An extra chromosome of *Torenia fournieri*

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Abstract  
Species possess a particular karyotype defined by chromosome number, size and morphology. Polymorphism of the karyotype may appear by polyploidy and/or chromosome aberration such as fusion, fission, translocation and inversion. *Torenia fournieri* (Linderniaceae) and *Torenia baillonii* carry 2n=2x=18 and 2n=2x=16 chromosomes, respectively. To understand the karyotypic change, F1 hybrid of the two species was produced. Observation of meiosis in the F1 hybrid using fluorescence in situ hybridization (FISH) revealed eight bivalent with chiasmata as a result of interspecific pairing and one univalent from *T. fournieri*. This suggests that the two species have eight homologous chromosomes and that *T. fournieri* possess an extra chromosome that is not present in *T. baillonii*. The origin of the unpaired chromosomes is unknown.

Keyword extra chromosome, fluorescence in situ hybridization, *Torenia*

References  