A double-flowered variety of lesser periwinkle (*Vinca minor* fl. pl.) that has persisted in the wild for more than 160 years.

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Projects

Reconstructing the interaction network of reproductive homeotic proteins in a gymnosperm
Details

Abstract

Homeotic transitions are usually dismissed by population geneticists as credible modes of evolution due to their assumed negative impact on fitness. However, several lines of evidence suggest that such changes in organ identity have played an important role during the origin and subsequent evolution of the angiosperm flower. Better understanding of the performance of wild populations of floral homeotic varieties should help to clarify the evolutionary potential of homeotic mutants. Wild populations of plants with changes in floral symmetry, or with reproductive organs replacing perianth organs or sepals replacing petals have already been documented. However, although double-flowered varieties are quite popular as ornamental and garden plants, they are rarely found in the wild and, if they are, usually occur only as rare mutant individuals, probably because of their low fitness relative to the wild-type. We therefore investigated a double-flowered variety of lesser periwinkle, Vinca minor flore pleno (fl. pl.), that is reported to have existed in the wild for at least 160 years. To assess the merits of this plant as a new model system for investigations on the evolutionary potential of double-flowered varieties we explored the morphological details and distribution of the mutant phenotype.

Identifier

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