



MOLECULAR AND MORPHOLOGICAL EVIDENCE FOR NATURAL HYBRIDIZATION BETWEEN *PRIMULA SECUNDFLORA* FRANCHET AND *P. POISSONII* FRANCHET (PRIMULACEAE)

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Natural hybridization occurs commonly in plants and blurs their interspecific delimitation. It is unclear whether spontaneous hybridization occurs in natural populations of *Primula* in China. In this study we examined natural hybridization between *P. secundiflora* and *P. poissonii* based on morphological and molecular analyses of individuals with intermediate morphology. Most morphological characters of these individuals were found to be intermediate between the putative parental species, but plant height and corolla tube length were significantly transgressive. Molecular analyses based on nuclear internal transcribed spacer (ITS) additivity and two types of cloned sequences (each corresponding respectively to one of two parental species) clearly suggested that these individuals result from hybridization between *P. secundiflora* and *P. poissonii*. We further used a maternally inherited chloroplast DNA fragment (*rpl16* intron) to trace the maternal composition of the hybrids. Among 26 hybrids, ten (two thrums, eight pins) had the *P. secundiflora* haplotype, while 16 (ten thrums, six pins) possessed the *P. poissonii* haplotype. These results suggest that both parents served as the mother donors of the hybrids. Reciprocal hybridization between the two species seems to be symmetrical rather than unidirectional.

Key words: Hybridization, *Primula secundiflora*, *P. poissonii*, ITS, *rpl16* intron.

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