

Cytological studies of three taxa of *Anchonium* (Brassicaceae) section from TurkeyEsra MARTİN¹, Murat ÜNAL², Mustafa İLERİ²¹Biotechnology Department, Necmettin Erbakan University, Konya, Turkey²Biology Education Department, Yüzüncü Yıl University, Van, Turkey

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Aim of the study: The research has made contribution to the cytotaxonomic revision of the genus *Anchonium* in Turkey.

Material and Methods: All samples were collected from wild populations from Turkey. Collected specimens were deposited in Balıkesir University. All karyological observations were carried out on root tips. Root-tip meristems were provided from seed by germinating them on wet filter paper in Petri dishes at room temperature. Firstly root tips pretreated for 16 h in α -monobromonaphthalene at 4°C, fixed in 3:1 absolute alcohol/glacial acetic acid, then the root tips were hydrolyzed with 1 N HCl for 13 min at room temperature and stained with 2% aceto-orcein for 3 h at room temperature. Stained root tips were squashed in a drop of 45% acetic acid and permanent slides were made by mounting in Depex. For karyotype analysis the photographs enlarged 10 ×100 were taken using a microscope with a camera attachment. The karyotypes were measured by Software Image Analyses (Bs200Pro) loaded on a personal computer. Ideograms of these taxa were arranged in decreasing length.

Results: The number of the chromosomes in the *Anchonium* genus which belongs to Brassicaceae family were studied using the Image Analysis System. Chromosome number was determined as $2n = 14$ in *Anchonium elichrysifolium* subsp. *canescens*, $2n = 14$ in *Anchonium elichrysifolium* subsp. *cilicicum*, $2n = 14$ in *Anchonium elichrysifolium* subsp. *glandulosum*. *Anchonium elichrysifolium* subsp. *glandulosum* taxon was studied from three different localities and their chromosome numbers were the same.

Keywords: Chromosome, Image Analysis System, *Anchonium*.