

## **Abstract**

The genus *Dactylis* represents one of the longest studied cases of natural polyploid complex, including a widely distributed dominant tetraploid complex and several older, but less successful diploid endemics. The center of diversity lies in the Mediterranean region, where primary and secondary contact zones between subspecies of different ploidy levels occur. The tetraploid complex *Dactylis glomerata* is distributed throughout Europe and has also been introduced to the rest of the world because of its economic importance. Production of unreduced gametes, hybridization between differentiated subspecies and the creation of higher ploidy levels via triploid bridge played a role in its origin. Tetraploids prefer open or anthropogenically disturbed habitats, while diploids inhabit mainly forest understory or habitats close to water. Different flowering times often prevent interspecific hybridization. The taxonomy of the genus *Dactylis* remains unresolved, and morphological characteristics used to differentiate subspecies may be unreliable. Most studies focus on Mediterranean subspecies, while those from Central Europe require further attention.

**Key words:** *Dactylis*, ecological niche, polyploidization, tetraploid complex, triploid bridge