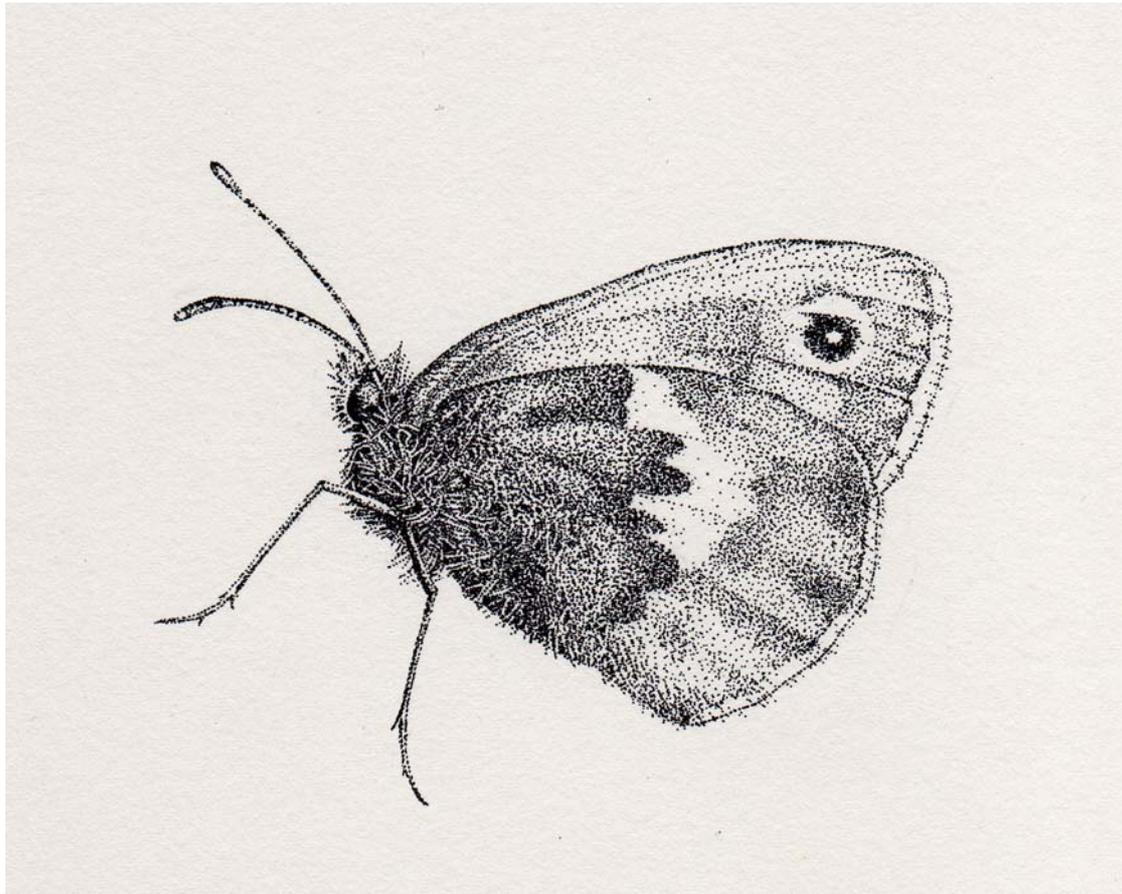


NORTH EAST ENGLAND BRANCH

BUTTERFLY CONSERVATION

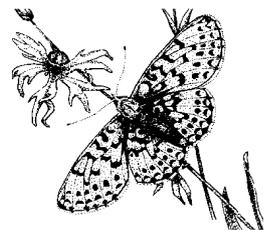


BUTTERFLY SUMMARY 2007



Compiled by Dave O'Brien, Roger Norman & Steve le Fleming

North East England



Butterfly Conservation

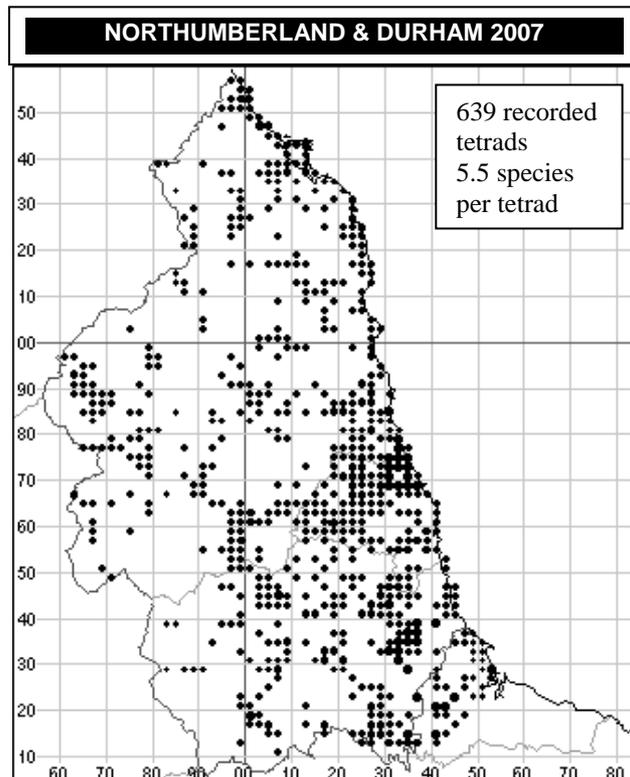
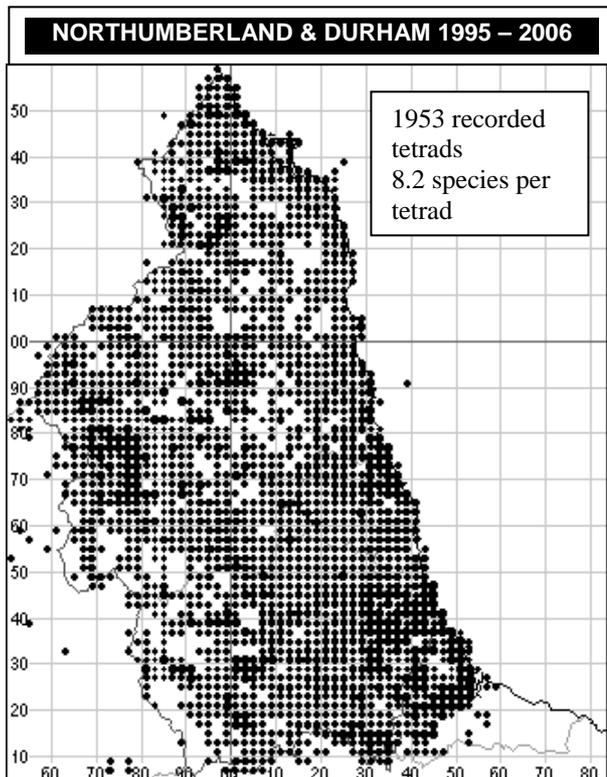
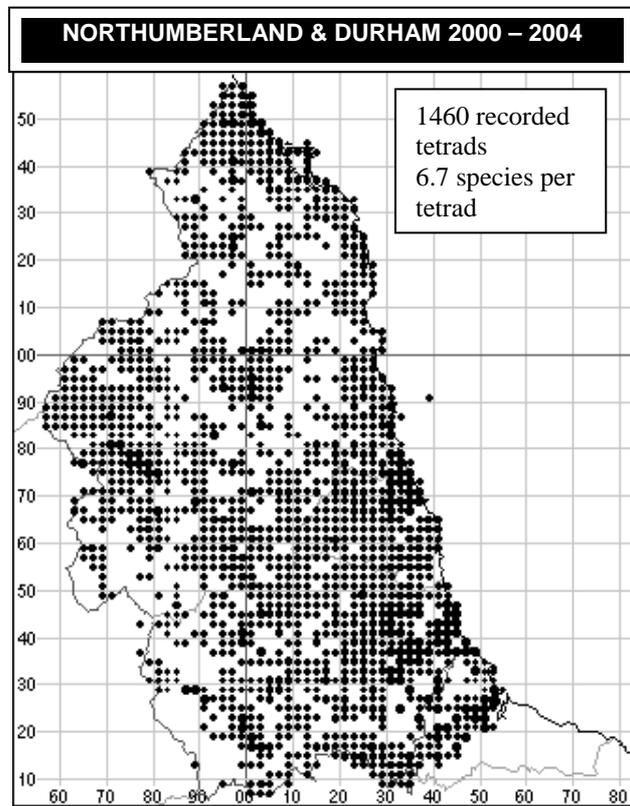
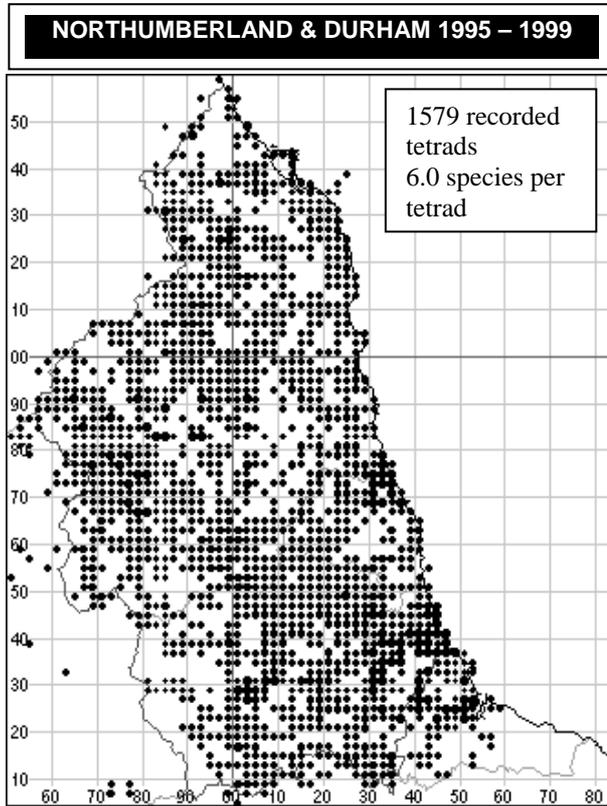
CONTENTS

	Page number
Contents Page	Inside front cover
Recorder's Review	3
Unrecorded tetrads 1995 - 2007	5
Entomological Monthly Summary	6
Weather Summary	8
Species Accounts: 2007	10
Small Skipper (<i>Thymelicus sylvestris</i>)	10
Large Skipper (<i>Ochlodes sylvanus</i>)	11
Dingy Skipper (<i>Erynnis tages</i>)	12
Clouded Yellow (<i>Colias croceus</i>)	14
Brimstone (<i>Gonepteryx rhamni</i>)	15
Large White (<i>Pieris brassicae</i>)	16
Small White (<i>Pieris rapae</i>)	18
Green-veined White (<i>Pieris napi</i>)	19
Orange Tip (<i>Anthocharis cardamines</i>)	20
Green Hairstreak (<i>Callophrys rubi</i>)	22
Purple Hairstreak (<i>Neozephyrus quercus</i>)	23
White-letter Hairstreak (<i>Satyrium w-album</i>)	24
Small Copper (<i>Lycaena phlaeas</i>)	26
Brown Argus (<i>Plebeius (Aricia) agestis</i>)	27
Northern Brown Argus (<i>Plebeius (Aricia) artaxerxes</i>)	27
Common Blue (<i>Polyommatus icarus</i>)	29
Holly Blue (<i>Celastrina argiolus</i>)	30
Red Admiral (<i>Vanessa atalanta</i>)	31
Painted Lady (<i>Vanessa cardui</i>)	32
Small Tortoiseshell (<i>Aglais urticae</i>)	33
Peacock (<i>Inachis io</i>)	35
Comma (<i>Polygonia c-album</i>)	36
Small Pearl-bordered Fritillary (<i>Boloria selene</i>)	38
Dark Green Fritillary (<i>Argynnis aglaja</i>)	39
Speckled Wood (<i>Pararge aegeria</i>)	40
Wall Brown (<i>Lasiommata megera</i>)	41
Marbled White (<i>Melanargia galathea</i>)	43
Grayling (<i>Hipparchia semele</i>)	43
Gatekeeper (<i>Pyronia tithonus</i>)	45
Meadow Brown (<i>Maniola jurtina</i>)	45
Ringlet (<i>Aphantopus hyperantus</i>)	47
Small Heath (<i>Coenonympha pamphilus</i>)	48
Large Heath (<i>Coenonympha tullia</i>)	49
Contributors	50
Flight Period Table	52
Species Abundance Comparison Table	53
Graphs showing changes in abundance for Holly Blue, Comma, Speckled Wood and Wall Brown	53
Submitting Butterfly Records in 2008	Inside back cover
North East England Branch Committee Members	Back cover

(Front cover: Small Heath, Terry Coult)

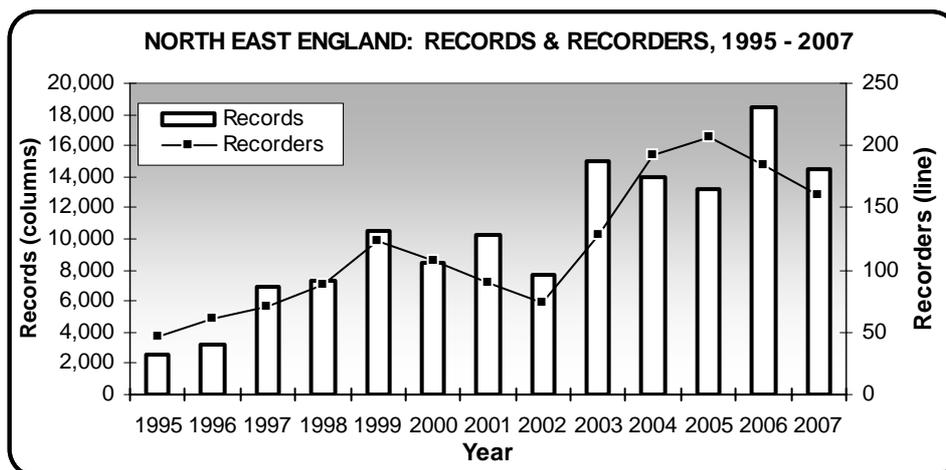
RECORDERS' REVIEW

Introduction: 2007 will largely be remembered for the torrential rain during much of July and August, which led to widespread and severe flooding across many parts of the country. Needless to say, this had an effect on butterflies and butterfly recording.



For those species whose flight period coincided with the worst of the weather, fewer records were received as, understandably, people were unwilling to venture out during a downpour in the hope of seeing some butterflies! For those of us whose jobs required us to be outdoors regardless of the weather, it was apparent that some species were able to take advantage of the brief dry periods between downpours and become active, but the amount of time available to the butterflies to feed, bask, mate, and lay eggs will have been severely reduced, and this may manifest itself in 2008 as lower numbers overall.

A massive thank you is due to all recorders for painstakingly taking the time to collate and send in your records, either during or at the end of the season. We know the effort this requires, and hope that in producing this 2007 Butterfly Annual Report, we have done justice to you all. The recorders would like to thank everyone who sent records in, without whom, this report would not be possible. We hope that you find it interesting and a valuable record of the year's butterfly action.



Recording: Records were received from 639 tetrads, which is almost a third of the total number of 2229 in the north-east. This is slightly down on 2006 but is at a level which enables a picture to be drawn of the fortunes of our commoner species. The end of 2004 marked the close of Phase 2 of the Butterflies of the New Millennium Project and the results of Phases 1 and 2 were published as an update to the Millennium Atlas, entitled *The State of Butterflies in Britain and Ireland*. 2007 marks the third year of phase 3 of the project, which will run from 2005 to 2009 and all your records will be submitted electronically at the end of each year to contribute to the project.

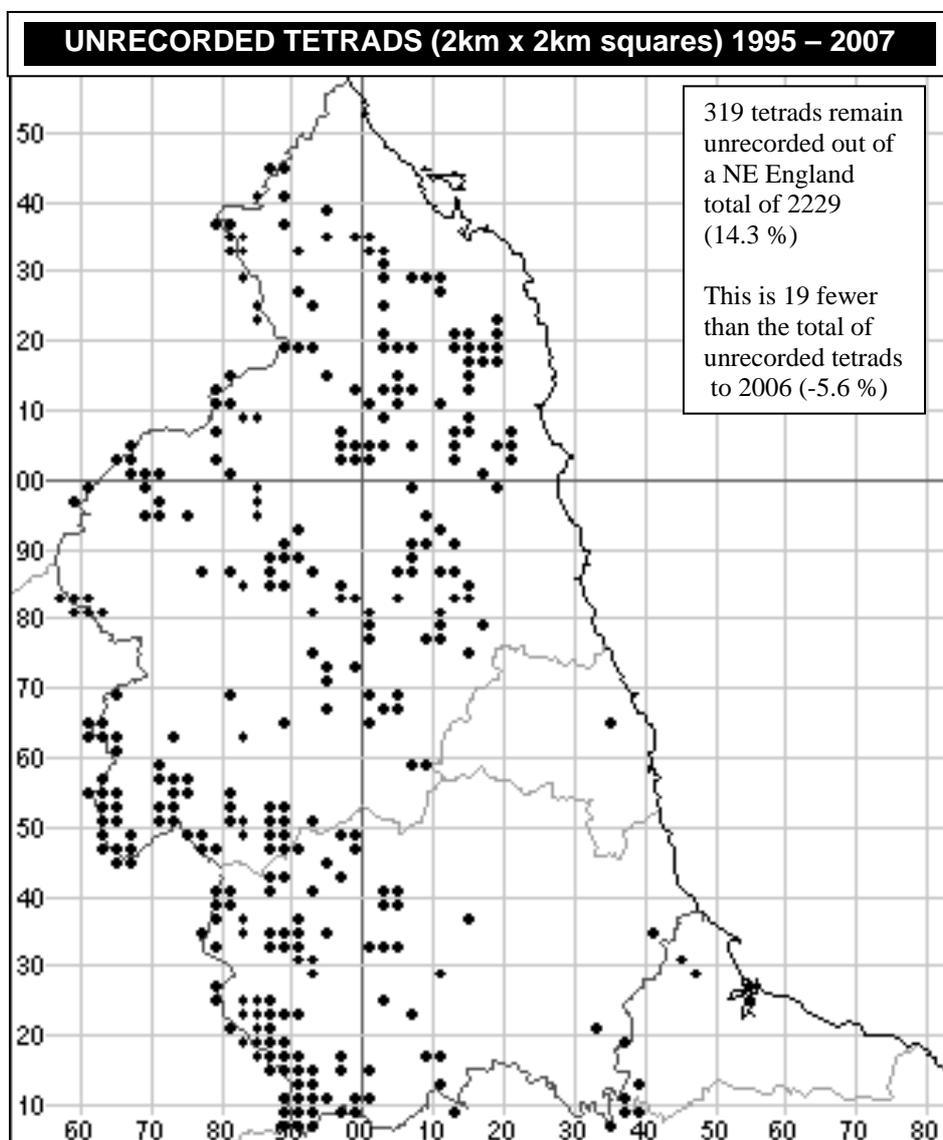
UK BAP Species: In July 2007, a number of butterfly species were added to the UK Biodiversity Action Plan as Priority species, due to a nationwide decline in distribution and/or populations. Those found in our region are: Dingy Skipper, White-letter Hairstreak, Small Pearl-bordered Fritillary, Wall, Grayling, Small Heath, and Large Heath (Wall and Small Heath are listed as being only for research into the causes of decline). As Northern Brown Argus was already listed, this brings the total number of Priority species in our region to eight. In the north-east, the fortunes of these eight species are mixed - some are remaining stable or appear to be expanding their range. This may be due to a combination of factors, such as targeted recording, or habitat management/creation designed to benefit a particular species. Others, such as Northern Brown Argus, continue to decline despite the best efforts of staff and volunteers from Butterfly Conservation and partner organisations, and one species, the Large Heath, is under-recorded, due in part to the remote location of many of its colonies. For all of these eight species, continued monitoring is essential, regardless of how well they may be faring in the north-east.

The BNM project will continue to play a crucial role in providing the strategic focus in delivering quality information to further Butterfly Conservation's aims and policies, on scientific research, education, the planning system, and of course for raising public awareness. With a growing membership focussed on important issues such as the environment, please do your bit for conservation by sending in your butterfly records in 2008. We would like to urge everyone who has a home computer to send their records in electronically, as this not only minimises data entry errors, but is of massive assistance to the recorders who have to computerise every record. How to submit your records is detailed on the inside back cover.

Introductions: Currently, unauthorised introductions do not seem to be a problem in our area as they are in some parts of Yorkshire. However, recently there have been records of species whose origin is in doubt. The Branch Committee are opposed to unauthorised introductions, regardless of how sympathetic the motives behind them may be. Such actions serve to “muddy the waters” of butterfly recording, and disguise genuine range expansion or contraction, and may divert conservation effort away from species that are in decline. Further, it is an offence to take or release butterflies from or onto a SSSI without proper permissions and a license from English Nature. Failure to do this could result in a fine of up to £20,000. Local Nature Reserves may also be protected by bye-laws prohibiting such activities.

Unrecorded Tetrads: At the start of 2007, the region had 338 tetrads in which no butterflies had been recorded during the BNM project period. 19 new tetrads were visited during 2007, leaving 319, or 14% of the total number in our region. The map below shows where these tetrads are, not surprisingly, the majority lie either in the upland areas on our western boundaries or in the less heavily populated agricultural areas of Northumberland, although there are clusters near more accessible areas, such as north west of Alnwick and Bellingham, and west of Morpeth and Rothbury.

Some unusual finds have been made with recorders looking for butterflies in unrecorded tetrads, including Purple and Green Hairstreaks. Blank tetrads can still be found near many towns and villages so please have a look in any near you. You never know what you might find!



Finally: The production of the annual report involves a considerable amount of work, especially as the number of records has grown over the last few years. To spread the work out and to ensure the prompt publication of each year’s report, the recorders would like to recruit some more people to help write the species accounts, with each person tackling a small number of species, **perhaps one or two**. This would be in **January and February 2009** and all the graphs, maps, records and guidance would be provided. If you are interested, please contact the Recorder.

ENTOMOLOGICAL MONTHLY SUMMARY 2007

JANUARY: Four butterflies were recorded on the wing in the second half of the month, of three species: Peacock, Red Admiral, and Small Tortoiseshell. White-letter Hairstreak ova, and Small Copper larvae were also recorded.

FEBRUARY: Peacock, Red Admiral, and Small Tortoiseshell were all recorded throughout February, with Comma also making an appearance. Further records of White-letter Hairstreak ova and Small Copper larvae were also received.

MARCH: Mild, dry weather throughout the month resulted in numerous butterfly records, mainly of the four species already mentioned. Small White was also recorded in the last week of the month.

APRIL: The warm, dry weather continued throughout April, with a number of species emerging in the first week, namely Large White, Green-veined White, Orange-tip, Brimstone, Holly Blue, and Speckled Wood. For both Brimstone and Speckled Wood, this was a record early date. As the month progressed, Green Hairstreak was seen at two of its main sites, and there were several sightings of Painted Lady. Finally, toward the end of the month, Small Copper emerged, followed by a surprising early sighting of Common Blue, and then on the final day of April, Dingy Skipper emerged.

MAY: The 1st of May saw another Brimstone record, and three other species emerged this month, bringing the total number of species on the wing to nineteen. Small Heath was the first to emerge, in the middle of May, followed a few days later by Large Skipper on a record early date and finally Meadow Brown.

JUNE: Northern Brown Argus appeared at the beginning of the month, on the same day that the flight period for Green Hairstreak ended. This was followed by the third and final spring sighting of Brimstone in our region. An influx of Painted Lady occurred shortly after, leading to reports from throughout the region. This coincided with the emergence of Small Pearl-bordered Fritillary, which was followed soon after by Ringlet. The weather in June began to deteriorate, and it was nearly two weeks before the next species to emerge, which was Small Skipper. White-letter Hairstreak was the next species on the wing, though unusually, there was only a single record for June. Finally, Dark Green Fritillary emerged just before the end of the month, heralding what was to be a poor year for this butterfly.

JULY: This month brought with it torrential downpours nationwide, which led to a poor year for a number of species, although a large number of records were received overall. Four more species emerged in July, all in the first half of the month. Marbled White was the first to appear, closely followed by Purple Hairstreak and Large Heath. For the latter species, this was the only record of the year. Grayling appeared shortly afterwards, the last of our regularly occurring species to emerge in 2007. Two Clouded Yellow were recorded this month, the first of only four sightings overall. The beginning of July also marked the end of the flight period for Dingy Skipper.

AUGUST: Although the poor weather continued into August, some interesting records were still forthcoming. Perhaps the highlight was a sighting of Gatekeeper, at a location where this species has been recorded before. This was followed only a few days later by a record of Orange-tip, making 2007 the second year in a row when a "2nd generation" of this species has occurred. August marked the end of the flight period for four of our species – White-letter Hairstreak, Large Skipper, Ringlet, and Northern Brown Argus, with the final record of the latter

being a record latest date. One very surprising sighting also occurred in August, a Zebra Longwing (*Heliconia sp.*) recorded in a garden in Shincliffe, Co. Durham, by Stephen Roberts. As this is a Central and South American species, its appearance in a north-east England garden was somewhat unexpected to say the least! However, some detective work by Dave Wainwright revealed that it came from the butterfly house in Durham University's Botanic Garden, and was one of many that escaped through a broken pane of glass!

SEPTEMBER: After the poor weather of the previous two months, September was something of an improvement. Brown Argus once again appeared in our region, with three records, from two new tetrads. There were also two records of Clouded Yellow, both around the middle of the month. Six species came to the end of their flight period this month, with Grayling being recorded on a record latest date. The Zebra Longwing recorded by Mr. Roberts in August reappeared in his relative's garden, approximately half a mile away from the first sighting.



Zebra Longwing, (courtesy of Stephen Roberts)

OCTOBER: Fourteen species were still on the wing this month, helped by the mild weather, and three of these – Small Copper, Wall, and Small Heath, were recorded on record latest dates, whilst the final sighting of Large White equalled the previous latest date set in 2006.

NOVEMBER: Six species were still on the wing this month, four of them being our hibernating Vanessids – Red Admiral, Peacock, Small Tortoiseshell and Comma, this last species being on a record late date. The other two species still on the wing were Painted Lady and Speckled Wood, again, the latter species on a record late date. In addition, larvae of Large White, Small White, and Small Copper were recorded, as were ova of White-letter Hairstreak.

DECEMBER: Only a single butterfly was recorded, at the very end of the month – a Red Admiral.

WEATHER SUMMARY

WEATHER SUMMARY: 2007

Copley Observatory, 19 km NNE of Barnard Castle, Co Durham

Elevation 253 metres (830ft) Grid Reference NZ 084 254

2007	Temperature (°C)							Rain (mm)			
Month	Mean max	Mean min	Mean	Max	Date	Min	Date	Rain	Rain days	Max obs	Date
Jan	7.6	1.9	4.7	10.9	31	-2.8	23	115.4	23	19.1	10
Feb	7.2	1.4	4.3	13.1	03	-5.3	06	83.1	17	22.1	10
Mar	8.6	1.8	5.2	12.6	28	-3.2	21	32.7	16	11.3	04
Apr	14.2	5.1	9.7	22.6	15	-0.1	02	13.4	5	7.7	24
May	14.0	5.5	9.7	18.2	21	2.4	26	50.2	15	15.5	11/13
Jun	16.9	8.7	12.8	25.9	11	4.1	01	187.6	19	30.2	14
Jul	18.2	9.7	13.9	20.9	31	5.2	10	114.9	20	16.0	05
Aug	18.1	9.6	13.9	25.3	05	4.8	07	37.1	8	15.5	14
Sep	15.9	7.8	11.9	23.3	07	1.2	18	39.3	13	10.2	19
Oct	13.3	5.5	9.4	20.0	12	-0.9	24	23.6	8	9.2	08
Nov	9.1	3.5	6.3	16.2	02	-3.4	24	51.9	18	17.6	20
Dec	5.5	-0.1	2.7	11.7	04	-7.8	17	83.9	19	12.4	09

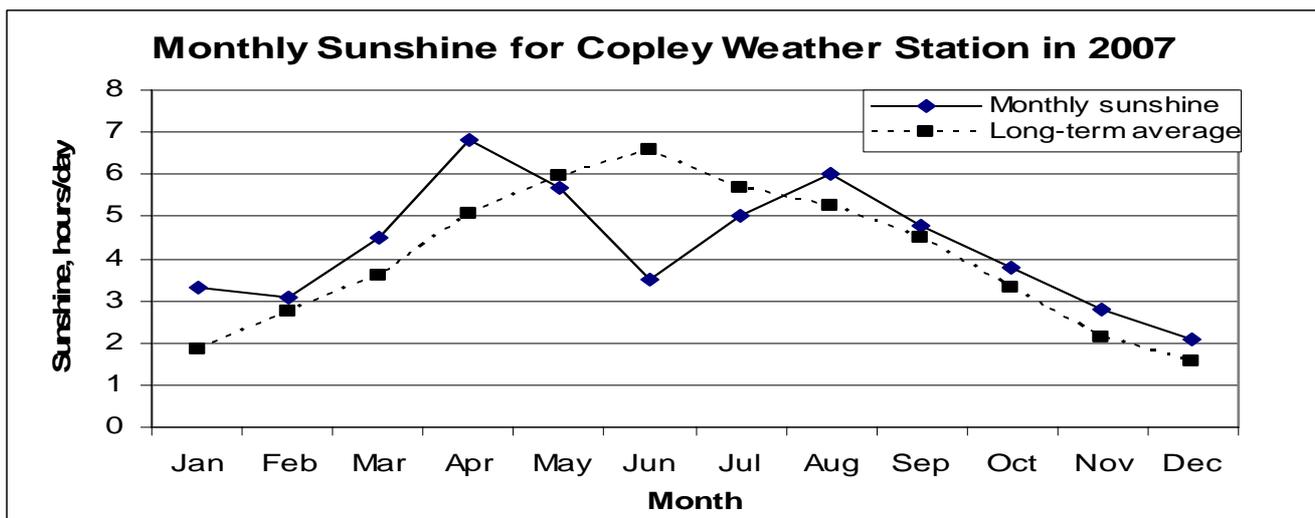
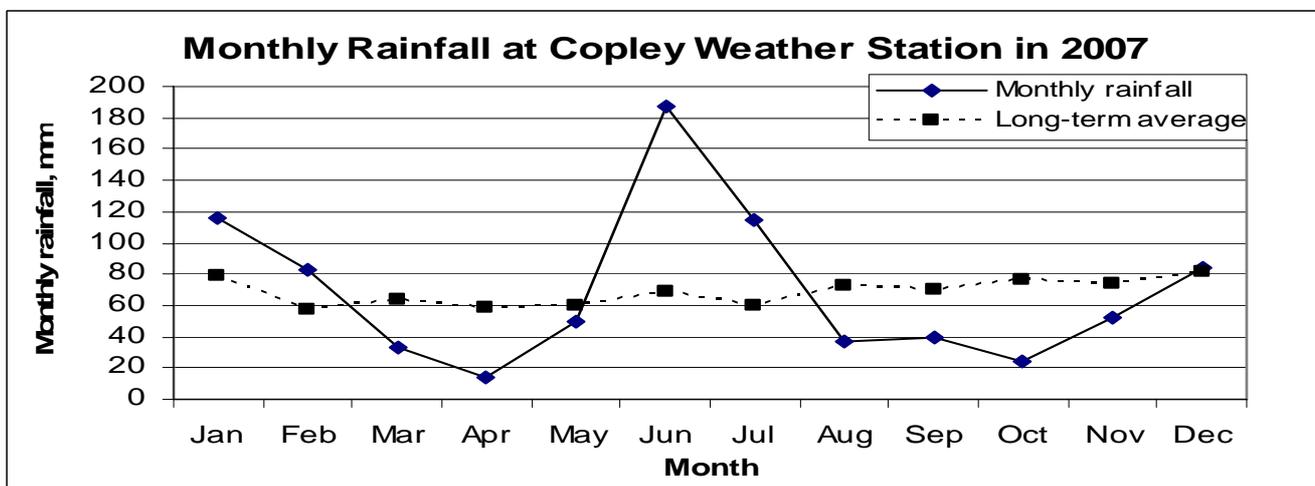
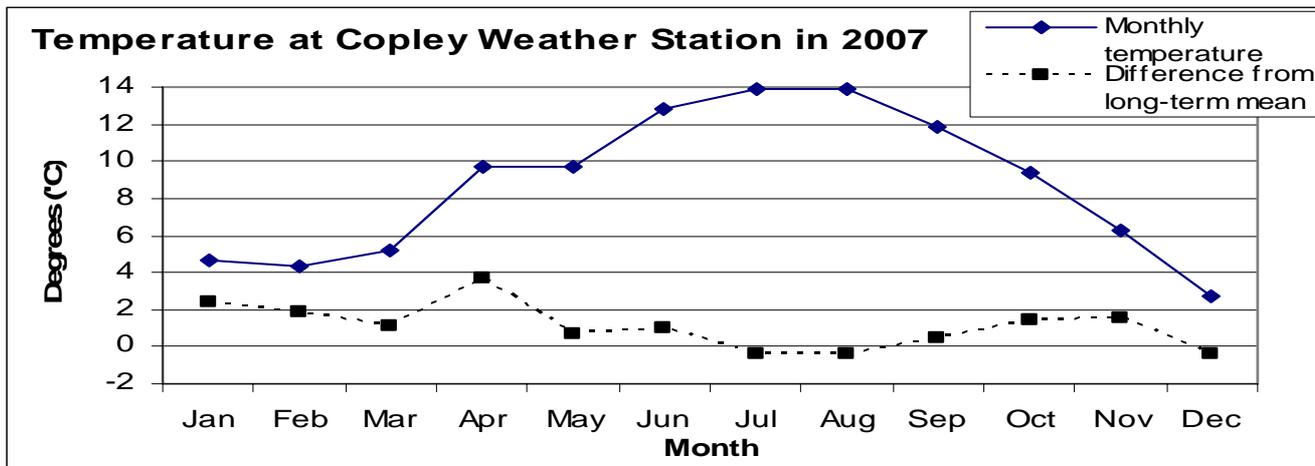
2007 SUMMARY: TEMPERATURE, RAINFALL AND SUNSHINE

DIFFERENCES FROM 1971 - 2000 AVERAGES

Month	Mean (°C)	°C Difference	Rain (mm)	% Difference	Sun (hr/day)	% Difference
Jan	4.7	2.4	115.4	147	3.3	178
Feb	4.3	1.9	83.1	146	3.1	113
Mar	5.2	1.1	32.7	51	4.5	125
Apr	9.7	3.7	13.4	23	6.8	134
May	9.7	0.7	50.2	84	5.7	96
Jun	12.8	1.0	187.6	275	3.5	52
Jul	13.9	-0.4	114.9	192	5.0	89
Aug	13.9	-0.4	37.1	51	6.0	113
Sep	11.9	0.5	39.3	56	4.8	106
Oct	9.4	1.4	23.6	31	3.8	116
Nov	6.3	1.5	51.9	70	2.8	133
Dec	2.7	-0.4	83.9	103	2.1	134
2007	8.7	1.1	833.1	102	4.3	107

Acknowledgments: The Branch is again grateful to Ken Cook of the Copley Climatological Station (<http://copley.mysite.orange.co.uk>) for providing the statistical weather data as shown above. Ken comments that 2007 was yet another sunny, warm year. Rainfall ended up close to normal. The winter was very mild and wet but sunny. An exceptionally sunny, warm and dry April was balanced by a poor June and July but improving weather in August heralded an Indian Summer. December was quite frosty for modern times. Given the strong links climate and weather have on butterflies, this data provides valuable context to the annual report. Butterfly Conservation would like to thank Ken for collating the data above, and for allowing its subsequent use in this report.

The graphs below illustrate the events of 2007. The dominant weather, so far as butterflies were concerned was the wet June and July, which affected observers as well as the insects! This also resulted in a dull midsummer. The mild end to the winter led to the early emergence of a number of species and consequently to record early dates for the region.



Butterfly Conservation would like to thank Ken for collating the above records and allowing their subsequent use in this report.

Small Skipper (*Thymelicus sylvestris*)

2007: A strong if unsensational year for this species, with over 4,000 butterflies recorded in 130 tetrads from over 470 individual sightings. This ranks 2007 as the fourth best during the thirteen year BNM project in terms of the number of recorded butterflies, and is a real credit to the continued depth of recording coverage in our region.

The season opened with a burst of records on the 20th June, with four sightings: 2 from Dave Liddle near Salter's Gate; 5 and 12 respectively from Mark Richardson during visits to two of Durham's finest reserves, Bishop Middleham and Raisby Hill; and Roslyn Tanner with 12 at Whitley Bay.

As evidenced in the graph, numbers were typically small in June with a rapid increase in early July, with good numbers sustained for about a month. Peak numbers occurred in the second week of July, also typical for this species which normally peaks in the middle two weeks. Small Skipper was on the wing for 65 days out of 88 (74%) representing one of the longest flight periods the region has so far seen.

For the third year in four, the Rising Sun Country Park in Wallsend was the place to be if recorders wanted to be immortalised with the highest count of the year. And for the second time in four years, the honour was claimed by Joe Dobinson, with 204 and 198 on 6th and 9th August respectively. Only Joe's count at the same site of over 300 in 2004 would better those numbers. By way of contrast, Durham's best counts were made by Heather Dunn with 75 on 24th July and 70 on 3rd August near Blaydon.

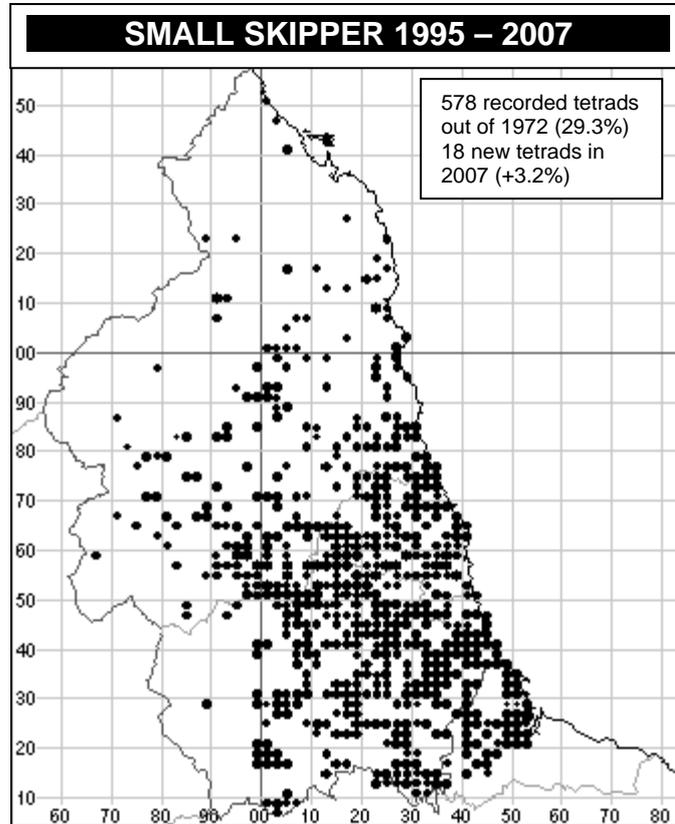
The species is very resilient to weather and, despite the relatively poor weather during the summer months, 14 new tetrads were discovered - mostly in Northumberland - including a new all-important 10 km square in Northumberland. The 10km square was recorded by Mike Jeffries with 2 along the College Valley on 23rd July, in NT82.

Dave Liddle ended his year in Durham as he had started with a fine Small Skipper sighting, this one signifying the end of this species' flight period with 12 on 6th September near Salter's Gate. The previous day Dave Wainwright had noted a single near High Stoop. The third week of August brought an end to Northumberland's sightings: Joe Dobinson with 12 at Rising Sun Country Park on 24th August and Hew Ellis with 19 at Druridge Bay. It is interesting to note that despite decent numbers of skippers still flying in August in Northumberland, there were no September records, and there have been no such records since 2002.

One of the most amazing entomological events of the year concerned the finding of an Essex Skipper colony in Scotland, (*Butterfly*, Spring 2008, p8). The site is near Lockerbie in south-west Scotland, some 40 - 50 km west of the Northumberland border. This introduces the possibility, however unlikely, that Essex Skipper could be an undetected regional resident and it may pay the more diligent recorder to scrutinise any skippers they see in 2008 to make

sure they are Small. When becoming more actively interested in butterflies a few years ago Mike Hunter recalls spending a few days in the Darlington area doing precisely this but finding only Small Skippers.

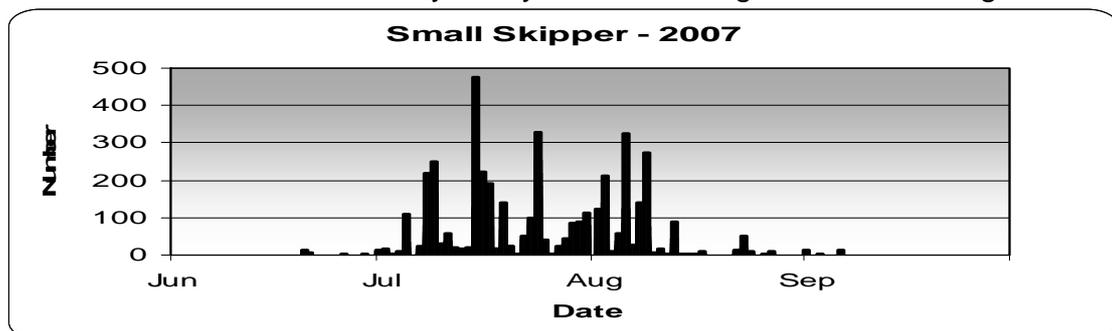
As is evident from reading these annual reports, the status of some butterflies in recent years has changed rapidly.



Small Skipper has moved north with amazing speed and it is possible its close relative, the Essex Skipper, also known to be moving north, has in fact expanded its range further than currently thought, but due to the similarity of the two species, has gone largely unnoticed. Any possibly sightings of Essex Skipper in 2008 or beyond will need to be supported by good photographs.

The books always refer to the undersides of the antennae as the main way of separating these two difficult species, orange-brown on Small Skipper and black on Essex Skipper. A more

useful way to identify male skippers in the field is to look at the sex brand which is long and obvious in Small Skippers and does not run parallel to the forewing. Essex Skipper has a small, relatively thin sex brand which runs parallel to the wing. Worn male Small Skippers sometimes have sex brands that look short and thin but they always run at an angle to the forewing.

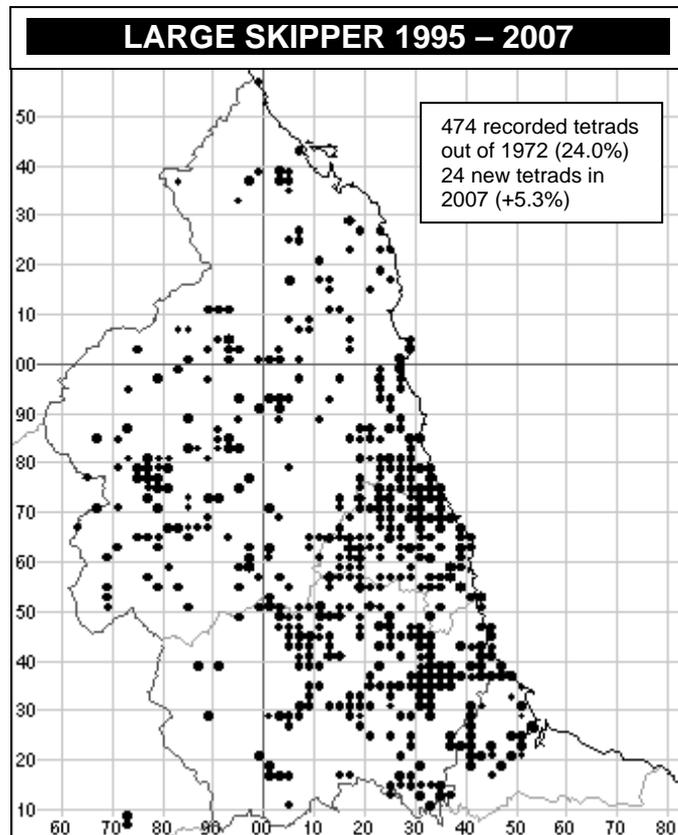


Large Skipper (*Ochlodes sylvanus*)

2007: A total of three hundred and thirty six records were received. These recorded 1214 individual butterflies from one hundred and twenty-one tetrads. The flight period covered 91 days and the Large Skipper was seen on 62 (68%) of these days.

It was a reasonable year for this butterfly despite the bad summer weather.

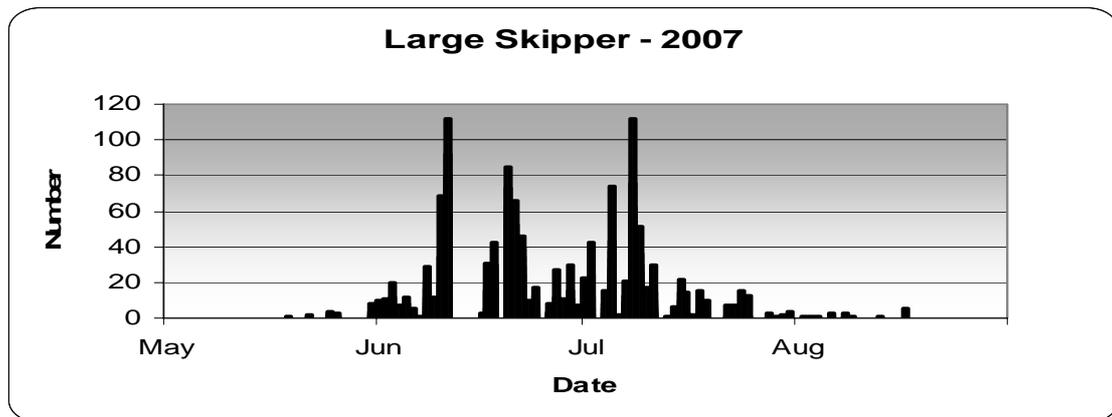
There was quite an early start compared to recent years, perhaps due to the very warm spring in 2007. The first record came from Mike Hunter with a singleton in West Park, Darlington on 19th May. Northumberland's first record came three days later on 22nd May when a singleton was seen by Ken Dawson at The Spetchells on the River Tyne near Ovingham.



Unusually there were gaps in the records during June and July, for instance no records were received between the 11th and 16th June, although this was probably due to the poor weather of mid-summer. As is normal for this species, most counts were in single figures. The highest count for the region came from Joe Dobinson who counted 36 at the Rising Sun Country Park near Wallsend on 8th July. This was closely followed by Heather Dunn who saw 35 at Heathers Field near Blaydon on 10th June. Durham's highest count came from Dave Liddle with

20 from Burn Hill on 11th June.

Sightings continued well into August with the last Northumberland record from Ian Davidson who saw one on 9th August at Kimmer Lough near Alnwick. Durham's last record came from Barry and Jean Robinson who spotted 5 on the South Hylton railway in Sunderland on 17th August.

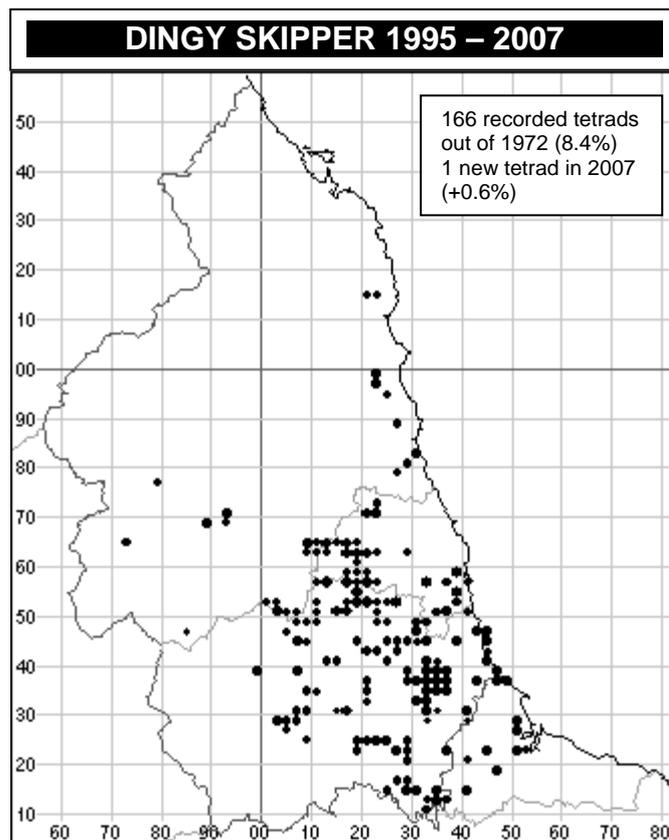


Dingy Skipper (*Erynnis tages*)

2007: Fair weather in early spring ensured early emergence of this species. On April 30th the species was seen at three County Durham sites: Mike Hunter found one at Faverdale (Darlington); Bob Mawson recorded three on

the Raisby Way; and Brian Pollinger spotted a pair at Stargate Pond. Northumberland's first two specimens were recorded by Roger Norman from Havannah Local Nature Reserve on May 5th. The flight period appeared to peak on or around May 21st, when a total of 71 adults was reported from various sites.

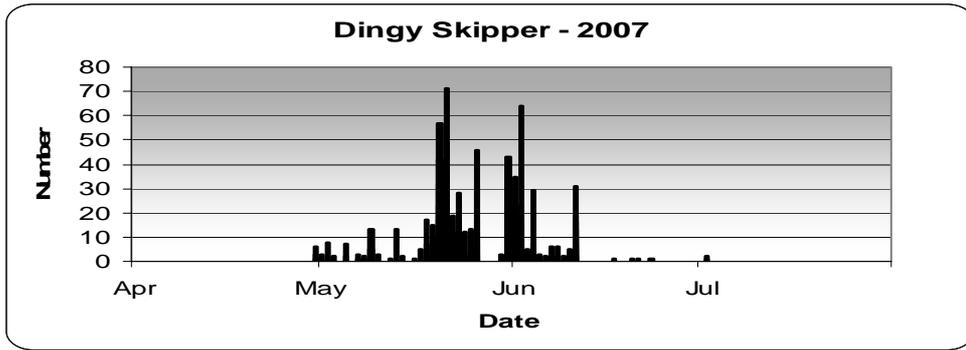
Compared to many other species, Dingy Skipper fared relatively well in 2007. However, the annual total of 582 represented a substantial decrease from the 790 recorded the previous year. The overall impression for the year is that a small number of sites produced good numbers while the vast majority supported far fewer. The Raisby Way colony clearly remains prolific, as Bob Mawson recorded double-figure counts on no fewer than four occasions, as did Dave Liddle at Burn Hill; similarly, Brian Pollinger recorded ten or more at Stargate Pond and Bewes Hill on three occasions. Double figure counts were recorded at a handful of other sites: Havannah (Hewitt Ellis and Dave Stebbings on different days), Thrislington Plantation (John Hope), Percy Pit (Keith Smith) and Hawthorn Dene Grassland (Dave Wainwright). The highest count made at any of the region's sites was a remarkable 41, seen by Marty Anderson and Liz Naughton at our most northerly site, Chevington Wood in Northumberland.



Numbers at all sites dwindled rapidly after the beginning of June, by which time weather conditions were generally poor. Odd specimens survived into early July. The region's latest records were both from Durham: Stuart Priestley recorded one at Wingate Quarry while Dave Liddle saw another at Burn Hill on July 2nd. Northumberland's latest sighting was made by Dave Stebbings at Havannah L.N.R. on June 11th.

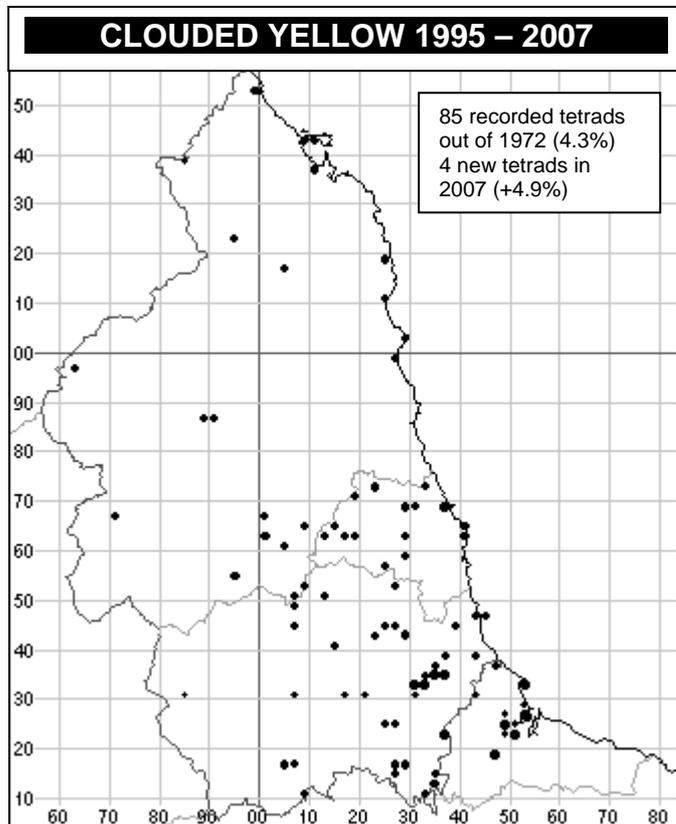
Only one new tetrad was found in 2007, when Dave O'Brien recorded a single butterfly at Hardwick Dene LNR on June 11th (tetrad NZ4020).

Habitat loss resulting from redevelopment of brownfield sites remains a problem. Re-profiling of spoil heaps at Aycliffe Quarry has resulted in the loss of a medium-sized colony, while another smaller population was lost to redevelopment on a vacant plot within Newton Aycliffe Industrial Estate. Records were received for 41 days of the 64 day flight period (64% of possible days).

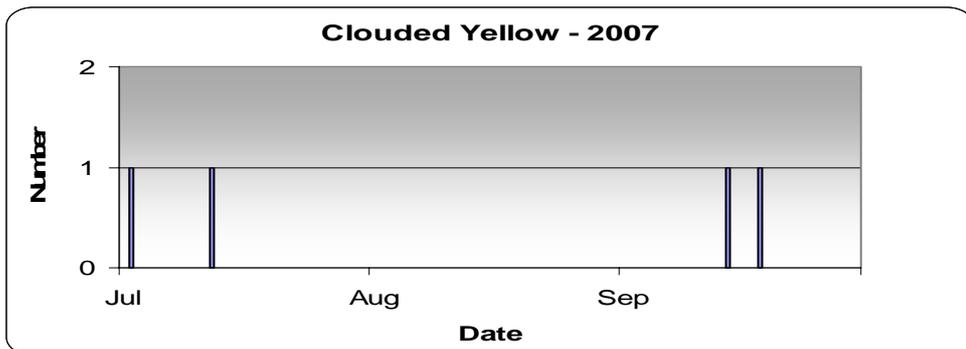


Clouded Yellow (*Colias croceus*)

2007: After 2006 produced a tremendous season, 2007 was very quiet for this erratic migrant from Spain and North Africa. Only four records were received in 2007, suggesting that perhaps there were two very minor influxes to the North-east.



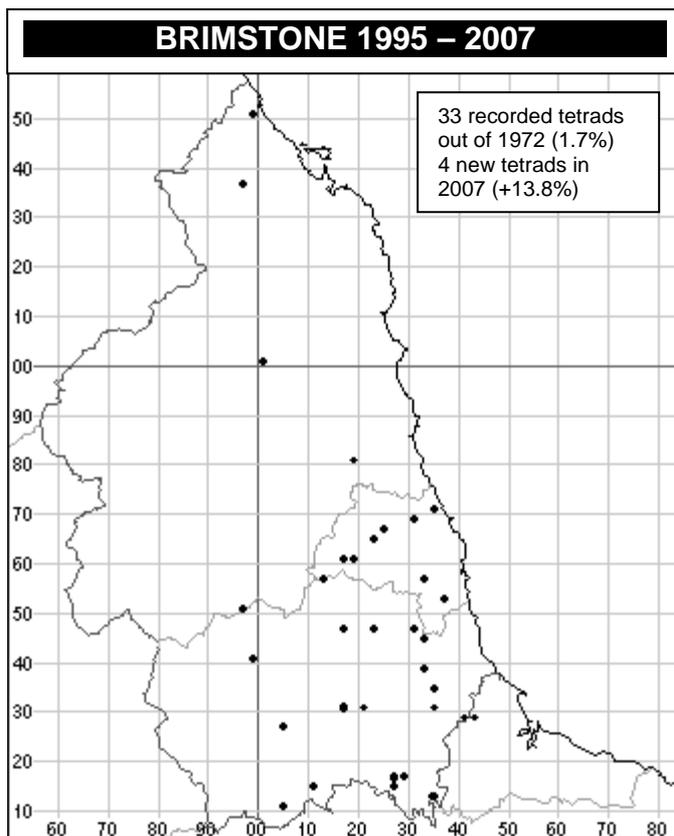
The first occurred in early July on the north side of the Tees, when Ian Bond found one on 2nd July in Seaton Dunes and Robert Smith recorded one at Greatham on 12th of the month. There were no more records until September when Frank Barber found one near Coxhoe Bridge in Co. Durham on 14th of the month. The last record was from Nick Cook at Big Waters NR in Northumberland on 18th. All except the last record were for new tetrads. We can only hope that 2008 brings more sightings of this colourful butterfly.



Tetrad	Recorder	Site	Date
NZ5228	Ian Bond	Seaton Dunes	2-Jul-07
NZ4826	Robert Smith	Greatham	12-Jul-07
NZ3234	Frank Barber	Nr Coxhoe Bridge	14-Sep-07

Brimstone (*Gonepteryx rhamni*)

2007: Only five records were received of this species in 2007, four of the over-wintering generation and one autumn record.



All four spring records were of singletons:

5th April: Two records, one from Drinkfield Marsh, Darlington from Mike Hunter and one at nearby West Park NR by Pippa Smaling.

1st May: Tilery Wood, Wynyard Woodland Park from Steve le Fleming

2nd June: Disused railway at West Rainton from Richard Hockin.

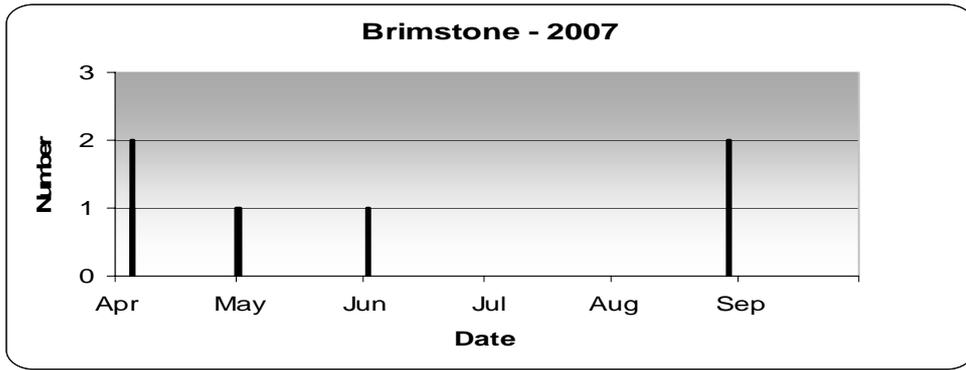
Pippa Smaling's and Mike Hunter's records are the earliest records in the new millennium. These April records are in adjacent tetrads and might possibly be of the

same butterfly!

The pattern (or lack of it) of occurrences continues to make the situation difficult to assess – all four sightings are new tetrads. This seems to suggest wandering individuals straying into our area but not as yet establishing a more permanent presence.

Pippa Smaling was then lucky enough to find two on her West Park transect in Darlington on 30th August.

Previous records in the north-east have extended as far north as Tweedmouth, so potentially, this butterfly could turn up anywhere in our region, and seeing one is basically a matter of luck.



Tetrad	Recorder	Site	Date
NZ2816	Mike Hunter	Drinkfield Marsh	5-Apr-07
NZ2616	Pippa Smaling	West Park NR	5-Apr-07
NZ4028	Steve le Fleming	Tilery Wood, Wynyard	1-May-07
NZ3046	Richard Hockin	West Rainton	2-Jun-07



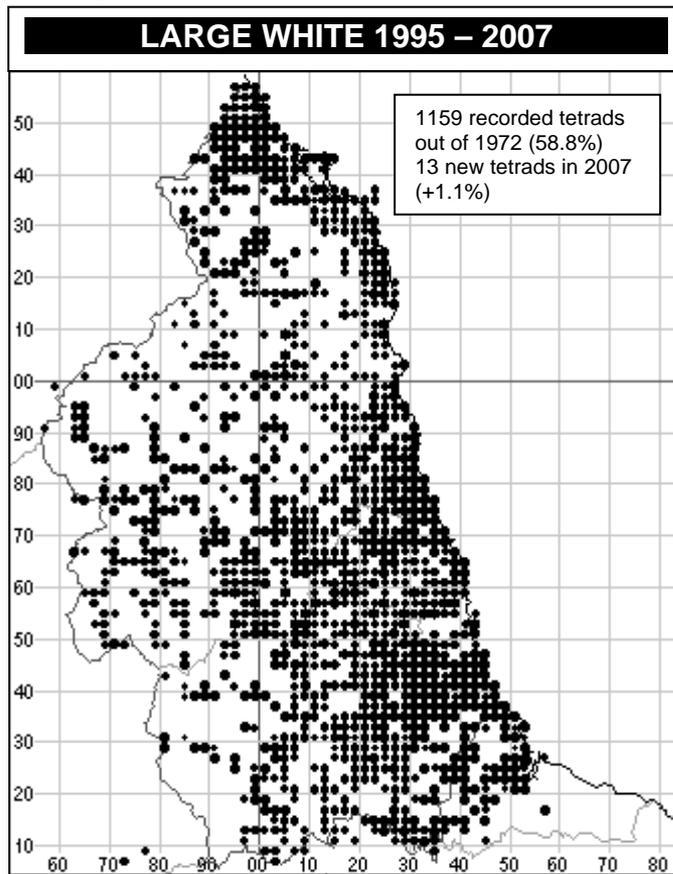
Brimstone (Mike Hunter)

Large White (*Pieris brassicae*)

2007: A total of nine hundred and forty-six records were received, relating to 2065 individuals – less than half the number recorded in 2006. Records came from 203 tetrads, 13 of them new ones. Large White was seen on the wing for 151 days out of a possible 211 (72%).

The first season's opening record came from Northumberland, with Julie Roper counting 2 at Berwick-upon-Tweed on 4th April. The following day, two

records started the season off for Durham, with singles from Mike Hunter at Darlington, and Graham Mitchell at White Smocks, Durham.

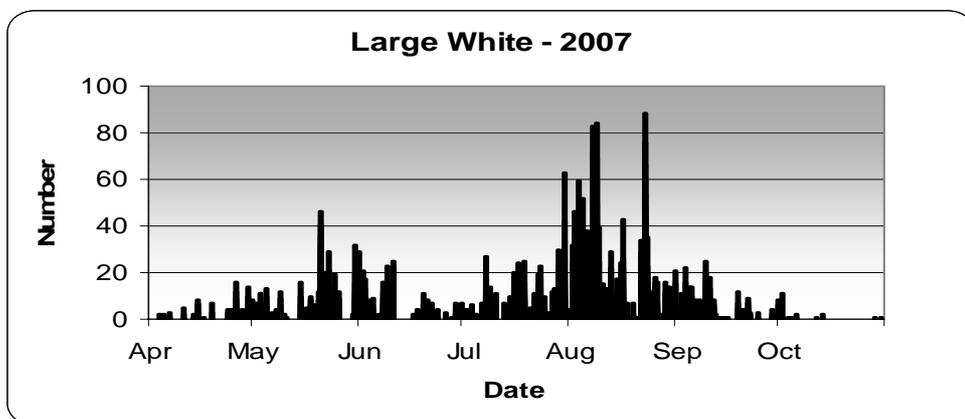


Numbers rose steadily throughout April and May, peaking in the fourth week of May, with the highest count of 14 coming from Joe Robinson at Rising Sun CP on 25th May. There was no distinct gap between generations, although the second generation probably began to emerge around the beginning of July. Numbers of second generation butterflies were higher than the first generation, although the peak count was still disappointingly low – a count of 37 from Les Stobbs at Newton Hall Junction on 4th August. The next highest count came from Andy Paciorek, who recorded 23 at

Howden le Wear on 5th August.

Northumberland's season came to an end on 14th October, with a single from Alan Johnston & Ian Davidson at Big Waters, and another from Dave Nicol at Corbridge. In Durham, Andy & Michael Paciorek recorded a single at Howden le Wear on 29th October, to equal last years record latest, before Andy & Yolanda Paciorek saw a single at the same site two days later, to beat the record latest date.

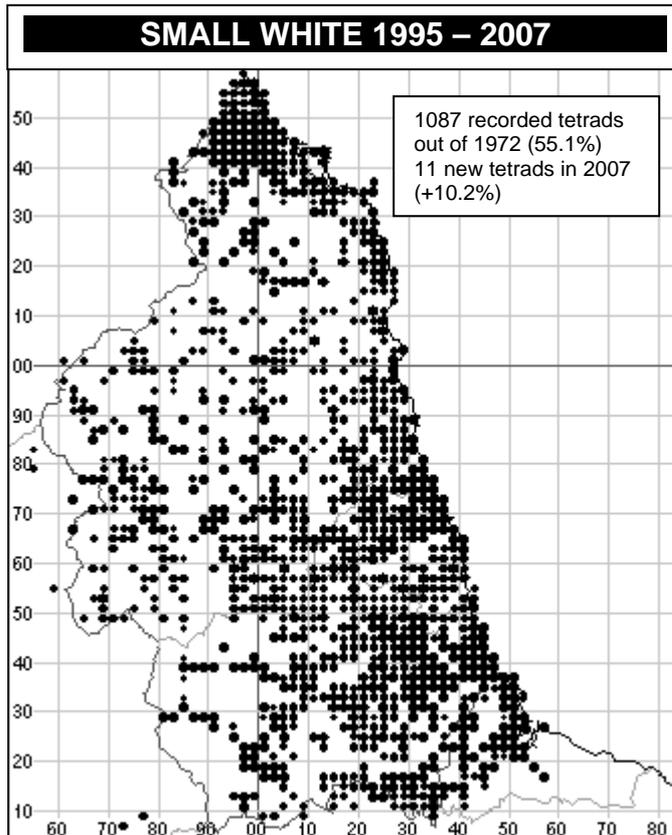
Andy Paciorek also provided the only larval record of the year, with a sighting at Howden le Wear on 2nd November.



Small White (*Pieris rapae*)

2007: This was the most numerous of our whites, with a total of 3477 individuals recorded from one hundred and ninety-eight tetrads, eleven of which were new.

Hew Ellis's single from his Tynemouth garden, on 25th March started the season for this species, which was also the first for Northumberland. Durham only had to wait a day, with Dave Wainwright recording another single, this time at Langley Moor on 26th March. A further four March records heralded the main emergence, which began in earnest in April.



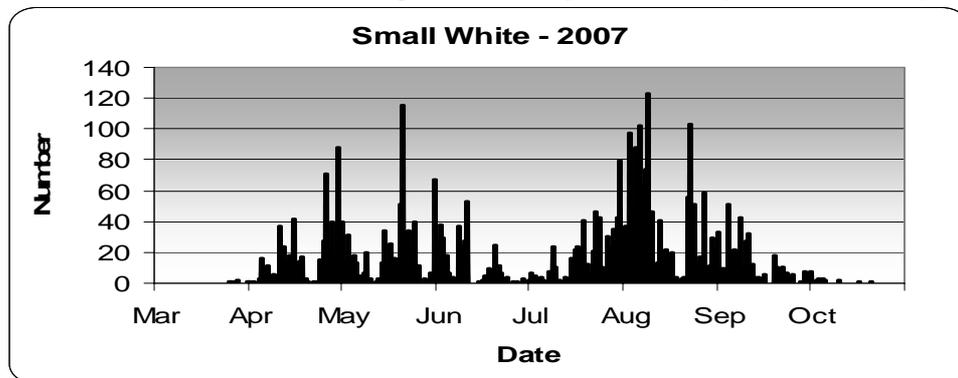
The warm weather in spring and early summer meant that peak counts of the spring brood were slightly higher than in previous years. The highest count for this brood came from Edith Turnbull, who counted 42 at Tommy-the-Miller's Field, near Berwick-upon-Tweed, on 31st May. The next highest count was from Roslyn Tanner, with 34 from Briedene Farm, Whitley Bay, on 20th May. Numbers started to decline throughout June, until the spring brood came to an end, and the summer brood began to emerge, around the beginning of July.

Typically, summer brood counts are much higher than spring brood counts, but the cold, wet summer weather kept numbers down, and the three-figure counts of previous years failed to materialise. Indeed, the highest count of the year was a very disappointing 56, from Joe Dobinson on 9th August at Rising Sun CP. Other good counts were: 42 by Edith Turnbull at Tommy-the-Miller's Field on 27th August; 42 from Andy Paciorek at Howden-le-Wear on 5th August; 39, again from Joe Dobinson at Rising Sun CP on 9th August. In fact, the ten highest counts came from four sites – the three mentioned above, and Briedene Farm.

Twenty October records were received, with the last five records being from Northumberland. Durham's final record came from Dave Wainwright, with a single at Newton Aycliffe on the comparatively early date of 6th October. In Northumberland, Small White hung on rather longer, with the penultimate record from the Alnwick Wildlife Group – a single at Smeafield Farm on 17th

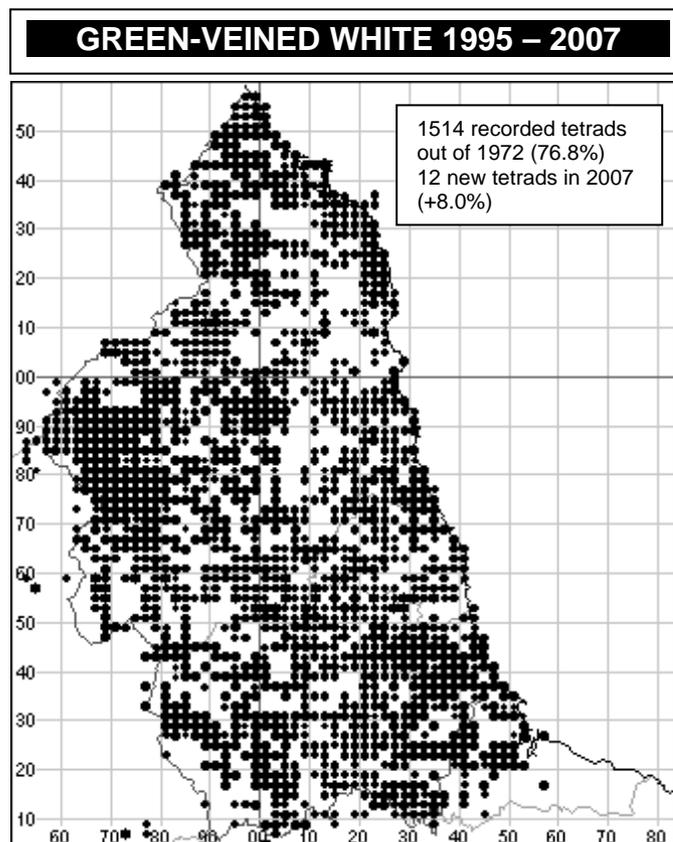
October, whilst the final record of the season came from Alan Davis, with another single at Hartley, near Seaton Sluice on 21st October.

Small White was on the wing for 173 days out of a possible 211 (82%).



Green-veined White (*Pieris napi*)

2007: Once again, this was the most widespread of our whites in the region, with eight hundred and seventy-one records coming from two hundred and thirty-eight tetrads, giving a total of 2803 individuals. All these totals are well down on the corresponding totals for 2006 and may well reflect the poor summer on 2007. Green-veined White was seen on the wing for 141 days out of a possible 190 (74%).

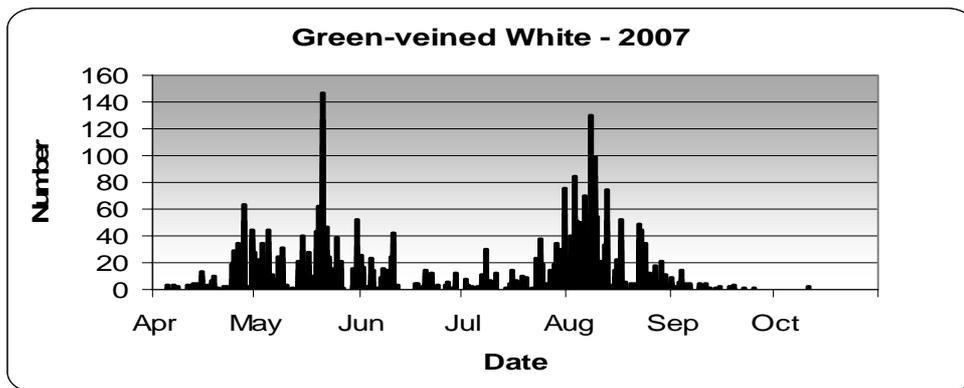


The first records came from Andrew Paciorek and Hew Ellis with respectively two and one at Low Barns NR and Bothal riverside on 5th April. The main emergence then started on 11th April and peaked on 21st May when 147 individuals were reported by observers, the highest counts being 20 from Dave Liddle at his Burn Hill transect and 19 by Simon Hodgson at his Tees Railway Walk transect. The graph below suggests a small lull in records in mid-June with four days of no records, (13th-16th inclusive). The fourth week of July saw numbers climb rapidly to their second generation peak of 130 individuals on 8th August.

By far the largest count was from Hew Ellis with 73 at Druridge Dunes on this day. Other large counts came from Alnwick Wildlife group with 30 on 3rd and 10th August at Smeafield Farm, nr Beal. Numbers then steadily declined

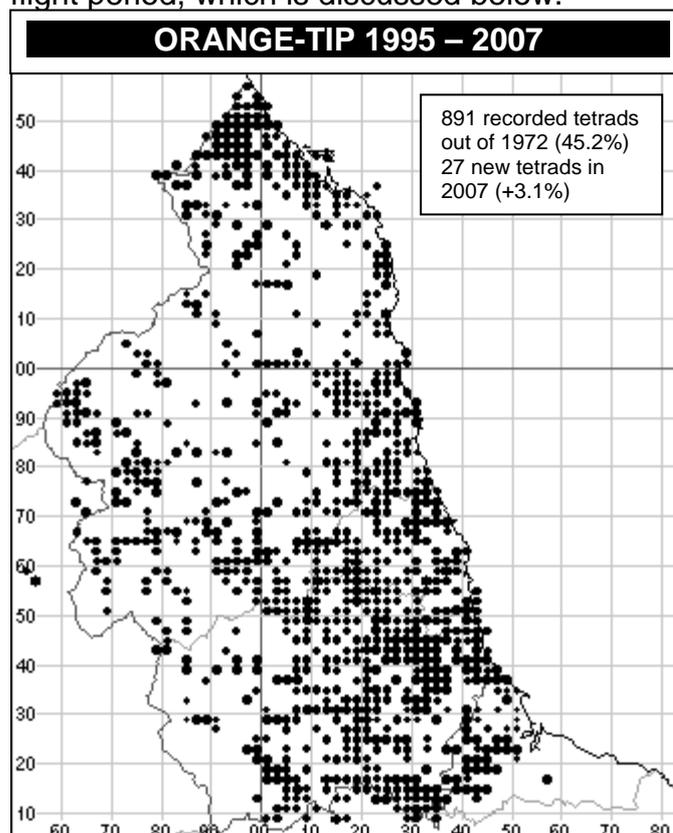
through August and September with the last Northumberland records coming from Joe Dobinson with two at Rising Sun CP on 18th September and by Dave Stebbings with one at Havannah NR the next day. The last Durham records came from Andrew Paciorek with one at Low Barns NR on 25th of September and from Stuart Priestley with two at Raisby Way on 11th October.

Only three ova records were submitted, from Bob Mawson on 9th May at Trimdon Grange and from Hew Ellis on 29th July and 3rd August at Pegswood and Wallsend respectively. Twelve new tetrads were added to the total of 1502 amassed since the start of the Butterflies for the New Millenium project



Orange-tip (*Anthocharis cardamines*)

2007: An indication of the dry and sunny spring in 2007 was the early emergence and good number of reports for this early summer white. Six hundred and forty-four reports of 2242 individuals were greater than the corresponding totals of 528 records and 2013 individuals for 2006. The main flight period lasted 126 days, and Orange-tip was seen on the wing for 70 days (56%). As in 2006, there was also one late record outside the normal flight period, which is discussed below.

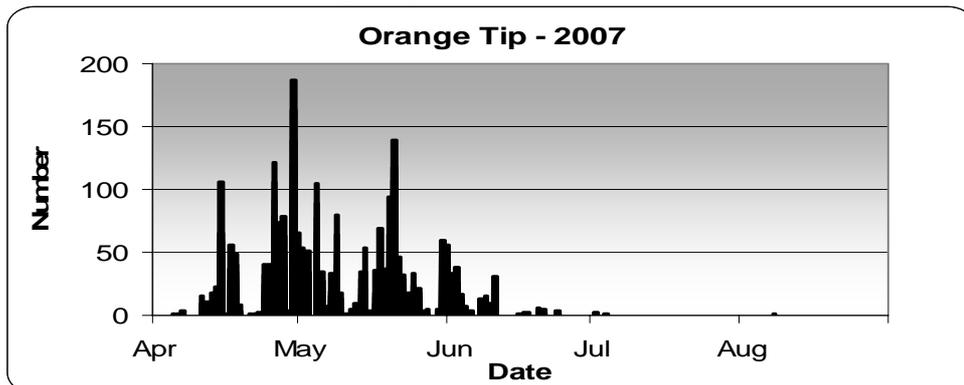


Like the other “whites”, the first record was around the middle of April, and Dave O’Brien started the season off with a single in Hardwick Dene LNR on 5th April. Mike Hunter was close behind also with a single at Brankin Moor the next day. The first Northumberland record came from Keith Smith with three at Close House, Wylam on the 7th. Thereafter, there was a flood of records from 11th April onwards. Numbers appeared to peak on 30th April when no less than 31 observers recorded a total of 187 individuals. There was a

second peak in recording on 21st May when 42 observers reported a total of 139 insects. The three highest individual counts all came from members of the Alwick Wildlife Group, with 50 on 18th May at Howick Dene and 40 at Cornhill-on-Tweed on 14th April, being the larger ones. There was then a steady decline until the last Durham record by Eddie Leadbitter on 2nd July at Cross, south of Shildon, and what could have been expected to be the last Northumberland record at Prudhoe CP by Roger Norman on 4th July. However J.M. Almond then had a very late single male on the Border Ridge on 8th August.

There was a record of a September individual in the 2006 report and an explanation offered of the larva occasionally over-wintering twice as a pupa. The second winter pupation may then be interrupted by unusual weather conditions causing an appearance well outside of the usual flight period. This or perhaps the unusually poor late June and July weather in 2007 may have been involved this time round.

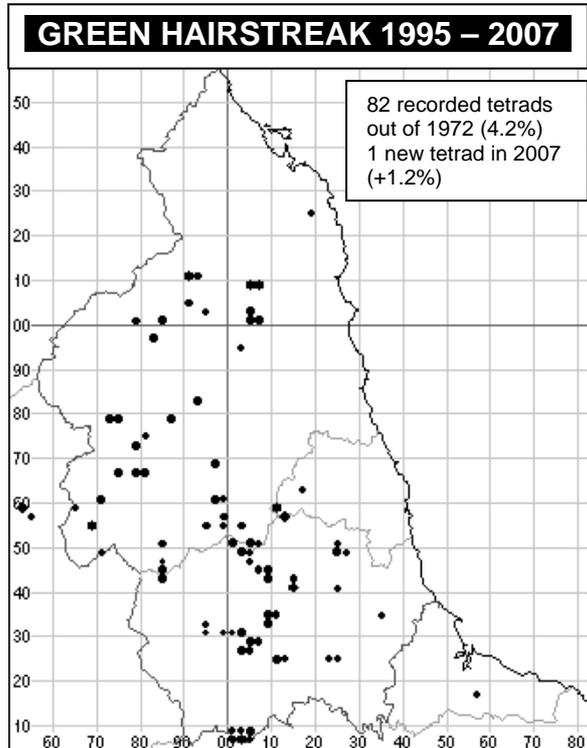
One larval record was submitted by Hew Ellis from the Rising Sun CP on 5th June and 25 ova records were also submitted, with the majority of these coming from Hew Ellis and Bob Mawson, and the remainder from Mike Hunter and Mike Jeffries. Orange Tip was found in 27 new tetrads in 2007.



Male Orange-tip in a Newcastle garden, 30th April 2007 by Roger Norman

Green Hairstreak (*Callophrys rubi*)

2007: A total of 25 individual records were received for a grand total of 301 butterflies. This is fewer records than last year but for a greater overall total of insects.



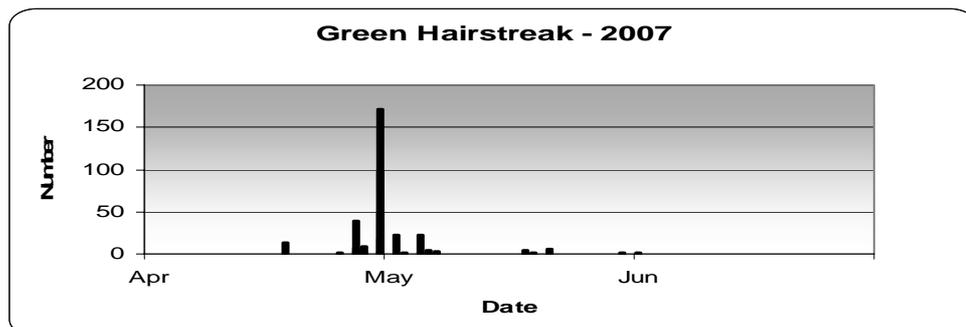
The first sightings of the year were on 18th April. These were of 10 at Dipton Woods from Keith Smith and 4 at Hedleyhope Fell from Dave Wainwright – Dave also posted the first sighting last year. Whilst this date is earlier than 2006, when the butterfly was first recorded on 23rd April, it has emerged earlier in recent years with sightings on 11th April in both 1997 and 2003.

Peak numbers appear to have been reached around last week of April / first week of May with numbers falling away into single figures thereafter. The largest count was once again recorded by Hew Ellis at Dipton Woods with a total of 73 individuals on 30th April.

On the same day, the duo of Roger Norman and Mike Natrass recorded 50, also at Dipton but at a different grid reference. Further analysis of the records shows that out of 301 individuals recorded, 212 of these came from Dipton Woods, which is a total of 70% of the total records.

Away from Dipton, the largest counts were of 22 at Hedleyhope Fell on 2nd May by Dave Wainwright and of 20 at Emma's Wood, nr Castleside on 5th May. The last record was on 1st June, of 2 insects, again at Hedleyhope Fell by Dave Wainwright showing that it can have a reasonably long flight period at certain sites with this location providing first and last sightings.

The preponderance of records from Dipton confirms that this remains a good site for the butterfly, however it is highly likely that Green Hairstreak is waiting to be recorded away from the known sites and recorders should continue to look in suitable habitat for it to gain a clearer picture of its distribution across our area.

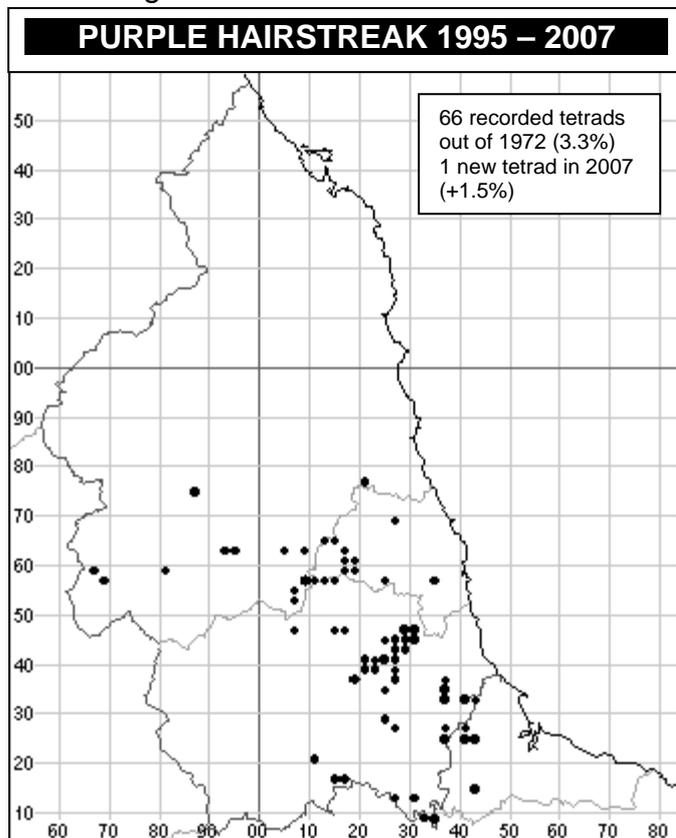


Purple Hairstreak (*Neozephyrus quercus*)

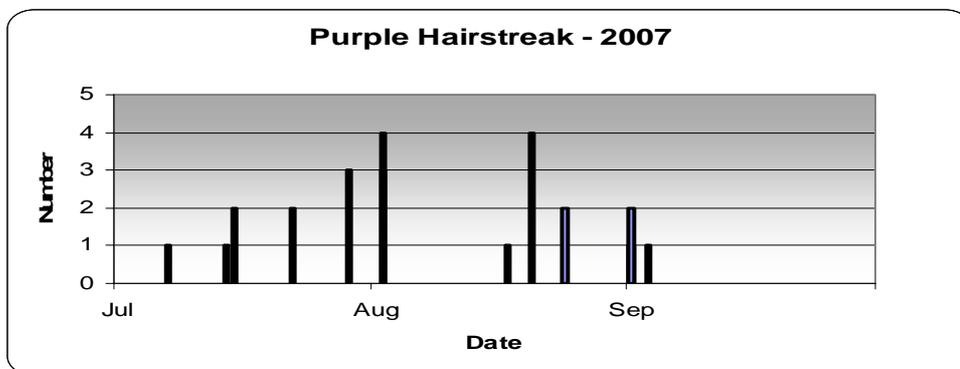
2007: This was a much poorer year for Purple Hairstreak, although this is unsurprising given the weather conditions during its flight period. Only 13 reports were received, from 9 tetrads, relating to only 23 individuals – less than half the number recorded in 2006.

Purple Hairstreak was recorded on 11 days out of a possible 59 (19%).

Dave Wainwright started the season off with a single on the roadside near Finchale Wood on 7th July, followed, one week later, by Mike Hunter’s single at the southern boundary of Wynyard Park, on 14th July. It was August before Northumberland’s first record, with Mike Nattrass and Roger Norman counting 3 at Lambley Viaduct, the westernmost colony of this butterfly in our region, on 2nd August.



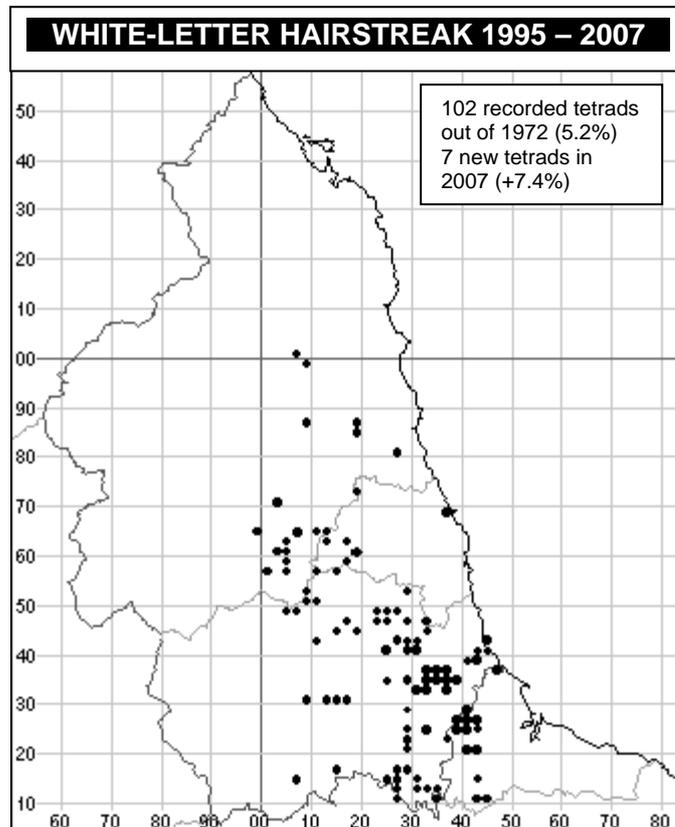
Peak counts in 2007 were low, with a maximum count of 4 from Bob Mawson, on 20th August at Fox Covert. The final record of the season came from Brian Pollinger, with a single at Thornley Woodland Centre on 3rd September. Northumberland’s latest was only a couple of days earlier, with Paul Drummond recording a single at Gosforth Park Nature Reserve on 1st September, which was also a new tetrad and a new 10km square (summarised below).



Tetrad	Recorder	Site	Date
NZ2668 (New 10km)	Paul Drummond	Gosforth Park NR	01-Sep-07

White-letter Hairstreak (*Satyrium w-album*)

2007: Unsurprisingly, given the summer weather, numbers of records for this species were much reduced in 2007. Thirty-five reports of adults were received, of only 76 individuals. However, it was recorded from 23 tetrads, of which 7 were new, and perhaps more positively, more ova and larvae were recorded than ever before – thirty records in total, and the species was recorded in its most northerly locality ever.



For the second year in five Dave O'Brien found the region's opener at Hardwick Dene LNR in Stockton-on-Tees, thanks partly to sharp eyes but also having what is widely regarded as the region's best White-letter Hairstreak site on his doorstep. This year his single on 22nd June was significantly ahead of his and Durham's second at the same site with five on 9th July, a surprising three weeks later. After Durham's trailblazer, Northumberland, always a tricky place to find this species was destined to wait a long time for their first. It was Roger Norman who

duly obliged finding three at Bywell Bridge on 24th July, over a month after Durham's first. Evidently news broke of Roger's find and there were reports from this site from three recorders in the last week of July and first week of August, including Mike Nattrass signifying Northumberland's joint second record with two on 28th July, coinciding with Roger Norman's single this time from Morpeth Bridge.

Dave Wainwright had the region's best count with six on 10th July at Langley Moor. The next highest counts were from Dave O'Brien, who made three counts of five, all at Hardwick Dene LNR.

Bob Mawson's efforts warrant recognition as over half the submitted records this year were from him at localities in and around Trimdon. This included larval records in April, May and June, ova records in January, February, March, June, September and November. Not content with that Bob even managed to complete the set with the finding of a pupa in July. In all of this activity, Bob also notched up a new tetrad, no mean feat given the effort he puts in each year to recording butterflies in his Trimdon area.

Martin Greenland, the UK's acknowledged expert on finding White-letter Hairstreak ova, was the only other person to find eggs with his four records contributing to an amazing four new tetrads in three entirely new 10km squares. Martin's records also signified a further north-west expansion of this species into central Northumberland.

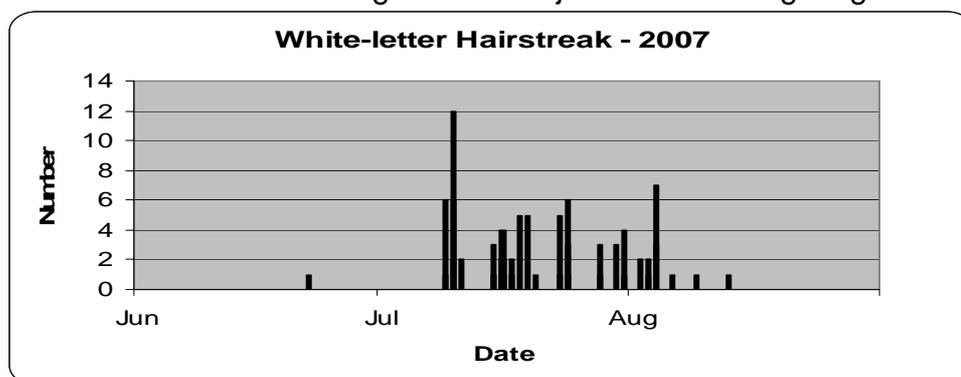
The new tetrads and 10km squares are summarised in date order in the table below:

Tetrad	Recorder	Site	Date
NZ3436	Bob Mawson	Kelloe	11-Feb-07 (ova)
NZ0886 (new 10km)	Martin Greenland	Hartburn	13-Jun-07 (ova)
NZ1884	Martin Greenland	Morpeth	13-Jun-07 (ova)
NU0600 (new 10km)	Martin Greenland	Rothbury	14-Jun-07 (ova)
NZ0898 (new 10km)	Martin Greenland	Forestburn	14-Jun-07 (ova)
NZ2246	Norman Walker	Fulforth Dene	16-Jul-07
NZ2248	Norman Walker	Sacriston Wood	31-Jul-07

Of the 27 new tetrads recorded for this species in our region in the last three years, 10 relate to finding ova, and of those, six were from Martin Greenland, solely using ova location techniques. Using ova has added significantly to our knowledge of this species' regional distribution, and is a valuable way of 'whiling away' the winter hours by undertaking productive distribution work. With practice eggs are not nearly as hard to find as adults! Of interest, the ova that Martin found in June this year were eggs laid the previous year which reveals the true extent of the all-year recording potential using this technique. However, a year old egg is much harder to find as it is invariably weathered, dull and sometimes algae-covered. It is a real testament to Martin's skill and technique that he is able to find eggs almost at will, and let's hope his evident enthusiasm will rub off on even more members.

Keith Smith's single at Wylam Bridge on 9th August brought Northumberland's year to a close, beating D W Nicol's single from the nearby Whittle Wood three days previously. Bob Mawson and Dave O'Brien vied for Durham's closing record with singles on 3rd August near Trimdon and Stockton-on-Tees respectively. However, they could not compete with John Coulson's single at Shincliffe on 13th August, which brought the region's year to a close.

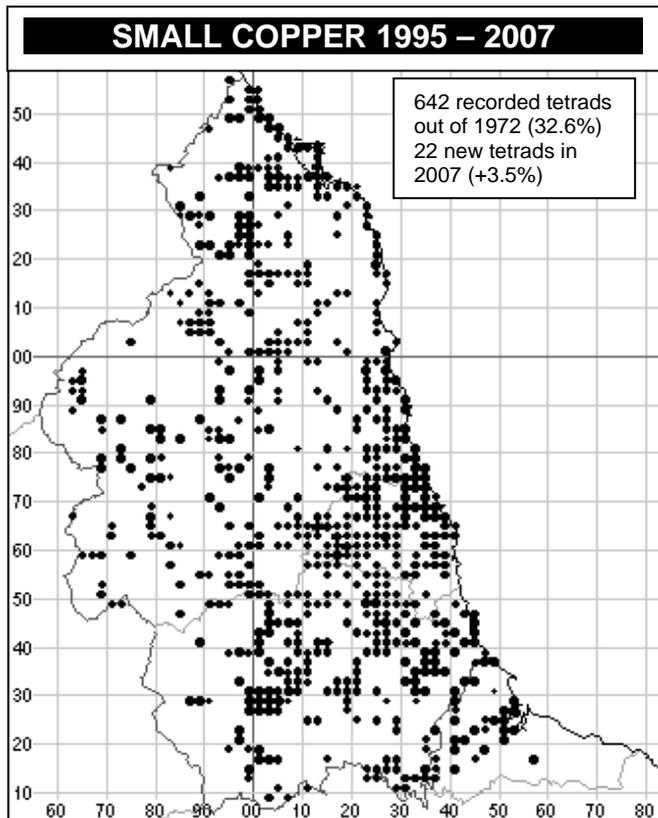
Emergence of this species in 2007 was the latest since the poor year of 2002, and it is now rare in our region to have just one June sighting.



Small Copper (*Lycaena phlaeas*)

2007: A total of three hundred and eighty-four records were received, down from 551 in the previous year. These recorded seven hundred and fifty-seven individual butterflies, only about half the number from 2006. The records covered one hundred and thirty-five tetrads of which twenty-two were new tetrads for the species. The flight period covered 186 days and the Small Copper was seen on 115 (62%) of these days.

The number of small coppers seen was considerably down on the very good year of 2006, but was about average for recent years.



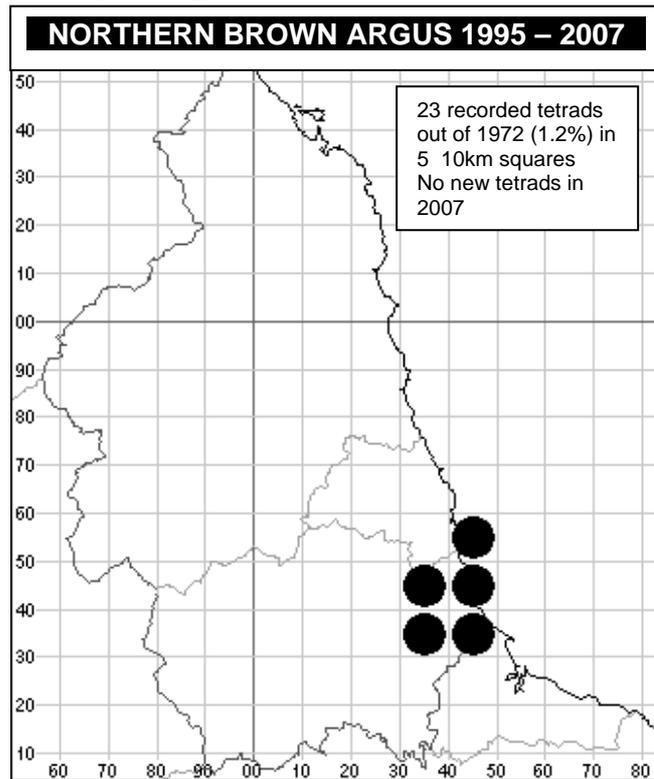
The season got off to an early start, probably due to the very fine weather in April 2007. Durham's first records were from Norman Walker, who saw two in Fulford Dene near Sacriston, and Bob Mawson seeing one on the Raisby Way, both on 26th April. Northumberland's first came just two days later when Keith Smith spotted one at Close House by the Tyne near Wylam on the 28th April, closely followed by a very respectable early season count of seven from Brian Pollinger at Ryton Willows also by the Tyne near Newburn on 1st May.

Counts of around 3 to 6 were common in May typical of the spring emergence. However, Hew Ellis's count of 18 from Weetslade Country Park near Wideopen on 2nd June was not only exceptional for the spring brood it also represented the highest count for the year anywhere in the region. This was probably a reflection of the good spring weather followed by the poor weather for the rest of the summer.

Numbers of Small Copper dropped during July but August marked the start of the summer generation and good numbers were reported through August and up to mid-September. Double figure counts were recorded again at Weetslade Country Park by Hew Ellis with fourteen on 9th August and by Dave Stebbings with seventeen on 26th August. This site must be a hot-spot for Small Copper. The only other double figure count came from Bob Mawson who saw thirteen on the Raisby Way on 26th August.

Mid-September marked a sudden decline in reports with only a handful of records after the 20th September. The season finished in Durham with John Mawson seeing one in a garden in Thornley on 2nd October and Bob Mawson reporting two from the Waskerley Way on 6th October. The year ended later in Northumberland with Keith Smith coming across one at Hethpool Mill near

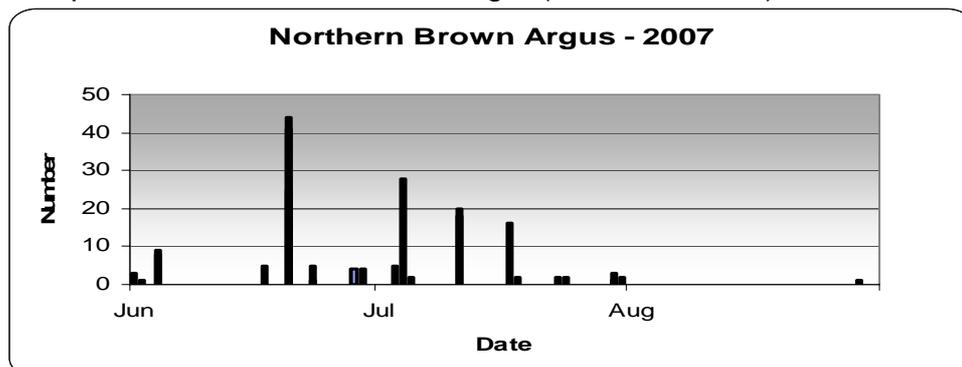
first three adults were seen on June 1st by John Hope at Thrislington Plantation. Ian Scott reported a single from Bishop Middleham Quarry the following day. Numbers peaked by June 20th, when 44 adults were reported from three of the region's sites that are monitored by transect: Mark Richardson recorded 16 and 3 at Bishop Middleham Quarry and Raisby Hill Grassland respectively, while John Hope's contribution for the day was 25 at Thrislington. John narrowly surpassed this count to achieve the region's highest for the year by recording 28 on his Thrislington transect on July 4th. It was most encouraging to receive several records from Raisby Hill Grassland, as only a single adult was seen there in 2006.



In total, 158 adults were recorded in 2007, compared with 489 in 2006. These figures are somewhat misleading, as all the region's sites were visited in 2006 during a survey undertaken on behalf of the Magical Meadows Project. In fact, all the records from 2007 derived from only three inland sites. Eggs were recorded from three sites: Dave Wainwright provided records from two (Bishop Middleham Quarry and Thrislington) and Sam Ellis the other (Thrislington). The latest sighting for the year (indeed latest ever for the region) was made on 29th August by John Hope at

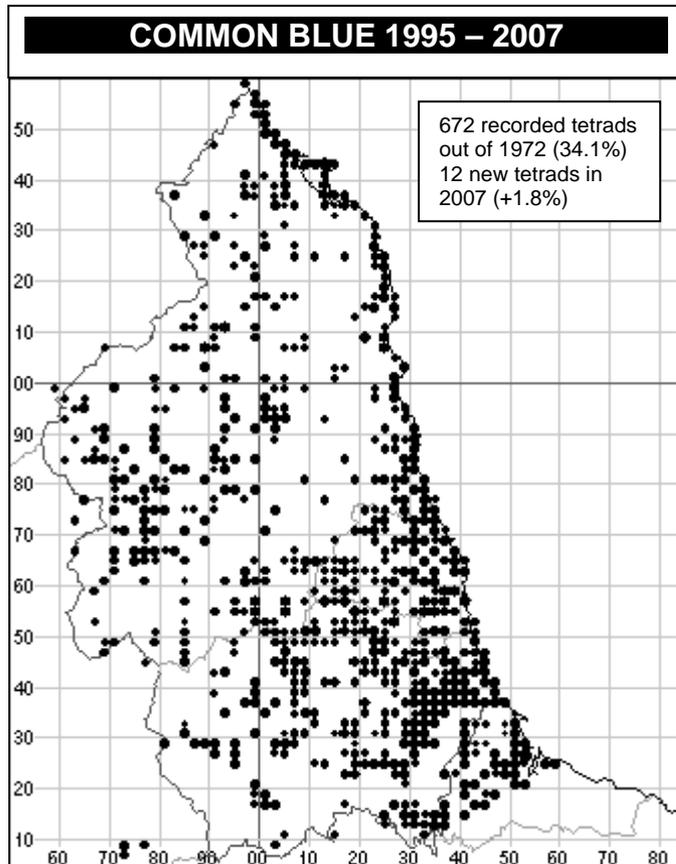
Thrislington. The penultimate sightings were made by Mark Richardson, who saw two at Raisby Hill Grassland on July 31st.

There is a growing body of evidence that the Northern Brown Argus is in decline within our region. Further monitoring, particularly of the coastal sites, is required to confirm this. If you would like to assist in this work by undertaking timed counts or a transect once a week during June and July, then please contact Dave Wainwright (0191 378 9216).



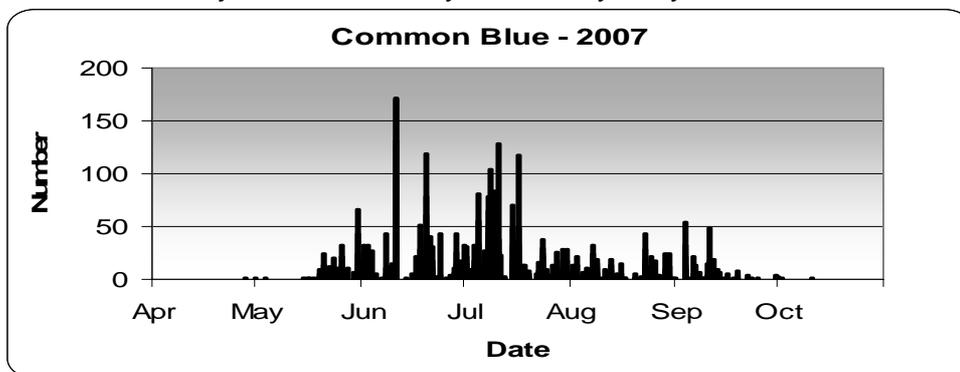
Common Blue (*Polyommatus icarus*)

2007: Common Blue was seen earlier and for longer than in any year since these records began, but barely half the usual total number of individuals was recorded over the year. The low numbers may reflect the general effect of the poor summer not only on the butterfly but also on its recorders, reluctant, like it, to linger in the miserable conditions; 510 records were submitted in 2007, against 674 in 2006, with a total of 2575 individuals recorded.



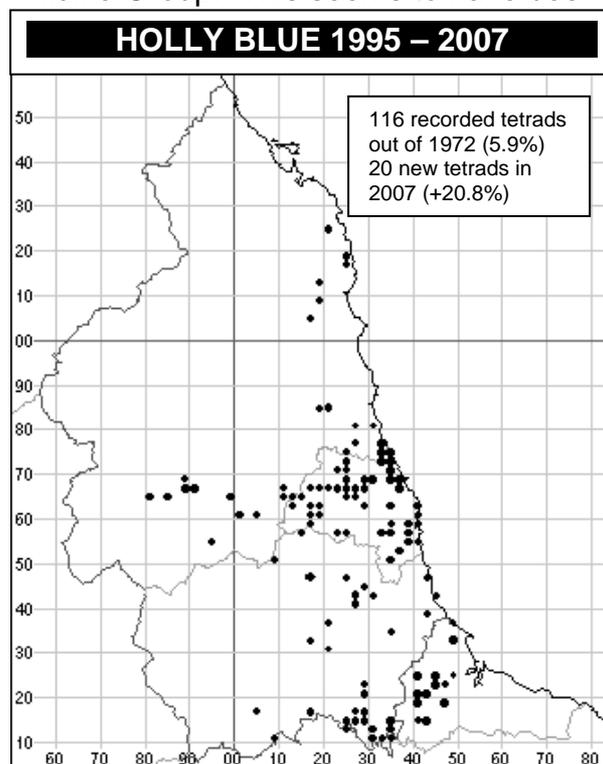
The warm and dry conditions in spring gave rise to an anomalously early record, with Graham Mitchell recording a single at Sherburn on 28th April, four days earlier than the previous earliest record. Another very early record came from Ian Scott, with a single at his Bishop Middleham garden on 4th May. These two records were out of the ordinary, however, and it wasn't until 15th May, a more usual date, that Bob Mawson recorded the region's next, at Raisby Way. Northumberland had to wait until Roslyn Tanner recorded one at Brierdene on 20th May.

There were also fewer large daily counts: on only four days did combined reports exceed 100, there were 130 on 11th June, 119 on 20th June, 130 on 11th July and 117 on 17th July (thanks in large measure to David Stebbings' transect records from Havannah LNR). These compare with seven peaks of over 200 in a day in 2006. The last was recorded by Stuart Priestley on Raisby Way on 11th Oct.



Holly Blue (*Celastrina argiolus*)

2007: Holly Blue was recorded on 80 out of a total of 158 available flying days. The earliest sighting was on 7th April at Wylam Picnic Site, recorded by Keith Smith, followed the next day by Barry and Jean Robertson at South Hylton, Sunderland. Terry Coult counted twelve at Malton on 12th April and on 27th April one was seen at the Alwick Infirmary, recorded by the Alwick Wildlife Group. This seems to have been the northernmost sighting of 2007.



Tim and Dorothy Nelson continued to monitor the first brood of the butterfly in their garden in Stockton-on-Tees between 14th April and 17th July, with thirteen records spaced over the four months. Roger Norman reported nine on 3rd May at Jesmond Old Cemetery. This seems to be a good site for first brood Holly Blues, with no less than thirty-five individuals being recorded there between 14th April and 6th May.

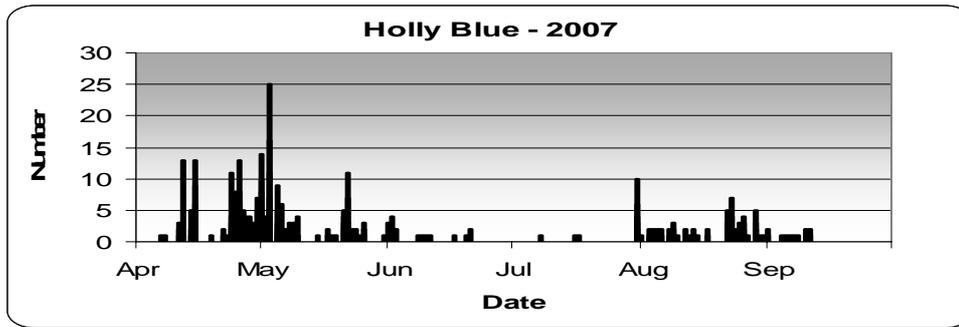
The gap between the two broods was of approximately two months, from the end of May until the end of July, with just twenty individuals being counted during that time.

Martyn Anderson recorded sightings of second brood individuals in his Stobhill garden on seven occasions between 23rd August and 8th September. He had one first brood record on 26th April. Hewitt Ellis reported the last sighting of the year on 19th September in North Shields.

There were one hundred and six definite records for the first brood and sixty-two for the second brood with the aforementioned twenty individuals falling between the two.

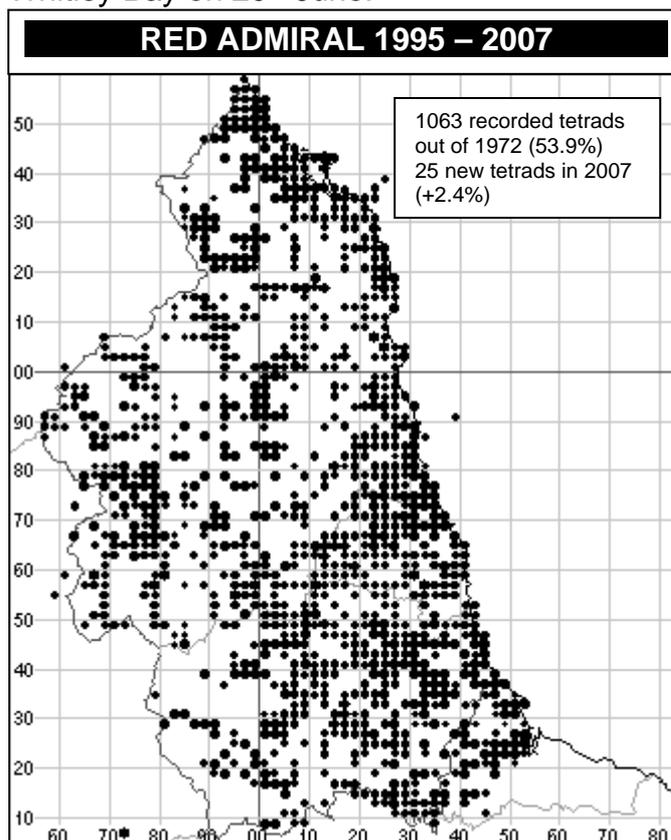
The butterfly was recorded from 57 tetrads, 20 of which were new, and also from 4 new 10km squares, 2 in Northumberland (NU10 and NU11), and 2 in Durham (NZ13 and NZ34).

A total of 284 individuals were counted from one hundred and eighty-nine records, this is an increase of 34% of individuals and 22% of recordings on 2006. Proof, if it is needed, that in spite of the poor season, the Holly Blue is spreading north.



Red Admiral (*Vanessa atalanta*)

2007: Of a total of 337 days of available flight time, the Red Admiral was only seen flying on 181, and as a consequence, the total numbers seen in 2007 were drastically reduced. During 2006, a total of 4416 were recorded, but in 2007, this fell by close to 53% to 2336, undoubtedly due to the poor season. The earliest record was, as for 2006, from Northumberland, seen by Brian and Jacqui Harle at Stobhill, Morpeth on 27th January, only four days later than the earliest sighting of last year. One each were seen as far apart as Gosforth Park and Stockton-on-Tees, on 3rd February. From then onward, the sightings became fairly regular, but in far fewer numbers, at a maximum of 5 at any one time, until Roslyn Tanner spotted seven at Brierdene Farm, Whitley Bay on 20th June.



Throughout June and July they were seen in ones and twos throughout the region rising to ten, recorded by Ian Davidson at Holywell Pond on 9th July, but it was not until the middle of September when numbers seen flying gradually increased. Ian Kerr recorded 15 on Holy Island on 23rd September, 27 were recorded at Stable Cottage, Brunton, by the Alnwick Wildlife Group in September, 20 at Wooler, by the same group on 6th October, 40 at Smeafield Farm, Belford, again by the Alnwick Group on 12th October, and 22 were counted in the Formal Garden at Cragside,

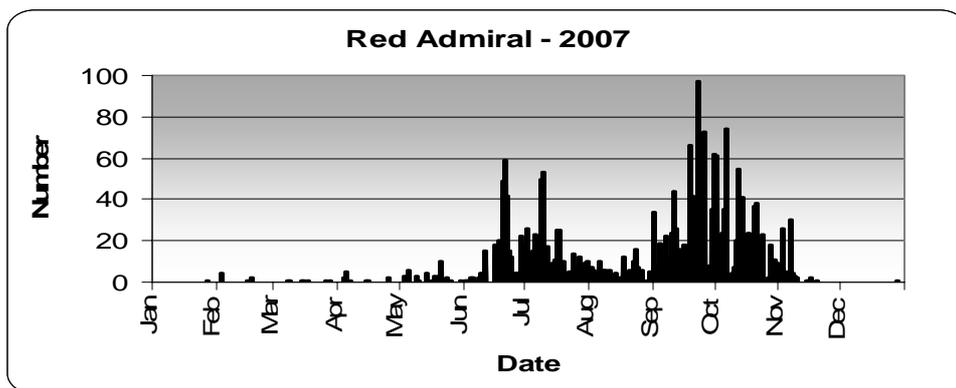
Rothbury on 24th October by a Committee member.

There were regular sightings during late September, October and on until the middle of November, but again, only in single figures. The last recorded sighting was on 28th December by Julie Roper at Howick. Northumberland claimed the earliest, latest and most sightings for one site in 2007.

Of the 1143 records sent in for 2007, 719 records were for single butterflies, and only twenty-four records showed the Red Admiral in more than double figures.

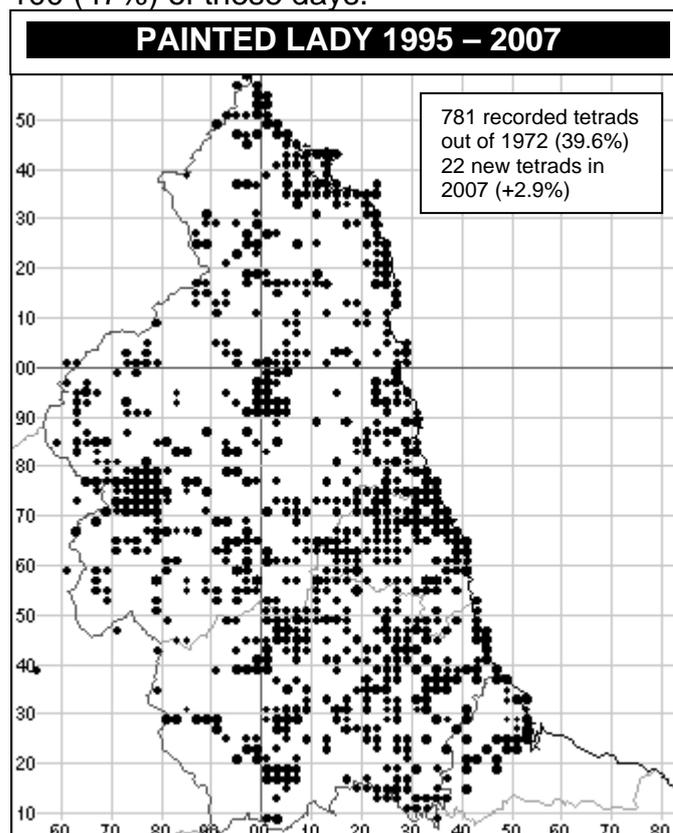
Twenty-five new tetrads were covered in 2007, an increase of 2.4%. The Red Admiral has now been recorded in one thousand and sixty-three tetrads on the North East England region.

Intriguingly, when preparing a butterfly report for the Forestry Commission in N. Yorkshire, Dave O'Brien noted that since 2000 the population of this species has fluctuated over a 3-year cycle, with one good year followed by two poorer ones. This is the case for data from the North Yorks Forestry Commission land, from VC62 (NE Yorkshire), and also for our region. If this continues to hold true, 2008 should therefore be a poor year, but with increased numbers in 2009.



Painted Lady (*Vanessa cardui*)

2007: A total of four hundred and eighteen records were received, less than half the number of the previous year. These recorded 789 individuals, only about a third of the number from 2006, from one hundred and sixty-five tetrads. The flight period covered 215 days and the Painted Lady was seen on 100 (47%) of these days.



It was a poor year for this migrant species. Good number arrived in early June but the bad weather of the summer meant a very small late summer generation.

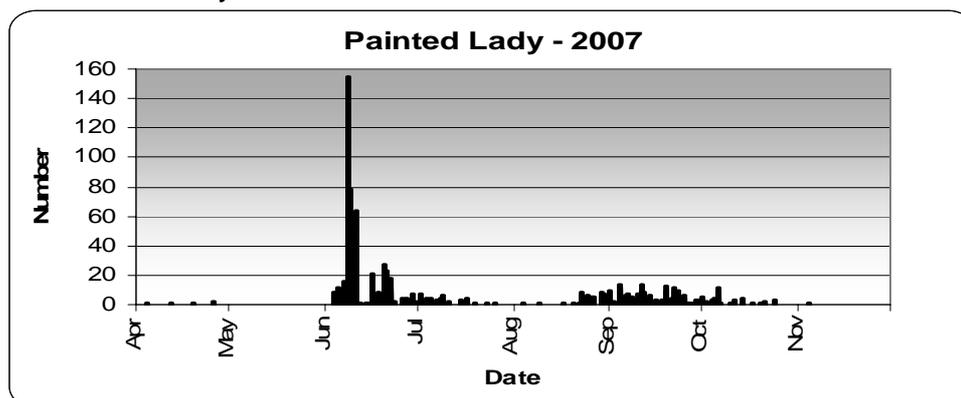
The first two sightings were both in Northumberland with Hew Ellis recording one at Hartford Hall Wood on the 4th April, followed by Martyn Anderson and Liz Naughton with one in Carlisle Park, Morpeth on 12th. Durham's first sighting was by Tammy Morris-Hale who saw one at Cow Plantation LNR, near

Ryhope on 19th April. One might wonder where these early butterflies came from?

There was then a big gap until 4th June when records started pouring in from all over the region, presumably marking the arrival of a flight of butterflies from southern Britain or the Continent.

Most reports were of fewer than five butterflies and many records were from coastal locations in North Northumberland. The highest counts for the year were on 8th June with 34 seen by Bob Mawson at Beadnell and 22 seen by Dave Stebbings at Weetslade Country Park near Wideopen. Ian Kerr counted 20 on Holy Island on 16th June. It is unusual for the highest counts for the year to occur in June as the peak counts are usually recorded in August for this species. Curiously there were no double figure counts for the whole year from anywhere in County Durham. The highest was from John Lawson who saw 9 in Stillington Forest Park near Stockton on 8th June.

With a reasonably good arrival in early June one would have expected their offspring to produce a good second generation in late summer. However, it was not a normal year. The poor weather of mid-summer must have taken its toll as numbers were very low in August and September. Most records for August and September were of single butterflies with no counts in double figures. The last Northumberland sighting came from Jaci Beaven who saw three at Cragside near Rothbury on 24th October. The last Durham record was from Terry Coult with one seen near Lanchester on 4th November.



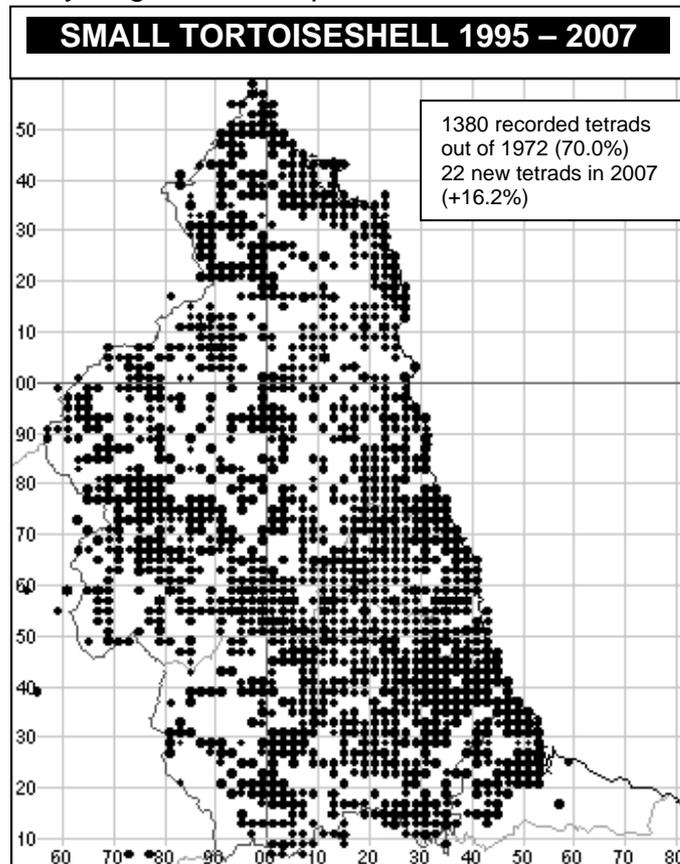
Small Tortoiseshell (*Aglais urticae*)

2007: A total of one thousand one hundred and sixty-two records were submitted for Small Tortoiseshell, with 2451 individuals recorded. Both numbers are similar to those for 2006. Small Tortoiseshell was seen on the wing for 184 days out of a possible 286 (64%), this is also a similar flight period to that of 2006.

Where the year got off to a different start from that of 2006 was with the early records. There were five sightings in the first two months of the year with the Alnwick Wildlife Group reporting one on 28th January near Morpeth and Ian Kerr then finding one at Beal the next day. In February, Brian Pollinger had one at Clara Vale on 5th, followed by Keith Smith on 13th at Craster and Pam Crisp at Whickham on 21st. These records are all earlier than in 2006, when the first record was not till 26th March.

The main emergence then occurred on 25th March and this over-wintering generation then peaked on 11th April, when 91 individuals were reported.

Almost all the reports were of single-figure records, with the largest counts being of 22 by Roslyn Tanner at Brierdene, Whitley Bay and of 18 at Havannah NR by Keith Smith, both on 12th April. The largest Durham counts were of 11 by David Laing at his Billingham Beck transect on 25th April and of 10 by Brian Pollinger at Shibdon Pond, Blaydon on 1st April. The lull between the first and second generation appears to have been in the middle of June, with records starting to increase in late June and peaking in late July and early August, when up to 75 were seen, on 31st July.



Numbers then tailed off for the remainder of the season.

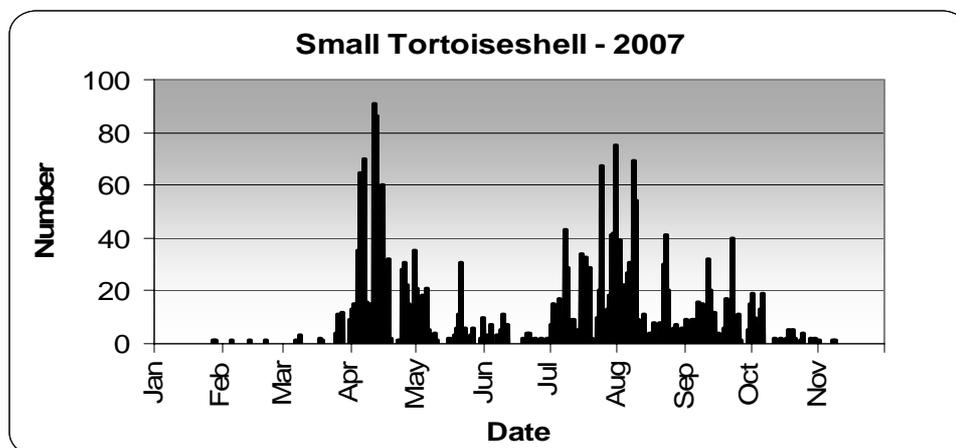
The highest individual counts by observers were of 25 by Hew Ellis at Druridge Pools in Northumberland on 8th August and of 14 by Malcolm Hutcheson at Lamberton, North of Berwick the next day. In Durham, the best counts were of 17 by Dave Liddle at his Burn Hill transect on 31st July and of 16 at Stillington Forest Park by John Lawson on 24th July.

The last Northumberland records were all in gardens, with 1 at East Ord, Berwick on 1st November and 1 in Corbridge on 7th by Dave Nicol.

The last Durham records came from Bob Mawson, with a single at Raisby Way on 30th October, followed by the last record of the year for the region by Graham Mitchell of a single at Hardwick Hall on 8th November.

There were ten records of larvae between 2nd and 24th June by Hew Ellis and Andy Paciorek, and a single record of larvae on 10th August by Hew.

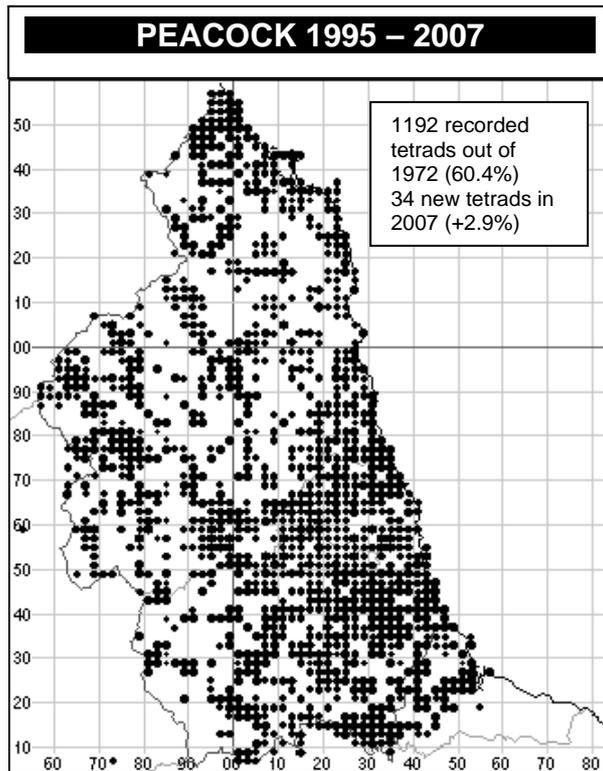
Small Tortoiseshell was recorded in 266 tetrads, of which 22 were new ones.



Peacock (*Inachis io*)

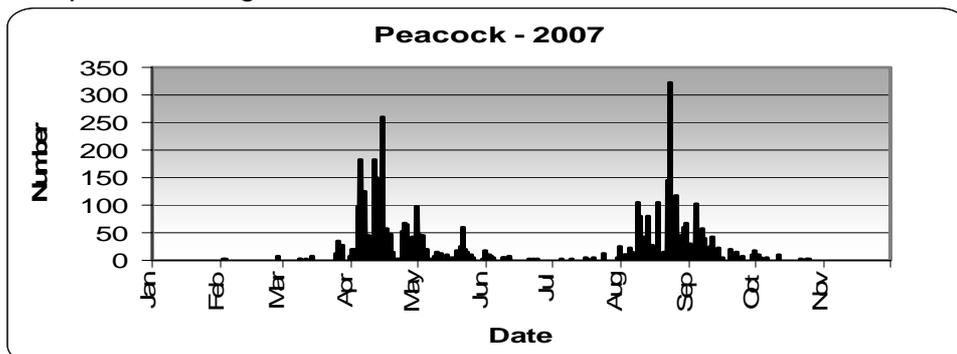
2007: After Meadow Brown and Ringlet, this was the third most numerous butterfly recorded in our region, and the most widespread. A total of 4574 individuals were recorded from three hundred and five tetrads. Peacock was seen on the wing on 174 days out of a possible 317 (55%).

The season started with a single January record, when Peter Harvey recorded a single at Blaydon on 19th January. The next records were both on 2nd February, when Alnwick Wildlife Group recorded a single at Swarland for Northumberland's first, and Norman Walker recorded a single at Fulforth Dene.



The main emergence began around the end of February, with numbers steadily rising to peak in mid-April, before declining. Unusually, the spring brood provided the highest count of the year, when Alnwick Wildlife Group counted 100 at Cornhill-on-Tweed on 15th April. There was no clear division between the broods, with the summer generation probably appearing around mid-July. Numbers peaked around the third week in August, although peak counts were disappointingly low: Dave Stebbings counted 31 at Havannah LNR on 22nd August, whilst Dave Nicol recorded 29 at Whittle Wood, and John Hope recorded 27 at Thrislington Plantation NNR, both on 23rd August. A number of records of larvae were received, from Hew Ellis, Tom Hutchinson, Dave Wainwright, Dave O'Brien, Bob Mawson, Mike Jeffries, and Roger Norman, with most of the larvae seen in July.

Three November records brought the season to an end: Durham's last was recorded by Andy Paciorek, who saw a single at Howden on 2nd November; two days later, Mike Hodgson recorded a single at Bamburgh, but the final record of the year, and Northumberland's last, came from the Alnwick Wildlife Group, with a single at Smeafield, on 30th November.

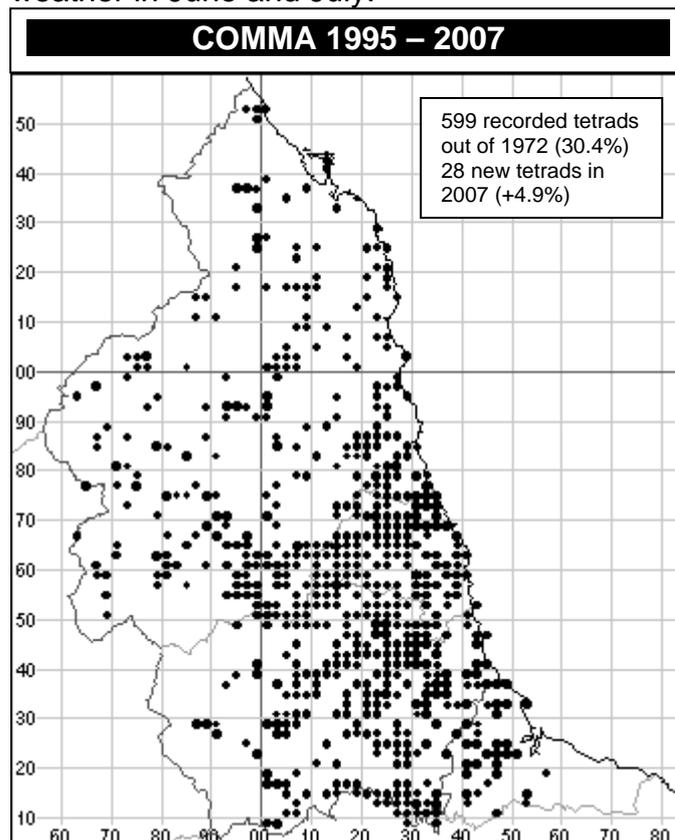




Peacock larvae,
(Dave O'Brien)

Comma (*Polytonia c-album*)

2007: A total of seven hundred and seven records for Comma were received and a total of 1154 individuals were seen in 2007. These figures are very similar to those for 2006, when 684 records and 1386 individuals were reported. This indicates that Comma had a good year despite the wet weather in June and July.

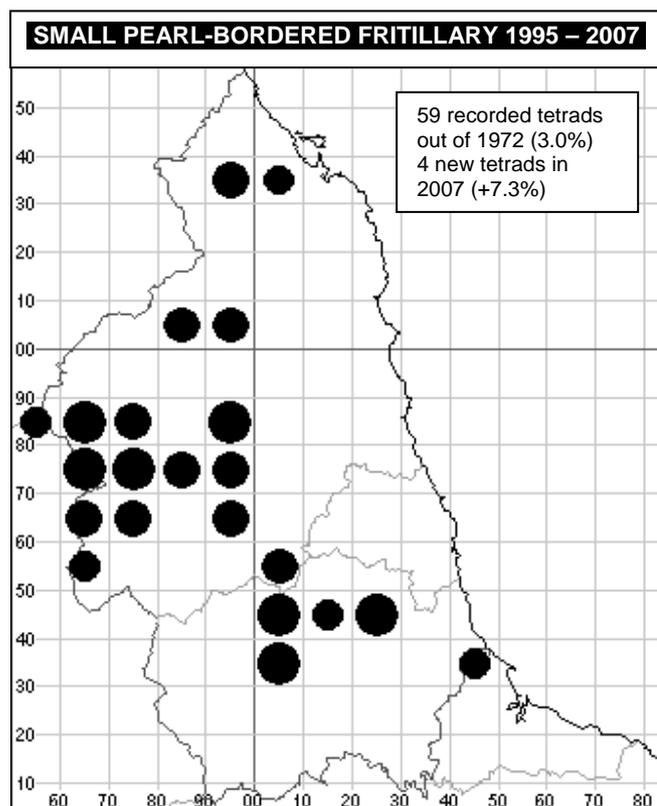


In contrast to 2006, the year got off to a very early start with three records of individuals probably coming out of hibernation too early. Dave Wainwright had the first, at Shildon Sidings on 3rd February and Keith Smith had one in Gosforth on 14th February. Tom Hutchinson saw one at Raisby Way on 8th March. Following Ian Davidson's single at Gosforth Park on 21st March, there was a flood of records from 25th March onwards. The first generation peaked very early, on 4th and 5th April when 36 and 37 individuals were reported respectively, including a remarkable 16 at

Havannah NR by Dave Stebbings and six by Hew Ellis at Hartford Bridge, Bedlington on 4th April. This first generation petered out by the end of May with very few seen through June. However, the start of July saw the second generation, with George Simpson seeing six at Shibdon Pond, Blaydon on 5th July. The peak counts for the region were of 41 individuals reported on both

Small Pearl-bordered Fritillary (*Boloria selene*)

2007: Thirty-eight reports were received for this species, as compared to forty-two in 2006 and only fourteen in 2005. This year's reports related to 281 individuals from fourteen tetrads. There were nineteen records from thirteen different sites in Northumberland with two new tetrads recorded. In Co Durham, there were also nineteen records from thirteen or fourteen sites, including two new tetrads. All of the Northumberland records came from Gordon Simpson, Keith Smith, Roger Norman and Ken Dawson.



The first records came from Dave Liddle with 1 adult on the 4th June at one of the Durham A68 sites, followed by 12 on 11th June at the same site. The highest counts of the year at these sites came from Dave Liddle's transect which samples two of the A68 sites, with 25 on 2nd July. Other high counts from the transect were 19 on 20th June and 19 on 8th July. Bob Mawson also had 19 on 20th June at a nearby site. All these counts are somewhat lower than the major counts in 2006. The first Northumberland count was of 6 by Gordon Simpson in Wark Forest on 18th June. There were only three double

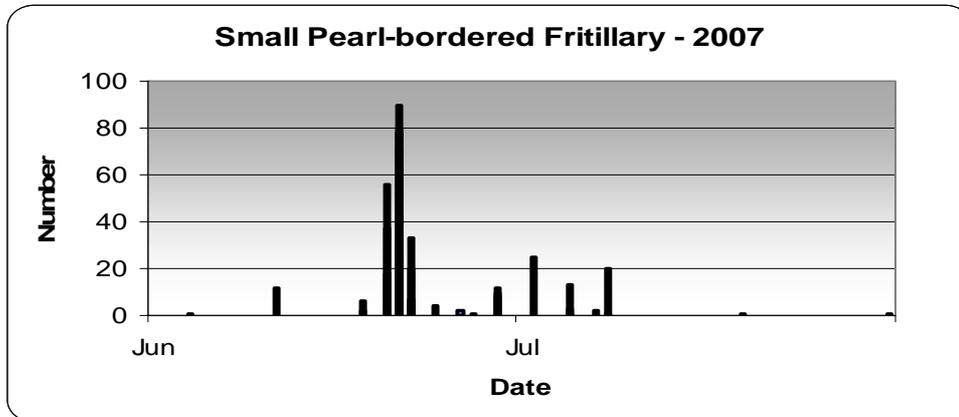
figure counts from Northumberland, the highest being 38 from a Sweethope Lough site by Roger Norman on 21st June and 19 from a nearby site, also on the same day. Gordon Simpson recorded 16 at a site in Wark Forest the previous day. The last Northumberland record was from Ken Dawson with 1 at Sweethope Lough on 8th July. The last Co Durham records were singles at an A68 site from Dave Liddle on 19th and 31st July.

The Small Pearl-bordered Fritillary was seen on 16 days out of a possible 58 (28%) in 2007.

The conservation status of this UK BAP species in Co. Durham was summarised in last year's report and hard work by a number of people has continued to assist its prospects. The position in central Northumberland is that there appear to be considerable areas that could hold colonies and that there are many areas still to be explored. The poor weather of 2007 in July, during its flight period, probably prevented the discovery of more sites for this butterfly.

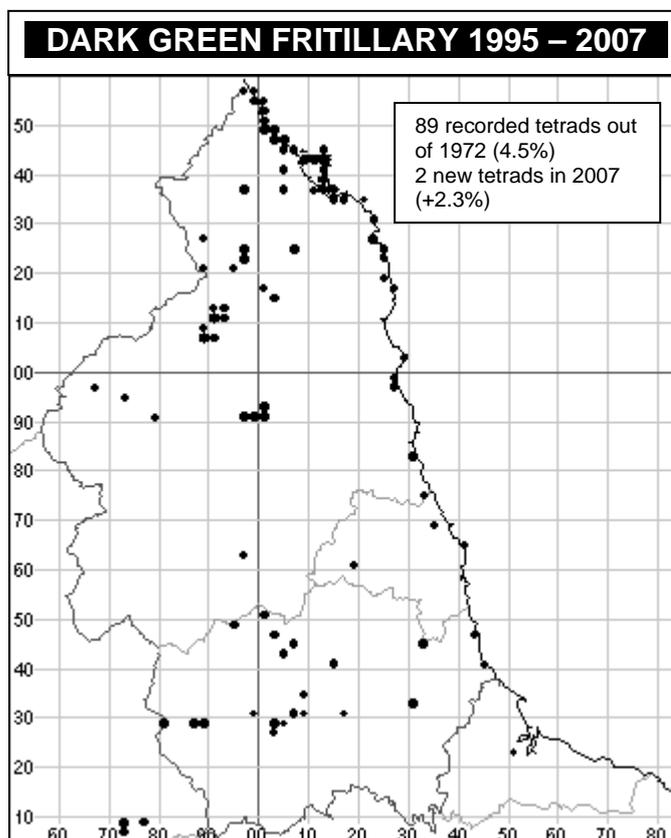
Small Pearl-bordered Fritillary was recorded in four new tetrads but no new 10km squares, and these are summarised in the table below:

Tetrad	Recorder	Site	Date
In NY78	Gordon Simpson	Wark Forest	18-Jun-07
In NY98	Roger Norman	Sweethope	5-Jul-07
In NZ04	David Brown	Castleside	21-Jun-07
In NZ04	Sam Ellis	Castleside	26-Jun-07



Dark Green Fritillary (*Argynnis aglaja*)

2007: This was a much poorer year for Dark Green Fritillary, with 52 records received, of 525 individuals, less than half the number recorded in 2006. This is not surprising, given that the peak of the flight period coincided with the worst of the weather.



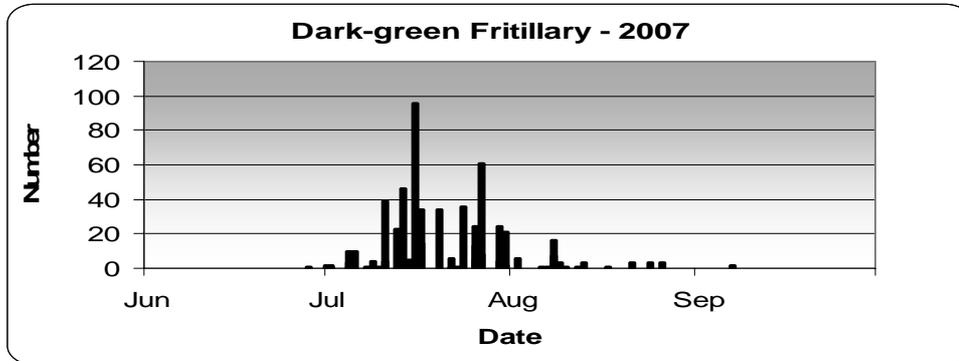
The first record of 2007 came from Sam Ellis and Dave Liddle, with a single at Cat Back, north of Wolsingham, on 28th June, which was also a new tetrad. The next two sightings, both on Lindisfarne, came from Phil Davey and from Brian & Jacqui Harle, who recorded singletons on 1st July.

Numbers quickly rose, and the first double figure count came on 6th July, with a count of 10 from Ian Kerr on Lindisfarne. This site provided all the highest counts, with the peak being Phil Davey's count of 95 from his transect here on 16th July, and the second highest being Keith Smith's 53 on 27th July.

Away from Lindisfarne, the highest counts were both from Ross Back Sands, with Eric Meek counting 19 and 15 from two different parts of this site on 17th July.

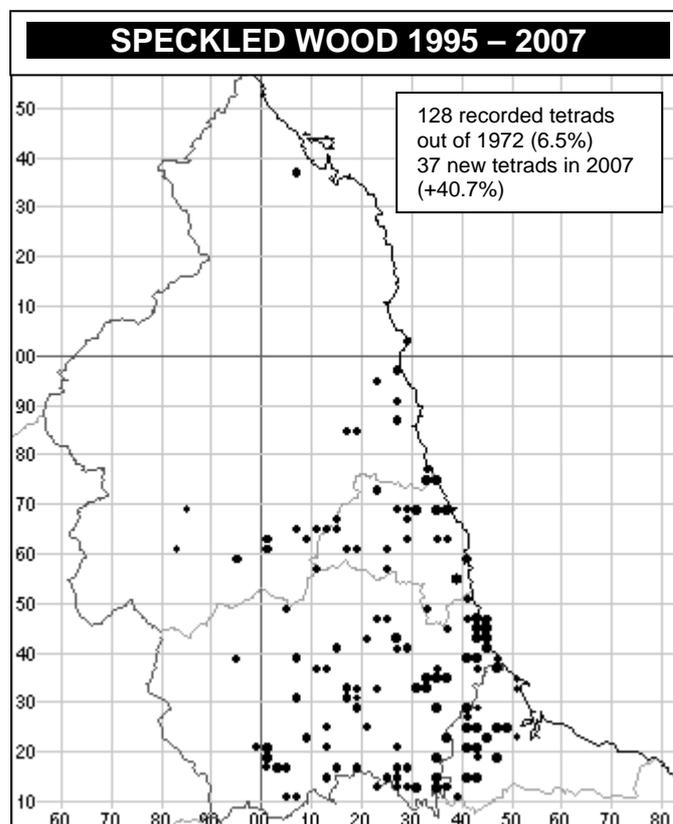
Numbers steadily declined after the first week in August, and Durham's final record came on 21st August, with Darryl Cox's count of 3 at Burnhill, near Waskerley. On Lindisfarne, the butterfly held out until September, with Barry Prater counting 2 on the 7th. This brought to an end a poor year for Dark-green Fritillary.

Dark-green Fritillary was on the wing for 35 days out of a flight period of 72 days, (49%), and was recorded from 19 tetrads, of which 2 were new.



Speckled Wood (*Pararge aegeria*)

2007: Another tremendous year for this butterfly, which continued to expand in the northeast. A total of 1223 individuals were recorded from seventy-six tetrads, with records from thirty-seven new tetrads and four new 10km squares, of which two were in Durham (NZ05 and NZ25), and two were in Northumberland (NZ28 and NU03). Encouragingly, a good number of records came from Northumberland, demonstrating a continued northwards expansion.



As Speckled Wood continued to expand and become more common in our region, it was expected that the record earliest date would be beaten, and so it was, helped no doubt by the warm, dry weather in Spring. The lucky finder was again Dave O'Brien, who recorded the years first at Hardwick Dene LNR on 5th April, a full four weeks earlier than his previous earliest date. The same individual was also seen by Mike Hunter, who visited the site later that day. The next record wasn't for a further six days, when David Laing recorded an individual at Billingham Beck Valley CP on 11th April.

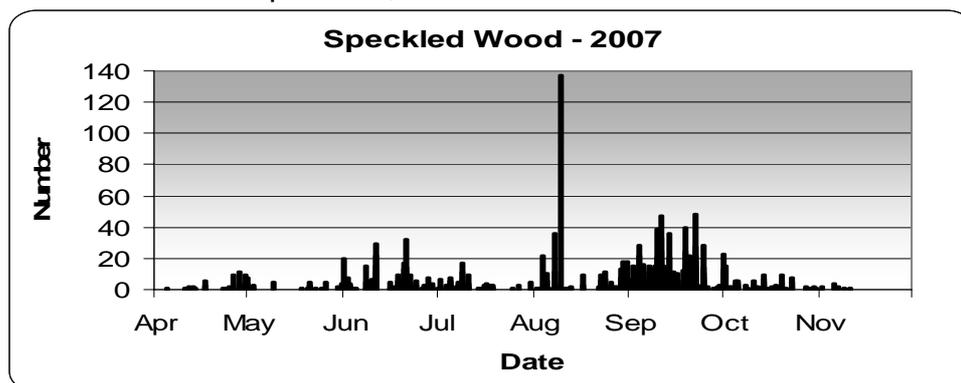
Northumberland had a bit longer to wait, with Mike Coates recording a single at Northumberland Park on 5th June.

This species has two broods, with the first brood showing two peaks – the first peak is from individuals that over-wintered as pupae, with a second, later peak of individuals that over-wintered as larvae. This first brood appears to have ended around the middle of July, with the second brood emerging shortly afterwards.

Most counts of the first brood were fairly low, with the exception of a count of 17 from Tim & Dorothy Nelson at the Whinnies LNR on 1st June. Second brood counts were higher, with Tim & Dorothy counting 25, again at the Whinnies, on 8th August. However, they eclipsed this count two days later, when they recorded an astonishing 137 at Preston Park, near Eaglescliffe, on 10th August. Also worthy of mention is Mike Natrass's count of 21 at Preston Cemetery in North Shields on 22nd September. This was Northumberland's highest count, and good numbers were recorded regularly at this urban site.

In Durham, Speckled Wood remained on the wing until 23rd October, with the final record coming from Steve Le Fleming, who recorded a single at Tilery Wood, Wynyard Woodland Park, equalling last year's record latest date. In Northumberland, however, it hung on rather later, with five November records coming from Mike Coates, at Northumberland Park. The season finally came to an end there on 11th November, with Speckled Wood being recorded on the wing for 138 days out of a total of 221 (62%).

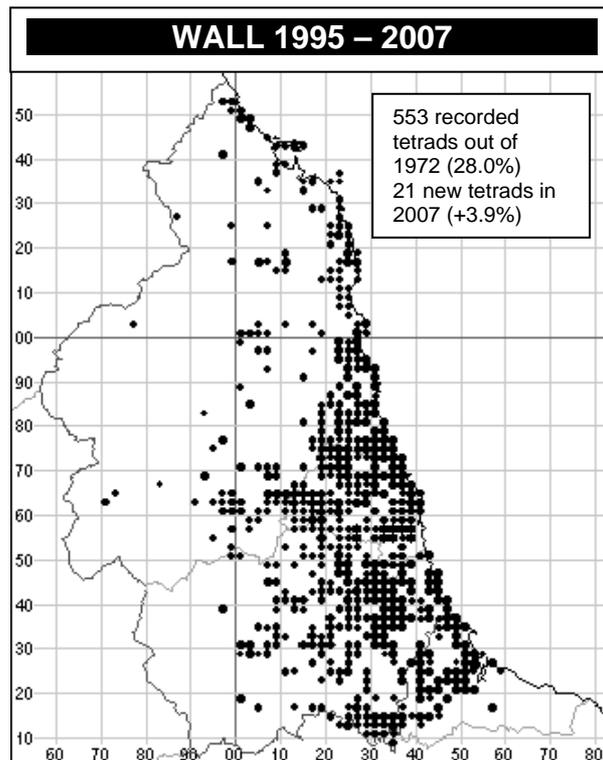
Particular mention should be made of a June record from Geoff Dobbins, who saw 2 butterflies at Detchant Woods, north of Belford in June. This is a considerable distance from all the other records received, and is a new northerly record for the English population. It demonstrates the potential for expansion exhibited by this species. The site was also visited by Roger Norman on 25th September, who counted 2 second brood individuals.



Wall (*Lasiommata megera*)

2007: A total of eight hundred and ten records were received, down from 949 in the previous year. These recorded 2930 individual butterflies, down from 5303 in 2006. The records covered one hundred and sixty-four tetrads of which twenty-one were new tetrads for the species. The flight period lasted 201 days and the Wall was seen flying on 112 (56%) of these days. It was

another good year in the North East for a species which is giving cause for concern due to declines over much of southern England.



The season got off to a surprisingly early start with Roslyn Tanner seeing four at Brierdene Farm, Whitley Bay on the 4th April; a record early date for a sighting of Wall in the region. The first sighting for Durham came from Ian Scott who saw one at Bishop Middleham on a 3 mile walk on 7th April.

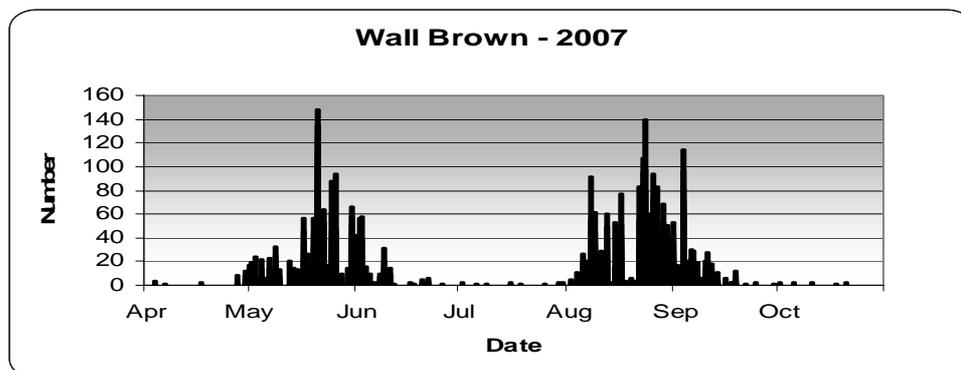
From the beginning of May numbers increased steadily. The peak of the spring brood was in May - slightly earlier than normal and undoubtedly due to the exceptionally warm spring. Brian Pollinger counted 20 at Stargate Ponds on 13th May. Joe Dobinson recorded 29 at Rising Sun Country Park, Wallsend on 22nd

May and Martyn Anderson and Liz Naughton saw an amazing 47 at Ashington Pit on 26th May, the highest count of the year for the region.

As is normal with double brooded species numbers dwindled from mid-June through July but picked up again from the beginning of August as the second generation emerged.

Heather Dunn saw 37 at Heathers Field near Blaydon on both 8th and 15th August. Barry and Jean Robinson counted 25 at Low Ford Quarry, Sunderland on 17th August. Joe Dobinson saw 41 at Rising Sun Country Park on 24th August. These represented the peaks of the second generation, although nearly fifty records were received of counts in double figures.

Many records continued to come in until about 20th September, after which numbers dwindled rapidly. The final record for Durham came from Stuart Priestley who came across three on the Raisby Way on 11th October. The final record for Northumberland was from Alnwick Wildlife Group who saw three at Cheswick near Berwick on 21st October, a record late date for the sighting of Wall in the region.





Wall, at Linton Pond,
Northumberland,
17th August 2007
by Roger Norman

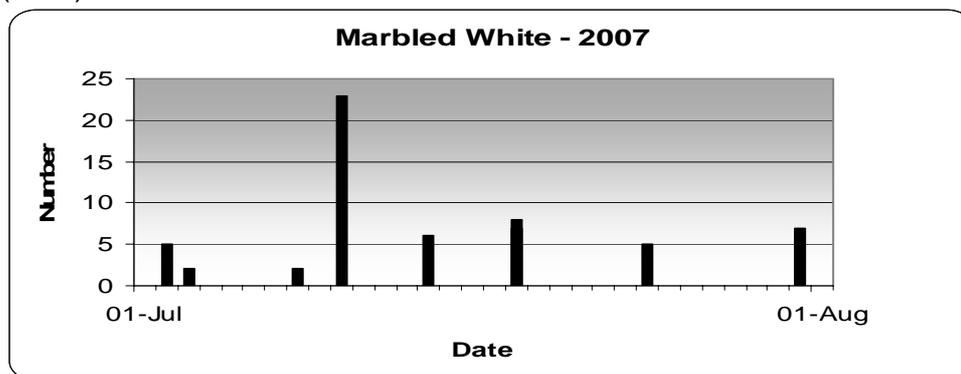
Marbled White (*Melanargia galathea*)

2007: Marbled White was recorded only at Wingate Quarry, its original planned release site seven years ago; in 2006 individuals had been seen at 2 additional sites in the region.

Nine records were received in 2007, of 65 individuals. Just over half the records came from Bob Mawson, with David Brown, Mike Hunter and Kaye and Roger Norman providing the remainder.

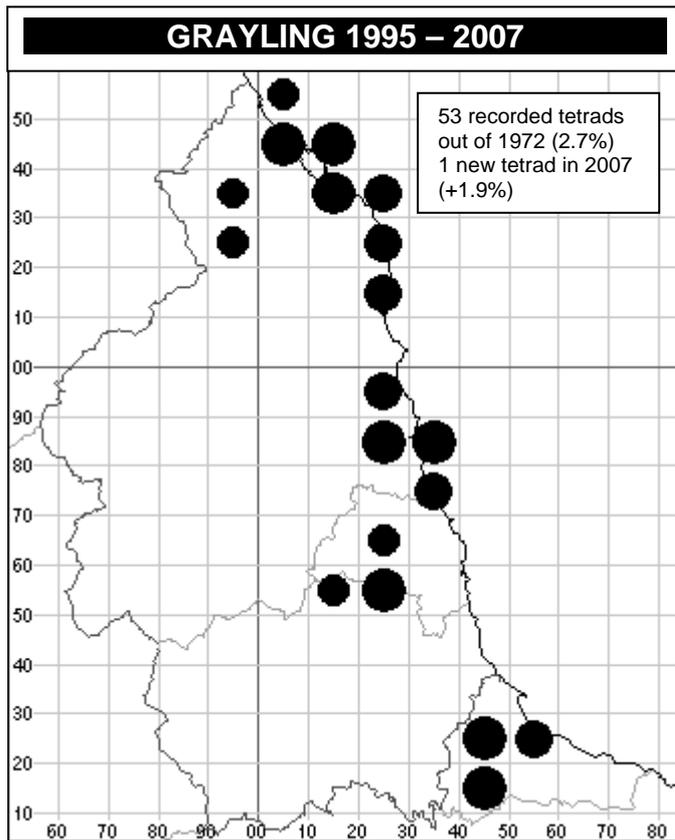
Unsurprisingly, Bob Mawson provided the first record, with 5 on 2nd July, the peak count of 23 on 10th July, and the final record, with 7 on 31st July.

In 2007, Marbled White was only recorded on 8 days out of a possible 30 (27%).



Grayling (*Hipparchia semele*)

2007: After a bumper year in 2006, when 612 adult Graylings were recorded, 2007 proved to be a major disappointment. Only 141 sightings were reported, probably because the entire flight period coincided with some of the worst summer weather that the region has experienced for many years. The bulk of 2007 records were from Northumbrian sites, most of them coastal, with only 20 sightings from County Durham and Tees Valley.

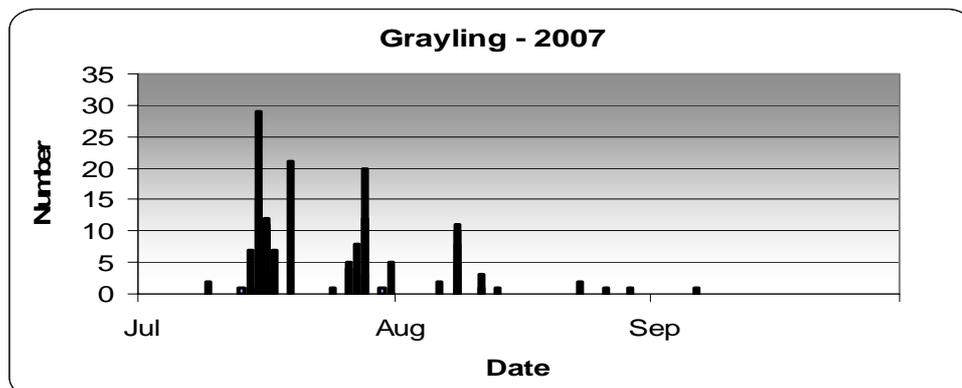


Brian Pollinger started the season on 9th July, when he saw 2 Graylings at the Bowes Valley Nature Reserve near Kibblesworth. Michael Laverick's sighting of a single at the same site on 13th July was the region's second record for 2007. Northumberland's first records came the following day. Ian Kerr reported a single adult from Holy Island, while Mike Coates recorded 6 at Blyth. Peak flight period was on 15th July, when a total of 29 adults were seen, 15 at Bowes Valley by Michael Laverick, and 14 at Cambois by Dee McKeown and Steve Holliday. Mike Natrass recorded the

region's highest total of 21 seen on 19th July at Cambois. This site is sadly earmarked for development although it is hoped that some habitat can be created nearby by way of mitigation.

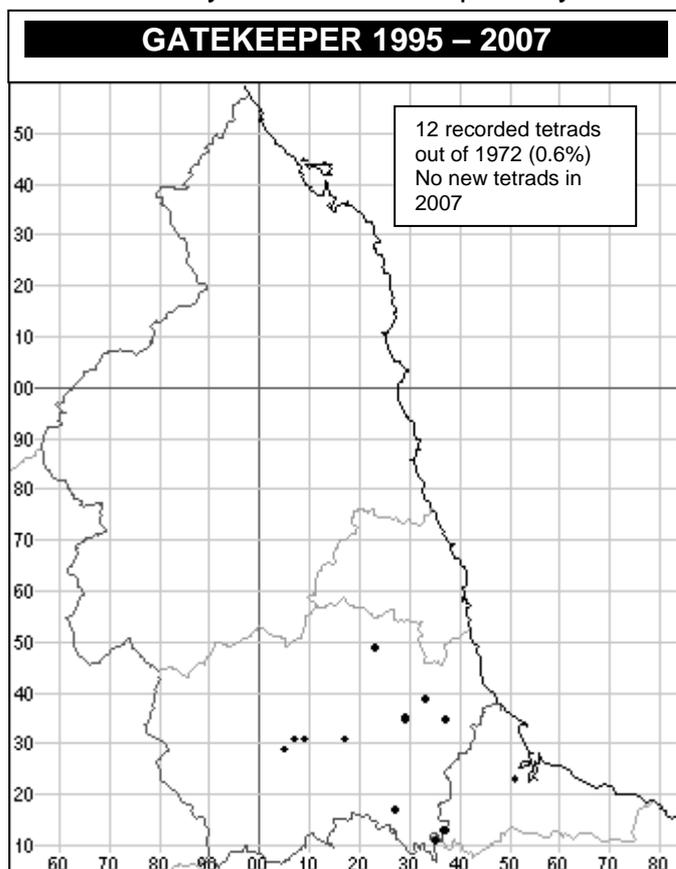
The most intriguing 2007 record was submitted by Ian Kerr, who recorded a solitary Grayling from the Nine Arches Viaduct in the Derwent Valley. Although little suitable habitat is present in the immediate area, this site lies roughly 9km west of the Bowes Valley. This sighting constitutes further evidence of range expansion within the lower catchments of Derwent and Tyne.

David Brown recorded Durham's last on 8th August at Bowes Valley N.R. The species hung about for longer in Northumberland, where the penultimate record was submitted by Ian Kerr (29th August, Holy Island Village). Phil Davey recorded the season's last on 6th September from Lindisfarne National Nature Reserve.



Gatekeeper (*Pyronia tithonus*)

2007: Gatekeeper continues to occur in the region, but in very small numbers. After one record in 2005 in Hamsterley Forest, there were two records in 2006, by Gordon Simpson in Hamsterley Forest and by Mike Hunter at The Whinnies. In 2007, there was a further record on 5th August, again by Mike Hunter at the Whinnies, this time on 5th August, nine days later than in 2006. There were no records from Hamsterley forest, although the very poor weather in July cannot have helped any searches.



As mentioned in the 2006 report, Gatekeeper has been an expanding species during phase 2 of the BNM and the Butterflies of Yorkshire states that it is slowly expanding northwards, although the distribution shows that it is still at least 20km south of the Tees at Darlington.

The concentration of four records in the Hamsterley Forest area over the life of the BNM project, (the last 13 years), raises the intriguing possibility that the records are of residents, rather than vagrants. The presence two years running at The Whinnies suggests that this area may be well placed to receive wanderers from the south. With better weather in

July and August in 2008 and future years, more records of this species could possibly be anticipated here and at similar sites along the southern edge of our region. The Whinnies record is not a new tetrad, but this was given as NZ2612 in error in the 2006 report. The correct grid reference is given below.

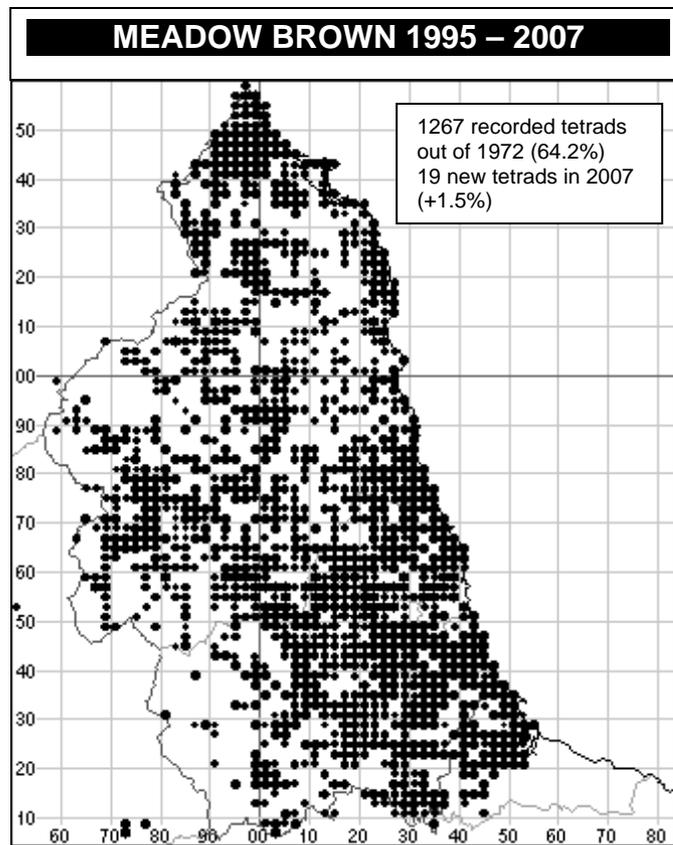
Tetrad	Recorder	Site	Date
NZ3612	Mike Hunter	The Whinnies LNR	5-Aug-07

Meadow Brown (*Maniola jurtina*)

2007: With 18067 individuals recorded, Meadow Brown was our most numerous species by almost a factor of three, and was obviously less affected by the weather conditions than many other species. In total, twelve hundred and one records were received, from two hundred and eighty-seven tetrads, nineteen of which were new.

The season opened on 20th May, with a count of 3 from Tom Ivison at Tanfield Lea Marsh. Such an early record is particularly unusual in that it involved more than one insect – typically, early records outside of the main emergence

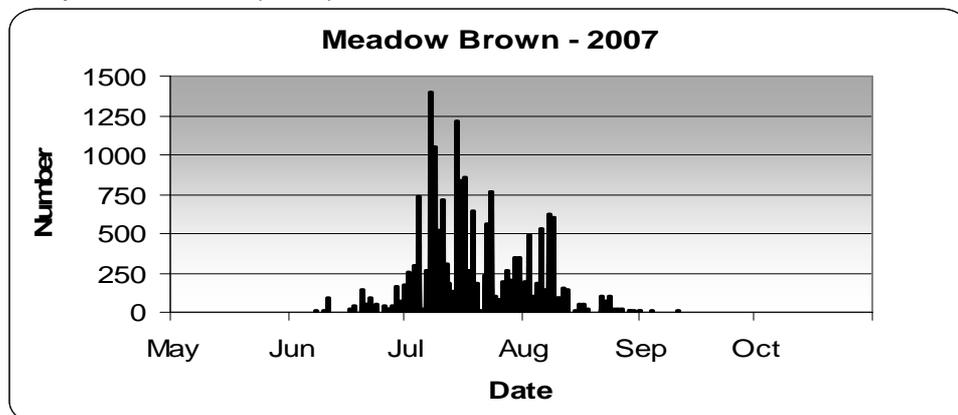
are of singletons. The next record, and the first for Northumberland, didn't come for another 10 days, when Kevin Redgrave recorded a single at Newton Links, on 30th May. With Mike Hunter's single at The Whinnies LNR 2 days later on 1st June, it was safe to say that the main emergence of this species was underway.



Numbers remained low throughout June, then rose dramatically in early July, as can be seen from the graph. The peak counts for 2007 far exceeded those for 2006, but once again came from Joe Dobinson, at Rising Sun Country Park. Joe's count of 527 there on 8th July was followed by a count of 521 a week later, on 15th July. The next highest was from Heather Dunn, who counted 311 at Heather's Fields on 11th July; in fact, the seven highest counts of the year came from these two recorders, at these two sites. Elsewhere, the best count was a mere 187, recorded by Dave Stebbings at Havannah

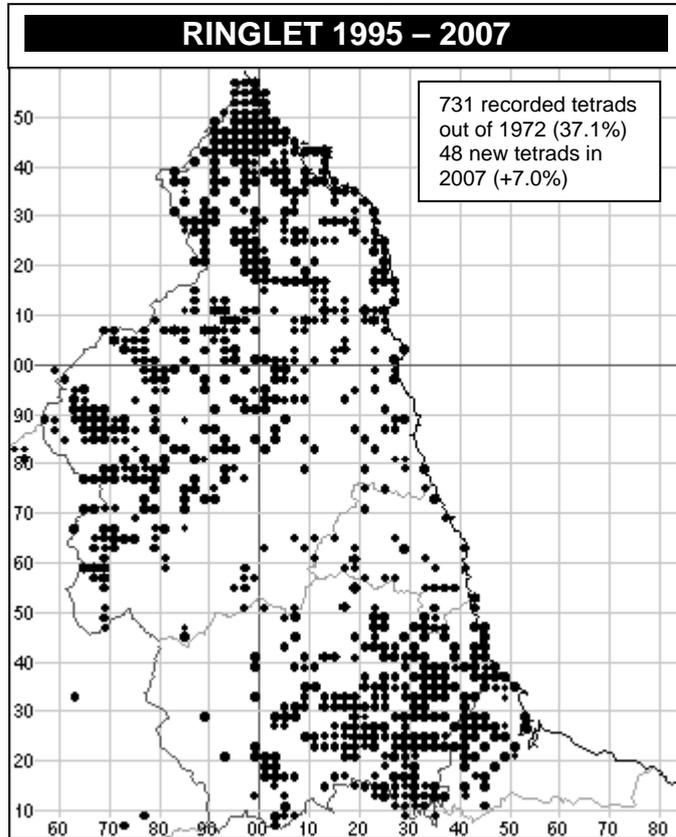
LNR on 17th July.

After the middle of July, numbers steadily declined, apart from a few three-figure counts in the beginning of August, seemingly in defiance of the poor summer weather. Low numbers remained on the wing throughout September, finally coming to an end in Durham on 30th September, when Norman Walker's single at Fulforth Dene closed the season. In Northumberland however, it hung on for another few days, with the final record of the year coming from Holy Island, where Barry Prater recorded a single on 2nd October. Meadow Brown was seen on the wing for 96 days out of a possible 136 (71%).



Ringlet (*Aphantopus hyperantus*)

2007: Like the Meadow Brown, Ringlet seemed relatively unaffected by the summer weather, and quite often, was the only butterfly seen on the wing at some sites during July. A total of five hundred and thirty-three records were received, of 6552 individuals from one hundred and eighty tetrads. Ringlet was recorded from forty-eight new tetrads in 2007.



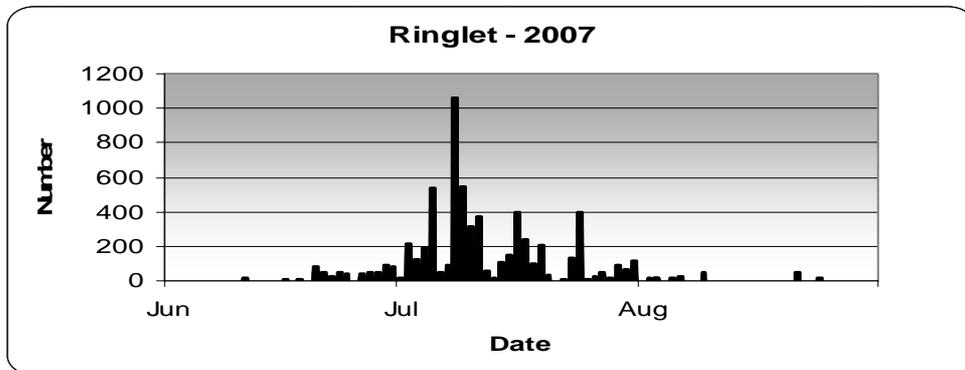
The first record of the year came from John Wood with 1 in Deepdale near Barnard Castle on 8th June, followed by Bob Mawson with 7 at Raisby Way and Mike Hunter with 1 near Teesside Airport, both on 11th June. Northumberland's first didn't come until 20th June, when Gordon Simpson recorded a single near Stonehaugh.

From the first recording there were regular low numbers of sightings until the 2nd week in July when numbers started to increase significantly, before starting to drop off again. The peak count was recorded by Alnwick Wildlife

Group with a count of 230 in the Mindrum area on 8th July, with the next highest counts being Ian Davidson's 120 at Annstead Dunes on 10th July, and Bob Mawson's 113 near Trimdon on 5th July.

Sightings continued up until the middle of August, with the final sightings, all of singles, on the 17th of August by Alan Davis on Holy Island, John Lawson at Stillington Forest Park and John Rae at Tommy the Millers Field.

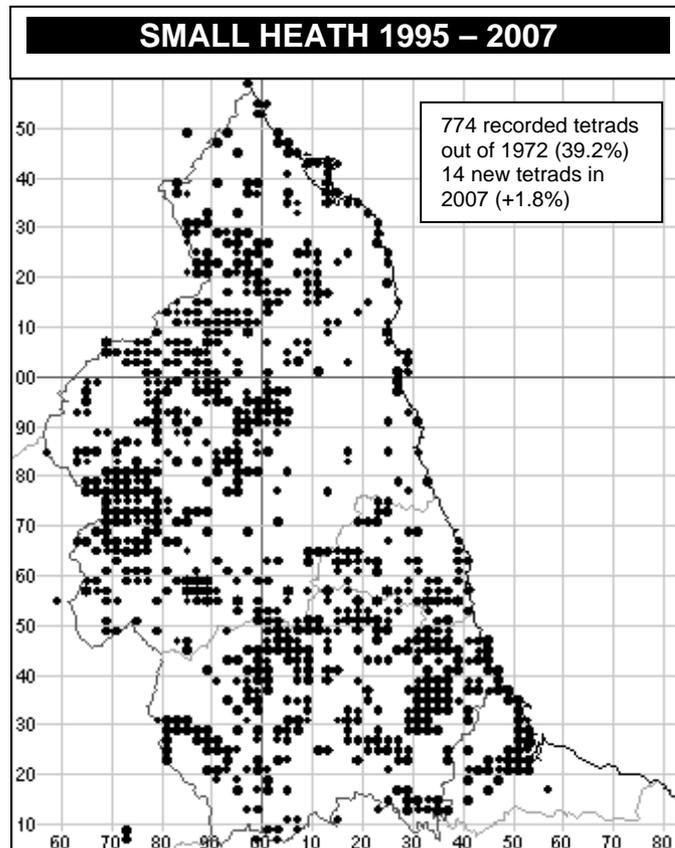
Ringlets were on the wing for 78 days and recorded on 61 days (78%).



Small Heath (*Coenonympha pamphilus*)

2007: A total of five hundred and four records were received, from one hundred and eight tetrads, fourteen of which were new. In all, 3382 individuals were recorded, a reduction of 32% on 2006.

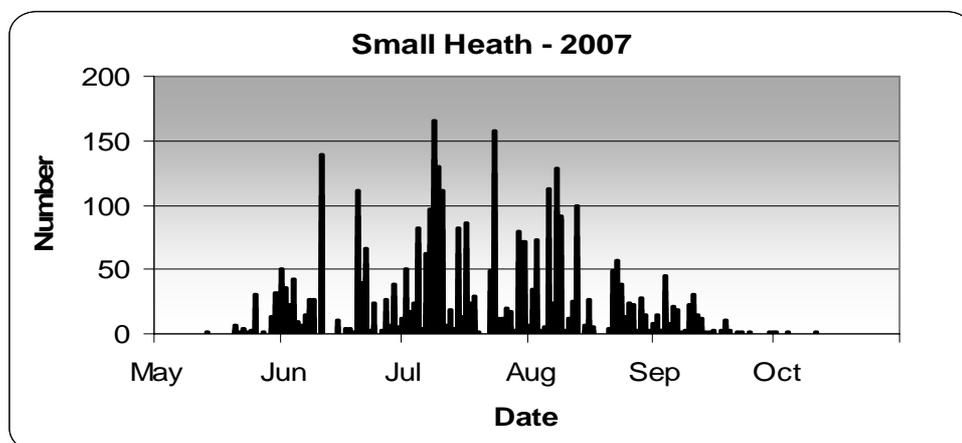
Small Heath was on the wing for 151 days and recorded on 116 days (77%).



The first sighting was by Kevin Redgrave with 1 at Newton Links, Northumberland on 14th May, with the first Durham records coming a week later - one each for Anne Corrigan at Daisy Hill, Waldrige, Steve le Fleming at Bishop Middleham, and Bob Mawson at Raisby Way on 21st May.

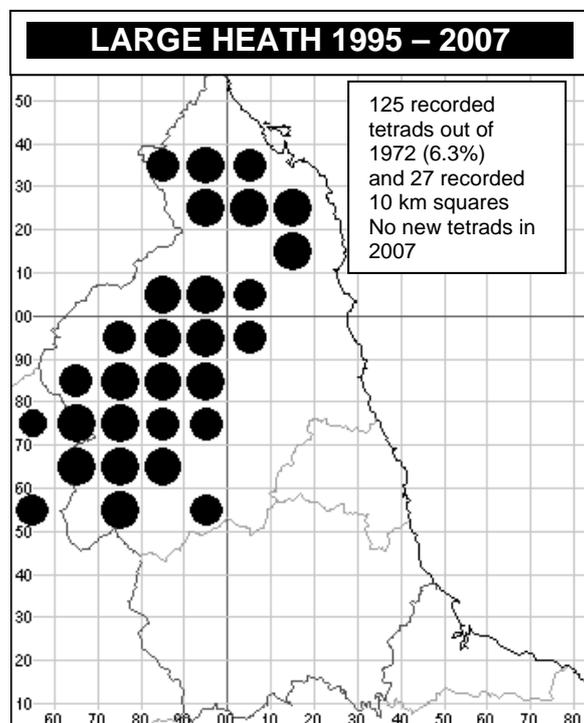
The peak count was from Brian & Jacqui Harle, with 100 at College Valley near Wooler on 10th July, but most sightings were of much lower numbers, with the average individual sighting being below 10.

Sightings of any significant numbers ceased in the middle of September with Northumberland's last coming from David Stebbings, who recorded a single at Havannah LNR on 25th September. In Durham, Small Heath hung on for a little longer, with a new record latest date coming from Raisby Way, where Stuart Priestley saw a singleton on 11th October.



Large Heath (*Coenonympha tullia*)

2007: In last year's report, the comment was made that it was a very disappointing year for the number of records received for Large Heath. There were only six records submitted for this upland species in 2006. For this year, the record position was even worse with only one record submitted. This was of four individuals seen by Keith Smith at Bell Crag Flow on 7th July.



Other observers did look for this species, but were defeated by the poor weather during its flight period.

This is a UK BAP species and, apart from four 10km squares on the North York Moors, and one 10km square on the Humberhead mosses, is at the southern edge of its range east of the Pennines in Northumberland. It could be lost to us if climate continues to warm.

To continue to monitor this species and keep track of its fortunes, a small number of suitable sites need to be visited each year during days of good weather. To do this, one or more enthusiasts are needed and if anyone is interested in visiting the

moors in July, the recorders would be very pleased to hear from them.



Marbled White at Wingate Quarry, 18th July 2007 by Roger Norman.

Acknowledgements We would like to thank our species writers for assisting in the preparation of the annual report: Dave Stebbings, (*Large Skipper, Small Copper, Painted Lady & Wall Brown*), Brian Denham, (*Ringlet & Small Heath*), Steve Kirtley, (*Green hairstreak & Brimstone*), Jaci Beaven, (*Holly Blue & Red Admiral*), Mike Hunter, (*Small Skipper & White-letter Hairstreak*), Steve le Fleming, (*Common Blue and Marbled White*), and Dave Wainwright, (*Dingy Skipper, Northern Brown Argus & Grayling*). We are looking for more volunteers, to write up one or perhaps two species for 2008. We would also like to receive more photographs for inclusion in the report, (as JPEG files please). Please contact the Recorder.

CONTRIBUTORS

J. M. Almond, Daphne Alpin, Martyn Anderson, Ian Armstrong, Fiona Aungier, Elizabeth Bamford, Alan Banks, Frank Barber, Francis Berney, Jaci Beaven, Dave Blair, Ian Bond, Arthur Bowes, David Brown, Brian Bullough, Helen Carlton, Veronica Carnell, Vicky Catley, Dave Chrisp, Pam Chrisp, Ken Churchman, Mike N Coates, Melvyn Conlong, Leslie Cook, Nick Cook, Ann Corrigan, John Coulson, Terry Coult, Darryl Cox, Phil Davey, Ian Davidson, Paul Davidson, Alan Davis, Ken Dawson, Brian Denham, V. Denham, Coralie Dickinson, Mark Dinning, Geoff Dobbins, Joe Dobinson, Andrew Donnison, I. Dougall, Paul Drummond, Heather Dunn, Judith Dyke, Michael Eccles, Arthur Edwards, Hewitt Ellis, Ruth Ellis, Sam Ellis, Karen Fisher, Steve le Fleming, Dave Fletcher, Sarah Green, Martin Greenland, Dennis Gregson, Steven Groves, Sue Handoll, Paul Hannaby, Jacqui Harle, Brian Harle, Peter Harvey, Matt Hawking, Richard Hockin, Mike S. Hodgson, Simon Hodgson, Steve Holliday, Kelly Hollings, Roger & Eunice Holme, Michael Holmes, John Hope, Denise Hunter, Mike Hunter, Malcolm Hutcheson, Tom Hutchinson, Tom Iveson, Peter Jackson, Mike Jeffries, Pam Johnson, Alan J Johnston, Ian Kerr, David Laing, Simon Lamplough, Michael Laverick, Jim Lawrence, John Lawson, Eddie Leadbitter, Dave Liddle, Roger Manning, Tammy Morris-Hale, Jack Mawson, Joan Mawson, Robert Mawson, Karen McArthur, Andy McClay, Dee McKeown, Andy McLevy, Eric Meek, Graham Mitchell, Mike Natrass, Charles Nattress, Liz Naughton, David Neal, Dorothy Nelson, Tim Nelson, D.W. Nicol, Michelle Nolan, Kaye Norman, Roger Norman, Dave O'Brien, Andrew Paciorek, Michael Paciorek, Yolanda Paciorek, Russell Pannell, Brian Pollinger, J. Pollinger, Barry Prater, S. Priestly, John Rae, Kevin Redgrave, Mark Richardson, Mike Richardson, Paul Robins, Mr B.A. Robinson, Mrs J.A. Robinson, Julie Roper, Alastair Ross, Les Rowell, Stephen Rutherford, Ian Scott, Brian Scurr, Stewart Sexton, George Simpson, Gordon Simpson, Pippa Smaling, Keith Smith, Graham Smith, Robert Smith, Steve Soar, David Stebbings, Les Stobbs, Sid Storey, Roslyn Tanner, Tom Thirlaway, Enid Turnbull, Jeff Waddell, Dave Wainwright, Norman Walker, Peter Webb, John Wilson, John Wood, Ann Young, Gordon Young, Heather Young, Alnwick Wildlife Group, Berwick Wildlife Group, English Nature, The National Trust, Northumberland Wildlife Trust, with apologies for any accidental omissions.

Both 'casual' records and transect counts play an important part within the rigorous data analysis used in this annual report. Butterfly Conservation would like to thank the following transect walkers:

Recorder	Transect
Kelly Hollings	Bakethin, Kielder
David Laing	Billingham Beck Valley Country Park
Mark Richardson, Steve Le Fleming	Bishop Middleham Quarry
Stephen Hutchinson	Brass Castle-Waldrige North
Dave Liddle	Burn Hill
Arthur Bowes	Castle Eden Dene NNR – West end
Tammy Morris-Hale	Cow Plantation LNR
Helen Carlton, Stephen Rutherford, Vicky Catley	Derwent Walk CP
Dave Stebbings	Havannah LNR
Dave Wainwright	Hedleyhope Fell & Inkerman
Brian Scurr	Kelloe Way
Phil Davey (Natural England)	Lindisfarne NNR
Stephen Hutchinson, John Wilson, Melvyn Conlong	Morrison Busty Pit Yard
Coralie Dickinson, Les Stobbs, Tom Iveson	Newton Hall Junction
Kevin Redgrave (National Trust)	Newton-Links
Mark Richardson & Mark Dinning	Raisby Hill Grassland
Brian Pollinger, Helen Carlton	Stargate Ponds & Bewes Hill
John Lawson	Stillington Forest Park
Karen Fisher, Dave Liddle, Tom Iverson	Tanfield Lea, near Stanley

Simon Hodgson	Tees Railway Walk
Brian Denham	The Whinnies LNR, (near Darlington)
John Hope	Thrislington Plantation
Berwick Wildlife Group,	Tommy-the-Miller's Field, Berwick
Francis Berney, Barry Robinson	Tunstall Hills
Pippa Smaling.....	West Park, Darlington

Brian Pollinger from Gateshead Council's Countryside Management Team is thanked for co-ordinating records for the Gateshead region through Thornley Woodland's Centre. Bob Mawson is credited for submitting records from a small, but enthusiastic band of recorders in the Trimdon area. Roger Manning is thanked for sending in butterfly records on behalf of the Alnwick Wildlife Group. Kevin Redgrave is thanked for sending in transect counts from the National Trust for the Northumberland coast. Thank you to our proof-reader, Kaye Norman and to the following for the photographs and illustrations used in this report

Front Cover	Small Heath	Terry Coult
Page 7	Zebra Longwing	Stephen Roberts
Page 16	Brimstone	Mike Hunter
Page 21	Orange-tip	Roger Norman
Page 36	Peacock larvae	Mike Hunter
Page 37	Comma	Roger Norman
Page 43	Wall	Roger Norman
Page 49	Marbled White	Roger Norman

With the increasing number of butterfly records now being submitted, and with it the increasing chances of finding locally rare species, a reminder that photographs or descriptions in support of the following five species should be sent with each record: Brown Argus, Large Tortoiseshell, Camberwell Beauty, Gatekeeper and Brimstone. In the absence of any photographs, a detailed description in support of the sighting should be submitted. In addition to these species, any record of Essex Skipper will need to be fully documented.

A brief description should also accompany any out of place records, such as a species seen outside its normal flight period, e.g. a Small Skipper seen in the first week of June or earlier, or a species seen well outside its currently known range, for example Northern Brown Argus in Northumberland.

Feedback

When processing and analysing over fourteen thousand records, plus comparisons to previous years, it is almost inevitable some mistakes will slip through. If anyone does notice any errors please inform your Butterfly Recorders. The Branch would welcome any feedback or suggestions to improve future editions of the Annual Report. Please send us photographs, line drawings and articles for both the newsletters and annual reports. They are always welcome.

FLIGHT PERIOD TABLE

This table relates to both Durham and Northumberland, and records the first and last flying record of each species for the three-year period 2005 to 2007. Insects found in undisturbed hibernation or in the larval stage have been excluded. For ease of reference, any record early/late sightings during the BNM project period 1995 – 2007 are included in the last two columns. Eight earliest and ten latest record dates were beaten or equalled. One or two dates may differ from previous tables due to additional records or reappraisal.

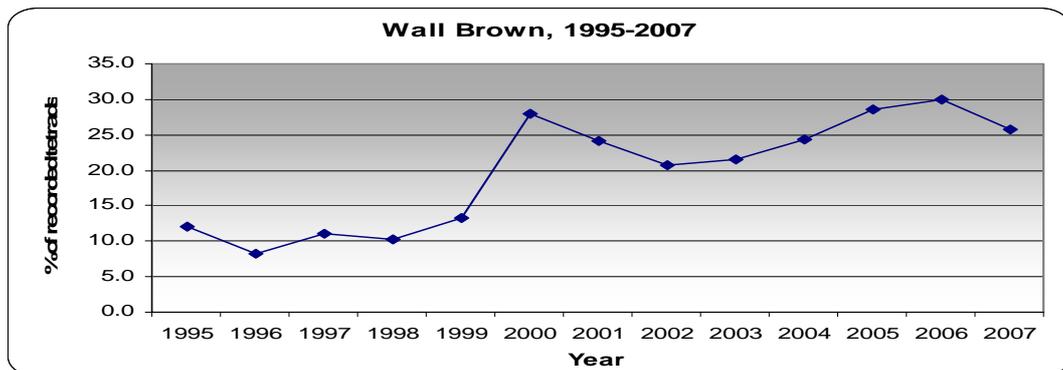
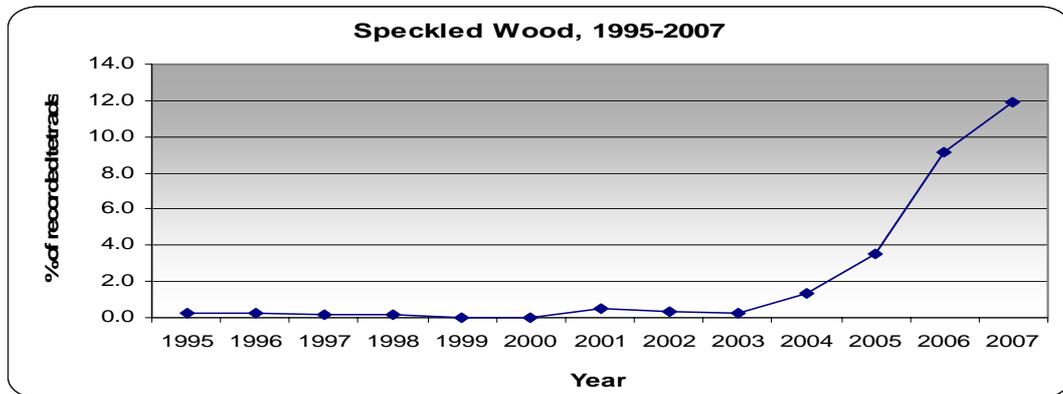
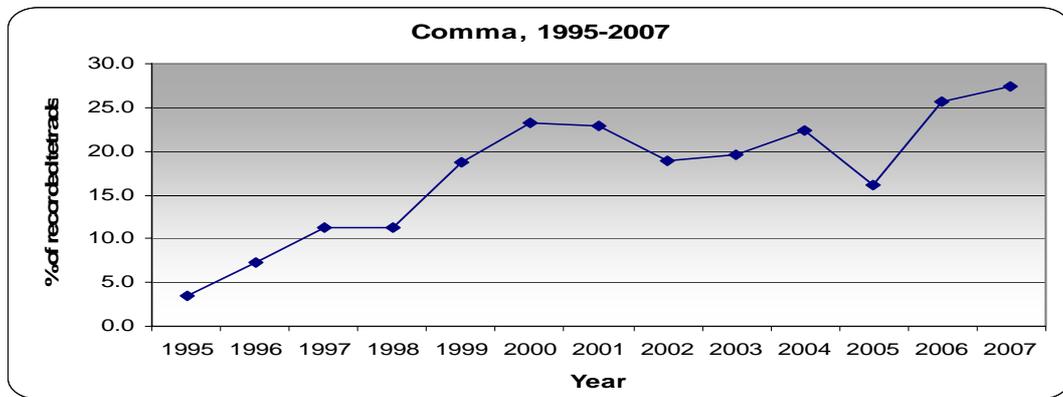
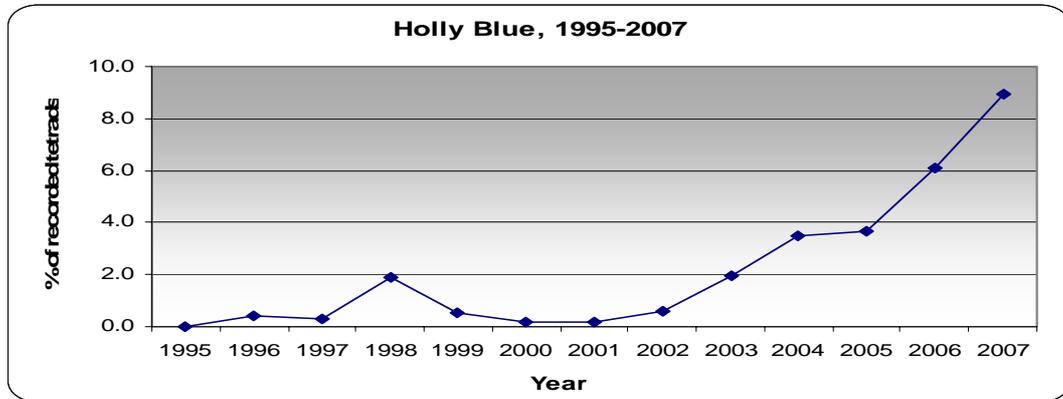
FLIGHT PERIOD TABLE								
	2005		2006		2007		Record earliest	Record latest
Small Skipper	18-Jun	12-Sep	7-Jun	20-Aug	20-Jun	6-Sep	7-Jun-06	10-Oct-01
Large Skipper	31-May	6-Aug	1-Jun	6-Aug	19-May	17-Aug	19-May-07	27-Aug-02
Dingy Skipper	2-May	8-Jul	9-May	3-Jul	30-Apr	2-Jul	18-Apr-03	18-Aug-01
Clouded Yellow	16-Jul	19-Aug	23-May	13-Oct	2-Jul	18-Sep	23-May-06	15-Oct-00
Brimstone	7-Jun	18-Jun	3-May	6-Aug	5-Apr	30-Aug	5-Apr-07	5-Sep-97
Large White	11-Apr	16-Oct	15-Apr	29-Oct	4-Apr	31-Oct	17-Mar-99	31-Oct-07
Small White	25-Mar	30-Oct	15-Apr	27-Oct	25-Mar	21-Oct	3-Mar-99	30-Oct-05
Green-veined White	2-Apr	30-Sep	16-Apr	29-Sep	5-Apr	11-Oct	9-Mar-97	18-Oct-97
Orange Tip	11-Apr	15-Jul	14-Apr	10-Sep	5-Apr	21-Aug	30-Mar-03	10-Sep-06
Green Hairstreak	22-Apr	16-Jun	23-Apr	19-Jun	18-Apr	1-Jun	11-Apr-97/03	27-Jul-98
White-letter Hairstreak	16-Jun	18-Aug	27-Jun	7-Aug	22-Jun	13-Aug	16-Jun-05	28-Aug-96
Purple Hairstreak	9-Jul	12-Sep	7-Jul	6-Sep	7-Jul	3-Sep	6-Jul-03	12-Sep-05
Small Copper	21-Apr	11-Oct	9-May	24-Oct	26-Apr	28-Oct	13-Apr-03	28-Oct-07
Brown Argus			17-Aug	21-Sep	17-Jun	11-Sep	17-Jun-07	21-Sep-06
Northern Brown Argus	9-Jun	8-Aug	2-Jun	7-Aug	1-Jun	29-Aug	29-May-02/03	29-Aug-07
Common Blue	2-May	11-Oct	2-May	3-Oct	28-Apr	11-Oct	28-Apr-07	24-Oct-00
Holly Blue	24-Apr	8-Sep	27-Apr	21-Oct	7-Apr	11-Sep	1-Apr-99	21-Oct-06
Red Admiral	19-Mar	24-Dec	23-Jan	3-Dec	27-Jan	28-Dec	23-Jan-06	28-Dec-07
Painted Lady	21-Apr	3-Oct	8-May	2-Nov	4-Apr	4-Nov	4-Apr-07	7-Nov-03
Small Tortoiseshell	1-Jan	27-Dec	26-Mar	1-Dec	28-Jan	8-Nov	1-Jan-05	27-Dec-05
Camberwell Beauty			6-Jul	10-Sep			6-Jul-06	10-Sep-06
Peacock	11-Jan	23-Dec	18-Feb	18-Dec	19-Jan	30-Nov	8-Jan-96	23-Dec-05
Comma	19-Mar	5-Nov	22-Mar	31-Oct	3-Feb	16-Nov	3-Feb-07	16-Nov-00/07
Small Pearl-bordered Frit.	18-Jun	24-Jul	11-Jun	29-Jul	4-Jun	21-Aug	1-Jun-03	21-Aug-07
High Brown Fritillary			30-Jul	30-Jul			30-Jul-06	30-Jul-06
Dark Green Fritillary	23-Jun	24-Aug	7-Jun	20-Aug	28-Jun	7-Sep	7-Jun-06	7-Sep-07
Speckled Wood	10-May	17-Oct	5-May	23-Oct	5-Apr	11-Nov	5-Apr-07	11-Nov-07
Wall	10-May	10-Oct	5-May	30-Sep	4-Apr	21-Oct	4-Apr-07	21-Oct-07
Marbled White	27-Jun	27-Jul	30-Jun	6-Aug	2-Jul	31-Jul	25-Jun-03	25-Aug-00
Grayling	7-Jul	11-Sep	30-Jun	25-Aug	9-Jul	6-Sep	30-Jun-06	11-Sep-05
Gatekeeper	8-Aug	8-Aug	14-Jul	27-Jul	5-Aug	5-Aug	14-Jul-06	8-Aug-05
Meadow Brown	3-Jun	22-Sep	13-Jun	27-Sep	20-May	2-Oct	4-Apr-99	14-Oct-95
Ringlet	9-Jun	22-Aug	4-Jun	10-Aug	8-Jun	24-Aug	15-May-00	2-Oct-01
Small Heath	21-May	10-Oct	31-May	22-Sep	14-May	11-Oct	7-May-03	11-Oct-07
Large Heath	28-Jun	8-Aug	28-Jun	18-Jul	7-Jul	7-Jul	4-Jun-96	14-Aug-96

SPECIES ABUNDANCE COMPARISON TABLE
TETRAD ANALYSIS:
BUTTERFLIES OF THE NEW MILLENNIUM PROJECT (PHASES 1, 2 & 3)

2005 Tetrads (% of all 713 recorded tetrads)	2006 Tetrads (% of all 703 recorded tetrads)	2007 Tetrads (% of all 639 recorded tetrads)	Species	Phase 1 (1995 – 1999) (% of all 1,579 recorded tetrads)	Phase 2 (2000 – 2004) (% of all 1,460 recorded tetrads)	All three phases to date (1995 – 2007) (% of all 1,972 recorded tetrads)
321 (45%)	295 (42%)	238 (37%)	Green-veined White	1,086 (69%)	946 (65%)	1514 (77%)
295 (41%)	323 (46%)	266 (42%)	Small Tortoiseshell	932 (59%)	835 (57%)	1380 (70%)
259 (36%)	311 (44%)	287 (45%)	Meadow Brown	871 (55%)	726 (50%)	1267 (64%)
344 (48%)	347 (49%)	305 (48%)	Peacock	671 (42%)	781 (53%)	1192 (60%)
285 (40%)	238 (34%)	203 (32%)	Large White	760 (48%)	731 (50%)	1159 (59%)
241 (34%)	268 (38%)	198 (31%)	Small White	709 (45%)	649 (44%)	1087 (55%)
265 (37%)	395 (56%)	255 (40%)	Red Admiral	536 (34%)	669 (46%)	1063 (54%)
234 (33%)	205 (29%)	197 (31%)	Orange-tip	459 (29%)	510 (35%)	891 (45%)
148 (21%)	178 (25%)	108 (17%)	Small Heath	525 (33%)	331 (23%)	774 (39%)
56 (8%)	244 (35%)	165 (26%)	Painted Lady	308 (20%)	557 (38%)	781 (40%)
156 (22%)	183 (26%)	180 (28%)	Ringlet	329 (20%)	383 (26%)	731 (37%)
160 (22%)	177 (25%)	120 (19%)	Common Blue	422 (27%)	395 (27%)	672 (34%)
150 (21%)	184 (26%)	135 (21%)	Small Copper	356 (22%)	346 (24%)	642 (33%)
115 (16%)	180 (26%)	175 (27%)	Comma	268 (17%)	381 (26%)	599 (30%)
117 (16%)	170 (24%)	130 (20%)	Small Skipper	302 (19%)	348 (24%)	578 (29%)
203 (28%)	211 (30%)	164 (26%)	Wall	225 (14%)	390 (27%)	553 (28%)
90 (13%)	134 (19%)	121 (19%)	Large Skipper	274 (17%)	238 (16%)	474 (24%)
76 (11%)	58 (8%)	39 (6%)	Dingy Skipper	87 (6%)	94 (6%)	166 (8%)
18 (3%)	5 (0.7%)	1 (0.2%)	Large Heath	116 (7%)	85 (6%)	125 (6%)
26 (4%)	52 (7%)	57 (9%)	Holly Blue	21 (1%)	47 (3%)	116 (6%)
20 (3%)	27 (4%)	23 (4%)	White-letter Hairstreak	47 (3%)	41 (3%)	102 (5%)
17 (2%)	38 (5%)	19 (3%)	Dark Green Fritillary	33 (2%)	41 (3%)	89 (5%)
25 (4%)	74 (11%)	76 (12%)	Speckled Wood	4 (0.3%)	17 (1%)	128 (6%)
9 (1%)	13 (2%)	7 (1%)	Green Hairstreak	46 (3%)	45 (3%)	82 (4%)
5 (0.7%)	26 (4%)	4 (0.6%)	Clouded Yellow	11 (0.7%)	50 (3%)	85 (4%)
12 (2%)	18 (3%)	9 (1%)	Purple Hairstreak	4 (0.3%)	51 (3%)	66 (3%)
6 (0.8%)	16 (2%)	14 (2%)	Sm. Pearl-bord. Frit.	32 (2%)	29 (2%)	59 (3%)
17 (2%)	21 (3%)	13 (2%)	Grayling	24 (2%)	29 (2%)	53 (3%)
3 (0.4%)	7 (7%)	4 (0.6%)	Brimstone	6 (0.4%)	13 (0.9%)	33 (2%)
8 (1%)	16 (2%)	3 (0.5%)	Northern Brown Argus	21 (1%)	20 (1%)	25 (1%)
1 (0.1%)	2 (0.3%)	1 (0.2%)	Gatekeeper	7 (0.4%)	2 (0.1%)	12 (0.6%)
-	5 (0.7%)	-	Camberwell Beauty	10 (0.6%)	1 (0.1%)	11 (0.6%)
1 (0.1%)	3 (0.4%)	1 (0.2%)	Marbled White	-	3 (0.2%)	5 (0.3%)
-	2 (0.3%)	3 (0.5%)	Brown Argus	-	-	4 (0.2%)
-	1 (0.1%)	-	High Brown Fritillary	-	-	1 (0.05%)
32	35	33	Tetrads	1,579	1,460	1,972
			Species			

Phase 3 data is for 2005, 2006 and 2007 only.

The four graphs on this page summarise the records submitted over the life of the Butterflies for the New Millennium project, from its start in 1995. The vertical axis in each graph is the number of tetrads from which records were received for each species, expressed as a percentage of the number of tetrads for which records of all species were submitted. The four species have been chosen as they all exhibit dramatic increases over the life of the BNM project.



SUBMITTING BUTTERFLY RECORDS IN 2008

Records are the bedrock of conservation and the North East Branch welcomes records of all species, for all dates and places, and of course for all forms.

As in previous years, there are two ways of sending your records in. For those without a home computer, the existing yellow paper casual record sheets will continue unchanged. However, if you have a PC, the Branch would strongly urge you to send in your records using a spreadsheet such as Microsoft Excel or Lotus 123. Each record should occupy one line and the format of the spreadsheet should look something like the following example:

	A	B	C	D	E	F	G
1	Name/s of recorder/s	NZ274423	Palace Green, Durham City	22-Aug-2007	Large White	7	
2	Name/s of recorder/s	NZ196858	Morpeth (riverside)	24-Sep-2007	Peacock	2	Very worn
3	Name/s of recorder/s	NZ2514	Baydale Beck Darlington	1-Jul-2007	Comma	1	<i>Hutchinsoni</i> form

Column A - Recorder/s names.

Column B - Grid reference, which should be two letters, (NT, NU, NY or NZ), followed by four or six numbers. The first two (or three) numbers are the Easting, read from the top or bottom of OS maps, the last two, (or three) numbers represent the Northing, read from either side of the map.

Column C - Site name. For obscure place names please include a nearby town or village.

Column D - Date-please try to follow the format shown, **(this is really important)**

Column E - The name of the species seen.

Column F - **Please give the actual number seen if possible**, we no longer use letters for abundance, (A, B, C etc). For larva (L), ova (O), pupa (P) or mating (M) records, please use the appropriate code letter, optionally adding numbers seen.

Column G - For any comments you may wish to add.

Optionally, you can add a habitat code to an extra column, (column H), if you wish.

A blank spreadsheet, with the date formatted, is available, if needed, from the recorders. Electronic records are most easily sent as an email attachment. However, you can also send them in by post on floppy disc, memory stick or CD. The deadline for records to be included, and credited, in the 2008 Annual Report is 30 November 2008. Depending on where you live, please send records to:

DURHAM

Steve Le Fleming
 7 Albert Street,
 Durham, DH1 4RL
 0191 386 7309
 lsklef@aol.com

NORTHUMBERLAND

Roger Norman
 1 Prestwick Gardens, . Kenton,
 Newcastle-upon-Tyne, NE3 3DN
 0191 285 8314
 r.norman@clara.net

To avoid records being lost on the internet, we will try to acknowledge all emails within 14 days. If you do not hear from us please telephone us.

**BUTTERFLY CONSERVATION: NORTH EAST ENGLAND BRANCH
SERVING COMMITTEE MEMBERS FOR 2008**

Branch Organiser, Secretary and Treasurer

Steve Kirtley, 7 Mowden Walk,
Darlington, DL3 9DJ
Tel: 01325 460 198

Email: stephen@skirtley.fsnet.co.uk

Chairman

Cliff Evans, 10 Pentland Grove
Darlington, DL3 8BA
Tel 01325 466 471

Email: c_gevans@yahoo.co.uk

Butterfly Recorder

Dave O'Brien, 30 Appleton Road, Linthorpe,
Middlesbrough, Cleveland TS5 5JE
Tel 01642 290 379

Email: d.obrien6@ntlworld.com

Moth Recorder

Terry Coult, 4 Officials Row, Malton,
Lanchester, Co. Durham, DH7 0TH
Email: tcoult@durham.gov.uk

**Assistant Butterfly Recorder
(Northumberland)**

Roger Norman, 1 Prestwick Gardens, Kenton,
Newcastle upon Tyne, NE3 3DN
Tel: 0191 285 8314

Email: r.norman@clara.net

Membership Secretary & Newsletter Editor

Jaci Beaven, 21 West Acres, Alnwick,
Northumberland NE66 2QA
Tel: 01665 510 713

Email: jacquelinebeaven@btinternet.com

Assistant Butterfly Recorder (Durham)

Steve le Fleming, 7 Albert Street,
Durham, DH1 4RL,
Tel: 0191 386 7309

Email: lsklef@aol.com

Conservation Officer (Durham)

Vacant, queries c/o Dr. D. Wainwright,
Butterfly Conservation,
38 High Street South, Langley Moor,
Durham. DH7 8JW.
Tel: 0191 378 9216

Email dwainwright@butterfly-conservation.org

Transect Co-ordinator

Brian Denham, 1 Swaledale Avenue,
Darlington, DL3 9AJ
Tel: 01325 263 449

Email: brian.denham@ntlworld.com

Conservation Officer (Northumberland)

David Stebbings, 20 Purley Gardens, Kenton
Newcastle upon Tyne, NE3 3DJ.
Tel: 0191 285 9097

Email: david.stebbing@blueyonder.co.uk

Committee Members

Ken Dawson, 7 Hagg Bank Cottages, Wylam, Northumberland NE41 8JT
Tel: 01661 852 928, Email: ken.dawson@ukonline.co.uk

Butterfly Conservation: Regional Office (Northern England)

Dr. D. Wainwright, Butterfly Conservation, 38 High Street South
Langley Moor, Durham, DH7 8JW

Tel: 0191 378 9216, Email: dwainwright@butterfly-conservation.org

Registered in England No. 2206468, Registered Charity No. 254937
Head Office: Manor Yard, East Lulworth, Wareham, Dorset, BH20 5QP



MMVIII ©