

THE SPREAD OF BLAIR'S SHOULDER-KNOT
(*LITHOPHANE LEAUTIERI HESPERICA* BOUR).
(LEP.: NOCTUIDAE)

By RORY HOWLETT and MICHAEL MAJERUS*

Since the first Cambridgeshire record of *Lithophane leautieri hesperica* Bour. (Blair's shoulder-knot) (Majerus, 1985) we have taken this species at two other sites in the county. In reply to a request for records of this species we have also received reports from a variety of locations some of which are previously unpublished.

L. leautieri was first taken in Britain on the Isle of Wight in 1951 (Blair 1952). Since this time it has spread to mainland Britain, east and west along the south coast and subsequently northwards (Owen and Duthie, 1982),, so that within thirty years of its colonisation it had been noted from Cornwall in the west (Hart, 1980) to Suffolk in the east (Chipperfield, 1981), and as far north as Monmouthshire (Horton, 1980) and Leicestershire (Owen and Duthie, 1982).

The species flies from late September through October to November. It comes readily to light and appears to be increasing in abundance as well as in its range, so that along some parts of the south coast it is now one of the commonest autumn moths. Its usual food plant in Britain seems to be the Monterey cypress (*Cupressus macrocarpa*) although Skinner has recorded feral larvae on the hybrid *Cupressocyparis x leylandii*, and reports (Skinner 1984), the it will also accept this hybrid in captivity. We have circumstantial evidence to substantiate these reports because we have now taken two individuals in a Robinson m.v. trap situated next to a 100m long hedge of this hybrid, at the Department of Genetics Field Station, Cambridge (OS Ref. TL430600). The first, a female, was taken on 17 October 1985. This individual was abnormally dark compared with other examples we have taken in Ringwood, Hants. She was kept outside in a hanging cage with cut sprigs of *leylandii* on which she readily laid eggs. The eggs which appear fertile were laid singly on the foliage. The second was a normal male taken on 1 November 1985.

Previously, in addition to the specimen taken in 1983 at Bar Hill, Cambs (Majerus, 1985), a second male specimen was taken at Bar Hill (OS Ref. TL375634) on 16 October 1984. A male was also taken on 7 November 1984 at Over, Cambs. (OS Ref. TL368703). We thus conclude that the species is now fairly well established in Cambridge and the surrounding villages.

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Further to these records we have been informed of a number of others. A number have been taken at Cockpole Green, near Henley-on-Thames, Berks. (approx. OS Ref. SU798813). The first was a male, on 4 November 1982; another male on 1 November 1983; and a further 22 specimens (20 male, 2 female) between 2 and 16 October 1984 (Waite, pers. comm.). A single individual was taken at Oakham, Leics. on 7 November 1985 (Williams, pers. comm.). We have also been sent less precise details of records in Middlesex, Hertfordshire, Lincolnshire, Leicestershire and Suffolk, and wish to thank all those who replied to our previous enquiry in the *Record*. It is perhaps worth noting that a revised map showing the spread of *L. leautieri* since 1980 is being prepared by workers at Oxford Polytechnic at the moment (Owen, pers. comm.).

One final point that we are particularly interested in, is where *L. leautieri* naturally rests. Blair originally suggested the stone pinion as an English name for this species, and states that the species was "something like *Gratholitha ornitopus*, but not so white, it was of a more bluish grey, about the colour of the limestone of the North Wales coast, as though such rock were its accustomed background" (Blair, 1952). While studying this species in the Isle of Wight Kettlewell (1957) found a female on the trunk of a mature cypress sitting vertically at a height of about 8ft, where it closely resembled the bark. Despite an intensive search he was unable to find any further specimens but suggested that the species would normally rest high up. As we are researching into rest site selection in the Lepidoptera, we would be particularly interested to have details of specimens not taken at light. In any case we feel that entomologists should be encouraged to continue recording *L. leautieri* even though it is becoming quite commonplace in some areas, for it is rare that an opportunity to study the spread in distribution and abundance of a new species arises.

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COURTSHIP BEHAVIOUR IN THE OIL BEETLE, MELOE PROSCARABAEUS L. — In April 1987 I collected a number of oil beetles from a South Wales locality for use in a BBC production. They were kept under observation for a few days, and the following may be of interest:

The antennae of the male have a curious "kink" about half-way along their length, in the form of a deeply concave notch. It has been suggested by Imms (1977 *General Textbook of Entomology* Vol. 1 p. 30) that the male antennae "... are used for holding the females. . .". The male beetle is some 5mm smaller than the female, and when the abdomens make contact during mating, the male is unable to reach the antennae of the female with his own.

The courtship of these fascinating beetles is a mixture of the brutish and the subtle. A male runs at, and scrambles on the back of any, and every, passing female. They rarely attempt to mount a male, suggesting a clear discriminatory power. Once on top of the female he sits with his head over hers, moving his head over her head and thorax whilst rapidly vibrating his palps. The male then bends his antenna at the notch, grips those of the female, and by lifting his head draws her antennae through his. This manoeuvre completed, the male slips down the female's back and attempts copulation.

Whilst the females observed were somewhat unresponsive, and there being no guarantee that they were virgin females, the behaviour of gripping and "caressing" antennae appears to be an intricate component of courtship. RUPERT D. G. BARRINGTON
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CHLOROCYSTIS CHLOERATA MABILLE (THE SLOE PUG) (LEP.: GEOMETRIDAE) IN LEICESTERSHIRE — A single male of this species was caught in the Rothamsted Insect Survey light trap at Empingham (Site. No. 280, O.S. Grid Ref. SK 953 087) on the night of 17/18-vi-1987. Identification was confirmed by examination of the genitalia. So far as I am aware *chloerata* has not been recorded previously from Leicestershire. — ADRIAN M. RILEY, Entomology Department, Rothamsted Experimental Station, Harpenden, Herts., AL5 2JQ.



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