Hennediella heimii growing by salted roads in Hertfordshire

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In the year since its publication, I have relied on the New Naturalist *Mosses & Liverworts* (Porley & Hodgetts, 2005) as a constant reference and guide, always at hand. A short sentence (at p. 122) reads: 'There is so far little evidence of salt-tolerant bryophytes invading roads and motorways in the way that some flowering plants have done.'

Hennediella heimii is a relatively conspicuous plant when growing *en masse*, so here was a moss to look for in inland Hertfordshire along our heavily salted roads. Motorways were out of the question. Westernmost Hertfordshire is almost as far as one can be from the sea in England, but *H. heimii* has already been recorded from the the vice county (Hill *et al.*, 1992; Blockeel & Long, 1998).

The winter of 2005/2006 was one of the longer and colder winters of recent years, so it seems reasonable to assume that more salt was applied than usual. However, rain is needed as well to replicate sea spray. I have kept basic records of rain days since March 2005. If there are puddles on the roads, then an 'R' is recorded, if merely damp, an 'r'. This is a crude measure, but it enables me to say that January 2006 was wet (10 R, 6 r days), February less so, (6 R, 8 r) and March wetter again (12 R, 5 r).

During March 2006, in the hope of finding *Hennediella heimii*, I cycled some forty miles of roads in Bedfordshire, Buckinghamshire and Hertfordshire, selecting roads I had previously noticed had copious growths of *Cochlearia danica* and *Plantago coronopus*. Both are easily recognised from a moving bicycle without too much danger to the rider and fellow road users. To spot mosses one must cycle more slowly.

These were the rather meagre results:

A4146 road, Water End, north of Hemel Hempstead, (v.-c. 20), TL044100, March-May 2006. Large patches, with young capsules, growing on an otherwise bare, silty and gritty low bank for some 10 metres on the very edge of the road above a low kerb (*ca.* 12 cm in height) sloping at an angle of 45º. This was at the bottom of a north-facing hill in a cutting, sheltered by a tall and thick hedge on the west and by Thrift Wood on the east. By late May (after a fortnight's rain) *Cochlearia danica* was flowering at the same spot. The needle stage capsules seen in March had matured and dehisced, but there was a fresh green and less copious growth of gametophytes with needle-stage capsules.

A4146 road, Piccotts End, north of Hemel Hempstead, (v.-c. 20), TL047093, March 2006. Again growing on otherwise bare silty and gritty soil on a bank above a low kerb, but this time on a less steep, south-facing hill on the A4146, more exposed, and in much smaller quantity, the capsules swollen and brown. All the plants had disappeared by late May.

B489 road, Wilstone, northwest of Tring, (v.-c. 20), SP901134, March 2006. Growing in scattered small patches for some 200m on a similar north facing, but kerbless, bank by the road, sheltered by a thick hedge. (This was less than half-a-mile from the site of the 1958 record of the species by the Aylesbury arm of the Grand Union Canal). A very slight gradient possibly concentrated the salt and water. No other plants were growing with it. This was very close to the boundary with Buckinghamshire (v.-c. 24), so I followed the road, hoping to find *Hennediella* there, too, but different road maintenance practices thwarted me. Buckinghamshire County Council has installed a high kerb and the hedge here is much further from the roadside. There was certainly no *Hennediella*. See the Botanical Society of the British Isles Local Change Survey Report (Braithwaite *et al.*, 2006, p. 251) for a similar comment about *Spergularia marina* and kerbs.

Apart from a very small amount of *Bryum argenteum,* no other mosses were found at the edges of the heavily salted roads. It might be that *Hennediella heimii* is helped by both shelter from drying winds and sun, and a high concentration of salt to keep soil free from competitors, and might be even more tolerant of salt than, for example, *Cochlearia danica*, but cannot compete with it. *Cochlearia* grows luxuriantly for six miles on the sunny, southeast-facing side of the B489 Ivinghoe to Dunstable road, but no *Hennediella* was found on a slow bicycle ride along it.

Hennediella macrophylla has been found on two similar roadside banks in this part of Hertfordshire, but by quiet, unsalted lanes.

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References

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