

MOTHS OF DORSET

NEWSLETTER NO 6

1 MARCH 1999

INTRODUCTION

Five years has passed since Newsletter No. 1 was published, and we intend this edition will be the last (at least under the current authorship). In that time, and with your help, we have found out a great deal about the range of moth species that exist across the county, and the often very specific habitat requirements that many of them have in order to survive. It is our intention to draft a publication summarising our findings by the end of 1999, and this will continue to take up a lot of our time. We remain very keen to provide some form of provisional list of the Lepidoptera of Dorset as soon as we can; past experience in other counties has shown that publication of records often stimulates more interest in recording, and increases the number of recorders.

We have received several compliments about the newsletter in the past few years, and it seems to be a helpful and informal way of keeping recorders in touch with each other. If anyone would like to take on the task of writing future newsletters, please contact us. Since we will continue to submit annual reviews of macros and micros to the Dorset Natural History and Archaeological Society proceedings each year, these summaries will be available to any prospective author, together with our support and encouragement.

We urge you to continue recording whenever you are able, since the publishing of a list is not the 'end of the road'. We are confident that with continued effort, a revised edition is likely to be needed within five to ten years. Please continue to submit your records to the Dorset Environmental Records Centre as before. Any interesting finds in 1999 and, possibly, 2000 will be included in the provisional list in order to make it as up-to-date as possible.

We trust you are looking forward to the coming season. However, cast your mind back to 1998. We have received a mass of observations from network contributors and all of it will assist us in quantifying moth species status countywide. Finally, a big THANK YOU to all of you who have sent in records during the course of the project.

WHAT'S HAPPENED SINCE 1993

It is difficult to summarise in a few lines what this recording project has achieved in since 1993, but here are a few of our highlights.

Spread of recorded sites

Dorset has always been known as a good county for moths, but in the past thirty years much of the recording effort has concentrated on a few sites, mainly along the coast and the heathlands of the south-east of the county. Thanks to your efforts we now have a much wider view. It would be wrong to say that the north and west of the county support as many interesting species as the south and east, but they support a smaller, different range, adding to the overall diversity of the county, including species such as the Double-line, Waved Carpet, Alder Kitten and Map-winged Swift.

Number of recorders/co-ordinating recording

We now have about fifty recorders living within the county, all regularly sending records to us and DERC, together with a more variable number visiting from outside Dorset. We don't really know how many were recording before this time, but the number has increased markedly, and new recorders contact us every year. Perhaps our greatest coup is to have captured the attention of several bird recorders after something interesting to do in their quieter, summer season! It is also important that recorders are now submitting their finds regularly. There is no doubt that outside Dorset reside vast numbers of records which are in diaries, or on sheets of paper in files, which will probably never come back to us here. The work undertaken by Peter, David Jeffers and DERC mean that the records you have submitted are properly archived, with extracts of the more interesting species, and full lists for some recorders, entered into a database where they can actually be used. Importantly, it

photocopied a few times. It will form a vital part of the provisional micro and macro lists for the county by adding an historical perspective to compare with the data we have all been collecting in the past five years.

1998 RECAP

Indigenous Highlights

The frequently cool and changeable weather through the summer did its utmost to frustrate attempts to undertake moth recording, but yet again many interesting discoveries were made across the county.

Research continued on the Dorset status of the Blair's Wainscot. Two new localities were found to harbour colonies of the moth, bringing the total number of sites to five. Excellent news, and especially so in view of the unwanted attention meted out to one of the sites by a whole gaggle of collectors who, night after night, seemed hell-bent on exterminating this Red Data Book species there. One collector had apparently visited the same site three nights in a row! The site in question contains only moderate stocks of Lesser Pond Sedge, and, one must assume, far smaller numbers of the Blair's Wainscot moth. This species will be negatively impacted if such selfish activity continues unchecked. A probable third locality was discovered following search for larvae in the spring; even in June larvae were still very small, but they appeared to be miniature versions of Blair's Wainscot larvae and not micro moths. Unfortunately the site received almost continuous grazing over the summer and the Lesser Pond Sedge stands had been reduced to a short-cropped meadow by October, effectively removing all suitable habitat for the moth to breed. It is remarkable such a habitat can be changed so dramatically by management in a single season.

Our bid for joint funding from English Nature at Peterborough and Dorset County Council to research into the ecology of the Speckled Footman moth, was accepted for the second consecutive year. John Hunnisett applied transect walking, sweep net and hand searching techniques at one of the sites, however, again no larvae were detected. The scope of the research was extended to include light trapping at target locations. Chris Manley caught a single Speckled Footman in late July at a new Dorset site for the species. Peter worked nine sites during the flight period, and managed to find a singleton at one of them, a known site. Rees Cox trapped at a site close to where the moth had been seen frequently in the past, but with no luck. The search for larvae was hindered by the wet spring, and the mainly cool and unsettled conditions kept activity low throughout the flight period.

Jack Astley and Jeremy Burge live close to the north Dorset boundary from which we have few records. Jack turned up the Map-winged Swift, a new species for the county, amongst bracken on chalk soil at Batcombe Down. He also caught an Orange Moth at Prince's Place, a moth that is very seldom encountered in the county. Jeremy, who lived at Bourton in 1998 (but has now moved to Milton-on-Stour), caught two notable species in his garden, the Pinion-spotted Pug and the Devon Carpet, only the second Dorset site for each species. He has also advised us that not far away at Stoke Trister, just a mile into Somerset from the Dorset border, he recently caught several specimens of the Grey Chi moth. We only have one Grey Chi record, taken at Kington Magna by H J Moore about forty years ago, and we hope Jeremy will find it at his new address!

The Southern Chestnut, a recent addition to the British list, was discovered in Surrey in the early 1990s. In 1995, Ray Cook, Don Humphreys and Andrew Page found the species in Hampshire to the east of Ringwood. Subsequent searching uncovered additional sites in the New Forest. The Southern Chestnut was included in Appendix 1 of Newsletter #5 as a species worth looking for on heathland sites in the east of the county. Peter and Phil found the species to be present at two sites containing good stocks of bell heather on dry heathland on the Dorset side of the River Avon in October. We do not know if the moth is a recent coloniser or if it has been in the county for a long time. Neither Julian Clarke nor Gordon Le Pard recorded the species when they lived in the vicinity during the late 1980s and early 1990s.

One rare species that we believed lost to the county was the Star-wort, a member of the Shark family. The caterpillar feeds on Sea Aster and Golden-rod, and until 1998 we had no recent verified records. Earlier this century, however, Eustace Banks classed the species as locally common with caterpillars found feeding on China Aster in gardens and occasionally on Sea Aster. It was therefore very pleasing to hear that a Star-wort had been caught by Peter Knight close to a site where Sea Aster grows in moderate numbers. Phil and Peter searched for larvae without success in September, and were concerned to see that overgrazing had stripped a large percentage of the plants of their flowers and leaves. A similar site close to Wareham also contains stocks of Sea Aster, but overgrazing had strimmed Sea Aster plants almost to the ground there too.

During the course of the project we have had no authentic records of the Peacock Moth until this year. All have turned out to be the Sharp-angled Peacock. Steve Barrett, with his newly acquired generator and 400W lamp (!), launched himself into the depths of Dorset, and trapped a Peacock at Shipstal Point. This was probably an immigrant, but might just indicate the existence of a colony in the birch thickets on the RSPB land at Arne.

We mentioned earlier the discovery of the Pinion-spotted Pug in north Dorset. This striking Pug should occur locally on the Dorset chalk in situations where good stocks of mature hawthorn are present. Steve and Peter went looking for the species at a suitable site near Hammoon in May and did not find it. However, something unexpected turned up, the Oblique-striped (mentioned in Newsletter #4 as one of the species caught at Iwerne Minster by H J Moore in the 1950s, and not seen since). Peter caught a Narrow-bordered Five-spot Burnet in the same locality in July, a few months later.

The Small Square-spot is a common double-brooded species that occurs throughout the county. The single-brooded Fen Square-spot flies between mid-June and mid-July in England, and is so closely related to the Small Square-spot that no genitalic differences have been established to separate the species. The two moths appear to be a pair of species in the process of evolutionary separation. The Fen Square-spot is a moth which tends to be associated with fen and mire habitats (hence the name) and is recorded from widely separated parts of England, but until now, no further south than East Anglia and South Wales. Brian Withers recorded a number of fen Square-spot close to a mire habitat near Wareham in the 1980s, and the specimens have now been verified. This is a most interesting record for the county, and we would urge recorders operating light traps in the vicinity of mires to watch out for this species which is reported to fly late at night.

We received many clearwing observations from recorders who have evidently looked hard for signs of larvae in host trees and shrubs. This effort has undoubtedly increased our knowledge of the distribution of a family of moths that are notoriously difficult to detect in the adult stage. If anyone would like to attempt to assemble male adult clearwing moths to pheromone lures between May and July this year, please contact Phil or Peter.

Turning to micros, we cannot report anything like the number of successes of 1997, but there were a few notable finds. As with the Speckled Footman, we were successful in raising money from English Nature and the County Council to support research into the distribution of the Gentian Plume, *Stenoptilia pneumonanthes*, in Dorset. We are delighted to report that as a result of the survey we now know of two sites for the moth, but at both sites the population of moths (crudely calculated from the proportion of flowers containing larvae in a sample multiplied by number of flowers available) is apparently extremely low. Each site supported probably no more than 50 individuals in 1998, an example of rarity *in extremis*. In view of the onslaught on the Blair's wainscot described above, we feel fully justified in maintaining confidentiality, and would urge anyone finding a colony of the moth not to take any specimens.

Perhaps the find of the year was *Archips oporana*. This is a large and handsome tortrix moth, akin to the commoner *Archips xylosteana*, but somewhat larger and with a more striated forewing. Mike Jeffes caught a specimen in his garden trap at Hurn (VC11) in late July. I am not aware of a record in Britain for this species within the last thirty years, and it is listed as a pRDB1. The only published evidence that the moth occurred historically in Dorset is in Meyrick's 1928 Handbook; Parkinson Curtis asked him in person for the details of the record which he could not recall, although he was sure the record was sound. The moth was present nearby in the New Forest in the late part of the nineteenth century. We can hope that the moth is resident in Dorset, since the larva feeds on a variety of conifers, and the genus *Archips* is not known for its wandering or migratory habits.

Of note is also the finding of numbers of larvae of the gelechiid moth *Helcystogramma lutatella*. This moth is only known from the Dorset coast in the UK, and there are recent confirmed records from Gad Cliff and Portland. The larva has only previously been found twice in Dorset until this year, when Phil found many larvae in rolled leaves of Tor Grass on the cliff edge on Portland. Larvae are distinguishable, even when very small, from the very closely related and common *H. rufescens*, by their reddish brown sclerotised plates on the first two abdominal segments, which are dark olive in *rufescens*.

A detailed account of the 1998 moth highlights has been submitted for publication to the editors of the Dorset Natural History and Archaeological Society Proceedings. If you have been disappointed at not seeing your records here, be assured they will be recorded in the Proceedings.

Locality Highlights

Stubhampton is a gem of a locality. The privately owned site is situated on the Cranborne Chase, and part of it is leased to the Forestry Commission. The site contains stands of mature oak, birch, ash and beech trees, plus spruce and larch plantation covering a relatively steep sided chalk valley. A broad, flora rich central ride snakes its way from north to south along the valley floor. The Forestry Commission agreed to remove a large area of conifers from part of the site to create open downland to enhance existing populations of local butterfly species. A number of local moth species occur at the site. These include a strong colony of the Lunar Thorn, *Pterophorus galactodactyla*, Satin Beauty, Valerian Pug, Cistus Forester, *Anania stachydalis*, Scarlet Tiger on Hemp Agrimony, *Ethmia dodeceea*, Drab Looper, Argent and Sable, Grass Rivulet, Royal Mantle, Satyr Pug and Wood Tiger.

Migrant Highlights

1998 was a very westerly year, with winds seldom blowing for long between south and east. Opportunities for immigration were consequently restricted. However, some interesting and notable migrant species did find their way to the county.

The noteworthy immigrations in January and February are well documented in the publication *Atropos*. Dorset had its fair share of *Euchromius ocella* and Striped Hawks, and Paul Harris' Striped Hawk of 15 February possibly constitutes the earliest recent record for this species in the county.

On 12 June, Brian Withers came across a Toadflax Brocade at rest next to a neon light in an industrial unit near to the River Trent in Wareham. This rare migrant has only been seen once before in Dorset. Just over a week later, Martin Cade on Portland trapped another rare migrant, the Orache on 20 June.

The exotic Purple Marbled and Small Marbled macro-moth species are rare visitors to the UK. Martin Cade caught a Purple Marbled on Portland in May, and Jack Astley trapped a second example on 5 July at Briar's Wood in the north of the county. In the first ten days of July, Roy Eden trapped five Small Marbled adults at West Bexington and Martin Cade caught one on Portland. Although the majority of moths seen are immigrant adults, exceptionally, larvae are found. The Purple Marbled feeds on Carline Thistle and the Small Marbled feeds on Common Fleabane. In the last week of July, Phil (actually, his daughter Hannah found the first) discovered about a dozen caterpillars of the Small Marbled in flower heads of Common Fleabane at West Bexington.

Tebenna micalis is a micro-moth that is closely related to *Anthophila fabriciana*, the Nettle-tap moth. The latter species is an extremely abundant small day-flying moth, flying almost everywhere where its foodplant Stinging Nettle grows. The former, however, feeds on the leaves of Common Fleabane, leaving a characteristic pattern of fenestration or 'windowing', together with silk and frass. *Tebenna micalis* is also a rare migrant, but is seen less often than the Small Marbled. Phil saw an adult on Portland in Dorset on 4 July. Later in the year, larvae were found on Common Fleabane in various sites around Dorset.

On 26 July, Roy Eden trapped the rare pyrale *Diasemia reticularis* at West Bexington.

Duncan Walbridge caught the Vine tortrix, *Eupoecilia ambiguella* at the Grove on Portland on 10 August.

An immigration notable for numbers of micromoth species, began on August 31. Several interesting species were seen over the next few days, and included the pyrale *Antigastra catalaunalis* at West Bexington (Phil and Derek Hallett), a second *Eupoecilia ambiguella* at Durlston (Peter), and a number of the pyrale *Acrobasis tumidana* at Durlston and West Bexington. Phil also caught a Blair's Mocha at Weymouth on September 1. The Latticed Heath appeared at a number of sites across the county, exactly a year after the last immigration of this species. On 4 September, Hugo Wood Homer caught a Stout Dart at Puddletown.

Peter caught the migrant pyrale *Diasemiopsis ramburialis* at Gaunt's Common on 19 September. Large numbers of Scarce Bordered Straws appeared across the county during the last week of September and the first week of October. Martin Cade caught a Blair's Mocha on 29 September at Portland Bird Observatory.

The journal *Atropos*, focuses on butterfly, moth and dragonfly immigrations to the UK. *Atropos* #6 has recently been published, and features an article on the amazing cross-Atlantic flight of seven nearctic Green Darner dragonflies in early September. If anyone is interested in obtaining copies, please contact Mark Tunmore whose address is given at the end of this newsletter.

A detailed account of the 1998 moth immigrations to Dorset plus proposed sources of origin will be submitted for publication by Peter to the editors of the Dorset Natural History and Archaeological Society Proceedings.

PUBLIC MOTH EVENTS IN 1998

Once again, a number of public trapping events were organised. These were in conjunction with Butterfly Conservation, Dorset County Council's guided walk programme, Dorset Wildlife Trust and DERC. Sites included Piddles Wood, Hammoon, Powerstock, Broadcroft and Duncroft Quarries on Portland, Melbury Park and Kingcombe. Many thanks to those who organised and helped out at these events.

Many congratulations to Graham Dennis for setting up 'Mothathon 1998' at Kingcombe and Powerstock. Graham is warden at Pamber Forest Local Nature Reserve and organised a group of recorders to work much of this complex of woodland and grassland habitats over two days and nights between 17 and 19 July. Recorders stayed at the Kingcombe Centre. As with most of the organised events in 1998, the weather was not especially kind, but a total of 149 species were recorded, including the Waved Carpet at Kingcombe, making this the third known Dorset site for this moth. Thanks, too, to Andy Swash for writing up and presenting a comprehensive set of records.

WANTED

Photos and Slides

If anyone has any photos or slides of macro moths or micro moths, we would like to hear from you as we are keen to include graphics within the project publication. All photos or slides received will be returned once they have been scanned.

2. *Galleria mellonella* (Greater Wax Moth) Specimens

At a recent seminar in Puddletown, organised to discuss the common interests of beekeepers and wildlife conservationists, the issue of the spread of the *Varroa* mite was discussed. The mite has devastated the beekeeping industry in parts of the UK. The mechanism for the mite's rapid spread between colonies of bees is not fully understood, but it might be worth examining *Galleria mellonella* as a possible vector. It is commonly assumed that the mite entered this country via imported queen bees from Europe, but Phil suggested that in view of the recent presumed influx of *Galleria mellonella* from southern Europe in recent summers (their arrival is timed with arrival of a number of unusual moth species), was it not also possible that they could have arrive naturally, hitching a ride on the 'back' of the wax moth? Mites of a number of species are known to disperse this way - no doubt many of us have seen burying beetles covered in red mites at the bottom of moth traps. If anybody catches *Galleria mellonella* this season, please could they collect and freeze them, and forward specimens to DERC or to Phil. Many thanks.

Finally many thanks to those who have helped the project to be a success, especially to landowners and managers for allowing access for recording, and to English Nature, Dorset County Council and DERC for their financial support and encouragement. We wish you every success for the coming season and thank you again for your contribution.

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