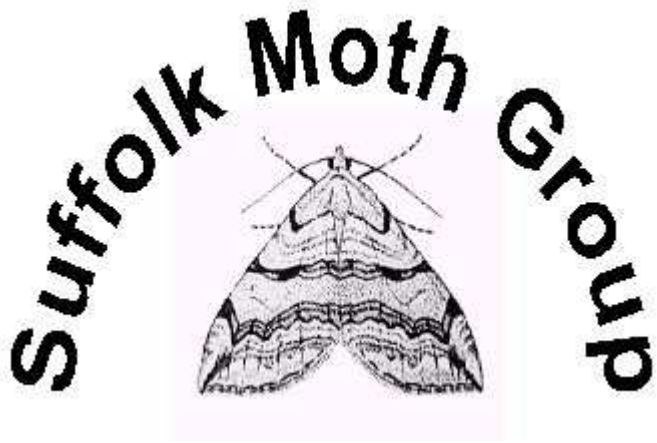

Suffolk Moth Group Newsletter

Issue 14 - November 1998

Edited by Jon Nicholls

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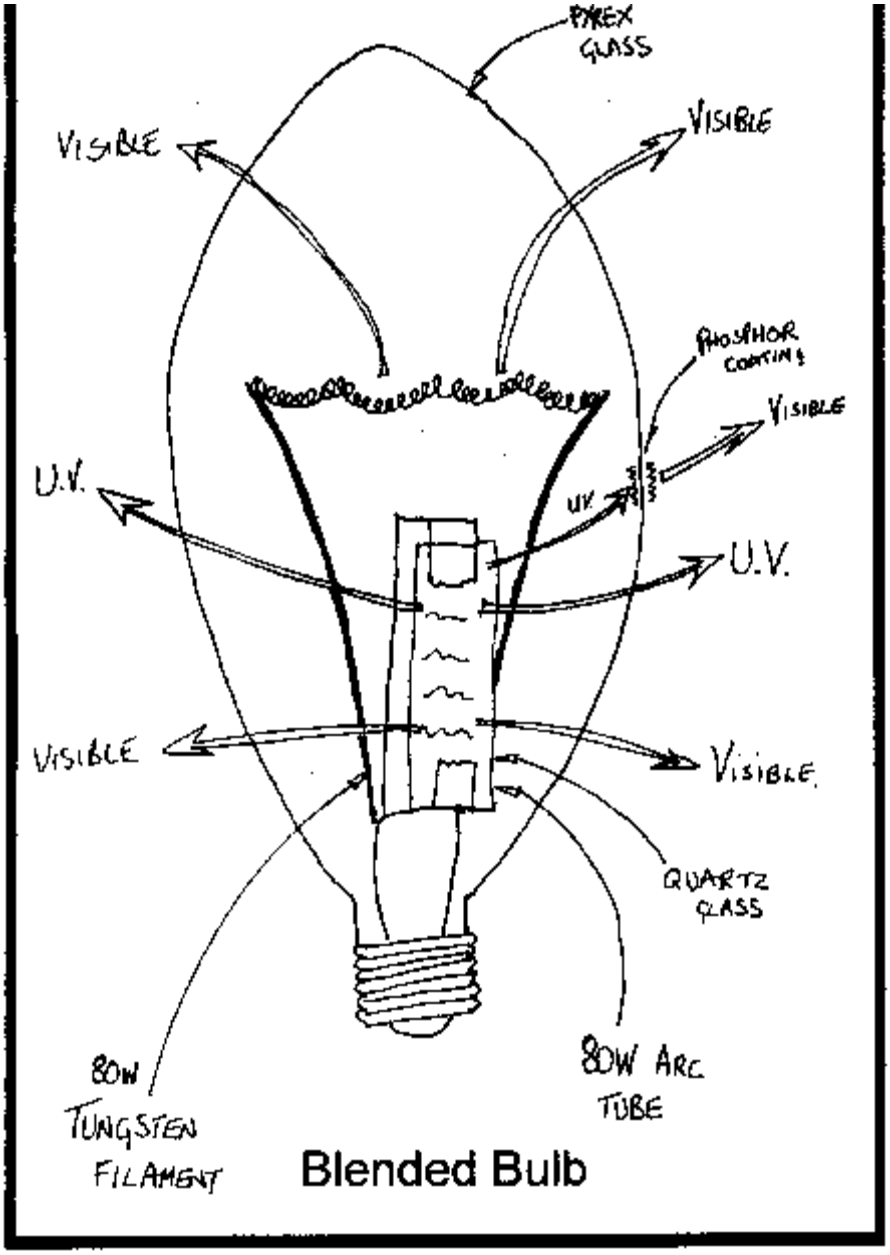
Editorial

The summer brought a mixed set of weather, with temperatures below average on many nights and lots of rain. It seems that moth catches have been down all over the county compared to previous years. However there have still been lots about and most Friday nights have been successful outings with many notable species. It has been a busy year with the moth records for both Tony and myself. We are both trying to put all the county records onto Recorder so that a definitive list can be produced and this is taking time. So far at least forty thousand records have been placed on the database with at least as many still to go on. Amongst these are a large number of dubious records that will all have to be considered before the final checklist of Suffolk moths is produced. As many of these dubious records are historical this makes the process even more onerous. It is essential that all records are, within reason, authentic if they are to be placed on the Suffolk list. This has always been a dilemma in natural history recording, what to do with dubious records? They could be correct but previously overlooked, they could be genuine identification errors (we all make them!) or they could be deliberate false records. The problem is deciding which of these options is the correct one, of course the process could have been rendered redundant if a voucher specimen had been produced at the time - or would it?

Moth Lights - Jon Nicholls

We all use lights to attract



moths, with varying success, but how does the type of bulb that we use effect the number of species we catch? Many people use MV bulbs and Blended bulbs but what is the difference? How do these bulbs work and how much light, both visible and UV, do they produce? In an attempt to answer some of the questions I talked to Graham Sheldon, chief technical officer at Osram UK, and most of what follows is as a result of that conversation.

Firstly, the bulbs themselves usually referred to as MV and Blended but what's the difference? Well, in simple terms, there is no difference. The MV light contains an arc tube that is made of quartz glass and filled with argon and it is the electricity travelling through this that produces the light. The Blended bulb also has an arc tube in it so produces light in the same way but it also has a tungsten filament as well. The reason for the extra filament is it enables the bulb to be used without a costly and cumbersome external choke. The reasons that the arc tight needs a choke is that when the bulb is first switched on the mercury inside it is solid and needs to heat up and vaporise before it will conduct the electricity. While it is heating up the resistance inside the arc tube is so low that if the choke were not in place a spark would be produced across the terminals and the bulb would explode! So the choke acts as an external buffer to prevent too much electricity flowing through the bulb. The Blended bulb does not need a choke because it has an internal filament in parallel with the arc tube that has a lower resistance and therefore conducts most of the electricity away while the arc heats up and the mercury vaporises. This explains why the Blended bulbs light immediately, through the tungsten filament instantly glowing, while the MV bulb is slow to light as the mercury melts. Once both bulbs have warmed up they are both giving of the same sort of light via an arc tube. This light is high in UV, which can be dangerous (There are three types of UV according to their wavelengths - UV A gives us a sun tan, UV B and UV C are even more dangerous as they could give us cancer!) and so the arc tube is surrounded by a barrosilicate glass (trade name Pyrex) sleeve coated in phosphorus to absorb the UV and convert it into harmless visible light. However, not all of the UV is filtered out, some still radiates to help attract the insects. As the outer glass is made of barrosilicate it can withstand thermal shocks far better than the average sodalime glass and therefore should cope with light, warm rain however it will have inevitable internal stress points, especially around the base, which could lead to cracks if exposed to colder rain. To prevent this many people place a Pyrex bowl over the bulb if they suspect rain is about. This is fine and has proved to work well however the extra layer of thick glass almost

certainly removes most of the UV that is being produced by the bulb, so this may well lower its effectiveness considerably. If rain is not expected then both types of bulb should be more effective if left uncovered.

A final point, why is it that the 160-Watt Blended bulb is supposed to be less effective than the 125-Watt MV bulb? The answer to this lies in the power of the arc tubes. The Blended bulb contains an 80-Watt arc tube and an 80-Watt filament while the MV bulb has a 125-Watt arc tube. So the MV bulb has a more powerful arc tube that outperforms the blended one.

Genitalia Workshop - Jon Nicholls

On Sunday 18 October a group of people gathered at Orwell High School to dissect some of the more troublesome species that can only be differentiated by this method. Having tried in the past to dissect a male and then been unable to identify what I was looking at I was sceptical of the usefulness of this technique. Jon Clifton was our expert, and he demonstrated how to remove and mount the genitalia of a Copper Underwing. First the abdomen was immersed in a caustic solution of potassium hydroxide for about twenty minute while being heated with an upturned 40W light bulb. Then the abdomen, now suitably softened, was teased apart with a small needle mounted on a matchstick. As all that is left intact by the potassium hydroxide is the chitinous genitalia this was easier than you might expect. Once the genitalia could be seen clearly, with all the soft tissues removed, it was placed on a slide and immersed in a few drops of mountant. We repeated the procedure for a possible Svensson's and compared the two. Using the diagrams in MBGBI it was immediately apparent that the slides were far easier to interpret than we had all expected and after a brief discussion we were all happy to agree that the two moths were indeed a Copper Underwing and a Svensson's Copper Underwing. We then did the same for a Dark/Grey Dagger and again were able to identify it, using Skinner, as a Grey Dagger. This turned out to be a very successful workshop and I would like to thank Jon for his clear and skilful demonstration, which gave us all the confidence to go away and use this technique in the future.

Suffolk Moth Survey

Aspal Close. 28 August

Aspal Close is a small nature reserve, situated north of Mildenhall, in the village of Beck Row. The local Postmistress referred to it as "just a field" but it has more interest than your average Suffolk field with some long grass, old trees and scrub. Eight traps were set up around the woodland and they attracted over sixty species, including; Angle Shades, Antler, Archer's Dart, Blood-vein, Burnished Brass, Canary-shouldered Thorn, Centre-barred Sallow, Copper Underwing, Feathered Gothic, Frosted Orange, Hedge Rustic, Maiden's Blush, Oblique Striped, Purple Bar, Red Underwing, Straw Underwing, Toadflax Pug, Vapourer, Yellow Belle and Yellow Shell. Micros included; Orange Swift, *Cydia splendana*, *Carcina quercana*, *Platytes cerussella*, *Evergestis forficalis*, *Udea lutealis*, *Pediasia contaminella*, *Catoptria pinella*, *Pyrausta cespitalis* and *Caloptilia alchimiella*.

Minsmere. Friday 4 September

Minsmere is well known as one of the RSPB's most popular reserves but it has great potential as a habitat for moths as well. There are reedbeds, heathland and woodland, all of which are potential sites for detailed study unfortunately the wind was a little strong for the more open habitats and so it was decided to go into a nearby area of deciduous woodland where six traps were tentatively set up, with the forecast of heavy showers hanging over us we were all

prepared to pack away at the first sign of rain. Six traps soon became five when we found over fifty hornets in one of the Skinner traps! The temperatures were in the high teens for most of the evening, and we did not get any rain to speak of, so the final count of over seventy species was not entirely unexpected. The macros included; Angle Shades, Archer's Dart, Black Arches, Bordered Beauty, Canary-shouldered Thorn, Chevron, Large Wainscot, Lunar Yellow Underwing, Maiden's Blush, Peacock, Pinion-streaked Snout, Red Underwing, Ruby Tiger, Southern Wainscot, Straw Dot, Vapourer, White Point and then three new macros for the Suffolk Checklist in Dark Spectacle, Webb's Wainscot and Barred Chestnut. The micros included; *Agriphila geniculea*, *Agriphila latistria*, *Agonopterix arenella*, *Acleris emargana*, *Caloptilia alchimiella*, *Argyresthia goedartella*, *Tinea semifulvella* and *Ypsolopha alpella.*

Friday Street. Friday 18 September

Friday Street is a small row of houses, down a narrow country lane, that leads to the north-western edge of Rendlesham Forest. This part of the forest consists mainly of pine plantation but has a small valley, created by a stream, lined with some mature deciduous trees. As it is only a short distance from the oaks of Staverton Park these trees could be all that remains of a much larger woodland. We set up six traps, in and around the valley, and waited for the results in temperatures in the high teens. We eventually found over forty species including; Autumnal Rustic, Barred Red, Barred Hook-tip, Birch Mocha, Black Arches, Brown-spot Pinion, Canary-shouldered Thorn, Centre-barred Sallow, Dark Sword-grass, Deep-brown Dart, Frosted Orange, Latticed Heath, Lunar Underwing, Lunar Yellow Underwing (again found in numbers outside the Brecks) Maiden's Blush, Oak Hook-tip, Rosy Rustic, Small Dusty Wave, Spruce Carpet, Straw Dot and Vapourer. Micros included; *Ypsolopha parenthesella*, *Platytes alpinella*, *Olethreutes lacunana*, *Apotomis betuletana*, *Eudonia angustea*, *Pandemis corylana*, *Ypsolopha dentella*, *Acleris emargana* and *Agonopterix alstromeriana*.

Shingle Street. Friday 26 September

A warm but clear night greeted us at one of the most desolate parts of the Suffolk coastline at Shingle Street. We set up four traps around the first car park and although it felt cold the temperatures were in the teens throughout the night. Things were predictably slow with a final count of less than twenty including; Angle Shades, Autumnal Rustic, Beaded Chestnut, Bright-line Brown-eye, Cabbage, Common Wainscot, Dark sword-grass, Feathered Brindle, Feathered Ranunculus, Large Wainscot, Large Yellow Underwing, Latticed Heath, Lunar Underwing, Setaceous Hebrew Character, Silver Y, Square-spot Rustic, *Agriphila geniculea*, *Nomophila noctuella* and *Eudonia angustea*.

Rede Wood. Friday 2 October

Rede Wood is situated north of lpswich near Henley. It is only a small wood but with the potential to produce many species due to its diverse mix of trees and shrubs. The temperature was into single figures and so we did not expect many moths but were disappointed when only four turned up! We got Barred Sallow, Brown-spot Pinion, Dark Sword-grass and *Acleris emargana*.

Wolves Wood. Friday 16 October

Wolves Wood is an important RSPB reserve on the outskirts of Hadleigh which has been visited many times this year. The one moth that we were hoping to see was the Merveille du Jour and any others still about at the end of a long season. We saw over a dozen species including; Barred Sallow, Brick, Centre-barred Sallow, Chevron, Green-brindled Crescent, Satellite, Winter Moth and yes the Merveille du Jour. As on so many nights this year Hornets were a problem

and several of the moths in the traps were removed before they could be identified. This trend seems to have been repeated in traps all over the country, it certainly has been a very good year for Hornets and Wasps.

Records from recorders around the county

Location: Beccles Marsh. Recorder: Mr T.W.Fairless

Flying close to the River Waveney, on the Beccles by-pass, nearly opposite Safeway's was spotted a Clifden Nonpareil. A Chiffchaff came and had a look at it, followed by a couple of walkers who scared it off into a nearby oak tree from which it failed to appear.

Location: Dower House and Aldringham Walks. Recorder: Dominic Funnel!. Jan - April

Dominic has produced another impressive list of species in June and July with macros that included; Fox, Drinker, Peach Blossom, Common Lutestring, Blotched Emerald, Satin Wave, Fern Scorched Wing, Peppered, Engrailed, Barred Red, Grass Wave, Privet Hawk, Pine Hawk, Lime Hawk, Eyed Hawk, Poplar Hawk, Broad-bordered Bee Hawk, Bedstraw Hawk, Elephant, Hawk, Small Elephant Hawk, Lobster, Cream-spot Tiger, Clouded Buff, Heart and Club, Dark Swordgrass, True Lover's Knot, Pearly Underwing, Purple Clay, White colon, Broom, Campion, Shore Wainscot, Shark. Sycamore, Miller, Bird's Wing, Bordered Sallow, Cream-bordered Green Pea. Marbled White Spot, Beautiful Golden Y and Dark Spectacle. Micros have included; *Aethes francillana*, *Lozotaenia forsterana*, *Epiblema cynosbatella*, *Chilo phragmitella*, *Donacaula mucronellus*, *Eudonia pallida*, *Nymphula nymphaeata*, *Ostrinia nubilalis*, *Synaphe punctalis*, *Acrobasis consociella*, *Oncocera palumbella*, *Alipsa angustella* and *Phycitodes binaevella*.

Location: Eye. Recorder: Paul Kitchener. July / August

Paul notes that he has had 172 species of macros in the past two months, with his best night being on the 20 July when he had 66 species. Notable ones have included; August Thorn, Bird's Wing, Black Arches, Buff-tip, Canary-shouldered Thorn. Coxcomb Prominent, Cream-bordered Green Pea, Drinker, Dusky Sallow, Dusky Thorn, Fern, Frosted Orange, Garden Tiger, Herald, Leopard, Oak Eggar. Oak Nycteoline, Olive, Peach Blossom, Pearty Underwing, Red Underwing, Royal Mantle, Sallow Kitten, Scorched Carpet, Shark, Vapourer, Varied Coronet and Wormwood. Micros have included; *Calamotropha paludella*, *Pyrausta aurata*, *Udea lutealis*, *Nomophila noctuella*, *Hypsopygia costalis*, *Aglossa pinguinalis*, *Galleria mellonella* and *Oncocera formosa*.

Location: Felixstowe. Recorder: Jon Nicholls. June-September

June saw a continuation in the commoner species such as Garden Carpet and Heart and Dart but also had a fair few new species such as Pebble Hook-tip, Bird's Wing, Elephant Hawk, Bordered White, Magpie, Scorched Wing, Miller, Varied Coronet and Buff Arches.

July also had its fair share of new species including; Maple Prominent, *Clepsis spectrana*, *Udea prunalis*, *Lozotaeniodes formosanus*, Pine hawk, Cinnabar, Dark Sword-grass, *Lyonetia clerkella* and nurhbers of *Croesia forsskaleana* and *Evergestis extimalis*.

August had its share of new species such as Dusky Sallow, Pale Prominent, Vapourer, Ruby Tiger, White Point, *Nymphula nymphaeata*, *Orthopygia glaucinalis*, Rosy Rustic, Garden Tiger, Drinker, Straw Underwing, Red Underwing (a lot more common this year?), Old Lady (Also seen a lot at light this year?), *Ypsolopha scabrella*, Feathered Ranunculus and Lunar

Underwing.

September was a good month for the Feathered Ranunculus again and had a few new species such as Brown-spot Pinion, Small Dusty Wave and Blair's Shoulder Knot.