

Review of 2013 non-avian records

Moths

The micro moth highlights of the year included three records of ***Anarsia lineatella*** (Peach Twig Borer) at Saltwood, a series of captures of ***Metalampra italica*** and ***Evergestis limbata*** (mostly at Saltwood, but with others at Hythe), and a ***Diasemiopsis ramburialis*** at the former site.

Anarsia lineatella is considered a pest species on the continent due to the larval habit of feeding on such fruit as plums and peaches, and in the British Isles it has generally been encountered when it has been reared from imported fruit, although there have been several records attracted to light in the south of England, and it now appears to be breeding in the wild in Sussex.

One at Saltwood last year occurred at the same time that several were recorded on Thanet and it was considered to quite possibly be an immigrant. This year's records (singles on the 13th, 17th and 21st August) also occurred at a time of significant immigration but do raise the possibility that it might be locally established. Interestingly the first Kent record was also within the local area, at West Hythe on the 25th July 2006.

Metalampra italica certainly appears to be established in the Saltwood area, with a total of 31 trapped there between the 29th June and 22nd September (following the 17 recorded last year), and might perhaps be spreading, as one was caught at Hythe on the 22nd July.

Following single ***Evergestis limbata*** at Hythe on the 26th June and 11th July, up to 17 were trapped at Saltwood between the 14th July and 4th September, including three on the 14th, 15th and 26th July. This was more than double the exceptional total of eight from last year and does suggest that this species might also be locally established.

A single example of the scarce migrant ***Diasemiopsis ramburialis*** was taken at Saltwood on the 14th August.

Following the notable influx of *Yponomeuta rorrella* (Willow Ermine) last year there appeared to be another significant arrival of *Yponomeuta* species in 2013. This time Bird-cherry Ermine (*Yponomeuta evonymella*) led the way with a total (not allowing for any duplication) of 288 trapped. The apparent arrival began with small numbers at Hythe and Saltwood from 8th July before there were some particularly good counts later that month including 12 at Saltwood on the 21st, 18 there on the 22nd, 36 there the next night, 54 there on the 25th and 49 on the 26th. Numbers decreased to single figures in August, with the last on 1st September.



Metalampra italica at Hythe (Ian Roberts)



Evergestis limbata at Hythe (Ian Roberts)

There were also some 132 *Yponomeuta orrella* between 21st July and 16th August (again assuming no duplication), with double-figure counts on six dates in late July/early August and a peak of 13 at Saltwood on the 25th July and at Hythe on the 26th July.

A similar number of *Yponomeuta malinellus* (Apple Ermine) were recorded around this time, with 128 between the 15th July and 12th September, including a peak of 11 at Saltwood on the 21st July, leading to speculation that these might have been involved in the same influx. There were also six *Yponomeuta cagnagella* (Spindle Ermine) at Saltwood, one on the 14th July and five between the 8th and 19th August, five *Yponomeuta sedella* there in August, two *Yponomeuta plumbella* in August (with another at Hythe) and single *Yponomeuta padella* (Orchard Ermine) there on the 26th and 31st July.

A summary of the regular migrant moths recorded in 2013 is provided as figure 1:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
<i>P. xylostella</i>				1	8	35	256	411	48	36	1		796
<i>U. ferrugalis</i>								8	1	5	1		15
<i>N. noctuella</i>							1	25	37	48			111
<i>P. vitrealis</i>								2	2	12			16
The Vestal									1	3			4
The Gem									1	3			4
Convolvulus H-m.									1	6			7
Humming-bird H-m.									7				7
Dark Sword-grass							14	32	19	163	15		243
Pearly Underwing									1				1
White-point							5	84	183	10			282
The Delicate										1			1
Tree-lichen Beauty								6					6
Scarce Bord. Straw										12			12
Silver Y					2	14	150	601	46	44	5		862
Total				1	10	49	426	1169	347	343	22		2367

Figure 1: regular migrant moths in the Folkestone and Hythe area in 2013

There was a very good total of 16 *Palpita vitrealis*, with singles at Saltwood on the 7th and 28th August, Hythe on the 3rd September, Saltwood on the 11th September, and two at Saltwood on the 4th October, with further singles there on the 6th and 21st and four on the 24th October, and singles at Hythe on five nights between the 21st and 25th October.

Overall it was a very good year for migrant moths and certainly a marked improvement on the poor showing in 2012. The totals of 796 *Plutella xylostella*, 15 *Udea ferrugalis* and 111 *Nomophila noctuella* constituted increases of 259%, 67% and 19% on last year respectively.

The first and last dates of *Plutella xylostella* (Diamond-back Moth) were 24th April and 12th November, with peak counts of 41 on the 22nd July, 41 again on the 8th August, 48 the next night, and 50 on the 27th August, with the majority at Saltwood.

The *Udea ferrugalis* (Rusty Dot Pearl) were recorded between 10th August and 6th November, with all captures relating to single individuals and records evenly split between Hythe and Saltwood (in contrast to *Plutella xylostella* and *Nomophila noctuella*). *Nomophila noctuella* (Rush Veneer) was recorded between 26th July and 30th October, with the majority at Saltwood, where there were counts of 6 on the 14th August, 13 on the 22nd September, 6 on the 4th October and 9 the following night. Others were recorded at Hythe, Seabrook and Samphire Hoe, including 3 at the latter site on the 5th October.



Palpita vitrealis Saltwood (Paul Howe)

The macro moth highlight of the year was undoubtedly the first area record of **Scarce Brindle** at Saltwood on the 14th July. There have been only around a dozen previous British records of this species which is thought to originate from northern Europe. Another outstanding capture was a **Pale-shouldered Cloud** at Saltwood on the 1st September, which was only the third area record, following one there on the 11th August 2011 and another at Folkestone on the 14th July 2007.



Scarce Brindle at Saltwood (Paul Howe)



Pale-shouldered Cloud at Saltwood (Paul Howe)



The second area record of **Crimson Speckled** was another major highlight at Saltwood on the 22nd October, following the first occurrence of this superb moth at Samphire Hoe on the 26th October 2006.

There was also a remarkable run of the rare but increasing immigrant **Plumed Fan-foot**, with singles at Saltwood on the 23rd August, 29th August and 1st and 2nd September.

A single **Dusky Hook-tip** was the macro moth highlight of 2012 but this year produced no less than four at Saltwood: on the 28th August and the 3rd, 12th and 14th September.



Crimson Speckled at Saltwood (Paul Howe)



Dusky Hook-tip at Saltwood (Paul Howe)



Plumed Fan-foot at Saltwood (Paul Howe)

There was an exceptional influx of **Four-spotted Footman** in October beginning with three at Saltwood on the 2nd, two new individuals there the next night, three there and one at Seabrook on the 4th, singles at Saltwood on the 5th and 6th, and one at Hythe on the 18th.



Female and male Four-spotted Footman at Saltwood (Paul Howe)

A **Golden Twin-spot** at Saltwood 9th October was yet another top quality capture whilst other very notable immigrants or wanderers there included singles of **Splendid Brocade** on the 5th July, **Crescent Striped** on the 9th August, **Antler Moth** on the 11th August and **Hoary Footman** on the 31st August,



Golden Twin-spot at Saltwood (Paul Howe)



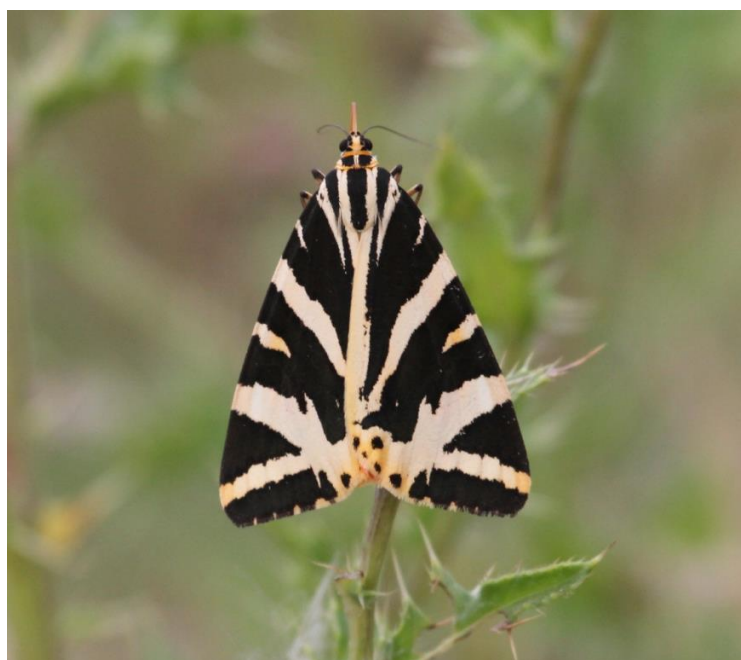
Antler Moth at Saltwood (Paul Howe)

It was a record year for **Jersey Tiger**, with up to 20 recorded between the 1st August and the 10th September, with up to 13 at Saltwood and the others at Samphire Hoe, though there appeared to be some duplication, certainly at the latter site. This follows the eight recorded last year, six of which were at these two sites, and strongly suggests that the species is locally established.

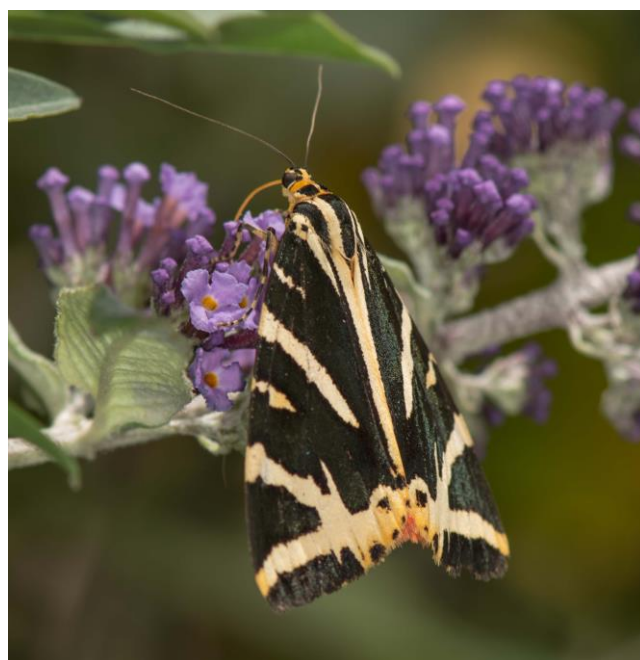
This certainly appears to be the case with the **Bloxworth Snout**, with singles recorded at Hythe on six dates between the 22nd July and 9th October, and another at Saltwood on the 2nd October. The species was also discovered by the author just outside the area at Dover Western Heights this autumn.



Hoary Footman at Saltwood (Paul Howe)



Jersey Tiger at Samphire Hoe (Ian Roberts)



Jersey Tiger at Samphire Hoe (Susan Dixon)



Bloxworth Snout at Hythe (Ian Roberts)



Small Ranunculus at Hythe (Ian Roberts)

There were six records of Small Ranunculus – singles at Hythe on the 14th July, Saltwood on the 15th and 16th July, Seabrook on the 23rd July, Hythe on the 25th July and Saltwood on the 20th August. Considering that these occurred at a time of migrant activity, with no local records at all last year, it is possible that these were new arrivals.

Of the other species which are traditionally thought of as migrants but now appear to be established in the county there were just two records of Clancy's Rustic, singles at Saltwood on the 13th and 24th October, and five Langmaid's Yellow Underwings at the same site between the 28th July and 9th August, but it was a very good year for Cypress Carpet. After the first at Hythe on the 14th and 15th July there were a further five at Saltwood between the 16th July and the 1st August, then up to another 14 there from the 25th September to the 23rd October.

Totals of the regular migrant moths recorded in 2013 are provided in figure 1 (above). Most species saw an improvement on last year. There were four records of **The Gem** – at Saltwood on the 12th September, Hythe on the 24th October and Saltwood on the 25th and 30th October – and also four of **The Vestal** – at Seabrook on the 11th September and Saltwood on the 24th, 25th and 30th October.



The Vestal at Saltwood (Paul Howe)

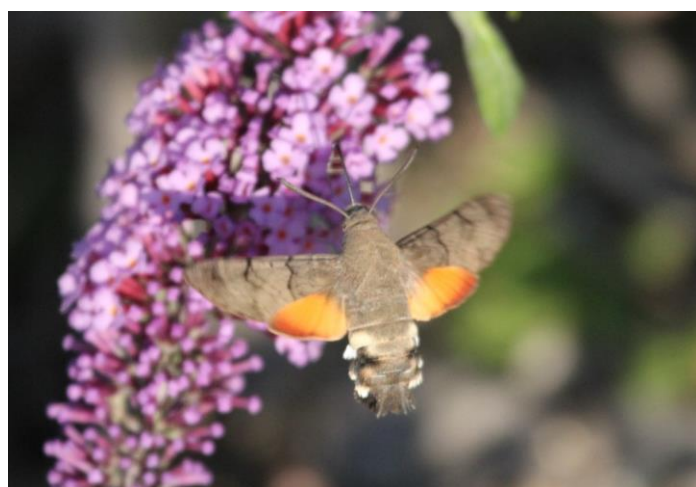


The Gem at Hythe (Ian Roberts)

There were no records in 2012 of **Convolvulus Hawk-moth** but this year produced up to seven, with one at Saltwood on the 14th September, one there on the 4th October, two there the following day, singles there on the 7th and 8th October and one at Samphire Hoe on the 12th October. A total of seven **Humming-bird Hawk-moths** however was the same as last year: all were seen in September, with singles at Samphire Hoe on the 3rd, Seabrook on the 4th, Hythe on the 6th, Seabrook on the 11th and 12th, Saltwood on the 16th and Hythe on the 25th.



Convolvulus Hawk-moths at Saltwood
(Paul Howe)



Humming-bird Hawk-moth at Samphire Hoe
(Ian Roberts)

After a poor year for Dark Sword-grass in 2012 (with just 11 recorded), this year saw produced an excellent total of up to 243 (not allowing for any duplication).

The first was at Saltwood on the 23rd July, with small numbers trapped thereafter on most nights in late July, August and September, and a peak of four at Saltwood on the 30th July. Larger numbers occurred in October, including the following double-figure counts at Saltwood: 11 on the 4th and 5th, 12 on the 6th, 16 on the 7th, 15 on the 8th, 11 on the 24th and 15 on the 25th. Captures continued into November, with the last two there on the 18th.

However there were just single records of Pearly Underwing (at Saltwood on the 24th September) and **The Delicate** (at Saltwood on the 3rd October).

There were six records of **Tree-lichen Beauty**: at Saltwood on the 16th, 18th and 21st August, and Hythe on the 21st, 28th and 29th August, and **Scarce Bordered Straw** also had a good showing, with one at Saltwood on the 2nd October, two there the next night, four there on the 4th, two there on the 5th and 6th October, and one on 11th October.

White-point was recorded between the 22nd July and 9th October, with the largest numbers from late August into September, and a peak of 16 at Saltwood on the 3rd September.



The Delicate at Saltwood (Paul Howe)

The first Silver Y was at Saltwood on the 2nd May, with the next at Hythe on the 28th May, and just ones and twos in June and early June. An increase occurred from mid-July, with the first double-figure counts in the last week of the month, including 20 at Saltwood on the 25th and 24 there on the 27th, and this continued in August, with 25 at Saltwood on the 4th August and a very good count of 101 there the following night. Further counts in August included 35 at Samphire Hoe on the 12th, 36 at Saltwood on the 14th and c.50 along Wakefield Walk, Hythe on the 20th. Numbers fell away in late August but up to six were recorded on many nights up to the 17th November.

Figure 2 shows the number of species recorded in each month of 2013:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Micros	7	2	6	15	31	83	171	174	69	29	8	2	287
Macros	6	5	13	24	68	146	215	213	127	83	19	3	370
Total	13	7	19	39	99	229	386	387	196	112	27	5	657

Figure 2: moth species at Folkestone and Hythe in 2013

The total of 287 micro moths was a marked increase on the 252 species recorded in 2012 and this was thought to be largely due to the fine weather in July and August, as demonstrated by the diversity shown in the table in these months.

There were many records of interest relating to resident micro moths and these included a single *Ectoedemia decentella* at Hythe on the 4th September, a *Stigmella samiatella* at Saltwood on the 19th August, and singles of *Opostega salaciella* there on the 30th June, 12th August and 23rd September.

Amongst the *Tineidae*, singles of *Morophaga choragella* at Saltwood on the 29th July, *Triaxomera parasitella* there on the 6th July, *Nemapogon cloacella* (Cork Moth) at Hythe on the 20th June and *Psychoides filicivora* at the latter site on the 27th May were of note.

The most notable *Gracillariidae* were singles at Saltwood of *Caloptilia falconipennella* on the 21st July, *Caloptilia cuculipennella* on the 22nd July, *Caloptilia elongella* on the 1st August, *Caloptilia robustella* on the 16th August, *Caloptilia rufipennella* on the 25th September, *Callisto denticulella* on the 27th May, *Phyllonorycter geniculella* on the 22nd September and *Phyllocnistis xenia* on the 5th October.

There was also a series of 15 records of *Caloptilia azaleella* (Azalea Leaf-miner) there between the 29th June and 5th October, three *Parornix anglicella* (in May, July and September), four *Parornix finitimella* (in August), an *Acrocercops brongniardella* (on the 8th August, with three at Hythe in June-July), two *Phyllonorycter oxyacanthae* (in May and July) and four *Phyllonorycter leucographella* (between May and October).



Acrocercops brongniardella at Hythe (Ian Roberts)

There were a total of up to 24 *Argyresthia cupressella* (Cypress Tip Moth) trapped at Saltwood between the 28th June and the 2nd September. This North American species was first found in Britain in 1997 and has since spread across much of southern and eastern parts of the country. Despite not being recorded at Saltwood in 2012 it now appears to be established there.

Other *Argyresthiidae* of note included an *Argyresthia retinella* at Saltwood on the 13th July, single *Argyresthia bonnetella* there on the 21st July and 5th August, single *Argyresthia semitestacella* on the 12th and 14th August, and single *Argyresthia pruniella* (Cherry Fruit Moth) there on the 16th July and 1st August (with five at Hythe in June/July).

Single *Zelleria hepariella* at Saltwood on the 24th April, 19th August and 11th September were noteworthy and a total of 12 *Swammerdamia caesiella* were recorded there (all but one in July), with 10 *Swammerdamia pyrella* there (in August). Notable among the *Ypsolophidae* were single *Ypsolopha alpella* on the 15th July and *Ypsolopha ustella* on the 6th January. There were three *Epermenia chaerophyllella* recorded – at Saltwood on the 21st and 22nd July, and at Hythe on the latter date, whilst the *Coleophoridae* were represented by single *Coleophora albitarsella* at Saltwood on the 10th and 25th July, and single *Coleophora trifolii* there on the 22nd July and 16th August.

Records of the *Elachistidae* included single *Elachista canapennella* at Saltwood on the 19th May and 15th July, four *Elachista rufocinerea* there in May and early June, and a *Cosmiotes freyerella* there on the 25th May.

Four *Bisigna procerella* were recorded at Saltwood in July/August and a *Batia lambdella* there on the 2nd August was notable. The adventive *Tachystola acroxantha* was again recorded at Hythe where it is presumably established, with a total of 8 trapped between the 31st May and 20th August. Single *Depressaria daucella* were caught at Saltwood on the 21st April and the 22nd September. An *Agonopterix purpurea* was at Hythe on the 15th August, with two *Agonopterix subpropinquella* at Saltwood in April, two *Agonopterix assimilella* there in May and four *Agonopterix yeatiana* there in May/June.



Agonopterix purpurea at Hythe (Ian Roberts)

An *Ethmia dodecea* was at Saltwood on the 24th June and there was a good series of records of the localised *Ethmia bipunctella*, with two at Hythe and 12 at Saltwood between the 24th June and 27th August. A single *Parachronistis albiceps* was taken at Saltwood on the 22nd July, with a *Bryotropha senectella* there on the 8th August and a *Gelechia nigra* on the 19th August.

A total of nine *Platyedra subcinerea* were trapped at Hythe between the 18th May and 6th July and there were 7 *Pexicopia malvella* (Hollyhock Seed Moth) there in July. It is possible both species are feeding on the garden Hollyhock in that area. A single *Syncopacma taeniolella* was at Saltwood on the 25th July.



Platyedra subcinerea at Hythe (Ian Roberts)

Highlights amongst the *Momphidae* included single *Mompha raschkiella* at Saltwood on the 20th August and the 4th September, *Mompha ochraceella* at Hythe and Saltwood on the 22nd July, three *Mompha propinquella* at Saltwood in August and four *Mompha epilobiella* there between 7th May and 11th July.

A single *Limnaecia phragmitella* was trapped at Saltwood on the 1st August.

A *Phtheochroa rugosana* was at Folkestone on the 3rd June, with singles of *Gynnidomorpha alismiana* at Saltwood on the 6th July, *Cochylimorpha alternana* there on the 29th June and *Cochylimorpha straminea* at Hythe on the 31st August.



Aethes rubigana at Saltwood (Paul Howe)

Other notable *Tortricidae* included single records of *Aethes smeathmanniana*, *Aethes tesserana* and *Aethes rubigana* at Saltwood on the 27th June, 5th July and 24th July respectively, and an *Aethes francillana* at Hythe on the 23rd August.

Single *Eupoecilia angustana* were at Saltwood on the 22nd and 31st August, a *Cochylidia heydeniana* was trapped there on the 2nd September, a *Cochylis roseana* was caught on the 7th August and a *Cochylis nana* on the 11th June.

An *Archips rosana* (Rose Tortrix) was at Saltwood on the 1st July and single *Cacoecimorpha pronubana* (Carnation Tortrix) were at Hythe on the 6th July and Saltwood on the 25th September. Up to three *Acleris holmiana* were at Saltwood in mid-August, as were two *Acleris laterana* and an *Acleris comariana* (Strawberry Tortrix) was trapped there on the 23rd July. Four *Acleris ferrugana* were taken at Saltwood between January and April, single *Acleris hastiana* and *Acleris schalleriana* were caught there on the 2nd and 6th January respectively and there were three *Acleris cristana* there in March/April.

Single *Acleris emargana* were at Hythe on the 31st August and Saltwood on the 19th and 23rd September, and a *Celypha rosaceana* was at Saltwood on the 14th July. Saltwood also produced an *Apotomis betuletana* on the 28th August and a *Bactra lancealana* on the 23rd August, and there were single *Lobesia littoralis* at Hythe on the 29th June and 4th September, and at Saltwood on the 21st September.

Up to 7 *Epinotia ramella* were recorded at Saltwood between the 23rd August and the 21st September and an *Epinotia demarniana* was trapped there on the 13th July. A single *Crociosema plebejana* at Saltwood on the 15th August was followed by two others in late August and four more in late October/early November, with one at Hythe on the 31st October. As many as 30 *Rhopobota naevana* (Holly Tortrix) were taken at Saltwood between the 28th July and the 29th August.

There were three each of *Zeiraphera isertana* and *Gypsonoma aceriana* at Saltwood in late July/August and a single *Gypsonoma minutana* there on the 5th August. Up to five *Epiblema rosaecolana* at Saltwood in late June/early July were of note, as were single *Eucosma hohenwartiana* there on the 14th July, *Eucosma conterminana* on the 16th July and *Eucosma obumbratana* on the 26th July.

A single *Clavigesta purdeyi* (Pine Leaf-mining Moth) was trapped at Saltwood on the 8th August and a *Rhyacionia buoliana* (Pine Shoot Moth) was at Hythe on the 22nd July, with singles of *Rhyacionia pinivorana* (Spotted Shoot Moth) and *Rhyacionia pinicolana* at Saltwood on the 7th July and 1st August respectively. A total of nine *Enarmonia formosana* (Cherry Bark Tortrix) were recorded between the 4th July and 4th August, 2 at Saltwood and 7 at Hythe.

A *Cydia microgrammana* was at Saltwood on the 10th August and up to 8 *Pammene fasciana* were trapped there in July. A single *Grapholita janthinana* was caught there on the 3rd August and a *Cydia ulicetana* was at Samphire Hoe on the 29th June.

Singles of *Dichrorampha alpinana* were at Hythe and Saltwood on the 22nd July, with six at the latter site on the 1st August and one the following night, and a total of six *Dichrorampha acuminatana* were recorded between the 31st May and the 14th September, with two at Saltwood and four at Hythe.

A *Chilo phragmitella* was taken at Hythe on the 22nd July and a *Calamotropha paludella* was at Saltwood on the 31st July. Single *Platytes alpinella* at Saltwood on the 26th July and *Donacaula forficella* at Hythe on the 27th June and Saltwood on the 8th August were also of note.

Up to four *Evergestis pallidata* were trapped at Saltwood between the 11th and 25th August, and a single *Cynaeda dentalis* was caught there on the 13th August. Records of *Ebulea crocealis* at Saltwood on the 28th July and 1st August, and of *Udea lutealis* there on the 18th and 22nd August were also notable.

Three *Aglossa pinguinalis* (Large Tabby) were at Saltwood in July/August, an *Acrobasis consociella* was taken there on the 12th July, three *Trachycera marmorea* were recorded there in late July/early August and a *Pempelia formosa* was caught on the 31st July. Up to 8 *Dioryctria abietella* were trapped at Saltwood in July with a *Dioryctria schuetzeella* there on the 24th July, an *Assara terebrella* on the 28th June, two *Dioryctria sylvestrella* in mid-August and single *Phycitodes maritima* on the 26th July and 4th August.

An *Agdistis bennetii* (Saltmarsh Plume) at Saltwood on the 28th June was an interesting record, following one at the same site on the 8th July last year, as was an *Oxyptilus parvidactylus* (Small Plume) there on the 18th August. Single *Marasmarcha lunaedactyla* (Crescent Plume) were at Saltwood on the 22nd July and Hythe on the 24th June. Other noteworthy plume moths included a *Platyptilia pallidactyla* (Yarrow Plume) at Saltwood on the 22nd July, single *Stenoptilia pterodactyla* (Brown Plume) there on the 11th and 21st August, and an *Adaina microdactyla* (Hemp-agrimony Plume) at Folkestone Warren on the 29th June.

A total of 17,606 micro moths were recorded in 2013, as shown in figure 3 below, which was a significant (62%) increase on 2012.



Enarmonia formosana at Hythe (Ian Roberts)



Dichrorampha alpinana at Hythe (Ian Roberts)



Chilo phragmitella at Hythe (Ian Roberts)

Figure 3 shows the total number of individual moths recorded in each month of 2013:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Micros	19	3	18	51	131	767	6006	6533	2864	1155	56	3	17606
Macros	26	30	94	541	590	1756	11624	10248	8086	2927	103	7	36032
Total	45	33	112	592	721	2523	17630	16781	10950	4082	159	10	53638

Figure 3: total moth numbers at Folkestone and Hythe in 2013

In total 36,032 macro moths of 370 species were recorded in 2013. This was a marked increase particularly in terms of numbers (70%), but also species (31, or 9%), compared to last year.

The colony of **Four-spotted** remained at Hythe Roughs but only small numbers were noted. There were no records of Clouded Buff at Castle Hill this year, but a **White-banded Carpet** trapped at Seabrook on the 22nd August was of great interest.



Four-spotted at Hythe Roughs (Ian Roberts)



White-banded Carpet at Seabrook (Ade Jupp)

Of note amongst the more regular residents were a Ghost Moth at Saltwood on the 13th July, up to eight Leopard Moths there between mid-July and early August, up to 16 December Moths there from 3rd November and an Oak Eggar at Cheriton on the 26th July. There were a total of up to 14 Oak Hook-tips recorded between Seabrook, Hythe and Saltwood, with six Pebble Hook-tips at the latter site but just four Chinese Characters there. It was a good year for Peach Blossom with two at Hythe in June and 5 at Saltwood in July/August. Eight Figure of Eighty moths were trapped at Saltwood in July, with three Satin Lutestring there in the same month and up to 11 Common Lutestring between Hythe and Saltwood between 30th June and 16th July. Single March Moths were at Saltwood on the 4th March and 8th April.



Peach Blossom at Hythe (Ian Roberts)



Satin Lutestring at Seabrook (Paul Howe)

Up to nine Large Emeralds were trapped at Saltwood in late July and early August and a Lesser Cream Wave was at Saltwood on the 30th July, with a total of six Satin Waves recorded: singles at Saltwood on the 29th June and Hythe on the 1st July, and four at Saltwood in late August. Up to six Balsam Carpets were trapped at Saltwood in late July/early August and, after singles of Flame Carpet were at Hythe on the 26th June and Saltwood on the 4th July, up to a further 13 were at Saltwood in the second half of August/early September. Single Dark-barred Twin-spot Carpets were at Saltwood on the 4th August and Hythe on the 7th September, whilst a Large Twin-spot Carpet was at the latter site on the 13th July.

Single Chalk Carpets were at Peene Quarry on the 28th August and at Samphire Hoe on the 31st August but this species is no doubt overlooked along the Downs. A Ruddy Carpet was at Hythe on the 16th July and there were four records of Beautiful Carpet at Saltwood between the 13th and 21st July, with a Water Carpet at the latter site on the 24th April, a Dark Marbled Carpet there on the 23rd July, a Sharp-angled Carpet at Hythe on the 19th June, and a single Sandy Carpet at Saltwood on the 21st and 22nd July.



Ruddy Carpet at Hythe (Ian Roberts)



Water Carpet at Saltwood (Paul Howe)

There were also totals at Saltwood of up to 2 Winter Moths, 3 Scallop Shells, 3 Small Waved Umbers (with another at Hythe), 5 Barred Straw, 5 Pretty Chalk Carpet (with another at Hythe), 5 Small Rivulets (with 2 at Hythe), 8 Phoenix, 8 Mallows (with 3 at Hythe), 9 Barred Yellow, 12 Pine Carpet, 14 Grey Pine Carpet and 15 July Highflyers (with singles at Hythe and Seabrook).

Some 26 species of Pug were recorded at Saltwood, some of the more notable of which included a Narrow-winged Pug on the 15th August, two Dwarf Pugs on the 31st May, single Toadflax Pugs on the 22nd July and 11 September, three Pimpinel Pugs (on the 27th June), three Maple Pugs (2 on the 10th and one on the 20th August), three Oak-tree Pugs (2 on the 7th May and one on the 11th July), four Bordered Pugs (singles on four dates in August), five Tawny-speckled Pugs (in late July/August), six Currant Pugs, six Slender Pugs, six Freyer's Pugs (with another at Hythe), seven each of Mottled and Ash/Angle-barred Pugs, and eight each of Haworth's and Foxglove Pugs.

Three Dingy Shells were at Saltwood between 13th July and 1st August, and nine Small Yellow Waves were trapped there between late June and early August, whilst an Early Tooth-striped was at Seabrook on the 3rd May and the only Magpie Moth of the year was at Hythe on the 18th August. Single Scorched Carpets were at Saltwood on the 24th April and 3rd July, with three singles in August, and there were 12 Scorched Wings there in June/July, with two more at Seabrook on the 29th June, and the latter site hosted a Bordered Beauty on the 22nd August.

A Large Thorn was trapped at Saltwood on the 18th September, with up to 12 Canary-shouldered Thorns there in August/September and up to 20 Dusky Thorns there between mid-August and early October. A Scalloped Hazel was at Saltwood on the 26th June and up to 11 Feathered Thorns were trapped there between the 8th October and 18th November, with two at Hythe in October.

A Small Brindled Beauty was at Seabrook on the 6th March, with four Brindled Beauty at Saltwood in the second half of April and up to 15 Pale Brindled Beauty there between the 3rd February and 6th March. Up to eight Oak Beauty were at Saltwood between the 4th March and the 16th April, with single Spring Usher there on three dates in January and on the 27th February, and up to eight Dotted Border there in March, with another at Hythe. Single Mottled UMBER were at Saltwood on the 4th January and 8th December, and Seabrook on the 17th December.

A Pale Oak Beauty was at the latter site on the 29th June, with another at Saltwood on the 4th and 5th July, and there were totals of 17 Engrailed and 18 Waved Umber across the area.



Scalloped Hazel at Saltwood (Paul Howe)



Dotted Border at Hythe (Ian Roberts)



Waved Umber at Hythe (Ian Roberts)



Barred Red at Saltwood (Paul Howe)

A Bordered White at Saltwood on the 28th June was of particular note and follows one trapped there in May last year, whilst single White-pinion Spotted were trapped at Hythe on the 18th June and the 6th July, and an Early Moth was at Saltwood on the 31st January. Up to 14 Barred Red were caught at Saltwood between the 4th July and 3rd September, with another at Hythe.

A Pine Hawk-moth was at Seabrook on the 1st August, with three Lime Hawk-moths at Saltwood between the 30th May and 6th July, and there were much better totals of the commoner Hawk-moths this year, with up to 8 Eyed, 9 Small Elephant and 21 Privet, and good numbers of Poplar and Elephant (including a peak count of 17 of the latter at Saltwood on the 24th July). Single Puss Moths were found dead on the seawall at Princes Parade, Seabrook on the 6th June and trapped nearby in Seabrook on the 29th June.

A Sallow Kitten was at Saltwood on the 3rd July, with up to 7 there in August, and a Poplar Kitten on the 29th June. Single Lobster Moths were trapped at the same site on the 4th, 6th and 7th July. Up to four Coxcomb Prominent at Saltwood in late August were of note amongst the more frequent Prominent species.

A Marbled Brown was taken at Hythe on the 12th August and up to six Lunar Marbled Brown were at Saltwood between late April and May.



Dew Moth at Samphire Hoe (Ian Roberts)

Single Chocolate-tip were trapped at Saltwood on the 20th and 21st August and there were eight records of Vapourer – singles at Folkestone and Saltwood, and three each at Hythe and Seabrook – between 1st August and 16th October. Up to four Pale Tussocks were trapped at Saltwood in June, with up to seven White Satin Moths there in July and up to 16 Black Arches there in August/early September. Single Dew Moths were noted at Samphire Hoe on the 6th and 18th June.

Single Dotted Footman were at Saltwood on the 5th and 8th August and a total of four Orange Footman were recorded in June and July (2 at Hythe and 2 at Saltwood), with a Buff Footman at the latter site on the 23rd July. There were just 7 records of Garden Tiger (all at Saltwood in late July/August), whilst Cream-spot Tigers were at Samphire Hoe on several dates and at Seabrook on the 25th June. Up to 13 White Ermine were at Saltwood between the 25th May and 8th July.

Up to three Short-cloaked Moths were at Hythe in mid-July and up to three Coast Darts were at Saltwood in August, with two Light Feathered Rustics at the latter site in late May. Up to 17 Least Yellow Underwings were at Saltwood in late July and August, with another at Hythe, and up to 12 Autumnal Moths were trapped there in late September/October. An Engrailed Clay was at Seabrook on the 25th June, with three at Saltwood on the 29th June, one at Hythe on the 30th June and one at Saltwood on the 13th July.

Up to six Six-striped Rustic were at Saltwood in the second half of August, with three Green Arches there in July. Single Red Chestnuts were seen in April at Seabrook on the 9th, Saltwood on the 22nd, Hythe on the 24th and Saltwood again on the 28th.

Singles of Broom Moth and White Colon were at Saltwood on the 30th June and up to eight Light Brocades were trapped there in June/early July, with another at Hythe. Up to 20 Broad-barred White were recorded across the area between the 12th May and the 19th August, with the majority at Saltwood. Two Tawny Shears were at Saltwood in late May, with up to eight there, and another at Hythe, in July/August.

A single Varied Coronet at Hythe on the 4th July was followed by up to another 12 at Saltwood later that month, but a single Pine Beauty at Saltwood on the 17th May was the only record of the year. Up to six Twin-spotted Quakers were at Saltwood between the 8th April and 4th May, whilst a count of 12 Small Quakers there on the 24th April was of note. A Striped Wainscot was taken at Saltwood on the 1st August and there were single Shoulder-striped Wainscots there on the 13th and 28th June.

A Chamomile Shark was at Saltwood on the 4th May, up to 5 Shark were trapped there in July and there were three Mullein there in May with one on the 16th July. Single Toadflax Brocade were at Seabrook on the 11th June and Saltwood on the 26th August, and there were Feathered Brindles at the latter site on the 17th and 25th September. A Deep-brown Dart was trapped at Saltwood on the 26th September with another at Hythe on the 5th-6th October. A Pale Pinion was at Saltwood on the 19th March, with up to four there in April and one at Hythe on the 9th June.



Dotted Footman at Saltwood (Paul Howe)



Cream-spot Tiger at Samphire Hoe (Phil Smith)

Two Grey Shoulder-knot were at Saltwood in April with three in October/November, and up to 14 Green-brindled Crescent were recorded in October (3 at Hythe and up to 11 at Saltwood). The latter site also attracted up to 11 Merveille du Jour in October and five Brindled Green were trapped there between the 20th September and 18th October. Up to 9 Brown-spot Pinion were noted there in late September/early October.

A single Orange Sallow was at Saltwood on the 25th September and there were Pink-barred Sallows there on the 7th and 20th October and Dusky-lemon Sallows on the 3rd and 5th October. An Alder Moth was trapped at Saltwood on the 29th June. Single Svensson's Copper Underwings were picked out from the more numerous Copper Underwings at Saltwood on three occasions in August.

A good total of up to 17 Old Lady were recorded between mid-August and early September, with a fairly even split between Hythe (8) and Saltwood (9).



Red Chestnut at Hythe (Ian Roberts)



Toadflax Brocade at Seabrook (Ade Jupp)



Frosted Orange at Hythe (Ian Roberts)

There was a Bird's Wing at Seabrook on the 29th June and another at Saltwood on the 2nd August. Up to eight Brown Rustic were at Saltwood in late June/early July, with another at Hythe, and seven Straw Underwing were noted in August (3 at Hythe and 4 at Saltwood). Four Small Angle Shades were at Saltwood in late July/early August with four Lesser-spotted Pinions there in late August/early September, whilst Lunar-spotted Pinions were at Saltwood on the 22nd July and 2nd August, and Hythe on the 4th September.

A Reddish Light Arches was at Saltwood on the 26th June, with Clouded-bordered Brindle there on three dates in June/July, up to ten Clouded Brindle in late June/July, three Slender Brindle in late July/early August and up to five Confused in July. After a Frosted Orange was trapped at Hythe on the 6th September up to six more were at Saltwood between the 20th September and 9th October. Singles of Crescent were taken at Saltwood on the 19th and 21st August, with a Bulrush Wainscot there on the 2nd September, and Twin-spotted Wainscots at Hythe on the 12th August and Saltwood on the 19th and 25th August.

Up to six Large Wainscots were trapped between the 26th September and the 25th October, with up to five at Saltwood and one at Hythe. Single Fen Wainscots were at Saltwood on the 9th and 11th August.

A Marbled White Spot was at Hythe on the 22nd July, there were four Cream-bordered Green Peas at Saltwood in July, up to nine Green Silver-lines there between the 11th July and 1st August and a total of 8 Oak Nycteoline there between the 11th June and 8th October. Up to nine Gold Spot were recorded in August/early September (with four at Saltwood and up to five at Hythe), with five Beautiful Golden Y at Saltwood in July, and another Hythe, and a single Plain Golden Y at Saltwood on the 21st July.



Gold Spot at Hythe (Ian Roberts)



Beautiful Golden Y at Saltwood (Paul Howe)

A total of up to 12 Red Underwing were recorded from the 25th August to 8th October, whilst single Blackneck were at Saltwood on the 18th and 20th July. A Herald was at Saltwood on the 17th May, with up to 16 there in July/August and three were in a concrete pill-box at West Hythe on the 27th October. Five Small Fan-foot were trapped at Saltwood between the 4th July and 14th August

The night of the 25th July produced the highest number of macro moth species, with 99, whereas the 1st August saw both the largest number of micro moth species, with 69, and the greatest overall diversity with 161 species. The 25th July also produced both the highest total of individual macro moths (998) and all moth species (a staggering 1,468), whilst the 22nd July saw the largest total of individual micro moths (535).

Butterflies

It was a much better year for immigrant butterflies.

After a single Painted Lady at Samphire Hoe on the 28th April there was a small influx in late June, with another at the same site on the 25th, at least 8 along the cliff-top between the Capel-le-Ferne and Samphire Hoe on the 29th and two there the following day, with one at Samphire Hoe on the 7th July.

A much larger arrival occurred in August, with a very good count of around 100 at Samphire Hoe 6th and up to 40 remained there until the 21st, with much smaller numbers there and at Abbotscliffe into early September, and the last at Samphire Hoe on the 5th. Large numbers of Large Whites were also recorded in August, probably as a result of immigration from the continent, including counts of 221 at Samphire Hoe on the 13th August and 151 there on the 27th August.



Painted Lady at Samphire Hoe (Phil Smith)

Four Clouded Yellows were at Samphire Hoe on the 25th June, with further singles there on the 27th June and 13th July, before a notable influx occurred in August and September.

Up to 62 individuals were reported between the 6th August and 8th September, with records from Samphire Hoe (peak of 12 on the 27th August), Abbotscliffe (peak of 3 on the 29th August), Seabrook (peak of 2 on the 28th August), Capel-le-Ferne Gun Site (2 on the 26th August) and singles at Crete Road East, Folkestone, Peene Quarry, Horn Street, Saltwood, Princes Parade (Hythe), Hythe, Hythe Ranges, Nickoll's Quarry and Botolph's Bridge. Only one was recorded in October – a late single at Abbotscliffe on the 30th. A probable Swallowtail was seen briefly at Folkestone Downs on the 19th June.



Clouded Yellow at Samphire Hoe (Phil Smith)

The future for the Grayling at Folkestone Warren (its sole haunt in Kent) remains very worrying as there was just a single sighting in 2013, though the good weather may have aided breeding success should it have managed to find a mate. A Silver-spotted Skipper was seen on Folkestone Downs on the 2nd September.

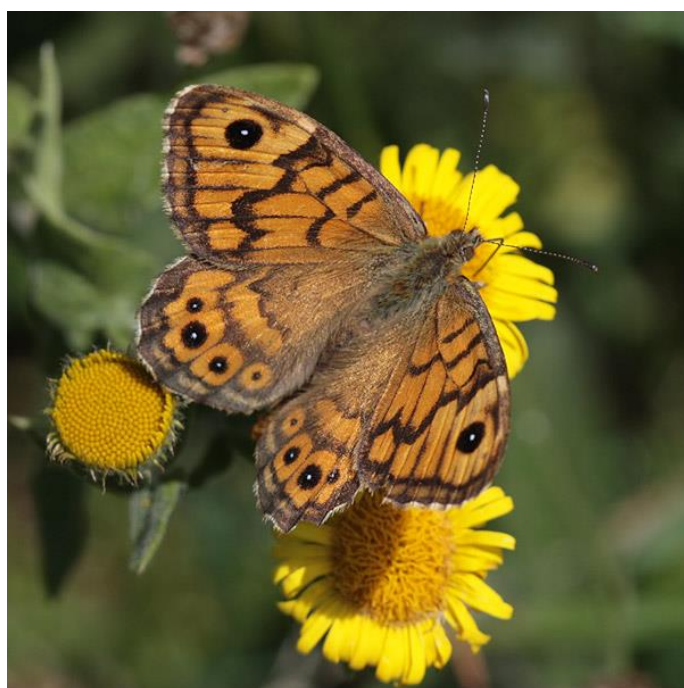
It was a good year for Chalkhill Blue with a male at Samphire Hoe on the 27th July, followed by a couple of sightings there in August, with another at Round Down, and at least four along Crete Road West in late August and early September, including a breeding pair. The Small Blue colonies at Crete Road West and Round Down held up to six and eight respectively in the second half of June.



Chalkhill Blues at Crete Road West (Ian Roberts)

There were three records of Brimstone – at Samphire Hoe on the 14th April, Crete Road West on the 25th April and Saltwood on the 6th May – and just a single White-letter Hairstreak: at Seabrook on the 12th August.

The Folkestone/Dover area is the stronghold of the Wall butterfly in Kent and local counts included up to seven at Samphire Hoe in June and a peak of 58 there on the 20th August, with 18 at Capel-le-Ferne on the 14th August, 24 near Folkestone on the 15th and 12 at Cheriton Hill on the 27th August. Away from the cliffs/downs there were records from Nickoll's Quarry on three dates in August (including two on the 22nd), one nectaring in a garden in Saltwood on the 22nd August and two at Hythe Ranges on the 25th August.



Wall at Peene (Brian Harper)

Adonis Blues were recorded from their usual haunts along the downs, with noteworthy counts of c.20 at Samphire Hoe and 43 at Folkestone Escarpment in June, and 104 at Cheriton Hill / Folkestone Escarpment on the 2nd September.

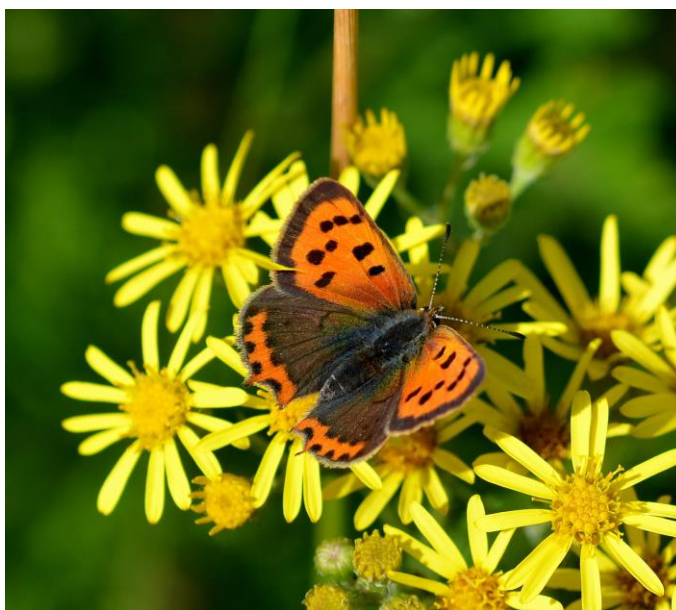
Good numbers of common butterflies were counted on buddleia along the railway line at Samphire Hoe in August including peaks counts of 9 Red Admirals, 20 Marbled Whites, 50 Peacocks, and 162 Small Tortoiseshells there.

The first dates for the 33 species of butterfly recorded in 2013 are provided as figure 4:

Small Skipper	22 Jul
Essex Skipper	16 Jul
Silver-spotted Skipper	2 Sep
Large Skipper	25 Jun
Dingy Skipper	26 May
Clouded Yellow	25 Jun
Brimstone	14 Apr
Large White	03 May
Small White	03 May
Green-veined White	07 May
Orange Tip	28 Apr
Green Hairstreak	16 May
White-letter Hairstreak	12 Aug
Small Copper	01 May
Small Blue	15 Jun
Brown Argus	01 Sep
Common Blue	05 May
Chalkhill Blue	27 Jul
Adonis Blue	18 Jun
Holly Blue	03 May
Red Admiral	05 May
Painted Lady	28 Apr
Small Tortoiseshell	06 Mar
Peacock	14 Mar
Comma	05 Mar
Speckled Wood	05 May
Wall	12 May
Gatekeeper	15 Jul
Marbled White	22 Jul
Grayling	10 Aug
Meadow Brown	13 Jul
Small Heath	26 May
Ringlet	06 Aug



Small Blue at Round Down (Phil Smith)



Small Copper at Samphire Hoe (Phil Smith)

Figure 4: first dates for butterflies at Folkestone and Hythe in 2013



Adonis Blue at Samphire Hoe (Phil Smith)



Chalkhill Blue at Crete Road West (Ian Roberts)



Ringlet at Hoe (Phil Smith)



Marbled White at Lymgne (Nick Hollands))

There was a particularly unusual aberrant Red Admiral seen in Hythe on the 14th September, as demonstrated by the photographs below. Rather surprisingly it was capable of flight.



Red Admiral at Hythe (Sean McMinn)

An aberrant Small Tortoiseshell at Samphire Hoe on the 21st August was also of interest, though aberrations are not uncommon in that species. In this example the two outer costal spots were almost joined into a black bar and the twin discal spots were absent.



Typical Small Tortoiseshell at Samphire Hoe
(Ian Roberts)



Aberrant Small Tortoiseshell at Samphire Hoe
(Ian Roberts)

Other insects

Following from the first area record of **Southern Oak Bush-Cricket** at Hythe in November 2012 there were further occurrences there on the 14th and 28th August, and 18th September, whilst another was at Samphire Hoe on the 19th October. There were few records of dragonflies or damselflies received and the only migrants noted were several Migrant Hawkers between late August and late October, with a peak of 4 at Seabrook on the 18th October.

A Hornet at Saltwood on the 19th May and a peak count of 13 Rose Chafers at Samphire Hoe on the 7th July were also of some note.

Mammals

Harbour Porpoise were seen regularly off Samphire Hoe between January and June with particularly good counts of 15 there on the 19th March, 10 the next day, 8 on the 24th March and 7 on the 17th April. Several were also noted off Hythe at this time, with a peak of 5 on the 15th April. Records were much fewer however in the second half of the year. Single unidentified dolphins were seen off Samphire Hoe on the 23rd April and 18th August. There were at least 15 reports of seals, mainly from Samphire Hoe, though not all were identified to species. The majority that were however were Grey Seals.



Common Seal at Samphire Hoe (Phil Smith)



Grey Seal at Samphire Hoe (Phil Smith)

On land there were regular sightings of Brown Hare at the Willop Basin, with a peak count of 5 there on the 28th October and the 3rd November , whilst a number of the more common mammals such as Badger, Hedgehog, Fox, Stoat, Weasel, and the abundant Brown Rat, Grey Squirrel and Rabbit were also logged.

Reptiles and amphibians

The colony of introduced Wall Lizards remained in the Little Switzerland area of Folkestone Warren and Adders were seen in their usual haunts along Folkestone Downs and at Samphire Hoe. The escaped Red-eared Terrapin remained in the canal at West Hythe and featured in the Hythe Herald in May. Other more regular species that were recorded included Common Lizard, Slow-worm, Grass Snake, Smooth Newt and Common Frog.



Adder at Samphire Hoe
(Ian Roberts)



Common Lizard at Samphire Hoe
(Ian Roberts)

Other

Few other animal groups received much attention this year but a Brittle-star species recorded during a rock-pooling event at Samphire Hoe on the 18th August appears to be worthy of note.

Flora

Of most note amongst the flora were the count of 8,500 Early Spider Orchids at Samphire Hoe. This represented a decrease of 3,000 spikes from last year and flowering took place particularly late due to the cold spring.



Brittle-star at Samphire Hoe (Ian Roberts)