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***LEPIDOPTERAN SURVEY OF LAND AT
STANTON-UNDER-BARDON 1998***

by

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LEPIDOPTERAN SURVEY OF LAND AT STANTON-UNDER-BARDON 1998

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AIM OF THE STUDY

The survey described here is part of a report commissioned by the Hinckley & Bosworth Borough Council as part of a wider ecological survey to help determine the future use of land at Stanton-under-Bardon which may include plans to open the site to the public at some stage. The report concentrates on the limited amount of recording of lepidoptera during 1998.

THE SITE

The site (Figure 1; SK464095) was visited and walked at dusk on two occasions (19.vi.98; 16.viii.98). A major part of the location consists of wet meadows with one area being the remains of an old sewage works (area 4 in Figure 1). Wetter areas include a stream (1a), ditches and drainage channels (1b) and seasonal marsh/wet meadow (1c). The majority of the site is surrounded by mature hedgerows (2) with many standard trees of a range of species. Grassland is partly a semi-improved seasonally wet buttercup meadow (3a) and partly a semi-improved grassland (3b) with more species than 3a.

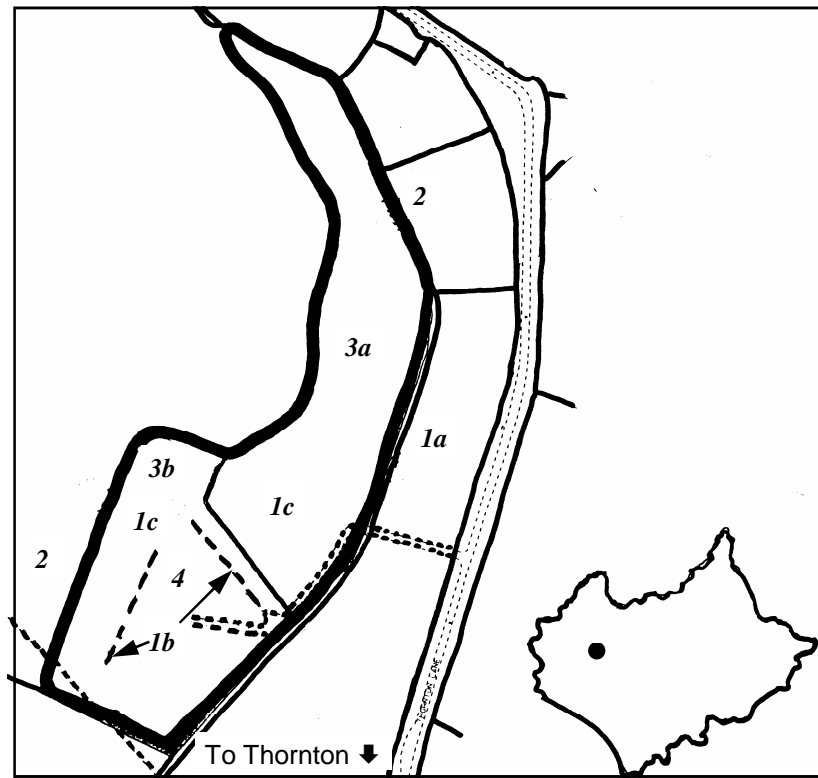


Figure 1:

Stanton-under-Bardon survey site

Location of

METHODS USED

Crepuscular species were netted as they emerged from the hedgerows and herbage. These were identified, recorded and then released. A mercury vapour light trap (125w) was run over a white sheet and moth species attracted to the light were caught, identified and released. More difficult specimens were retained for further examination, including genitalia preparation. Although no opportunity arose to collect daytime species, it is assumed that the normal range of common butterflies is present on the site.

RESULTS

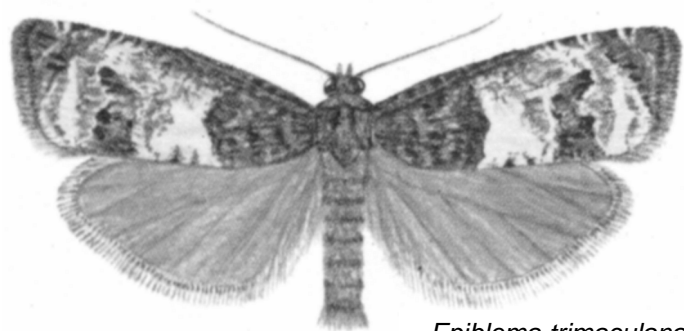
Four hours were spent collecting moth species on 19.vi.98 with another three hours on 16.viii.98. The weather on both occasions was not particularly conducive for moth recording. The June session was a warm (13°C) humid night but with water-logged conditions and dripping herbage after earlier heavy rains – slugs were present in very great abundance! In August, after a hot daytime temperature of 24°C, skies cleared, a cool breeze blew and the temperature dropped to a disappointing 9°C.

The species recorded are listed in Bradley & Fletcher (B&F) number order in Table 1. Nomenclature is that given by Emmet & Heath (1991). The table also includes notes on foodplants and the status, as known, of each lepidopteran species in Leicestershire and Rutland (VC55).

The total of 78 moth species was far lower than expected from light trappings at this time of year. This disappointing result (which seems to have been the norm in 1998) was probably due to weather conditions around and about the time of the survey rather than the habitats within the site being unsuitable for lepidoptera. Under better conditions, with the addition of day-flying lepidoptera species, a far greater number would have been recorded.

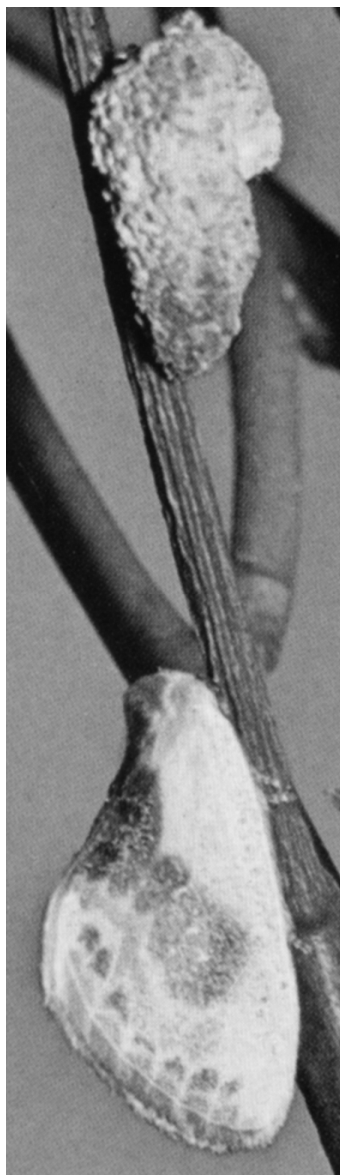
Notable amongst the 25 microlepidopteran species recorded was *Epiblema trimaculana* with Stanton-under-Bardon being only the third tetrad in VC55 from where the species has been recorded. The capture of a specimen of *Elachista cerusella* constitutes only the fourth known county record for this moth. Two other species, *Opostega crepusculella* and *Aethes smeathmanniana*, have only been recorded infrequently in the county whilst *Numonia advenella* has been recorded from less than ten county tetrads. There are few county records of four other species, *Cnephasia incertana*, *Hedya pruniana*, *Catoptria falsella* and *Dipleurina lacustrata*.

Of the 53 macromoth species recorded, *Mesapamea didyma* (Lesser Common Rustic) and *Photodes minima* (Small Dotted Buff) are uncommon to local in the county, *Euthrix potatoria* (Drinker) and *Jodis lactearia* (Little Emerald) are locally



Epiblema trimaculana

common whilst *Abraxas grossulariata* (Magpie) is apparently becoming less common. The remaining species range from very common to fairly common and are widespread in Leicestershire. None of the recorded moths appear in the County Red Data Book for Lepidoptera (McPhail & Morris, 1997).



Food plants for all species were present at the site or in close proximity; therefore breeding populations of all species recorded is possible.

As part of the contract to Hinckley & Bosworth Borough Council, suggestions on future management of the site were also included in the report. These included maintenance of wet areas but avoidance of culverting of streams, clearing of waterways on a rotational basis in order to keep a reasonable water flow and establishment of shade-free zones at waterways to encourage low-growing wetland plant species. Wet meadows and marshes could be maintained essentially as hay meadows with 1-2 cuts per year and a board walk should be constructed over sensitive wet areas. In particular, tree planting should not be carried out in areas which would be severely affected by drainage and drying out. Hedgerows should be retained and sympathetically managed whilst grasslands should be traditionally managed. In particular, the grasslands have substantial ecological potential and great care should be taken in their management.

REFERENCES

- Cilix glaucata* Emmet, AM & Heath, J (1991). *The Moths and Butterflies of Great Britain and Ireland*. Volume 7 part 2. Harley Books.
- McPhail, J & Morris R (1997). *Leicestershire Red Data Book – Butterflies and Moths*. LMARS/LRWT/English Nature.