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Further evidence of breeding populations of lime hawk-moth *Mimas tiliae* (Lepidoptera: Sphingidae) in Glasgow, Scotland

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In a recent note Payne (2020) described finding a caterpillar of lime hawk-moth (*Mimas tiliae* (Linnaeus, 1758)) in Jordanhill, Glasgow, and mentioned an earlier sighting of a mating pair in Glebe Street, Renfrew, Renfrewshire.

In the summer of 2023, there were further sightings of adults and a larva in Glasgow. One of the adults was seen on 11th June on the north edge of Victoria Park, within 200 m of Payne's larva sighting in 2019. The latter mentioned that there are some 100 mature limes (*Tilia* spp.) in that part of the park, which may well be the breeding-ground. The other adult was found by Alice Howlett some 2 km to the east: in Dundonald Road, Dowanhill, on 9th June (Fig. 1); lime trees are frequent in that area. The larva (Fig. 2) was sighted by Ruth Addie on 11th August in a car-park at Queen Elizabeth University Hospital, Glasgow, which is south of the Clyde, and again some 2 km distant from the Jordanhill sightings, and moreover some 3 km from Glebe Street, Renfrew, where the original mating pair were seen in 2016. There are limes present around the car park, but the larva was assumed to be looking for pupation site, which could have been quite a challenge in a hard-surfaced car park.

Payne (2020) gives the historical background to this species in the west of Scotland, and suggests that the sightings in recent years constitute strong proof of successful colonisation in this area. The 2023 sightings give further weight to this suggestion and imply that there are at least two populations present, north and south of the river. This is the only area in Scotland where such breeding populations exist (T. Prescott, pers. comm.). However, the National Biodiversity Network (NBN) Atlas (NBN, 2023) shows, in addition to the "unconfirmed" record on the Ayrshire coast mentioned by Payne, a larva seen by a Countryside Ranger in Edinburgh in 2010, though the associated photo indicates that it was a humming-bird hawk-moth (*Macroglossum stellatarum*), and so this record should be ignored (M. Cubitt, pers. comm.).

Having researched the Ayrshire record further, I can add that it was described by a Countryside Ranger at



Fig. 1. Lime hawk-moth (*Mimas tiliae*), Dundonald Road, Dowanhill, Glasgow, 9th June 2023; wingspan ca. 60 mm. (Photo: Alice Howlett)



Fig. 2. Lime hawk-moth (*Mimas tiliae*) larva, Queen Elizabeth University Hospital, Glasgow, 11th August 2023; body length ca. 60 mm. (Photo: Ruth Addie)

Culzean Country Park, on 8th May 2015 (NBN, 2023); they provided a photograph of the moth, and so there is no reason to doubt the report (R. Miller, pers. comm.). There are no records of this moth in any of the three Rothamsted traps at Culzean, nor in any other Scottish Rothamsted trap (C. Shortall, pers. comm.). It therefore seems likely to have been an isolated occurrence, though, as it was recorded in a car park at a popular tourist destination, the possibility that it was imported, perhaps unwittingly, from England cannot be ruled out. The Renfrew sighting is in the vice-county of Renfrewshire (VC76); the locations of the other Glasgow occurrences are all in Lanarkshire (VC77). There was a further sighting in VC77 in 2023: an adult in a lighted greenhouse in Bishopbriggs. This, being an

isolated record of an adult, cannot be taken as evidence of breeding in that area, though there are lime trees present, as it may be a vagrant.

The VC77 records described here will be submitted to the National Moth Recording Scheme early in 2024. The 2023 records, except that at Bishopbriggs, were also submitted to iRecord or iNaturalist by the observers themselves. All these records will appear on the NBN Atlas in the foreseeable future.

I am grateful to Mark Cubitt for investigating the Edinburgh record shown on the NBN Atlas, to Rob Miller (NTS) and Chris Shortall (Rothamsted Research) for information on the Culzean record, to Tony Payne for his excellent introductory account of the moth, to which I have frequently alluded in this note, and to Alice Howlett and Ruth Addie for kindly allowing me to use their photos.

REFERENCES

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