

## Stanpit Moth Survey Report 2024 for FOSM by P.A.Budd

### Introduction

Robin Harley, a ranger for Bournemouth, Christchurch, and Poole Council, requested a five-visit moth survey at Stanpit Marsh in 2024. This survey was commissioned for the Friends of Stanpit Marsh (FOSM).

Stanpit Marsh Nature Reserve has been very well recorded for moths in the past but there were far fewer records in the last 10 years, and it was felt that there was a need to update the moth records in 2024. Additionally, it was requested that other insects recorded casually should be noted. These included species identified at the moth lamps and on daytime mini-surveys before dusk.

### Method

The five evening survey visits to Stanpit Marsh were conducted on 17<sup>th</sup> May 22<sup>nd</sup> June 27<sup>th</sup> July 13<sup>th</sup> August, and 4<sup>th</sup> October 2024. It was intended that there should be one survey per month from May to September inclusive, but the September survey was postponed to early October due to poor weather and recorder availability. Attempts were made to survey in the best weather conditions possible.

The main two lights used by me were a 125Watt Mercury-vapour Ultra-violet lamp held over a white sheet and an Actinic Skinner box trap. For some of the sessions other people used similar moth lamps to assist in the recording. A summary of the equipment used per night is as follows:

- 17<sup>th</sup> May – The MV lamp over sheet located near the poplars at the western end of North Scrubs (location: SZ167923) with the Actinic under oaks nearby. Additionally, Robin Harley set one of his lamps in the Information Centre grounds.
- 22<sup>nd</sup> June – The MV lamp over sheet set up in the birch woods of North Scrubs and the Actinic Skinner trap out of site of the first lamp, but nearby. Additionally, Robin set up a Robinsons MV trap and an Actinic trap near the Information Centre.
- 27<sup>th</sup> July – The MV lamp over sheet was set up on the edge of the marsh around 100 yards south of the western end of North Scrubs and the Actinic Skinner located in the sedge beds nearby, the purpose of it this were to collect specialist marsh species. No other lamps were deployed. I was ably assisted by my wife Joanne on this and the previous two surveys.
- 13<sup>th</sup> August – The MV lamp was located on the edge of the marsh by the south side of the sandy hill (location: SZ168918), so this was further east than the previous locations. No Actinic Skinner was used. Another surveyor Mike Jeffs ran an MV lamp elsewhere on the marsh and another MV lamp and upright sheet put up at the information centre by Robin. Two other people assisted.
- 4<sup>th</sup> October – The MV lamp over sheet was the only light used as I was on my own. The trap was located in the oak woodland west of the Information Centre and out of the wind (location: SZ1699220). There was simultaneous moth event at Hengistbury but the results there were also poor.

There was some daytime recording also, including a largely unsuccessful search for larvae on 22<sup>nd</sup> June and slightly more productive search for Lepidopterous (moth) leaf mines and the cases of *Coleophora* species on 4<sup>th</sup> October. The 22<sup>nd</sup> June visit was the most successful for finding

miscellaneous insects and other invertebrates. On this occasion a sweep net and a beating tray were used.

### **Weather conditions**

2024 has not been noted for good weather, quite the contrary in fact. Therefore, it was pleasing to enjoy some moderately good moth recording conditions in the height of the season, but it was a disappointing show in May and far more so in early October. The purpose of going early and late is to find species that typically fly outside the main season but in hindsight it might have been more productive to have concentrated recording in June and July with maybe one session in August.

A summary of the weather conditions per session are as follow:

- 17<sup>th</sup> May - a calm night but hazy with thin cloud; temperatures averaging 15 Celsius.
- 22<sup>nd</sup> June – a light SSW wind about force 2; totally clear with no cloud; temperatures fell to 14 Celsius and there was a full moon. Neither moon or temperature were ideal but the day before was hot and sunny at 24 Celsius.
- 27<sup>th</sup> July – a calm and dewy night; totally clear with no cloud; again, temperatures fell to 14 Celsius but the moon was less visible, appearing low in the east later.
- 13<sup>th</sup> August – very light southwest breeze; overcast with some patchy drizzle; temperatures were good and stayed up at around 18 Celsius.
- 4<sup>th</sup> October – a light and then moderate southeast breeze; mostly clear skies but cool temperatures. Temperatures dropped below 10 Celsius later and the session was short.

### **Results**

#### **Moths Recorded**

126 moth species recorded in total during the five survey visits, but this was only a small fraction of the total species at this well recorded site. A sad reflection of the very poor season for moths and Lepidoptera as a whole. One species appears to be new to the harbour list i.e. *Stigmella aeneofasciella*, a micro-moth that causes serpentine mines in the leaves of silverweed *Potentilla anserina* and recorded in the North Scrubs area.

Some 31 moth species were apparently new to Stanpit Marsh having only been recorded on the Hengistbury Head side previously. This is a pleasing 24.6% of the total recorded in 2024.

A summary of these new species to Stanpit (vernacular names for the macro-moths) are as follows:

- Leaf-mining micro-moths – *Stigmella continuella* on downy birch *Betula pubescens*, *S.aurella*, and *Coptotriche marginia*. The latter two on bramble *Rubus fruticosus* agg.
- Yponomeutidae – *Yponomeuta malinellus* – an Ermine
- Gelechiidae – *Anarsia spartella*, *Bryotropha terrella*, *Aroga volucella*, *Scrobipalpa costella* and *Teleiopsis diffinis*. 5 new species, perhaps reflecting the fact that Gelechiidae is a very under recorded family previously.
- Tortricidae (tortrix moths) – *Ditula angustoriana*, *Archips xylosteana*, *Acleris ferrugana/notana*, *Gypsonoma appressiana*, *Pammene albuginana*, and *Pammene aurita*. 6 new Tortrix moth species in total. *Gypsonoma appressiana* and *Pammene albuginana* are relatively uncommon species associated with poplar and oak, respectively.
- Pyralidae – *Pempelia genistella*, *Cydalima perspectalis*, and *Schoenobius gigantella*. 3 new species in total. *Cydalima* is the recently colonising pest known as the Box Tree Moth and is now 'everywhere' . The other two are less common, *Pempelia genistella* is associated with

gorse and only found in south-east England. *Schoenobius gigantella* is a specialist of coastal reed beds in the southern half of England.

- Geometridae – A large family of macro-moths. New species to Stanpit Marsh recorded in 2024 were Small Fan-footed Wave, Portland Ribbon Wave, Oak-tree Pug, Currant Pug, Seraphim, and Peacock (moth). Most of these 6 species are common woodland or scrub moths but Portland Ribbon Wave is much more common in Dorset than elsewhere in the UK and it's foodplant might be knotgrass *Polygonatum aviculare agg.*
- Notodontidae (prominent moths) – One species, the Sallow Kitten
- Erebidae (snouts) – One species, the Buttoned Snout. This species is associated with Hop *Humulus lupulinus*. The Currant Pug (listed above) is also a feeder on hop.
- Arctiidae (tiger moths and footmen) – Two common species were new to Stanpit Marsh i.e. Rosy Footman and Scarce Footman. Most footmen species, along with other moths that feed on lichen, are currently increasing.
- Noctuidae (noctuid moths) – Nut-tree Tussock, Dusky Sallow, and True Lover's Knot. All these 3 species are common, but the latter is a heathland moth so presumably it wandered over from Hengistbury Head.

Most of the other micro-moths recorded are generally common species. Of most note is the case-bearer *Coleophora glaucicollis* which was abundant on the heads of Sea Rush *Juncus maritima* during the October visit. Some interesting Pyralid moths associated with saltmarsh and wet habitats were seen again such as *Chilo phragmatella* and *Parapoynx stratiotata*. The latter is well known as the Ringed China-mark.

Most of the other macro-moths recorded were common or very common species in southern England. The least common species seen were Oblique Carpet, Brussels Lace, Jersey Tiger, Gold Spot, Silky Wainscot, The Crescent, Fen Wainscot, Brown-veined Wainscot, Webb's Wainscot, Double Lobed, and Dog's Tooth. The species listed above from Gold Spot to Double Lobed are marsh or saltmarsh species mainly recorded on the late July visit. Dog's Tooth is another Noctuid moth that seems to be commoner around Christchurch than in many other places. Brussels Lace and Jersey Tiger are two species that have increased greatly in the last decade, the former is a lichen feeder as a larva. The Oblique Carpet is another moth strongly associated with marshy habitats and seldom seen elsewhere.

A summary of the number of species of moth identified at lights on the five survey dates are as follows:

- 17<sup>th</sup> May - 18 species
- 22<sup>nd</sup> June – 50 species
- 27<sup>th</sup> July – 48 species
- 13<sup>th</sup> August – 18 species
- 4<sup>th</sup> October – 3 species

### **Other Invertebrates Recorded**

37 other invertebrate species were recorded during the course of these surveys. These included 18 species of beetle. The other invertebrate groups covered were Arachnida (spiders), and the Insect groups Orthoptera (grasshoppers and crickets), Hemiptera (bugs), Trichoptera (caddis flies), Diptera (two-winged flies), and Hymenoptera (sawflies, ichneumons, ants, bees, and wasps). Two of the Hymenoptera were interesting. Ichneumons are under recorded, but a species *Aleioides praetor* was successfully identified and the Elm Zigzag Sawfly *Aproceros leucopoda* causing damage to elms on

the south edge of the recreation ground is a relatively new colonist. Two water beetles at light were identified i.e. *Enochrus melanocephalus* and *Hydrobius fuscipes*. I don't have access to such information but perhaps some of the 37 species are new to the reserve.

### **Conclusions**

126 moth and 37 other invertebrates were recorded in the five survey visits from 17<sup>th</sup> May to 4<sup>th</sup> October. The only really successful moth lamp sessions occurred in June and July, the other visits were very disappointing in terms of numbers of moths. Some useful day-time recording of moth leaf mines was undertaken in October. It was pleasing that about 25% of the moth species were new to Stanpit Marsh but only one species was an addition to the harbour area moth list. It is not known whether any of the other invertebrates were new to Stanpit Marsh or the entire harbour area.

It is clear that 2024 was a poor Lepidoptera year nationwide. It appears that to habitat lost, pollution, climate change etc., the wet, mild winter of 2023/24 and particularly the cold and wet spring (April and May) 2024 appear to be factors. The lack of moths in early October may be related to both the harsh weather in September and the awful weather in late April and May. Autumn flying moths are generally in the susceptible larval stage around May. It is interesting that aquatic and marsh moths and those feeding on lichens high up on trees may have fared better in 2024.

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**P. A. Budd 12<sup>th</sup> October 2024**

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