



Ruth Flatscher was connected to the University of Vienna for ten years, first as an undergraduate student, then as a Master's student and finally as a PhD student. Diversely gifted, during her short life she performed at a very high level in all scientific activities. She was determined, strong-willed, and extremely creative. Her amiable, cooperative, and modest personality gained her many friends in the scientific community and beyond.

Although Ruth in 2003 won the XVth Austrian Competition for Latin, she did not choose a study in linguistics but instead in biology, her second field of interest. After graduating from the Pedagogic Secondary School in Bruneck (Southern Tyrol, Italy), Ruth entered the University of Vienna in the winter term 2004/2005. Early on, she attracted attention as an exceptionally gifted student and was soon hired as a student tutor in several courses. In 2008 she began her Master's thesis on morphological differentiation of sympatric di-, tetra- and hexaploid cytotypes of *Senecio carniolicus* s.l. (syn. *Jacobaea carniolica*, Asteraceae). Already prior to finishing (with distinction) her Master's study, Ruth started to publish in international scientific journals. The excellent quality of her Master's thesis contributed to her receiving a PhD stipendium from the Austrian Academy of Sciences. Since 2011, she worked at the University of Innsbruck on her PhD topic dealing with genetic, epigenetic, and morphological differentiation of elevational vicariants in the mountain plant *Heliosperma pusillum* s.l. (Caryophyllaceae).

After obtaining her Master's degree and because of her broad biological knowledge, Ruth began giving courses at the University of Natural Resources and Life Sciences (determination of willows) and at the University of Vienna (methods for identification of pharmaceutical plants). For the international initiative Transmitting Science, Ruth (together with Chris Klingenberg from the University of Manchester) developed a course on geometric morphometrics in plants, which gave her the opportunity to share her specialized knowledge on this subject. Due to her advancing illness, however, she was unable to participate in this course held in spring 2014. Ruth also (together with colleagues) organized a symposium on quantitative EvoDevo in model and non-model organisms for the 5th meeting of the European Society for Evolutionary Developmental Biology. This was held 22-25 July 2014 in Vienna, but she was unable to attend, sadly passing away on July 24th at her home in Bruneck.

Ruth's botanical interests were extremely diverse. Along with her work on Master's and PhD topics, she voluntarily contributed to projects such as the Floristic Mapping of the Austrian Flora and Flora Ionica in a highly competent and energetic manner. In an independently initiated research project she, together with colleagues, investigated genetic and ecological differentiation of cleistogamous and chasmogamous forms of the Mediterranean annual *Linaria pellisseriana* (Plantaginaceae).

In addition to these numerous scientific activities, Ruth also found time to actively campaign for sociopolitical topics and for nature conservation, to learn foreign languages, to become better informed about art and culture, to play flute, and to do rock climbing and horseback riding.

Although diagnosed with an inoperable brain tumor in the autumn of 2013, Ruth kept her unwavering energy and continued to work on her PhD project until the spring of 2014. Her premature death not only ended the life of a promising young scientist but also deprived her friends and colleagues of a very

special human being. We deeply miss Ruth.



photographer



field botanist



meticulous worker



fieldwork



floristic mapping excursion



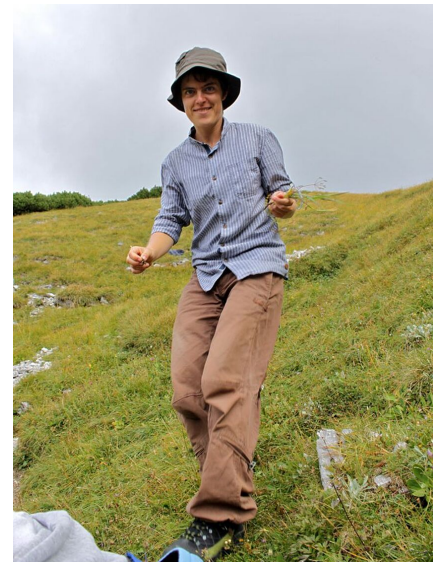
braving the elements



at the summit



waiting for the train



collecting plants

Publications

Papers

Sonnleitner M, Hülber K, **Flatscher R**, Escobar García P, Winkler M, Suda J, Schönswetter P,

Schneeweiss GM (2016): Ecological differentiation of diploid and polyploid cytotypes of *Senecio carniolicus* s.l. (Asteraceae) is stronger in areas of sympatry. *Annals of Botany* 117: 269–276. [...]

Flatscher R, Escobar García P, Hülber K, Sonnleitner M, Winkler M, Saukel J, Schneeweiss GM, Schönswetter P (2015): Underestimated diversity in one of the world's best studied mountain ranges: The polyploid complex of *Senecio carniolicus* (Asteraceae) contains four species in the European Alps. *Phytotaxa* 213: 1–21. [...]

Sonnleitner M, Weis B, **Flatscher R**, Escobar García P, Suda J, Krejčíková J, Schneeweiss GM, Winkler M, Schönswetter P, Hülber K (2013): Parental ploidy strongly affects offspring fitness in heteroploid crosses among three cytotypes of autopolyploid *Jacobaea carniolica* (Asteraceae). *PLoS ONE* 8(11): e78959. [...]

Flatscher R, Frajman B, Schönswetter P, Paun O (2012): Environmental heterogeneity and phenotypic divergence: can heritable epigenetic variation aid speciation? *Genetics Research International* 2012: Article ID 698421. [...]

Escobar García P, Winkler M, **Flatscher R**, Sonnleitner M, Krejčíková J, Suda J, Hülber M, Schneeweiss GM, Schönswetter P (2012): Extensive range persistence in peripheral and interior refugia characterizes Pleistocene range dynamics in a widespread Alpine plant species (*Senecio carniolicus*, Asteraceae). *Molecular Ecology* 21: 1255–1270. [...]

Sonnleitner M, **Flatscher R**, Escobar García P, Rauchová J, Suda J, Schneeweiss GM, Hülber K, Schönswetter P (2010): Distribution and habitat segregation on different spatial scales among diploid, tetraploid and hexaploid cytotypes of *Senecio carniolicus* (Asteraceae) in the Eastern Alps. *Annals of Botany* 106: 967–977 [...]

Hülber K & Sonnleitner M, **Flatscher R**, Berger A, Dobrovsky R, Niesser S, Nigl T, Schneeweiss GM, Kubešová M, Rauchová J, Suda J, Schönswetter P (2009): Ecological segregation drives fine-scale cytotype distribution of *Senecio carniolicus* in the Eastern Alps. *Preslia* 81: 309–319. [...]

Talks & Poster Presentations

Polyploid speciation in *Senecio carniolicus* Willd. (Asteraceae) – Cytogeography, morphological and ecological differentiation among and within cytotypes – Talk at the conference “Botany 2010”, Providence, New England, 31. Juli–04. August 2010

The polyploid complex of *Senecio carniolicus* Willd. (Asteraceae) in South Tyrol – Biogeography, ecology and morphology. – Talk at the symposium “Zoologische und botanische Forschung in Südtirol”, Bozen, Italien, 02.–04. September 2010

Morphologische Differenzierung der Zytotypen im Polyploid-Komplex von *Senecio carniolicus* Willd. (Asteraceae). – Talk at the meeting “14. Österreichisches Botanikertreffen”, Dornbirn, Österreich, 23.–25. September 2010

Morphological differentiation among and within ploidy levels in the polyploid complex of *Senecio carniolicus* (Asteraceae). – Poster at the meeting “Polyploidization, plant fitness and trophic interactions” in Fribourg, Schweiz, 07.–08. September 2009

