The Bordered Straw *Heliothis peltigera* (Denis & Schiffermüller, 1775) (Lepidoptera, Noctuidae) breeding in Worcestershire during 2015

P.F. Whitehead, Moor Leys, Little Comberton, Pershore, Worcestershire WR10 3EH Email: paul@thewhiteheads.eu

Introduction

The Bordered Straw *Heliothis peltigera* (Denis & Schiffermüller, 1775) has traditionally been regarded as an uncommon immigrant in Worcestershire (Harper & Simpson, 2001) and as far as I can see there are no previous records of its breeding in that county with British larvae being mostly coastal (Skinner, 1998). In recent years south Palaearctic populations of *H. peltigera* have experienced significant population pressure, probably through the agency of global warming, and there have been significant northward movements, sometimes involving millions of moths extending across large areas of the Mediterranean Sea basin. Notable movements took place in both 2014 and 2015 with moths crossing the Straits of Gibraltar and others crossing the eastern Mediterranean Sea from North Africa and Israel. During 2015 a significant influx of this species occurred in Britain and it was this influx which produced the larvae described here.



01. Mature larva of *Heliothis peltigera* feeding on ripening seeds of the herbaceous perennial *Geranium pratense* cv 'Splish Splash'. Little Comberton, Worcestershire, 11 July 2015. © P. F. Whitehead.

Discussion

On 11 July 2015 I found seven mature larvae of *Heliothis peltigera* feeding on the robust herbaceous perennial *Geranium pratense* cv 'Splish Splash' growing in an ornamental plant bed in my garden at Little Comberton, Worcestershire (SO93 30 m O.D.). Mr Mark Tunmore kindly confirmed the identity of the larvae from an image. Although this is believed to be the first recorded instance of breeding in Worcestershire further records will undoubtedly ensue. The larvae were intent on consuming the calyces of the plants in order to

access developing seeds (01) and are therefore direct competitors of the rhopalid bug *Corizus hysocyami* (L., 1758).

According to http://www.atropos.info/flightarrivals/ there were significant northerly movements of *H. peltigera* in Spain and Portugal during April 2015 with individuals reaching the Isle of Wight by the 15th and Pembrokeshire by the 21st. A specimen was observed in Solihull on 11 May 2015 and at Norchard near Hartlebury (SO86) on the following day. At this time it seemed that as many as 10 million H. peltigera were distributed along three miles of the Algarve coast. By 29 May 2015 examples of H. peltigera had been seen in Birmingham City; this migration continued until mid-July when it declined. One appeared at Bidfordon-Avon, Warwickshire (SP05) on 14 June 2015. At Porlock Beach in Somerset (SS84) as many as 75 moths were observed at dusk on 17 June 2015. Migration of *H. peltigera* is commonly observed at the eastern end of the Mediterranean Sea-basin. Hundreds of H. peltigera that arrived on Cyprus during late April, 2014 (02) were thought to have originated from the desert regions of southern Israel (John, Sparrow & Sparrow, 2015).



02. Immigrant south Palaearctic desert form of *Heliothis peltigera*, littoral steppe, Cape Drepanon, Paphos district, Cyprus, 21 May 2014. © P. F. Whitehead.

It is against this background of large-scale immigration that the Worcestershire breeding record should be viewed; it was such an immigrating female that laid eggs on geraniums in my garden. Continued evidence of global warming could well influence the status of *H. peltigera* in Britain; as a thermophilous species it is perhaps unlikely to acquire resident status in Worcestershire in the near future. The larval use of cultivated geranium closely-derived from a native species is of some interest possibly demonstrating range-edge adaptability.

References

Harper, M. W. & Simpson, A.N.B., 2001. *The larger moths and butterflies of Herefordshire & Worcestershire*, pp. i-xvi, 1-195. Butterfly Conservation West Midlands Branch.

John, E., Sparrow, D.J. & Sparrow, R., 2015. Migration of Lepidoptera in the vicinity of Cyprus, eastern Mediterranean, April 2014. *Entomologist's Gazette* 66:25-162.

Skinner, B., 1998. Colour identification guide to moths of the British Isles. pp. i-xi, 1-276. Penguin Books Ltd.

Image

- 01. Mature larva of *Heliothis peltigera* feeding on ripening seeds of *Geranium pratense*. Paul Whitehead
- 02. Immigrant south Palaearctic desert form of *Heliothis peltigera*. Paul Whitehead