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Artikel: Reproduction in natural triploid hybrids (2n=24) between Cardamine rivularis Schur and C. amara L.

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Kapitel: 2: Materials and methods

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2. Materials and methods

The material for the present study was collected during 1972-1977. Fixations were made both in the field as well as the experimental greenhouse of the Geobotanical Institute. The flower buds were fixed in acetic alcohol (1:3) with a small addition of ferric acetate and acetocarmine. Micro- and macrosporogenesis as well as the seed development after experimental crosses were mostly studied on microtome sections stained with HEIDENHAIN's heamatoxylin. In addition, some lacto-propionic squashes were investigated. The viability of pollen was tested in acetocarmine smears.

The technique used in experimental crosses was the same as previously described for diploid taxa of the *Cardamine pratensis* group (URBANSKA-WORYTKIEWICZ and LANDOLT 1974) and so were the methods used for the seed gemination tests and raising of young plants.

3. Results

3.1. *Vegetative multiplication*

The triploid hybrids from Urnerboden achieve their vegetative multiplication by various means. New clones are partly formed by stolons; the most characteristic, however, are small daughter plants developing at post-flowering stages. They are observable on flowering shoots, being localized very often at every node (Fig. 3) and sometimes even at the base of inflorescence. Later on, the shoots begin to bend and eventually are laying on the ground; the daughter plants have then an ample opportunity to root in and so 4 - 5 new plants per shoot may appear, separated by a distance of about 5-6 cm from each other. Complete daughter plants develop also at the upper surface of the rosette leaves (Fig. 1); their number may reach