totals.

THE BEST NIGHTS

largest catch: 1029 specimens of 92 species on **14 July** (minimum temperature 16°C), including 704 *Chrysoteuchia culmella*, 38 dark arches, 20 uncertain, 20 *Crambus pascuella* and 15 large yellow underwing

largest number of species: 118 species (610 specimens) on **22 July** (minimum temperature 17°C), including 181 *Chrysoteuchia culmella*, 29 *Crambus pascuella*, 28 dark arches, 23 riband wave, 20 uncertain and 15 *Agapeta hamana*

A selection of other good nights is tabulated below:

date	Jul 14	15	22	26	Aug 16	27	28
min °C	14	15	17	19	15	17	18
specimens	1029	565	610	461	534	599	587
species	92	93	118	105	51	55	57

COMPARISON WITH PREVIOUS YEARS

Year	light source	nights trapped	species recorded	specimens captured
1995	actinic	166	283	5198
1996	actinic + blended UV	157	403	8871
1997	MV (+ actinic + blended)	152	477	28567
1998	MV (+ actinic + blended)	167	519	25492
1999	MV (+ actinic + blended)	172	515	33713
2000	MV (+ actinic + blended)	154	497	25145
2001	MV (+ actinic + blended)	144	478	22466
2002	MV (+ actinic + blended)	180	582	29966
2003	MV (+ actinic + blended)	177	570	35283
2004	MV	191	556	39301
2005	MV	151	505	28353
2006	MV	160	519	29204
2007	MV	172	423	14976
2008	MV	161	456	17474

This table demonstrates clearly the different catching ability of different light sources. In the eleven years through which MV light was the primary trap method, the figures appear to be levelling out at around 500-600 species and 25 to 30 thousand specimens, apart from the very poor past couple of years. The record (so far!) of 582 species in 2002 was due to both to a larger number of trap nights and

to more time being spent on tricky identifications as a result of illness; that this figure was almost matched in 2003 suggests other factors, such as the arrival of MBGBI Vol. 4, played a part. The record total number caught in 2004 is presumably due to the larger number of trap nights, but also perhaps the exceptional weather during the previous summer, though we would also hope that our garden management targeted at wildlife has helped. But poor showings in 2007 and 2008, and also to some extent in 2005 and 2007) show that other wider factors like weather can completely mask any local benefits gained through management.

Variation in the total number of specimens caught is due in part to the number of moths flying (very weather dependent) and the number of trap nights, especially in the key mid-late summer months. The low numbers in 1998, 2000 and 2001 seem genuinely to have been in poor years for moths: 1999 was shaping up to be almost as bad, until mid-August and September when a few common species (especially setaceous Hebrew character, large yellow underwing and common wainscot) emerged in such large numbers that they dwarfed everything else. Likewise, 2005 was to some extent rescued by September, when setaceous Hebrew characters and especially large yellow underwings were very abundant. A similar distortion of general patterns was also observed in August 1997 when latticed heaths were the superabundant species. 2006 was saved largely by the superb conditions and large numbers of moths in July and September, but in 2007, despite the early summer months showing a slight improvement on recent years, the summer that never was ensured a very poor showing of moths, just 50% of the average total and 80% of the average number of species. Then 2008: knock on effects of the previous poor year, coupled with relatively cool and damp weather for much of the summer led to predictions of the worst year ever. However, mid-late summer did show some improvement, if only with a mass emergence of *Chrysoteuchia culmella* and then high numbers of large yellow underwing, although the season ground to a rapid halt in the autumn.

To really evaluate how bad 2008 was, we need to look at a range of comparative measures. Firstly, the total May-September catches, during which trapping intensity has remained almost constant:

1997: 27297	2003: 33885
1998: 24500	2004: 37449
1999: 32491	2005: 26994
2000: 24127	2006: 27698
2001: 21877	2007: 13962
2002: 29017	2008: 17036

What about looking at the data for individual good nights? The best nights in terms of the total number of specimens are given below:

1997: 23 August - 1983 specimens of 66 species
1998: 9 July - 725 specimens of 113 species
1999: 10 September - 1609 specimens of 64 species
2000: 9 September - 658 specimens of 55 species
2001: 30 July - 892 specimens of 116 species
2002: 30 July - 1159 specimens of 145 species
2003: 8 July - 1558 specimens of 143 species
2004: 14 July - 1714 specimens of 131 species
2005: 3 September - 966 specimens of 47 species
2006: 26 July - 1089 specimens of 109 species
2007: 6 September - 342 specimens of 44 species
2008: 14 July - 1029 specimens of 92 species

Although a respectable peak count, it was almost entirely due to a huge, short-lived emergence of *Chrysoteuchia culmella*.

And the best nights in terms of the number of species:

1997: 22 July - 121 species, totalling 804 specimens
1998: 10 July - 115 species, totalling 608 specimens
1999: 17 July - 134 species, totalling 656 specimens
2000: 19 June - 114 species, totalling 560 specimens
2001: 30 July - 116 species, totalling 892 specimens
2002: 30 July - 145 species, totalling 1159 specimens
2003: 8 July - 143 species, totalling 1558 specimens
2004: 14 July - 131 species, totalling 1714 specimens
2005: 10 July - 133 species, totalling 732 specimens
2006: 19 July - 154 species, totalling 965 specimens
2007: 15 July - 86 species, totalling 264 specimens
2008: 22 July - 118 species, totalling 610 specimens

Interestingly, only in 2001, 2002, 2003 and 2004 did the best night in terms of species and specimens coincide.

My usual criterion of what constitutes a very good night for moths is one with more than 500 specimens or more than 90 species. How many nights fulfilled these criteria in each of the years?

1997: >500 specimens - 19 nights; >90 species - 10 nights
1998: >500 specimens - 13 nights; >90 species - 10 nights
1999: >500 specimens - 23 nights; >90 species - 16 nights
2000: >500 specimens - 9 nights; >90 species - 10 nights
2001: >500 specimens - 9 nights; >90 species - 9 nights
2002: >500 specimens - 11 nights; >90 species - 13 nights
2003: >500 specimens - 24 nights; >90 species - 17 nights
2004: >500 specimens - 32 nights; >90 species - 17 nights
2005: >500 specimens - 17 nights; >90 species - 10 nights
2006: >500 specimens - 18 nights; >90 species - 18 nights
2007: >500 specimens - 0 nights; >90 species - 0 nights
2008: >500 specimens - 6 nights; >90 species - 4 nights

In respect of all of the above attributes, 2007 comes out as the easily the worst year ever for moths here, but 2008 was not far behind. It remains to be seen what the results of two successive poor years will be.

Then just one more measure of the poor nature of 2008, the dates of the first three figure haul in the trap:

1997 : 18 May	2003 : 1 June
1998 : 9 May	2004 : 12 May
1999 : 19 May	2005 : 2 April, followed by 3 June
2000 : 14 May	2006 : 10 June
2001 : 5 June	2007 : 2 June
2002 : 1 June	2008 : 24 June

2008 was two weeks later reaching this milestone than any previous year, and the figures generally show a tendency for this figure to be reached progressively later, especially since 2000. This might be rather surprising, given the widely reported trends to earlier arrival and breeding among birds, earlier bud burst in flowers etc, usually attributed to climate change.

Totalling the whole summer misses a lot of the true variation over the course of five months, while looking at just the best nights opens up the possibility of the results being skewed by particular short-term weather events. To take a middle line between these extremes, I have analysed the data averaged over each monthly period, taking averages so as to eliminate any differences due to sampling effort (**bold face** = best year; *italic* = worst year).

month	year	number of MV trap nights	average total catch per night	average number of species per night
March	1997	13	24.2	6.8
	1998	15	22.5	7.8
	1999	17	17.1	6.4
	2000	12	17.5	5.9
	2001	7	10.1	4.6
	2002	15	14.9	5.9
	2003	15	19.8	5.2
	2004	18	21.3	5.9
	2005	17	21.0	5.7
	2006	5	4.8	<i>2.0</i>
	2007	11	5.6	3.5
2008	9	<i>4.7</i>	2.3	
April	1997	11	27.6	8.6
	1998	11	10.5	5.0
	1999	13	23.9	7.9
	2000	11	19.8	7.5
	2001	14	12.6	<i>4.4</i>
	2002	16	25.6	10.4
	2003	20	25.3	8.0
	2004	27	27.8	8.7
	2005	14	38.4	9.1
	2006	20	16.7	6.0
	2007	16	22.3	9.8
2008	16	<i>9.3</i>	4.8	
May	1997	18	58.7	21.1
	1998	24	52.6	24.4
	1999	20	55.4	23.6
	2000	18	45.4	17.0
	2001	21	33.4	15.8
	2002	28	40.7	17.9
	2003	14	38.2	17.5
	2004	18	68.6	24.7
	2005	21	23.5	10.8
	2006	10	23.8	11.6
	2007	20	40.3	17.0
2008	15	<i>23.3</i>	<i>9.8</i>	
June	1997	6	424.8	65.3
	1998	19	214.8	55.5
	1999	22	183.0	49.7
	2000	25	176.2	50.3
	2001	23	124.6	35.9
	2002	27	242.0	58.8
	2003	19	259.7	61.1
	2004	20	262.7	57.2
	2005	21	242.5	52.9
	2006	17	119.9	35.8
	2007	18	141.0	42.2
2008	21	<i>63.1</i>	<i>28.9</i>	

July	1997	14	631.9	90.2
	1998	17	384.5	79.0
	1999	24	403.9	86.6
	2000	24	271.8	69.6
	2001	21	429.8	79.8
	2002	28	368.1	79.7
	2003	28	538.1	91.0
	2004	25	541.5	81.5
	2005	21	432.6	85.5
	2006	26	512.6	97.6
	2007	24	135.8	47.3
	2008	27	238.2	58.2
August	1997	15	597.6	61.7
	1998	23	359.7	71.7
	1999	17	526.8	56.8
	2000	18	368.4	65.4
	2001	21	354.1	63.1
	2002	22	321.0	62.2
	2003	22	524.5	60.5
	2004	23	562.0	57.4
	2005	17	344.1	53.4
	2006	21	191.7	40.3
	2007	21	165.1	42.7
	2008	22	252.9	45.4
September	1997	24	167.5	28.3
	1998	20	207.3	30.0
	1999	23	378.5	33.3
	2000	21	273.8	34.5
	2001	13	142.1	26.2
	2002	18	220.4	25.5
	2003	14	129.2	27.7
	2004	23	195.5	25.3
	2005	18	359.7	33.3
	2006	26	310.2	33.4
	2007	28	126.3	20.4
	2008	24	152.7	22.9
October	1997	9	63.4	18.2
	1998	12	40.3	14.8
	1999	18	32.3	12.9
	2000	14	41.7	13.9
	2001	13	23.1	11.6
	2002	14	20.2	10.8
	2003	18	26.0	9.9
	2004	20	30.3	12.1
	2005	14	31.1	10.9
	2006	22	50.5	15.8
	2007	21	24.0	9.3
	2008	14	14.9	9.4

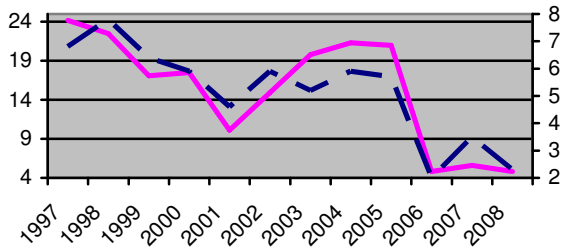
Summarising this crude summary still further:

1997 had 7 **bests** and 0 *worsts*
1998 had 2 **bests** and 0 *worst*
1999 had 1 **best** and 0 *worsts*
2000 had 1 **best** and 0 *worsts*
2001 had 0 **bests** and 1 *worst*
2002 had 1 **best** and 0 *worst*
2003 had 0 **bests** and 0 *worsts*
2004 had 2 **bests** and 0 *worsts*
2005 had 1 **best** and 0 *worsts*
2006 had 1 **best** and 2 *worsts*,
2007 had 0 **bests** and 6 *worsts*, and
2008 had 0 **bests** and 7 *worsts*.

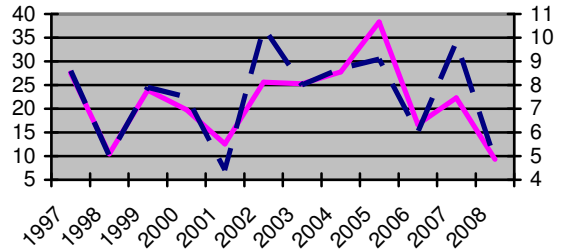
So, through examining the monthly data, it would seem that although 2007 was overall the worst year ever, the early summer period of 2008 was even worse than in 2007. Hopefully the slight improvement in the latter half of summer 2008 is a positive sign, but the big message seems clear – the state of our moths is now a lot less healthy than when I first started trapping here.

Probably not unrelated to the general early summer scarcity of moths, and indeed other insects, in early summer 2008 the period was characterized by many more, bolder, and presumably hungrier birds attending the opening of the trap. Regularly four blackbirds and a couple of robins were hanging around most June mornings for their share, whereas in previous years, there was at most a single opportunist.

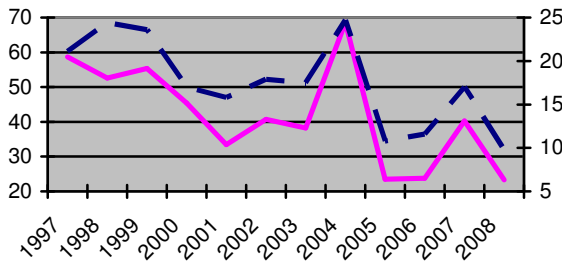
March



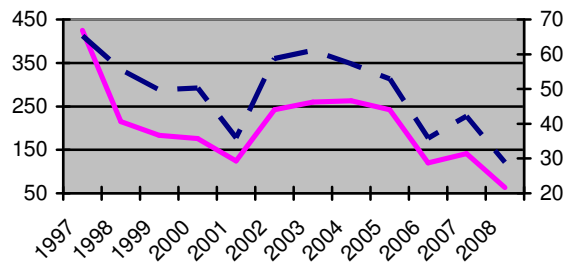
April



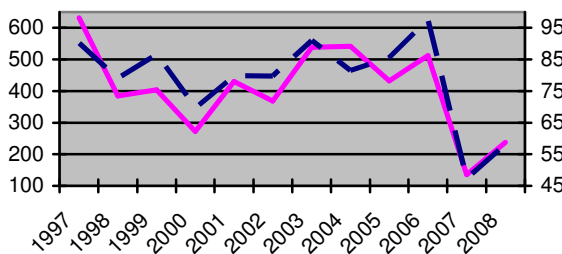
May



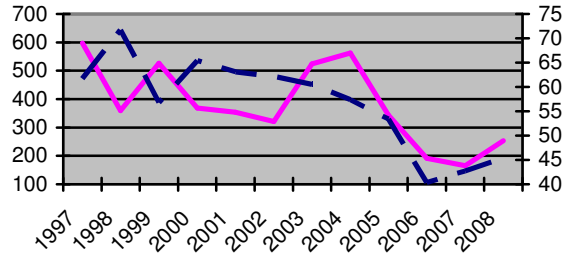
June



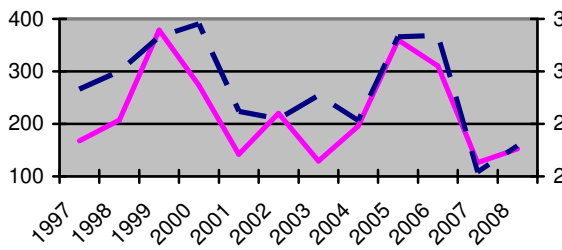
July



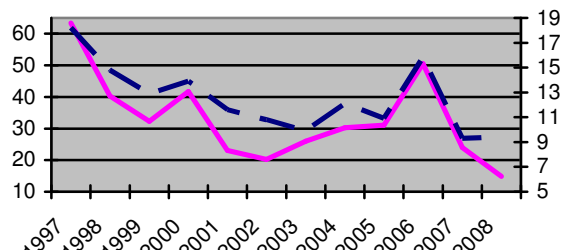
August



September



October



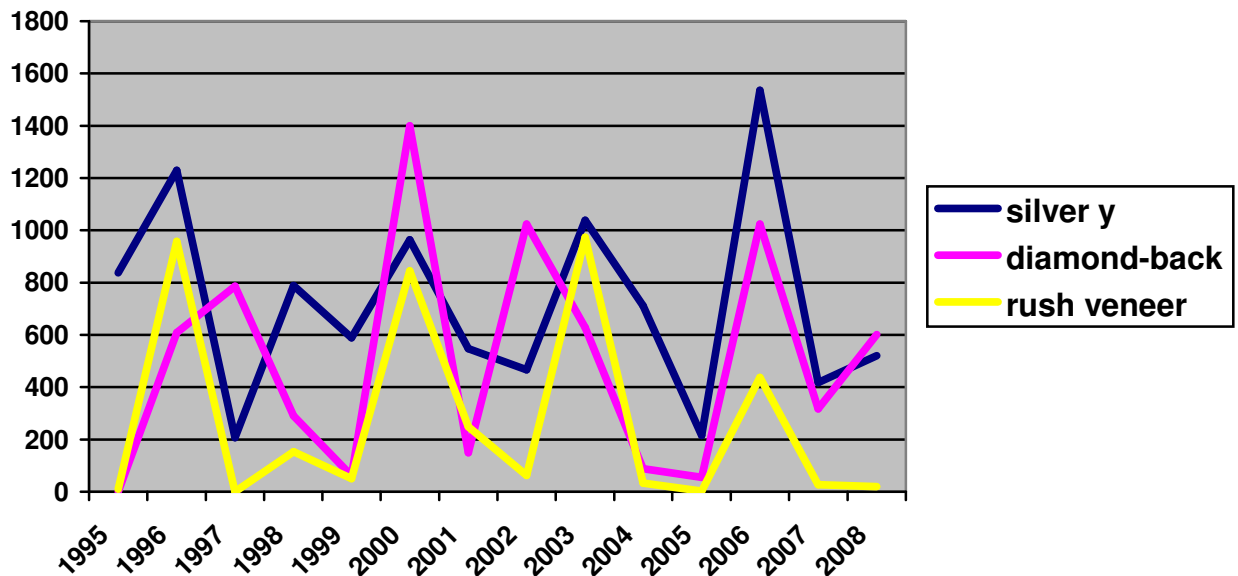
Monthly average catches in terms of total catch (Y1 solid line) and number of species (Y2 broken line)

Turning to changes in the fortunes of particular species, and without getting wrapped up in complex statistical techniques, I have tried to identify changes between years by looking at the percentage of the total year catch relating to each species. Any increase or decrease of 1% or more of the total catch is treated as significant, and listed as ▲ or ▼ in the table below:

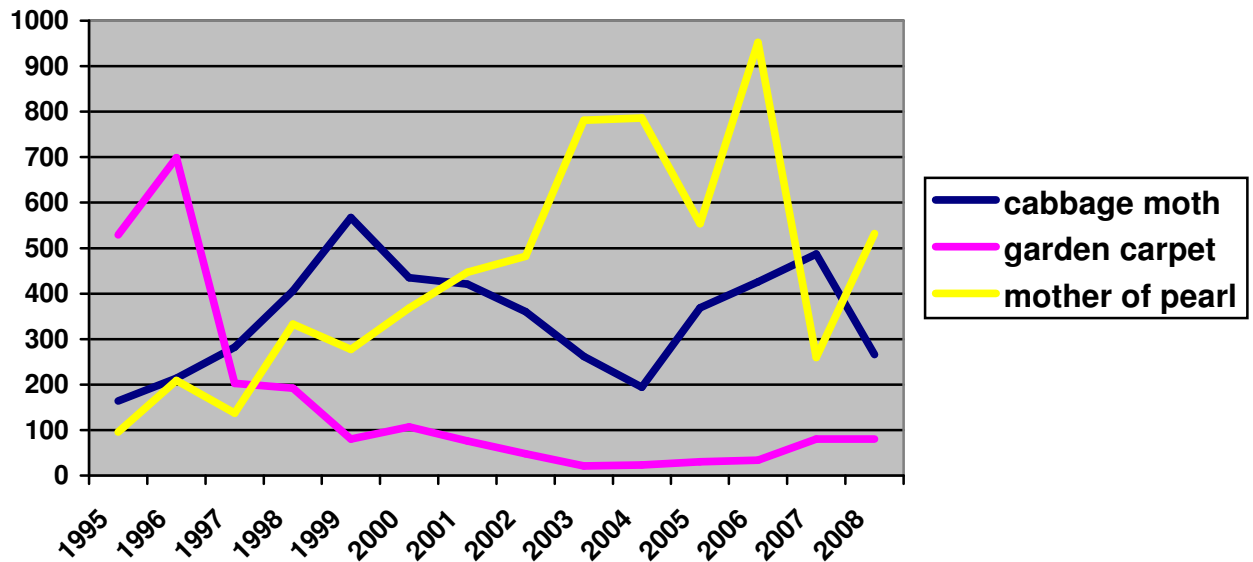
Years compared	07 to 08	06 to 07	05 to 06	04 to 05	03 to 04	02 to 03	01 to 02	00 to 01	99 to 00	98 to 99	97 to 98	96 to 97	95 to 96
shuttle-shaped dart	▲	▲					▼	▲	▼	▲			
dark arches	▲			▼	▲						▼	▲	▲
<i>Chrysoteuchia culmella</i>	▲	▼	▼	▼		▲	▲			▼		▼	
<i>Epiphyas postvittana</i>		▲	▲	▲									
flame shoulder		▲			▼	▼	▲		▲				
square-spot rustic		▲											
<i>Argyrotaenia ljugiana</i>			▲	▼									
bright-line brown eye				▲							▲	▲	
common footman				▲									
lesser yellow underwing					▲							▼	
lesser/common rustic									▲		▲		
mottled rustic												▲	
angle shades													▲
water veneer													▼
smoky wainscot												▼	▲
common swift												▼	
buff ermine						▼							
rush veneer					▼	▲		▼	▲			▼	▲
<i>Agriphila straminella</i>				▼									
<i>Agriphila tristella</i>				▼	▲								
<i>Argyresthia cupressella</i>				▼	▲								
latticed heath				▼	▲						▼	▲	
<i>Crambus pascuella</i>			▼	▲									
<i>Agriphila geniculea</i>			▼										
flame			▼	▲		▼				▼			
mother-of-pearl		▼											
<i>Blastobasis lignea</i>		▼	▲				▼	▲					
diamond-back moth		▼	▲		▼		▲	▼	▲		▼		▲
setaceous Hebrew character		▼	▲	▲	▼	▲	▲	▼	▼	▲	▲		▼
silver y		▼	▲								▲	▼	
heart and dart	▼	▲		▲		▼		▲	▲		▼		
Vine's rustic	▼	▲		▼	▲	▼						▼	▲
large yellow underwing	▼	▲	▼	▲		▼	▼	▲		▲	▲	▼	
common wainscot	▼	▼	▲	▼	▲	▲	▼	▲	▼	▲	▼	▲	▲

There are no easily discernable patterns in this table. Where there are significant changes in adjacent one year periods, they are often in the opposite direction, suggesting perhaps short-term natural fluctuations. Common wainscot, for example, seems to go up and down markedly on almost a year on year basis, whereas setaceous Hebrew character does similarly but on more of a two year cycle. Longer-term trends will only become apparent if analysis such as presented here is extended to cover periods of greater than one year.

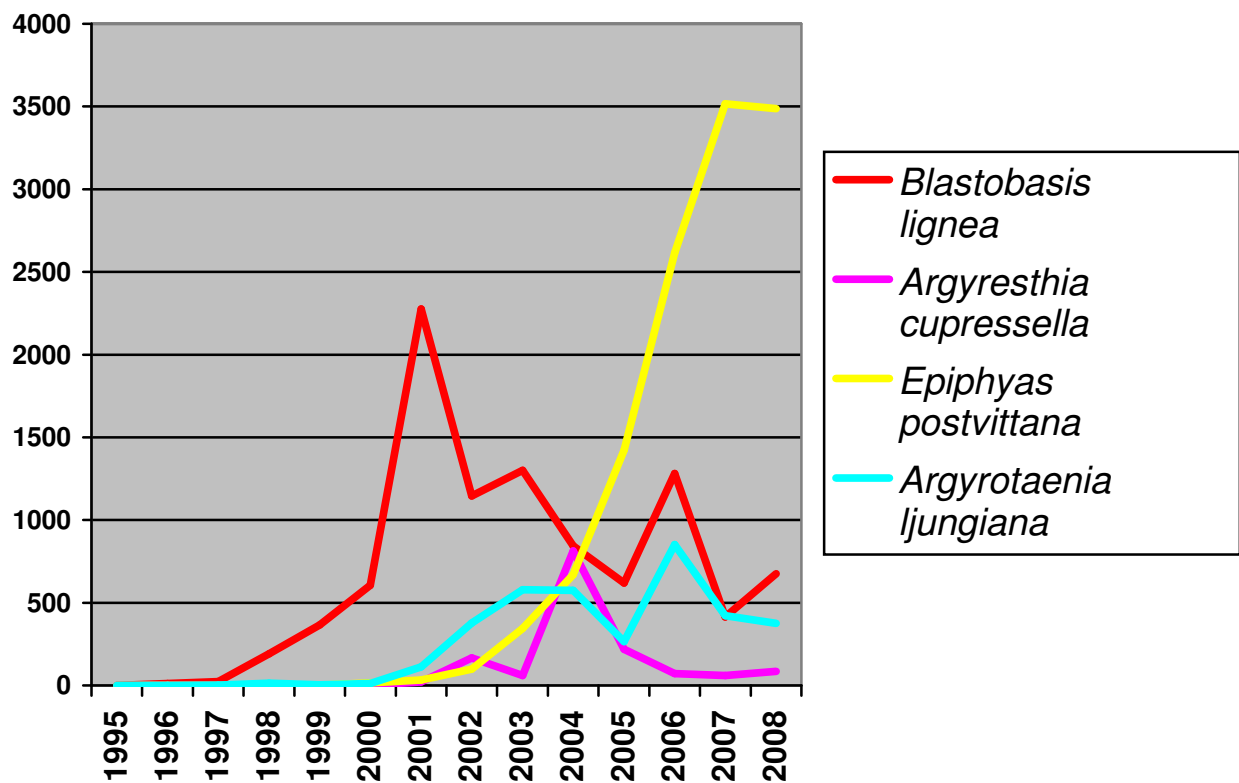
One simple way of looking at trends is to compare the number of captures of each species in each year. I have chosen to do this by adjusting the number of captures to an index by correcting for differences in the overall catch size each year. By comparing through longer time periods, this can pick up changes which are not large enough to figure in year-on-year changes. However, the graphs of the index for most species show simply up and down fluctuations. This is especially marked in one group of species, the immigrants, which show great changes from year to year : three examples are shown below.



However, some trends are more regular or perhaps oscillate over longer time periods, as the examples below show:



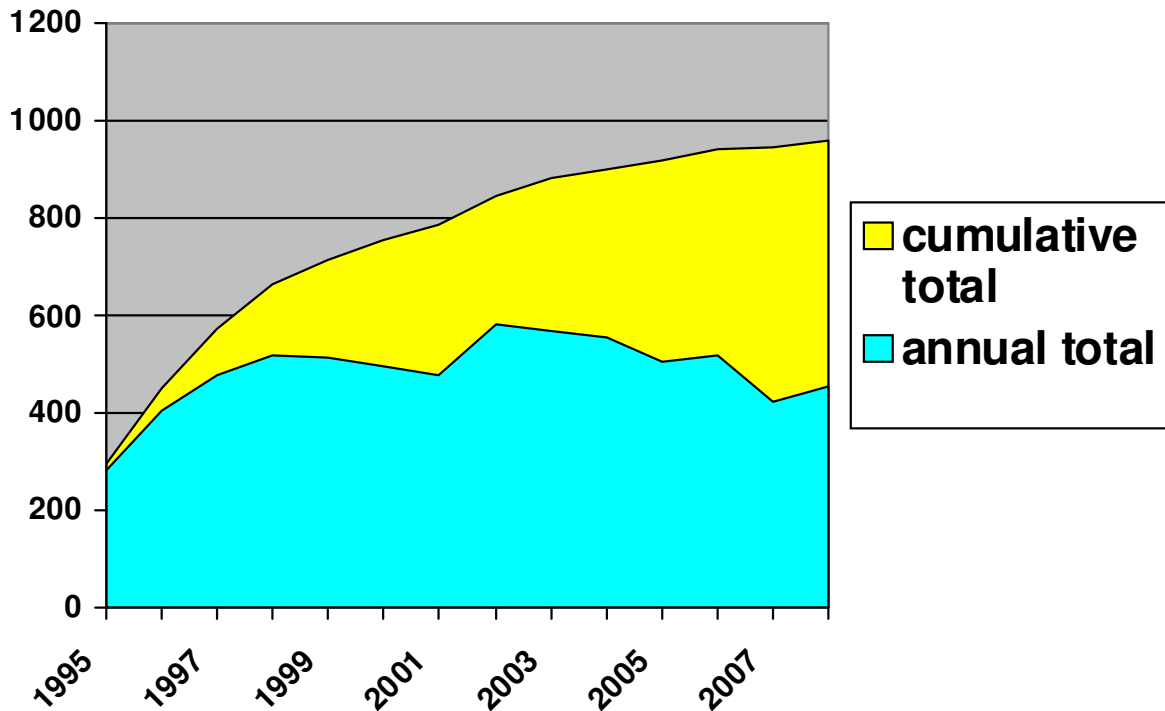
And some of the most striking patterns are from recent colonists, typically showing a strong peak a few years after colonisation, followed by a decline. On this basis, I might expect *Epiphyas postvittana* to crash in the next few years: perhaps 2008 showed the first signs of this?



Of course, I have concentrated so far only on trends in abundance, over a range of timescales. Population dynamics may also change in other ways, such as in the timing of emergence and peaks in abundance etc. In some respects, such phenological changes are of particular interest, in that they may become apparent in advance of observable changes in overall abundance, and they may have particular value as indicators of ecological responses to climate change.

THE FUTURE

As the years progress, so the rate of finding new species generally decreases. The graph below illustrates this well, along with a few other interesting points:



Firstly, the annual total seems to have levelled off at between 400 and 600 species. This figure is affected by the number of moths caught, and by my ability and time to identify them. Time is always limiting, and I do not anticipate raising the annual total much above this. Indeed, pressures on time with the consequent release of unknown specimens which I will not have the time to process is probably one of the main reasons for the apparent tailing off of number of species from 1998 to 2001, and again from 2003 to 2005. The sharp increase in 2002 was due to unexpected availability of time to play with moths. However the low totals for 2007 and 2008 (the lowest since I started using MV light) were due to both adverse weather and insufficient time.

But the cumulative total is still rising, not surprising as the trapping methods are not comprehensive, the garden is well placed to attract wanderers, and if I keep a moth for more detailed examination it is likely to be one I am not familiar with. Looking at the cumulative graph curve, it would seem not unreasonable to suggest a levelling off at approaching 1000 species in the fullness of time.

SUMMARY

2008 was a very poor year for moths in the garden, the second on the trot, with only 60% the usual total trapped and about 85% of the usual number of species recorded. Numbers were especially poor in the first half of the summer period. Fourteen species were added to the garden list. Arguably our most important regular species, buttoned snout (the subject of a national BAP) was recorded but only as larval feeding signs on hops, while there were no toadflax brocades this year. But most exciting of all, at long last I caught a Fisher's estuarine moth: although breeding as near as three kilometres away, and having turned up in Peter Smith's nearby garden twice, its extremely sedentary nature and lack of attraction to MV light compared with actinic suggest it will always be a rare event. When I released her, I tried placing her at the base of a fennel plant. It was then I realised why this is not an alternative food plant to hog's-fennel – try as much as she would, she could not get any hold on the smooth stems and kept falling off.

Migrant lepidoptera numbers were generally poor, as in 2007, but in stark contrast to 2006 which was the best ever. The 'commoner' migrants, with the last ten years' totals for comparison, included:

❖ diamond-back	210	(95, 598, 31, 469, 43, 614, 67, 705, 41, 148)
❖ silver y	182	(125, 897, 122, 559, 731, 280, 246, 485, 397, 402)
❖ white point	137	(117, 197, 182, 57, 31, 9, 14, 13, 11, 3)
❖ dark sword-grass	29	(0, 22, 1, 27, 15, 9, 4, 29, 18, 4)
❖ rush veneer	7	(8, 255, 1, 26, 687, 38, 13, 425, 34, 78)
❖ pearly underwing	1	(1, 26, 0, 2, 1, 3, 1, 7, 2, 2)
❖ rusty-dot pearl	0	(17, 38, 4, 28, 11, 9, 2, 47, 2, 21)

The only other presumed migrants were:

l-album wainscot – 10
Yponomeuta rorella – 9
 tree-lichen beauty – 5
Yponomeuta evonymella – 4
 delicate – 3
Sciota adelphella - 3
 white speck – 1
 Porter's rustic - 1

There were not even any painted ladies or hummingbird hawk-moths recorded by day..

The garden's contribution to National Moth Night on 7 June was a paltry 61 moths of 24 species and it failed to deliver any significant records, apart from one of the first silver y's of the season.

OTHER INSECTS CAPTURED IN THE LIGHT TRAPS

mayfly	Jun(3) Jul(4) Aug(6) [13]
green lacewing	May(1) Jun(3) Jul(47) Aug(67) Sep(6) Oct(1) [125]
<i>Nothochrysa capitata</i>	Jul(1) [1]
other brown lacewing	Apr(1) Jun(2) Jul(11) Aug(18) [32]
<i>Meconema thalassinum</i>	Aug(1) [1]
water boatman	Jul(64) Aug(6) [70]
<i>Acanthosoma haemorrhoidale</i>	Jun(1) Jul(1) Aug(8) [10]
<i>Pentatoma rufipes</i>	Jul(1) Aug(5) [6]
caddis fly	Apr(1) May(9) Jun(180) Jul(360) Aug(778) Sep(172) Oct(32) Nov(4) [1536]
<i>Melolontha melolontha</i>	May(1) [1]
<i>Amphimallon solstitialis</i>	Jul(1) [1]
<i>Nicrophorus humator</i>	Apr(2) May(1) Jul(3) Aug(1) [7]
<i>N. interruptus</i>	Jul(6) Aug(5) Sep(2) Oct(1) [14]
<i>N. vespillo</i>	Jul(1) [1]
<i>Dorcus parallelipedus</i>	Jul(3) [3]
water beetle	Jul(21) Aug(3) Sep(1) [25]
click beetle	Jun(3) Jul(1) [4]
<i>Lagria hirta</i>	Jul(2) [2]
<i>Harpalus rufipes</i>	Jul(252) Aug(3) Sep(1) [256]
<i>Harmonia axyridis</i>	Jul(13) Aug(31) [44]
ichneumon wasp	May(2) Jun(3) Jul(2) Aug(3) Oct(1) Nov(5) [16]
social wasp	Jul(1) Aug(8) Sep(2) [11]
<i>Bombus lapidarius</i>	Aug(1) [1]
crane fly	May(3) Jun(2) Jul(3) Aug(1) Sep(3) Oct(3) [15]
<i>Episyrphus balteatus</i>	Jul(13) Aug(32) [45]
other hoverfly	Jul(2) Aug(19) Sep(20) Oct(1) [42]

In common with previous years, numbers of other insects in the traps have fluctuated, with little obvious pattern. Aquatic species in particular seem especially prone to fluctuations: caddis flies increased substantially this year. Other increases included *Harpalus rufipes* and lacewings (after declines last year), while social wasps and ichneumons were both at a very low ebb. A record number of harlequin ladybirds came into the trap, after a year's absence.

OTHER INSECTS RECORDED CASUALLY IN THE GARDEN

Diptera

Bombylius major

Bibio marci

Eristalis tenax

Episyrphus balteatus

Volucella zonaria – from 16.8 to 29.8, maximum count 6

V. inanis

Blackfly were very abundant, in the trap and around the garden in August, delivering many painful bites to the ankles

Hymenoptera

Apis mellifera - active from mid-Jan, on *Lonicera x purpusii*; and well into December on *Mahonia* etc

Bombus lapidarius

B. terrestris – including one on *Mahonia* 1 January

B. lucorum

B. pascuorum

Hemiptera

Acanthosoma haemorrhoidale

Palomena prasina

Gerris lacustris

Coleoptera

Athous haemorrhoidalis

Cantharis rustica

Rhagonycha fulva

Clytus arietis

Lagria hirta

Oedemera nobilis

Orthoptera

Meconema thalassinum

Leptophyes punctatissima

Pholidoptera griseoaptera – in song 29.7 to 25.10

Odonata

Aeshna mixta – to 12.10

A. cyanea

Sympetrum striolatum

Significant, and surprising, absences in 2008 included *Metrioptera roeselii*, *Enallagma cyathigerum*, *Ischnura elegans* and *Coenagrion puella*, although the total of 6 Odonata species was the highest ever. Dark bush-crickets stopped singing a couple of weeks earlier than we have become used to with the early onset of frosts. *Volucella zonaria* was in high numbers but for only a short flight period, reflecting the paucity of social wasps last year. And bees are continuing their colonization of the winter months.