Butterfly Conservation
Dorset Branch
Newsletter No 83

Autumn
2016

www.dorsetbutterflies.com

Chairman's Notes

From Nigel Spring, Dorset Branch Chair

Looking after the future…..

We are very fortunate in Dorset in that two of our fabulous butterfly reserves, Alners Gorse and Lankham Bottom, are eligible for Educational Access grants from Natural England. This arrangement may not last for much longer, but for the moment it means that schools, mental health groups and other educational organisations can visit these reserves for free and Butterfly Conservation receives a payment of £100 per visit which can be used to pay for the time of the teacher/guide who acts as the host for the group and any other costs we incur.

We have recently hosted three visits to Alners Gorse by different classes from Sherborne County Primary and although it was September (and even raining on one of the days), the reserve looked stunning with a huge abundance of blackberries, sloes, acorns and other fruits, masses of colourful fungi of all shapes and sizes and the last of the fleabane and devilsbit scabious providing valuable nectar for the hoverflies and other insects. On the third day when the sun eventually came out, we saw several species of butterflies including Small Coppers (at long last!).

These school visits are inevitably briefer than one would like, but the Sherborne children really enjoyed bug hunting and comparing the habitats of Nightingales, Marsh Fritillaries and White Admirals; they measured the girth and calculated the age of one of our oldest oak trees (not veterans unfortunately but 130 years is quite old enough for an eight year old!); we collected fungi, berries and seeds and then made campfires beside the reserve hut and cooked marshmallows on them. It is a wonderful setting for an outdoor lunch! The letters sent in afterwards were predictably entertaining: "I especially liked

doing the bughunt" wrote one, "and me and my partner found a massive bug called a Devil's Coach-horse beetle".

The Dorset Branch does its best to engage the next generation of citizens in our educational work as far as time and our resources permit. Our guided walks through the summer attract a good number of families and the moths on display at the BC stand at the local fairs and shows are always guaranteed to fascinate adults and children alike. We took the BC moth traps into several schools this summer and although it was a poor season and numbers were down, the range of even common species always fills children (and teachers) with awe.

Almost every child in Cerne Abbas First School took part in the butterfly days on Giant Hill in June and July and (we hope) will have happy memories of chasing around the hillside catching and identifying Meadow Browns, Marbled Whites, Burnet moths and Foresters – and many more species.

But there must be plenty of other opportunities to inspire children and young people, to drag them away from their iphones, notepads and plasma TV screens. It is going to be increasingly important to maintain and if possible extend these activities if we are to convince the new generation of citizens to look after their world better than their parents have. We would very much like to encourage you, our supporters, to help us in this. If you feel you have the time and expertise (and patience!) to become involved, please get in touch.

Best wishes

Nigel Spring

Front cover: Lulworth Skipper. Photo: Ken Dolbear

Editor's Note

Welcome to my first newsletter as editor. I apologise for its extremely late arrival on your doorstep, but it has been a steep learning curve for me, and had to be fitted in between other priorities and holidays.

This is the first full newsletter in colour, and I am extremely grateful to Lyn Pullen who set up the templates and styles when producing the Dorset Butterfly Report for 2015. She has also given me valuable hints and tips, and has improved the appearance for the final printing.

We are starting a new series in this newsletter, with articles about our transect walks. Bill Shreeves has written about transect walking, and we feature three articles about walk areas: John Elliott on the Weymouth Relief Road; Georgie Laing about work at Broadcroft Quarry on Portland; Ian Laing has summarised the results for 2016 for the three transect walks on Portland; and Colin Burningham reports on recent progress on Lydlinch Common.

We also feature the first article (of at least two) on gardening for urban butterflies by Andrew Cooper. He has had great success, and we hope that he will encourage some of you to give it a try,

I hope you enjoy reading these and the other articles.

Contributions to the newsletter are always very welcome. The deadlines are 31 August and 28 February.

Jane Smith

The Dorset Branch of Butterfly Conservation is one of 32 branches of this UK organisation, dedicated to saving butterflies, moths and the environment.
www.butterfly-conservation.org

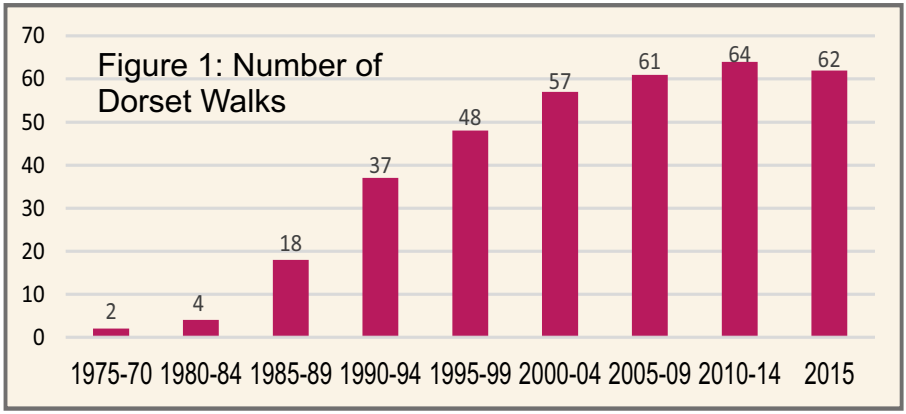
Butterfly Conservation

Please note: the opinions expressed in this newsletter are not necessarily those of the society or the branch.

Transect Walking in Dorset

Transect or Butterfly walks were designed in the 1970s by Dr Ernie Pollard as a mathematically sound way of counting species and butterfly numbers consistently over successive years. The same routes and sections within them are walked every week between 1st April and 30th September in each year, with set rules for the distance of counting, and within sunshine, temperature and wind limits. In Dorset the first four walks set up in the 1970s (Ballard Down, Studland, Radipole and Hengistbury) were covered by solo professional naturalists on nature reserves. From 1980 (starting with Fontmell Down) the concept of recruiting groups of volunteers to share the 26 week walking season was introduced. Fig.1 shows the rapid growth of these Dorset walks peaking at 64 in 2010-14.

The walk data from Dorset is combined with similar data from all over UK into the United Kingdom Butterfly Monitoring Scheme. Since 1976 unpaid volunteers throughout the UK have counted 27.5 million butterflies and have walked a total of 850,000 km on butterfly transects! The statistics derived from this enormous data base are regularly used to advise the UK government on whether it is meeting its biodiversity targets. It is also used in assessing the impact of global warming, of



usage of neonicotinoid pesticides, and the success of agri-environment schemes. At a more local level the data collected helps in the management on nature reserves.

If Dorset is to continue to play its part in this magnificent citizen science project we need new butterfly walkers to come forward to replace those who retire or move out of the area. We hope that this and later articles may inspire readers to consider taking part. The benefit of regular exercise, pleasure of being exposed to the natural rhythms of the countryside, and brain activity from learning, identifying and counting the different species of butterflies help prolong an active life. Counting butterflies can give surprises like the sudden crash as a roe deer breaks cover, or a flash of green as a Woodpecker is disturbed from its feed on an anthill. Many butterfly walks are now several decades old, and continuing this tradition by tramping around a route maintains this important contribution to science, and to the management of our butterfly sites.

Many might be put off joining a butterfly walk by the fear that it

must be very difficult. It is true that walkers need to be able to identify butterflies but no Dorset Walk has more than 35 species to cope with. For all walks, we can provide lists of the species of butterflies that have been seen previously, when they have been seen in any of the 26 walking weeks from April to September, and where on the walk. In addition, you can attend one of the courses run by Dorset Branch on identification and recording skills, and there are many field meetings in the summer, with experts on hand. In the winter there are regional meetings, which also provide help in identification skills as well as showing the results of the previous year's recording. In many ways taking part in a butterfly walk is one of the easiest ways of learning to identify species, as you can check in an ID book before you set out, so you know in advance what to look out for.

Some people may be deterred by the feeling that the walks might be too strenuous or time consuming. However, there are a variety of walks taking anything between 20 minutes and over 3 hours. There are plenty of reasonably flat walks but also some, mostly on the chalk downs or the coast, which have moderately challenging slopes. How many of the 26 weeks of the butterfly walking season you want to sign up for is entirely up to you - you agree this with the walk coordinators. You may stay with one walk, or volunteer for several walks with different habitats and species for variety. If your health or personal timetable are unpredictable, it may be possible to be put on a list, and walk at shorter notice when a vacancy appears. Coordinators will welcome walkers to sign up in March before the season begins and you may also do so at one of the regional February/March meetings which are advertised on the Dorset Branch website.

As well as being able to identify the butterflies, a walker needs to follow the rules of walking. Before you do a walk for the first time, the walk co-ordinator will take you round the route, which will be divided into separate sections. You will be given a map and a walk

description to help you follow the route correctly, a supply of recording forms and rules for when to walk. It will be sensible to have a clipboard with the day's form on it, or a notebook from which you copy the sightings later. You will need to walk on a day in your allocated week when the temperature is at least 13 degrees centigrade and wind levels not too high. After setting up a thermometer in shade, walk slowly along the route marked on the map, counting butterflies less than 5 metres ahead (fig.3) or within 2.5 metres on either side, pausing at the end of each section to record the numbers counted and the percentage sun as measured by the proportion of the time you could see your shadow. At the end of the walk, fill in the totals, read off the temperature from your thermometer and fill in the wind speed and direction.

When walking take care to follow the Countryside Code, and wear walking boots and suitable outdoor clothing. It is not advisable to walk around in shorts because ticks which might just possibly carry lyme disease can attach themselves to you. Trousers tucked into long socks may not be fashionable but are highly recommended.

Finally, the walk results must be entered immediately into Transect Walker and not left until the end of the year. Walkers who are confident with computers can arrange with their co-ordinators to enter their own results on line. Otherwise they must be sent to the coordinator electronically or by post, making sure that the whole of the form is completed correctly and clearly.

If you wish to get involved please contact Bill Shreeves (Dorset Butterfly Records Officer) using the contact details inside the back cover to request a free useful leaflet called 'Counting Dorset's Butterflies and Moths' which gives detailed information about Butterfly Walking as well as advice on books and also other types of recording. Check the map in the booklet for the nearest Transect walks to where you live and ask Bill to put you in touch with the Walk coordinators.

Bill Shreeves

Broadcroft: Scrape Activity

Visitors to our reserve at Broadcroft Quarry on Portland have stopped and gaped at the large excavations there, and asked what has been going on at this beloved site.

This work is part of the Portland Project, which is being managed by Leo Henley Lock, (Living Landscapes Project Officer – Portland) on behalf of the Dorset Wildlife Trust (DWT).

It is an ambitious and multi-partnered initiative to enhance the natural features of this unique island. One aspect is to identify and manage areas where the Silver-studded Blue (SSB *Plebejus argus)* has been known to occur. BC was contracted by DWT in 2015 to survey Portland for this butterfly and put together recommendations for its management. Rachel Jones (BC Conservation Officer) together with the help of branch

Scrape at Broadcroft. Georgie Laing.

volunteers who have been recording on Portland over several years, worked on the project, identifying two priority areas for action, one of which was Broadcroft. In Winter 2015 a total of 16 scrapes were dug here.

Broadcroft is a 5.5 ha SSSI (Site of Special Scientific Interest) leased from Stonefirms since 1994. It is a "brownfield site", an infilled quarry capped mainly with limestone and some clay. Its herb-rich flora is typical of calcareous grassland and 140 flowering plants and grasses have been recorded here. A transect walk was set up here when the reserve was established and a total of 34 butterflies have been recorded, with about 25 species seen in most years. Annual totals of over 2,000 butterflies have been recorded on the transect walks in recent years, with the five most common species being Meadow Brown, Gatekeeper, Marbled White, Common Blue and Ringlet. These species account for almost 80% of all the butterflies seen at Broadcroft and the pattern is similar to that at the nearby Tout Quarries Reserve (DWT), except that only a few Chalkhill Blues are found at Broadcroft, whereas they are the most common species on Tout (Newsletter 78, Spring 2015).

Most SSB's are heathland butterflies, but Portland is especially famed for being the only English site of the calcareous race of the SSB – there is also one on the Great Orme in Llandudno in Wales,

This little butterfly has fussy requirements, needing a mosaic of vegetation, and in common with other blues it needs the support of ants to rear its larvae. So, management here has to make sure the needs of the host ant, *Lasius alienus,* are met i.e. large areas of sparse grassland and bare ground where the sun can warm the soil. Hence the bare areas in the centre of the scrapes. The SSB larvae feed on bird's foot trefoil which thrives in the open areas created by the scrapes. In addition the butterfly needs plants of two feet tall to roost, which will be provided by . soil in the windbreaks.

In the past SSB was abundant at Broadcroft. It was counted in the hundreds and was the second

Silver-studded Blue. John Woodruff

most numerous butterfly, after Meadow Brown, in the mid-1990s. I have a record of 664 seen in 1997. Numbers started to tail off at the turn of the millennium. A similar excavation exercise to the current one was carried out in 2003, when 26 scrapes were made. Some of the recent scrapes are on the same areas as these original scrapes. The numbers did start to climb back after this work. Numbers are maintaining but with annual counts in the 10's, not the 100's. However, we cannot now just sit and wait. Routine work still needs to be done to ensure these sites are maintained at optimum condition. Dominating scrub such as old man's beard and bramble will need to be cut and long grass mown and removed. The site will be monitored regularly, not only with the weekly transect walks but also timed counts.

The scrapes will re-colonise (bird's foot trefoil has already appeared on some of them), the landscape will soften and hopefully swarms of these gems of butterflies will once again grace this site.

Georgie Laing

Urban Butterfly Gardening

Many of the UK's butterflies have faced significant declines over the last 40 years with even some of our most familiar and beloved species unable to evade the trend. The Small Tortoiseshell, for example, is one of the most recognisable and widespread of UK species, and usually a regular garden fixture during the summer months. In 2016, however, after a series of hopeful years, it made the headlines with a staggering population plummet of 73% since the 1970's.

In a time of uncertainty for Britain's wildlife, gardens have become increasingly vital havens, acting as important stepping stones between nature reserves and other natural habitat by offering much needed supplies of nectar for feeding and foodplants for breeding. Butterflies will visit any garden, however small, if they can find suitable nectar plants and gardening with a little

thought can attract up to 18 species of butterfly, perhaps even more if you are willing to put in the time and effort!

I have been fascinated by butterflies since a young child but as I've got older I have become increasingly concerned by the disturbing figures and so decided that I wanted to do something about it, at least on my own patch! My garden, south facing and situated in the middle of Winton and just a mile from the centre of Bournemouth probably doesn't seem like an ideal place for butterflies?

The garden is medium sized, large enough to fit a pond and a large birch and eucalyptus which, when I started out three years ago, were surrounded by mown grass and bordered by shrubs and plants of little benefit to wildlife. The first step I took in preparation for creating a garden perfect for butterflies was taking a look at what I already had, making a note of the species in the garden and whether they used my patch for feeding or breeding, then preserving these plants as to not damage the already resident population. I also made note of which species

Small Tortoiseshell. Andrew Cooper.

I'd observed locally but were missing from my garden, following this up by noting down the nectar plants and foodplants I would need if I wanted to attract these particular species. The stage was set and it was now time to put the plan in action!

Taking inspiration from some of my favourite butterfly hotspots such as Badbury Rings near Wimborne, creating a wild grasses and flower area was a must, but deciding where to put it was important to allow species to thrive.

Part Two of this article will be published in the spring newsletter.

Andrew Cooper

National Moth Night 2016

National Moth Night was a three night event from 10 to 12 June with a stated theme to concentrate on Hawkmoths.

Ghost Moth. Bob Steedman

Until then the weather had not been kind moths or butterflies, so the moth traps did not produce the returns expected at this time of year. Nevertheless there was sufficient variety to make the effort worthwhile.

Three events were organised at Dorset Wildlife Trust's Beacon Hill Centre in Corfe Mullen, the Stour Valley Nature Reserve in North Bournemouth, and at the Portland Bird Observatory. This provided a diverse set of habitats and it was interesting to compare the catches.

The Beacon Hill event provided 25 species of macro moths and 12 micro moth species. Unfortunately no Hawkmoths were trapped but a Pine Hawkmoth and a Poplar Hawkmoth had been caught in a trap the previous night. The catch did include some notable moths such as Scallop Shell, Pebble Hook-tip, True Lovers Knot, Swallow Prominent, Scorched Wing and Nematopogon schwarziellus.

Scorched Wing. Bob Steedman

The Stour Valley event was organised jointly with the Bournemouth Council nature wardens at the Kingfisher Barn next to the River Stour. This event provided both an attractive male

and a female Lime Hawkmoth amongst the 18 species in the trap. An unusual catch was a male Ghost Moth.

The Portland event easily produced the biggest catch with 254 moths of 38 species including Small Elephant Hawkmoth, Eyed Hawkmoth and Privet Hawkmoth. Other attractive moths in the trap were a Magpie Moth and no less than 12 Cream-spot Tiger moths.

Despite being advertised on Dorset Butterfly Conservation website and elsewhere, the attendance at each event was disappointingly low with only one visitor who said they had come as a result of seeing it on the BC website.

My grateful thanks are due to Andy Fale for helping with the Beacon Hill Event; Tom Bennett at Kingfisher Barn and Martin Cade at Portland Bird Observatory.

Bob Steedman

Small Elephant Hawkmoth. Bob Steedman

Butterfly Aberrations

Have you ever come across a butterfly which didn't quite match up to the pictures in the field guide? If so, you may have found an aberrant individual: a variant which differs from the usual patterning or colouration of the species. Aberrations can appear anywhere but they are typically rare, comprising only a very small percentage of individuals in any population. Their scarcity meant that back when butterfly collecting was at its peak, aberrant individuals of our British species were highly prized, with the rarest variants selling for large sums of money. Nowadays, with cameras replacing nets as the butterfly enthusiast's weapon of choice, keeping an eye out for aberrations is a good way of adding a little extra interest to those summer butterfly walks!

Painted Lady ab ocellata with blue centres to the black spotson the hindwing, seen in my garden during the big 2009 invation. Guy Freeman.

The causes of aberrations are not always known, but many arise when butterflies are exposed to harsh conditions during their developmental stages. This can mean that (the normally rare) aberrant butterflies outnumber 'normal' individuals after extreme weather events. For example, when summer heatwaves cause the Adonis Blue to experience unusually hot, dry conditions during development, the majority of the second brood can be aberrant in some populations. The butterfly collectors of old gave specific aberration names to any variants they managed to capture, ranging from the barely noticeable (Whites with slightly larger spots; female Blues with different ratios of blue to brown on the

Adonis Blue ab krodeli lacking spots on the underside. Fontmell Down. Guy Freeman.

uppersides) to the spectacularly different (Small Coppers with the orange ground colour replaced by white; pure indigo Purple Emperors without any markings).

The number of aberrations tends to differ between different butterfly families: Skippers and Whites typically have just a few named variants, but the Blues often have many. Indeed, the Chalkhill Blue alone has hundreds of named aberrations – enough for a book on the subject ("A Monograph of the British Aberrations of the Chalkhill-Blue Butterfly"), published 1938!

Aberrations among our Vanessids are rare (although slightly more frequent in the Small Tortoiseshell), but when they do occur they can be particularly dramatic.
Some aberrations are fairly common, to the point that they can barely be classed as

Chalkhill blue male with orange spots on hindwing, female with blue centres to black spots on hindwing, bothat Badbury Rings. Guy Freeman.

Small Copper ab. *obsoleta,* with reduced orange colouration on the hindwings, on Brownsea Island. Guy Freeman

aberrations. For example, the variant of the Small Copper with metallic blue spots on the hindwing is known as ab. *caeruleopunctata*, yet the majority of Small Coppers that I have photographed in Dorset show this feature. In contrast, some aberrations are so rare that they have been observed on only a handful of occasions over the past centurys. The frequency can also vary between populations, with some sites being recognised for consistently producing aberrant forms of a species.

If you're interested and you're a photographer, it's worth taking a close look at your old photos: you might find that there's something subtly different in there! If not, look out for anything unusual next time you're out butterfly hunting. If you find an interesting variant, you may well be able to put a name to it using the Cockayne Collection on the Natural History Museum website or the aberration descriptions on the UK Butterflies site. Remember to report any unusual finds to the Dorset Branch website too!

Guy Freeman

Lydlinch & the Marsh Fritillary

All Marsh Fritillary photos in this article: Colin Burningham.

In the Autumn 2015 edition of the Branch Newsletter, it was reported that the number of Marsh Fritillaries on the transect walk had increased to 71 during the 2015 season with 51 being seen in sector 15 in the ungrazed area and 20 on the rest of the Common, following the change to the grazing regime.

It was felt that the various sub-colonies around the site were closely interlinked and there had been an indication that with an improvement in the grazing regime, butterflies had begun to re-colonise the main site where numbers had dropped to very low numbers.

At the time, these findings gave us hope for the future of the Marsh Fritillary colony on Lydlinch Common.results for 2016 are now available for publication and show a boost in total numbers of Marsh Fritillary seen on the transect walks at Lydlinch from 71 to 94. Sector 15 (the ungrazed area) showed a drop in numbers counted from 51 to 31 but the grazed part of

the Common produced an increase in total numbers from 19 to 63 with numbers being seen on all the previous sites that they had occupied prior to the overgrazing. It is apparent that further re-colonisation had taken place and these results augur well for the future.

However, there is no room for complacency and future success with improvement to Marsh Fritillary numbers depends very much on close monitoring of the grazing on the main site and also continuing valiant efforts on the management of Sector 15 by the Friends of the Common, who are nearly all members of the Dorset Branch of Butterfly Conservation. A big thank-you to them all.

Colin Burningham

Remember our Branch AGM on Sat 4 February

Listen to the speaker, talk to like-minded people and enjoy the always excellent cakes! Full details in the Events List.

Members enjoying the 2016 AGM. Lyn Pullen

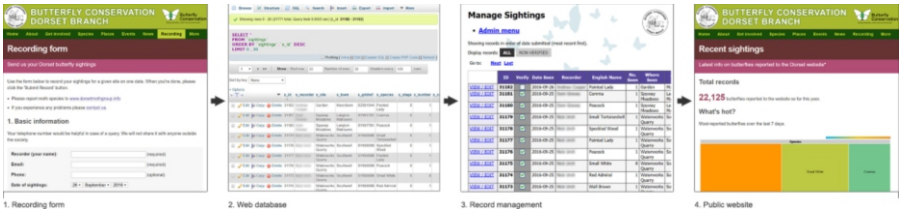
Casual Recording Visualisation

The Dorset Branch website has offered an online recording facility for several years now. This summer we introduced some new features which help to illustrate recent trends in butterfly activity graphically. I was asked to explain a bit about how it works.

First, a quick introduction to the existing web recording functionality:

1. Recorders enter casual sightings information into an online form.
2. Species records from the online form are sent to our web sightings database where they are stored.
3. Dorset Branch volunteers check the latest records received and verify them.
4. Verified records are flagged in the database and are made available for website publication.

This process is shown below:



1. Recording form 2. Web database 3. Record management 4. Public website

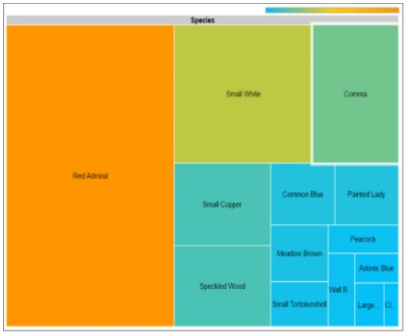
In the past we've always had a web page which lists the most recent casual sightings in simple tabular form. It's possible to sort these records by date, species, number and location to find what you're interested in.

The new data visualisations work in a similar way, but interpret the data using the Google Charts API (Application Programming Interface). Here's what happens behind the scenes when you view the new web pages in your browser:

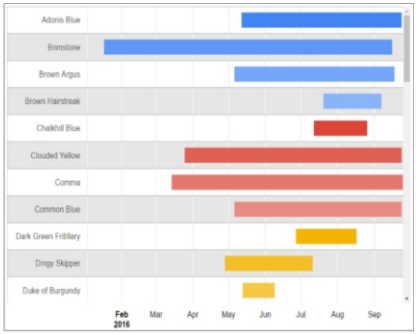
1. User loads web page in browser.
2. Web page requests relevant datasets from the web database (e.g. verified sightings from last 7 days).
3. Web page manipulates data into required formats (e.g. aggregating species counts).
4. Web page inserts data variables into Google Charts API code.
5. Google Charts API code generates data visualisations and displays them in web page.

The Google Charts API itself uses a combination of web technologies, including: JavaScript, CSS (Cascading Style Sheets) and SVG (Scalable Vector Graphics).

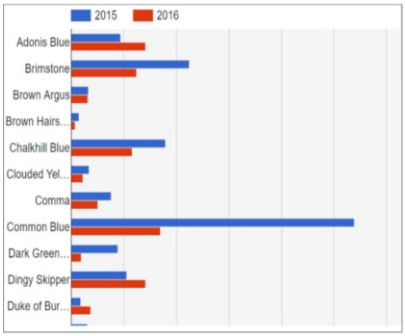
The resulting data visualisation options currently include: bar charts, tree charts, Gannt charts and calendars. These charts are



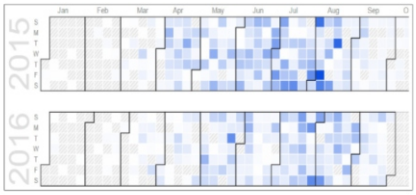
1. Tree chart



2. Gannt chart



3. Bar chart



4. Calendar chart

automatically updated with the latest information from the casual recording web database every time the web page is loaded, and require no manual intervention.

Hopefully these new features provide a timely snapshot of butterfly activity across the county, presented in an attractive and engaging format, which helps people to more easily understand the data we gather.

To see the data visualisations for yourself visit the Dorset Branch website and follow the links on the Recording hub page: **www.dorsetbutterflies.com/recording**

Dom Greves

A note from the Website Editor: Lyn Pullen

I'd like to add a note of thanks to Dom for all the work he does on the website. Although we pay him for some of it, he does a lot without charge as well, and often comes up with ideas to make the site even better. The high-level technical stuff is beyond me (and Dom won't let me near it anyway - he fears I might b****r it up, which is probably quite right).

I'd also like to thank Andrew Cooper, who helps me with the Photo Gallery, and with social media. I've been very busy with things for my village this year, and I would have sunk without him!

Please do think of sending in bits of news, why you got interested in butterflies, the story behind your sightings, good places to see butterflies etc. They will be shared with the Newsletter, to appear where they fit best.

Butterfly Conservation Dorset Branch
Income & Expenditure 2015/16

	2015/16	*2014/15*	*Notes*
Expenditure			
Conservation	10,439	*12,014*	
Education	1,270	*838*	
Grants outwards	100	*141*	
Fund-raising	268	*1,496*	
Newsletters	3,325	*1,868*	*1*
Website	340	*580*	
AGM costs	37	*42*	
Administration	1,155	*2,165*	
Total expenditure	**16,934**	***19,144***	
Income			
Grants	5,452	*9,070*	*2*
Membership subscriptions	4,548	*4,023*	
Other	467	*237*	
Donations	687	*1,166*	
Sales stall	872	*1,109*	*3*
Other fundraising	1,546	*1,411*	
Contract income	500	-	*4*
Total income	**14,072**	***17,016***	
Excess expenditure over income	**2,862**	**2,128**	

Notes

1. April 16 edition of newletter actually printed in March 16 so £599 accounted f 2015-16.

2. There was uncertainty whether we would receive the new Basic Payment Scl for Alners Gorse and Lankham Bottom.We eventually did receive it t but in June after the books were closed (£5,541)

3. Sales stall stock and activity depleting. New sales officer needed.

4. Ponies grazed at Rooksmoor for a fee.

Butterfly Conservation Dorset Branch
Balance Sheet 2015/16

	£	Notes	£
	At 31/3/2016		*At 31/3/2015*
Bank (current account)	11,619		*18,285*
Bank (deposit account)	3,000		*-*
Stock	344	*3*	*821*
Prepayment	25		*-*
Debtors	1,464		*11*
Creditors	(674)		*-*
	15,778		***19,118***
Represented by:-			
General funds	**15,778**		***19,118***
Excess expenditure over income	(2,862)		*(2,098)*
(Decrease) increase in stock value	(478)		*136*
Movement in funds in year	**(3,340)**		*(1,962)*

Financial report prepared by Georgie Laing (Treasurer)
Checked and found correct by Allan Higgin (Examiner)
Detailed accounts will be presented for approval at the Branch AGM on 4 February 2017

Pictures to remind us of what the work is all about. L-R Duke of Burgundy, Forester moth and Chalkhill Blue. Mark Pike, Gordon Cryer and Mel Bray.

The Weymouth Relief Road

By-passes are controversial. Many of you will remember the protests that were made some years ago when the plans for the Weymouth Relief Road were first made public, and it became apparent that it would damage chalk downland as it cut through the Ridgeway, and that further south it would destroy some of the much loved woodland of Two Mile Copse, and also drive through or pass perilously close to the Lorton and Lodmoor Nature Reserves. Protests or not, work started in 2008 and was completed in 2011, with the Princess Royal doing the honours for the opening.

There are perhaps three positive gains that have arisen from the work. Firstly, the archaeological survey carried out along the line of the road found 16 Celtic graves in the area of the proposed cutting, which revealed much about the lives of the inhabitants of this area 3000 years ago. More exciting was an accidental find when the operator of one of the machines

Kidney vetch beside the Weymouth Relief Road. John Elliot

cutting through the Ridgeway noticed human bones coming up in the bucket. An archaeological dig then uncovered 50 decapitated skulls neatly stacked and a slightly greater number of body parts thrown in a jumble. Radioactive dating and stable isotope analysis showed that they were of Scandinavian origin, and had been killed sometime between 900 and 1100 AD, though what they were doing in Dorset remains a mystery.

Secondly the work offered an opportunity to study the complex geology of the area. Originally mapped in 1856 when Brunel tunnelled his way through the hill between Dorchester and Weymouth for the railway, the

work by Southampton University geologists confirmed and extended this earlier work. Of particular interest for butterflies is the Ridgeway geological fault, which runs some 5 miles eastwards from Abbotsbury, crossing the Relief Road at the southern end of the cutting, with the land to the north of the fault having dropped half a kilometre with respect to the land to the south around 68 million years ago.

The half mile cutting through the chalk gives rise to the third and, for butterflies, the most important result. For some time Dr Phil Sterling, Dorset County Council's Coast and Countryside Service Manager, had looked out for areas of chalk exposed by road and other works, sowing seeds of chalk loving plants, such as vetches, to provide valuable food for butterflies and moths. It had been planned to cover this exposed chalk in the cutting with 30cms of topsoil, but Phil managed to persuade the powers-that-be that omitting this would result in considerable ecological advantages, and save up to £100,000.

The first sowings were of vetch seeds, resulting in a magnificent display of yellow kidney vetch in the first year and discovery of the first colony of Small Blues. In the following years further colonies were established along the length of the cutting, which were joined by considerable numbers of Common Blue and smaller numbers of Adonis Blue. However, there is some concern for the latter as its food plant, the Horseshoe Vetch, does not seem to be setting seed and has disappeared, at least along the bridleway which provides the main access to the site.

Overall the number of species built up rapidly and now stands at 23. The browns and whites are well represented, and the

Adonis Blue. Butterfly Conservation ski

ppers have included Dingy as well as Small and Large Skippers. Immigrant butterflies working their way inland have included Red Admiral, Painted Lady and Clouded Yellow, as well as Silver Y moths.

Apart from the deliberate plant introductions, others have arrived, bringing the total I have noted to 53 species of vascular plants. Thousands of cowslips and oxeye daisies have provided magnificent displays this year, while among the rarer plants we now have common spotted and pyramidal orchids. This year a single bee orchid at the side of the bridleway has been much admired.

Guided walks organised by the Dorset Branch of Butterfly Conservation took place in the first three years of the project and this year there were two walks organised by the South Dorset Ridgeway Landscape Partnership, but you may visit at any time.

Parking is at the end of the now closed road past Came Down Golf Club (SY672859 or DT3 3PR). Go down the bridleway, through the tunnel at the bottom of the slope and return either on the old Main Road or, more interestingly, on the Old Roman Road.

John Elliot

Dingy Skipper. Mark Pike

Portland Transects 2016

In what has been generally considered a rather poor year for butterflies, the results from Tout are relatively encouraging. The total number of butterflies counted (1359) was 98% of the 2015 total (1397) and well above the average for the site (980). Twenty-five species were seen, one more than average. For 12 of these species, the number counted increased over 2015 and for three of them (Small Skipper 68, Small Blue 18 and Marbled White 266) the number was a record for the site. The 38 Dingy Skippers recorded was the third highest total. Silver-studded Blues increased to 27 from 13 in 2015. This is only half the average count for the site (55) but this is affected by very high counts pre-2000 and this year's figure is similar to the average since then (26). The Common Blue count (168) was similar to that in 2015 and above the average of 118. The 200 Chalk-hill Blues counted is about average for the site. Although only one Adonis Blue was seen on transect, this compares with none in 2015 and an average, since 2003, of just 8. The Red Admiral seems to have had a good year at all 3 sites and the 35 seen here was the highest since 2011. The 192 Gatekeepers counted was the second highest total for the site. Grayling numbers were down, from 80 in 2015 to 31 in 2016, and is the lowest total since 2010. Of the other most abundant species at the site, Meadow Browns were less common in 2016, with 112 seen, compared with an average of 133.

A record number of 613 butterflies on Perryfield were counted in 2015. The 2016 total of 442 is 72% of this and 17% above the average for the site of 378. Eighteen species were recorded, one less than average and the fewest since 2012. This was the first year since 2012 that no Graylings were seen. Against this, the first Small Tortoiseshell was seen since 2013. This is a Dorset species of concern and just one of these butterflies was recorded at each of the other two Portland transects. The 41 Chalkhill Blues

seen was the fewest since 2009 and below the site average of 49. Meadow Brown numbers were down from 142 in 2015 to 114 in 2016, but this is still above the site average of 88, making it the only one of the Portland transects where this was the case in 2016. The Marbled White count of 122 was also above the average of 74. The 8 Red Admirals recorded was the second highest total at this site.

Of the three Portland sites, Broadcroft did least well. The total number of butterflies counted (1442) was just 61% of the average for 2013-2015. However, these 3 years had been exceptionally good and the 2016 count compares reasonably well with the average for the site (1513). The number of species seen (23) was one fewer than average and two fewer than 2015. No Peacocks were seen for the first time since 2006. Nevertheless, for 11 of the 23 species seen the number recorded was greater than in 2015. These were Lulworth Skipper, Large Skipper, all three Whites, Holly Blue, Small Blue, Silver-studded Blue, Speckled Wood, Ringlet and Red Admiral. This last was more abundant (17 seen) than since 2005. The increase for Silver-studded Blue was only by three, from 11 to 14, and this is well below average for the site (123, with a maximum count of 564; and 76 for 2003-2014). The number of Small Blue (94) and Common Blue (206) were above or about average respectively. Only 4 Chalk-hill Blues were seen here in 2016, the fewest since 2004, although the average is just 14. Numbers of the three most abundant species (Marbled White, Gatekeeper, Meadow Brown) were all well below 2015 counts, but only Meadow Brown was below the site average.

Marbled White. Penny Hawes

Ian Laing

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Photo on back cover: Comma by Rex Bale