

## Breeding systems in a temperate mediterranean-type climate montane sclerophyllous forest in central Chile

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The frequency of dioecy in the predominantly biotically pollinated native flora of a temperate montane sclerophyllous forest in central Chile, 33°S, is determined. Experimental crosses and other tests were performed on a taxonomically diverse set of annual herbs, perennial herbs and woody species to detect genetic self-incompatibility, spontaneous selfing capacity and obligate agamospermy. The overall frequency of dioecy in the community is 9%. Dioecy is unequally represented among life forms, increasing in frequency with greater longevity: 0% in annual herbs; 2% in perennial herbs; 17% in shrubs; 57% in trees. Thirty-eight percent of 37 hermaphrodite species proved to be genetically self-incompatible. Self-incompatibility, like dioecy, increases in frequency with longevity: 0% in annual herbs; 50% in perennial herbs; 80% in shrubs. The self-compatible species showed a wide range of breeding habits from facultative outcrossing to strong autogamy. However, in most self-compatible species