

MEIOTIC NOVELTY IN *RHOEO SPATHACEA* VAR. *BICOLOR* (SWARTZ) STEARN (COMMELINACEAE)

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Abstract: Cytological novelty (natural population) was recorded from two (P_1 and P_2) plants of *Rhoeo spathacea* var. *bicolor* (Swartz) Stearn (Commelinaceae) in the form of numerical variations in chromosome number (predominantly hypoploidy) both at metaphase I (P_1 – 28.80%, P_2 – 13.67%; $2n = 4, 5, 6, 7, 8, 9, 10, 11, 14, 16$ and 24 apart from normal 12) and anaphase I (P_1 – 63.16%, P_2 – 47.03%; types - 9 : 2 : 13, 7 : 7, 6 : 7, 3 : 1 : 7, 3 : 3 : 4, 5 : 5, 4 : 6, 3 : 4, 0 : 7, 3 : 1 : 3, 2 : 3 : 2, 0 : 6, 3 : 3 and 2 : 4 apart from 6 : 6, 5 : 7, 5 : 2 : 5, 4 : 8, 5 : 1 : 6 and 0 : 12) along with partial to total breakdown of conventional meiotic system, strong desynapsis (P_1 - bivalents 0.84/cell, univalents 8.06/cell; P_2 - bivalents 0.47/cell, univalents 8.41/cell), chromosomal abnormalities (differential condensation of chromosomes, asynchrony, bridge formation, tripolarity and trispority) and high sterility (P_1 - pollen fertility 8.14%, viability 3.80%; P_2 - pollen fertility 13.12%, viability 3.90%). The ‘elite’ plants described in *Rhoeo* may generate academic interest in performing cytological preparations, which seems to be a lost art.

Keywords: Breakdown of meiotic system, Cytological novelty, Desynapsis, Numerical variations in chromosome number, Sterility.

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