

عنوان مقاله:

KARYOTYPE ANALYSIS AND ESTIMATION OF NUCLEAR DNA CONTENT IN SIX SPECIES OF ACACIA ((FABACEAE

محل انتشار:

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خلاصه مقاله:

Karyotype analysis, determination of somatic chromosome number, total chromosome length and volume, estimation of ۴C DNA content and Interphase Nuclear Volume (INV) were carried out in ۶ species of Acacia of the family Fabaceae. Somatic chromosome number $2n=2۶$ in *A. auriculiformis*, *A. catechu*, *A. dealbata*, *A. decurrens*, *A. suma* and $2n=۵۲$ in *A. mollissima* were recorded for the first time. Significant interspecific variations in nuclear DNA amount was noted. The ۴C DNA content varied from ۲.۲۸ pg in *A. catechu* to ۴.۸۲ pg in *A. mollissima*. The INV varied from ۲۱۰.۲۲ $\mu^3\text{min}$ in *A. suma* to ۳۵۶.۲۳ $\mu^3\text{m}$ in *A. decurrens*. Correlation coefficient studies showed positive correlation between the genomic chromosome length, chromosome volume and INV. No interdependency was found between ۴C DNA content and chromosome length or volume and INV. The structural alterations in the chromosomes as well as loss or addition of highly repetitive sequences in the genome caused variations in the nuclear DNA at interspecific level indicating a macro- and micro- evolution of the species.

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