

***DRYOPTERIS* × *COMPLEXA* NOTHOSUBSP. *TRANSILVANICA*: A
NEW HYBRID FROM THE CARPATHIANS (DRYOPTERIDACEAE,
POLYPODIOPHYTINA)**

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ABSTRACT

During field studies in the Romanian Southern Carpathians and the Polish Western Carpathians, a new tetraploid fern hybrid was discovered. This taxon is described as *Dryopteris* × *complexa* nothosubsp. *transilvanica* (*Dryopteris affinis* subsp. *jessenii* × *D. filix-mas*). The macroscopic identification is supported by flow cytometric and earlier cytological results.

INTRODUCTION

The *Dryopteris affinis* group represents a difficult research subject due to its high morphological resemblance, which causes numerous problems even for fern specialists. The best taxonomy so far was done by Fraser-Jenkins (2007), who described six species: *D. affinis* (Lowe) Fraser-Jenk. s. str. (diploid apomict, $2n=82$) and five triploid apomicts ($2n=123$): *D. borrieri* (Newman) Newman ex Oberh. & Tavel, *D. cambrensis* (Fraser-Jenk.) Beitel & W.R.Buck, *D. pseudodisjuncta* (Tavel ex Fraser-Jenk.) Fraser-Jenk., *D. schorapanensis* Askerov and *D. pontica* (Fraser-Jenk.) Fraser-Jenk.

However, the final number of taxa in this group cannot yet be determined since ongoing research may lead to new discoveries, such as the recent description of *D. lacunosa* S.Jess., Zenner, Chr.Stark & Bujnoch (Jeßen et al., 2011).

Within the diploid species *Dryopteris affinis*, five subspecies are currently described: *D. affinis* subsp. *affinis*, *D. affinis* subsp. *paleaceolobata* (T.Moore) Fraser-Jenk., *D. affinis* subsp. *punctata* Fraser-Jenk., *D. affinis* subsp. *kerryensis* (Fraser-Jenk.) Fraser-Jenk. and *D. affinis* subsp. *jessenii* (Fraser-Jenk.) Fraser-Jenk. Until now only three tetraploid hybrids have been described that involve the first three of these diploids taxa, with *Dryopteris filix-mas* (L.) Schott (tetraploid sexual, $2n=164$) as the second parent: *D. × complexa* Fraser-Jenk. nothosubsp. *complexa* (Portugal, Spain, France, Belgium, Great Britain, Ireland, Germany, Switzerland, Italy, Austria, Romania), *D. × complexa* nothosubsp. *contorta* Fraser-Jenk. (Great Britain), *D. × complexa* nothosubsp. *eschelmuelleri* Fraser-Jenk. (Germany, Switzerland, Croatia, Turkey) (Fraser-Jenkins, 2007).

Here we report a fourth hybrid between a subspecies of *Dryopteris affinis* s. str. and *D. filix-mas*: *D. affinis* subsp. *jessenii* × *D. filix-mas* (figure 1 and 2) discovered in the Romanian Southern Carpathians and the Polish Western Carpathians.