CHROMOSOME NUMBER DIVERSITY AND DISTRIBUTION OF POLYPLOIDS IN THE GENUS *HYPERICUM* L.

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Chromosome counts were examined for 18 populations of 4 species of the genus Hypericum in the Western Himalayas (India). The chromosome numbers n = 8, 9 for H. dyeri and n = 16 for H. japonicum, respectively add new diploid and tetraploid cytotypes for these species. Whereas, n = = 8 in H. elodeoides and H. japonicum; as well as n = = 7, 8, 16 in H. perforatum were reported for the first time from the Indian region. The base chromosome numbers in the genus make a descending series (x = 7, 8, 9, 10, 12) with the most common ones as x = 8, 9, whereas x = 8 is considered to be primarily evolved. The genus displays 33.3 % polyploidy with 14 species each depicting euploidy and aneuploidy. Further, analyses of these polyploids suggest a high percentage of tetraploids that are geographically concentrated along the Northern Hemisphere in Europe. From the quantitative analysis of chromosome numbers, ICNH is calculated to be 22.7 indicating high variability among chromosome numbers. The revision of base chromosome numbers, an assessment of polyploids and their geographical distribution in the genus along with intraspecific genetic variability among the populations of the species were discussed.

Key words: *chromosome numbers, diversity, Hypericum, ICNH, polyploids.*

РІЗНОМАНІТНІСТЬ КІЛЬКОСТІ ХРОМОСОМ І ПОШИРЕННЯ ПОЛІПЛОЇДІВ У РОДІ *HYPERICUM L.*

Було досліджено кількість хромосом у 18 популяціях 4 видів роду Hypericum у Західних Гімалаях (Індія). Кількість хромосом n = 8, 9 для H. dyeri та n = 16 для H. japonicum, відповідно, додає нові диплоїдні та тетраплоїдні цитотипи для цих видів, тоді як n = 8 у H. elodeoides та H. japonicum, а також n = = 7, 8, 16 у H. perforatum були вперше зареєстровані в індійському регіоні. Базова кількість хромосом у роді утворює низхідну серію (x = 7, 8, 9, 10, 12), найпоширенішими є x = 8, 9, тоді як x = 8 вважається розвиненим первинно. Рід демонструє 33,3 % поліплоїдії з 14 видами, кожна з яких відображає еуплоїдію та анеуплоїдію. Крім того, аналіз цих поліплоїдів вказує на високий відсоток тетраплоїдів, які географічно зосереджені в північній півкулі, в Європі. За результатами кількісного аналізу кількості хромосом, індекс гетерогенності кількості хромосом (ICNH) розраховано як 22,7, що вказує на високу мінливість цієї кількості. Обговорено перегляд базової кількості хромосом, оцінку поліплоїдів та їх географічного поширення в роді, а також внутрішньовидову генетичну мінливість серед популяцій видів.

Ключові слова: кількість хромосом, різноманітність, *Hypericum*, ICNH, поліплоїди.

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