Ash to ashes, dust to dust

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Introduction

On 16 April 2021 I collected some Ash *Fraxinus excelsior* L. cordwood from the Worcestershire Wildlife Trust wood store at Rebecca Road, Pershore, Worcestershire (52°11'N 02°10'W SO9346 37 m a.s.l.). Examination of a freshly split section of the wood on 10 November 2023 revealed a gallery filled with dry, black, compact, indurate, more or less amorphous, organic matter (01).

Discussion

The split wood was cut from a symmetrical notably close-grained Ash stem (01) which based on annual growth increments was about 44 years old when felled. Radiating across the growth rings of the tree a circular gallery some 10mm wide cut through the wood revealed an exit point that had been occluded by the normal proliferation of parenchymatous callus tissue. The process of closure may have been relatively slow, this apparently occupying three distinct episodes (01).

The tunnel diameter is consistent with that of a larval gallery of Leopard Moth *Zeuzera pyrina* (Linnaeus, 1761) which typically penetrate downwards and then obliquely for pupation. According to Haggett (1950) stems <10 cms diameter are preferred for oviposition by Leopard Moth which is also consistent with this observation.



01. Vertical section through stem of ash *Fraxinus excelsior* showing organic fill of Leopard Moth subsequently utilised by fly-collecting wasps probably of the genus *Ectemnius*. 10 November 2023.

A sample of the organic gallery fill amounting to about 2 cms³ was removed and dispersed in hot water. After several days it became apparent that the sample was dominated almost exclusively by skeletal fragments of what was apparently a rhagionid fly *Rhagio tringarius* (Linnaeus, 1758); the remains of at least five individuals being isolated. Points of agreement to support this identification include the black-haired abdominal tergites, the more distal tergites revealing a dark medially expanded isosceles triangle and the thorax with a somewhat bulging orange scutellum (02). This represents utilisation of the vacant Leopard Moth gallery by an insect intent on packing it with rhagionid flies the reasonable conclusion being that it was a fly-collecting *Ectemnius*, probably one of the larger more widespread species cited by Stubbs and Drake (2001).



02. Thoracic fragments (above) and abdominal tergites apparently representing the rhagionid fly *Rhagio tringarius* isolated from the gallery fill depicted at 01 and photographed on 22 December 2023.

Origin of the Ash stem

Ash stems resembling this were felled in the environs of Tiddesley Wood at this time in an effort to combat Ash Dieback *Hymenoscyphus fraxineus* Baral *et al.* (2014). Tiddesley Wood sits above the floodplain of the Bow Brook and is developed on impervious Jurassic soft rock, a combination of habitats suited to *R. tringarius*. Although this origin cannot be regarded as proven and roundwood from other Worcestershire woodlands was introduced to Rebecca Road during 2021, this remains a possibility.

Acknowledgements

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References

Haggett, G. 1950. The life history and habits of Leopard Moth *Zeuzera pyrina* Linn. (*aesculi*, Linn.) in Britain. *Entomologist* **83**:73-81.

Stubbs, A. E. & Drake, M. 2001. *British soldierflies and their allies*, pp. i-ix, 1-512. British Entomological & Natural History Society.

Images

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