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Systematic implication of the petal venation in the tribe  
Polycarpeae DC. (Paronychioideae-Caryophyllaceae)

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Petal venation of the tribe Polycarpeae DC. (15 genera, 70 species) was undertaken by means of light microscopy. It has revealed that petal venation of this tribe is fairly variable, but three main patterns of petal venation can be recognized. Type I: deeply bifid, midvein dichotomously divided at the basal portion, sometimes branch apically, glandular trichomes mostly absent, petal length 2-10 mm (*Drymaria* Willd. ex J. A. Schultes). Type II: entire, many branch at the base of petal, several secondary well-developed veins, glandular trichomes mostly absent, petal length 1.5-8.0 mm [*Spergula* L., *Spergularia* (Pers.) J. Presl. & C. Presl.]. Type III: entire, mostly single midvein with fairly short branches or even lack veins completely, rarely having a few branches and secondary branches usually absent, usually glandular trichomes present at the base of petal lobe, petal mostly quite reduced size, 0.5-2.8 (4.2) mm (*Polycarpeae* Lam. and 10 remnant genera, except *Sanctambrosia* Skotts. which has somewhat intermediate petal venation between Type II and Type III). On the basis of the present results, the taxonomic position of *Drymaria* is questioned and discussed. It is concluded that the studied petal venation can be useful for the infrageneric classification as one of the supporting character.

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A study of the floral biology of *Tricyrtis dilatata* Nakai (Liliaceae)  
in Korea

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The floral biology, especially the pollination system (i.e., pollinator composition, visiting pattern, and correlations between pollinator and the detailed floral structure), of *Tricyrtis dilatata* Nakai, one of the Korean endemic taxon, was investigated. *Tricyrtis dilatata* is pollinated by the various insects of 18 species, 7 families, 4 orders, mainly Hymenoptera and Diptera. The most dominant and effective pollinators are large bees, such as *Eucera spuriipes* Perez, *Bombus opulentus* Smith, *Megachile* spp. and *Allograpta balteata* (de Geer). The flowers of *Tricyrtis dilatata* are protandrous. It is also confirmed that *Tricyrtis dilatata* is autogamous (self-compatible), if no pollinators visit the flower. It is interesting to note that during the blooming, the pouch-like spur of each flower is well developed, but the opening is so narrow that can filter inefficient visitors effectively. The floral structures (pollen, microstructure of tepal, anther, etc.) of *Tricyrtis dilatata* are briefly described. The conservation strategies of *Tricyrtis dilatata* in Korean population are also shortly discussed.