



## First report of *Ascochyta dolomitica* causing leaf spots on *Hepatica acutiloba* in the UK

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The genus *Hepatica* (Ranunculaceae) includes some 10 species which have long been cultivated for their early spring flowers. In May 2009, a diseased sample of *Hepatica acutiloba* was received at the advisory service of the Royal Horticultural Society. The leaves showed brown/black irregular leaf blotches carrying black fruiting bodies (Fig. 1A). Conidia were single septa, cylindrical, rounded at both ends and measured 8-13 x 2-3 µm (Fig. 2). Pycnidia measured 140-190 µm in diameter (Fig. 3). The morphological characteristics fit the description of *Ascochyta dolomitica* which is recorded on *Hepatica*, *Ranunculus* and *Clematis* species in Europe and Asia (Mel'nik, 2000). A voucher specimen was deposited at the Royal Botanic Gardens, Kew, UK K(M)164724).

The ITS region was amplified using ITS 1 and ITS 4 primers (White *et al.*, 1990) and sequenced (GenBank Accession No. HM754628). The sequence was unique when compared to other sequences in GenBank. The fungus was cultured *in vitro* on potato-carrot agar supplemented with ampicillin (30 µg/ml) and streptomycin sulphate (133 µg/ml), and sporulated after four weeks under near UV light (16 h photoperiod) at 22°C. To fulfil Koch's postulates, *Hepatica nobilis* plants were dipped in spore suspension of ~ 2 x10<sup>8</sup> spores/ml. The control plant was not inoculated. A plastic bag was placed on plants for 48 hrs to maintain high humidity and favour infection. The plants were left outdoors where the temperature ranged from 12°C to 22°C. After 20 days, the first leaf spots appeared on the

inoculated leaves leading eventually to leaf death (Fig. 1B). The control plant remained healthy. *Ascochyta dolomitica* has been reported before in several European countries in Austria, Czechoslovakia, Germany, Latvia, Romania and Poland (Mel'nik, 2000; Farr & Rossman, 2010) but this is the first record of *Ascochyta dolomitica* in the UK.

### Acknowledgements

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### References

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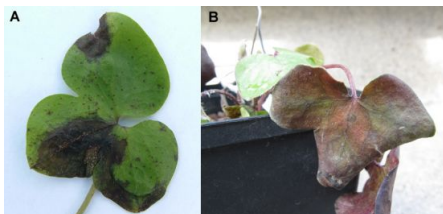


Figure 1

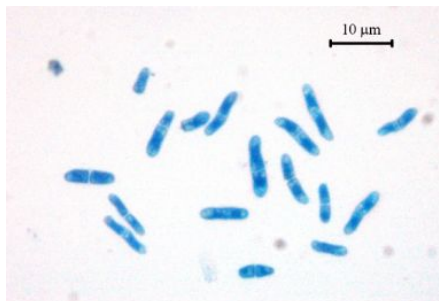


Figure 2

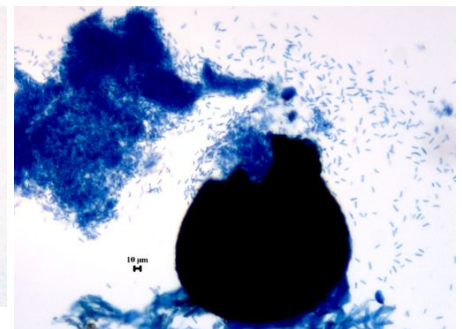


Figure 3

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