

***Nebria salina* Fairmaire & Laboulbène, 1854
(Coleoptera, Carabidae) flying in Evesham town,
Worcestershire**

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On 28 September 2016 I observed a beetle flying on a road in the Greenhill area of Evesham town, Worcestershire (SP04 50 m O.D.) in what would generally be described as a suburban environment. The insect moved from a roadside garden to a carriageway in somewhat haphazard disorganised flight involving several rotations, a series of rises and falls that took it to a height of about three metres from the ground, and various changes of course. The weather was a warm 21 °C ambient temperature with a light southerly breeze.

When after flying a short distance the beetle alighted on the road I was able to examine it. It was a female carabid beetle *Nebria salina* Fairmaire & Laboulbène, 1854. This species can be separated readily from *Nebria brevicollis* (Fabricius, 1792) by examination of the hind tarsi with a good lens against the light; the absence of hairs on their dorsal surface indicates *N. salina*. I decided to retain the specimen and subsequent examination confirmed that it contained no ova and that its flight wings were each 9.9 mm long; it may already have oviposited.

It is clear from this that *N. salina* can fly (Luff, 1998) but it is not something that I have seen either recorded or in person. As *N. salina* is a nocturnal species when adult (Holland, 2002), diurnal flight may not be expected, but I am aware of no British nocturnal flight records either. Lindroth (1992) observed that the flight wings of *N. salina* were fully developed but that “flight observations were absent”; it seems curious that of all the alate British species of *Nebria* so few examples have been observed in flight. Whitehead and Zach (2015) had no previous experience of flight in *N. brevicollis* despite a combined total of 85 years field work. These authors observed that the flight of a single *N. brevicollis* on Bredon Hill was low, direct and at constant speed, quite unlike the flight of this *N. salina* which lacked any clear trajectory. Probably the flight muscles in this case were poorly developed.

I have access to 512 records of adult *N. salina* in Britain all on lithomorphic or mineral soils. They range in height from 677 m in the Scottish highlands to 2 m on the Lancashire Sefton Coast. This Evesham sighting is the only one associated with a settlement. Possibly this example flew to Evesham, a place which, in common with certain of its other inhabitants, it subsequently proved difficult to exit from.

References

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