

**DYNAMICS OF LONG-DISTANCE DISPERSAL: THE SPREAD OF
ASPLENIUM ADIANTUM-NIGRUM AND *ASPLENIUM TRICHOMANES*
(ASPLENIACEAE: PTERIDOPHYTA) ON LONDON WALLS**

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ABSTRACT

Asplenium adiantum-nigrum L. and *A. trichomanes* L. have spread widely across inner London since about 1995 but have not yet colonised the district uniformly. The spacing between sites, and evidence that at most a few founding populations are involved, suggests that a sequence of long-distance dispersal events is responsible. A simple model of dispersal is proposed which predicts an exponential distribution of nearest-neighbour distances. The combined data for both species yield a good fit to such a distribution and a value of approximately 0.75 km for the mean distance between a newly-established sporophyte and the nearest potential parent plant. This leptokurtic distribution accounts for some offspring growing 5 km or more from their parent while the populated zone expands at up to 1 km per year. Assumptions underlying these conclusions are examined.