



## Preseasonal scattering of *Cryptomeria japonica* pollen in Japan, with reference to the dormancy of the male flowers

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Pollinosis caused by *Cryptomeria japonica* is a very serious health problem in Japan. To clarify the relationship between *C. japonica* pollen emissions before the main pollen dispersal season and dormancy of the male flowers, pollen emissions from *C. japonica* trees were observed from November to February, using both flowering tests and an airborne pollen survey. Some *C. japonica* trees studied shed pollen in November and December, by one of two mechanisms. First, some male flowers turned brown and withered, resulting in the formation of small crevices between the scales and pollen leakage. Second, some pollen was released via elongation of the rachis, which is the normal mode of flowering in spring. These early pollen emissions from male flowers were considered to represent a process of self-thinning or unseasonable flowering. *Cryptomeria japonica* pollen counts between October and January were closely related to mean monthly temperatures and airborne pollen counts of the following pollen season. The present study clearly shows that some male flowers of the species can bloom and disperse abundant pollen via blooming or withering in November, if the temperature in October is high, in years of high pollen production.

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