Karyological study in fifteen Leucocoryne taxa (Alliaceae)

Jara-Arancio, Paola

Jara-Seguel, Pedro

Palma-Rojas, Claudio

Arancio, Gina

Moreno, Raul

The karyotype of fifteen Leucocoryne taxa was studied, assessing characteristics such as chromosome morphology and size, secondary constriction location, and asymmetry level. Two groups of Leucocoryne taxa were described based on chromosome number (2n = 10 and 2n = 18) and karyotype asymmetry. The haploid karyotype formula for the group 2n = 10 was 3m + 2st (or 2t), whereas for the group 2n = 18 was 7m + 2st (or 2t). Such results corroborate the karyotype descriptions previously carried out for some taxa of the genus. Leucocoryne taxa showed a high resemblance in chromosome morphology, but inter-specific differences were found in mean chromosome size. These data and previous studies based on gross chromosome morphology support Crosa's hypothesis, which suggests that the cytotype 2n = 10 is diploid and perhaps ancestral, whereas that the cytotype 2n = 18 is tetraploid but with an additional chromosome fusion being probably a derived status. © 2012 Versita Warsaw and Springer-Verlag Wien