

عنوان مقاله:

KARYOTYPE VARIATION AND GENOMIC CHARACTERIZATION IN FIVE MONOCOTYLEDONOUS MANGROVE ASSOCIATE FROM ORISSA COAST

محل انتشار:

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نویسندگان:

S. Jena - *Cytogenetics Laboratory, Regional Plant Resource Centre, Bhubaneswar ۷۵۱۰۱۵, Orissa, India*

A. B. Das - *Cytogenetics Laboratory, Regional Plant Resource Centre, Bhubaneswar ۷۵۱۰۱۵, Orissa, India*

خلاصه مقاله:

Chromosome number and karyotype analysis of five monocot mangrove associates from Dhamra and Paradeep coast of Orissa revealed $2n=48$ in *Porteresia coarctata*; $2n=22$ in *Crinum defixum* and *Cryptocoryne ciliata* and $2n=20$ in *Asparagus racemosus* var. *javanica* and *Cyperus cephalotes*. Total chromosome length varied from $42.44 \mu\text{m}$ in *A. racemosus* var. *javanica* to $93.86 \mu\text{m}$ in *C. defixum*. Significant variation of chromosome volumes were also recorded among the species. The FC DNA content varied significantly from 47.15 pg in *C. defixum* to 6.31 pg in *C. cephalotes*. A positive significant correlation between the chromosome volume and FC nuclear DNA content among five different species was revealed. The genome size was around $1,545 \text{ mbp}$ in *C. cephalotes* to $4,074 \text{ mbp}$ in *P. coarctata* with a highest size ($11,551 \text{ mbp}$) in *C. defixum* that suggests the high repetitive DNA sequences in the *Crinum* with highest chromosome length and volume of this species.

کلمات کلیدی:

genome size, Karyotype, somatic chromosome, *Crinum*, *Cryptocoryne*, *Asparagus*, *Cyperus*, *Porteresia*

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