

NOTES AND OBSERVATIONS

***Endothenia oblongana* (Haworth, 1811) (Lepidoptera: Tortricidae)
reared from a rootstock of *Plantago lanceolata* L.**

In 2009 a male *Endothenia oblongana* (Haworth, 1811) emerged from a rootstock of *Plantago lanceolata* L. collected the previous autumn in Devon. This appears to be the first record of the species being reared in the British Isles.

As far as I can trace, the first indication in the British literature of a larval foodplant was given by Barrett (1872, *The Entomologist's Monthly Magazine* 9: 128), under *Antithesia sellana* Hübner, in a series of notes on the Tortricidae. He states that 'Mr. Doubleday tells me that the larva feeds in heads of *Centaurea nigra*: he also points out that this species may readily be separated from its nearest allies (*gentiana* and *oblongana*) by the peculiar round apex of its short anterior wings. This is very evident in specimens communicated by him.'

The fact that Barrett's '*sellana*' differed from '*oblongana*' would suggest that the larva Doubleday found in heads of *Centaurea nigra* was not that of what is now known as *Endothenia oblongana*. Consideration of other parts of the note shows that Barrett was indeed referring to this species. Barrett makes clear at the start of his paper that it was written as a result of the publication, in 1871, of Staudinger & Wocke's *Catalog der Lepidopteren des europaischen Faunengebiets*. He described this Catalogue (1872, *loc. cit.* 9: 124) as causing such a revolution in the existing nomenclature that a good deal of confusion was likely to be caused in some groups, commenting that this was especially so with the Tortrices. Accordingly, Barrett stated that he thought that a few notes on the changes of nomenclature would be of interest. Thus, the primary purpose of Barrett's note was to set out those nomenclatural changes, but occasionally he also added information about the biology of certain species.

Staudinger & Wocke (1871, *loc. cit.*: 248) placed the following species, amongst others, in the genus *Penthina*: *oblongana* Haworth, *sellana* Hübner and *gentiana* Hübner. These are now known respectively as *Endothenia marginana* (Haworth, 1811), *E. oblongana* (Haworth, 1811) and *E. gentianaeana* (Hübner, 1799).

Barrett (1872, *loc. cit.* 9: 127) states that Wocke, who dealt with the Microlepidoptera section of *Catalog der Lepidopteren des europaischen Faunengebiets*, changed '*Antithesia marginana*, Haw.' to '*oblongana*, Haw., because Haworth's description of *oblongana* (the ♀) is placed before that of *marginana* (the ♂)'. In fact, as indicated above, Staudinger & Wocke place both species in the genus *Penthina* but Barrett comments (1872, *loc. cit.* 9: 124) that he could not agree with Wocke's new arrangement because of the difficulty he felt in adopting such a genus as *Penthina*.

Barrett (1872, *loc. cit.* 9: 127) notes that the larval foodplant of *Antithesia oblongana*, now *Endothenia marginana*, was likely to be various Compositae, thereby showing that the larva of *Endothenia marginana* was unknown in the British Isles at that date.

In view of the comments above, it is clear that Barrett's note on *Antithesia sellana* should be read as referring to *Endothenia oblongana* (Haworth, 1811);

the '*oblongana*' that he referred to in parenthesis on p. 128 of his note now being known as *Endothenia marginana*.

Subsequently, under *Penthina sellana* Hübner, Barrett states (1905, *The Lepidoptera of the British Islands* 10: 373–374) that the larva is apparently undescribed and doubtfully known, that the late Mr Doubleday informed him that it feeds in seed heads of *Centaurea nigra* and that W. Farren had seen the moth apparently depositing ova on leaves of *Plantago lanceolata*. He adds that Hofmann states that he had reared it from seeds of *Pedicularis*. Although Barrett gives no citation, I assume that he is referring to E. Hofmann's *Die Kleinschmetterlingsraupen* published in 1875.

Bradley, Tremewan & Smith (1979, *British Tortricoid Moths*, Tortricidae: Olethreutinae: 57–58) give a larval description of *Endothenia oblongana* based on Swatschek (1958, *Abhandlungen zur Larvalsystematik der Insekten* 3: 198) as follows: head, prothoracic plate and thoracic legs dark brown, anal plate somewhat lighter; abdomen lemon-yellow. They state that little is known about the larval habits in the British Isles, but the foodplant is believed to be *Centaurea nigra*. They note that in continental Europe it is reported to be polyphagous and the larva has been recorded on '*Cirsium oleraceum*, *C. palustre*, *Dipsacus*, *Galeopsis*, *Odontites verna*, *Verbascum*, *Scabiosa*, *Stachys* and *Plantago*, feeding in the roots and rootstocks.' They give the larval period as September to May.

Swatschek (1958, *loc. cit.*: 198) based his description on preserved larvae found by Disqué at Speyer in the Rhine valley, Germany, on 30 March 1904 and 5 November 1909 in the rootstock of *Plantago*, species not stated.

Emmet (1991, in Emmet & Heath (Eds), *The Moths and Butterflies of Great Britain and Ireland* 7(2): 152–153) clearly had doubts about the foodplant because he gives '? *Centaurea nigra*; roots'.

I am not aware that any further information about the life history has been published in the British literature. Whether the larvae that Doubleday found in heads of *Centaurea nigra* were really those of *Endothenia oblongana* may never be known, but if he reared a male then it should have been obvious from the hindwing whether it was that species or *Endothenia marginana*. In any event, I consider that Emmet was right to question whether *Centaurea nigra* is a foodplant.

In their review of this species in The Netherlands, Koster & Nieuwerkerken (1998, *Entomologische Berichten* 58: 145–152) record that in the spring they collected some plants of *Plantago lanceolata*, which was very abundant where they had taken *Endothenia oblongana* at light. They found some larvae, possibly tortricoid, but failed to rear anything.

On 11 October 2008 I was searching rootstocks of *Plantago lanceolata* at Heybrook Bay, Devon (V.C. 3) in the hope of finding larvae of *Homoeosoma sinuella* (Fabricius, 1794) by looking at plants with slightly withered or stunted leaves. I found only one rootstock with a larva. The top of the plant broke off quite easily to reveal a comparatively small larva that was not within a narrow tunnel about the breadth of the larva, as is often the case with stem- or root-feeding larvae, but inside a chamber that was probably at least twice the breadth and length of the larva. I was not able to make a full larval description

and only noted that the head and prothoracic plate were dark brown and the body whitish with concolorous pinacula. Within a few hours it had closed with silk the end that had broken open and the spinning was so thick that I could not see through it to observe when the larva pupated. The rootstock was overwintered in a container outdoors in a shed and brought indoors in late March 2009. A male *Endothenia oblongana* emerged on 24 April. The yellowish brown exuviae were extruded to about half their length through the sealed silken top of the rootstock.

Interestingly, *Endothenia marginana* has been reared from the seed heads of *Plantago lanceolata* (www.ukmoths.org.uk, site visited May 2010), thus showing that the larvae of two closely related species utilize either 'end' of this plant.

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