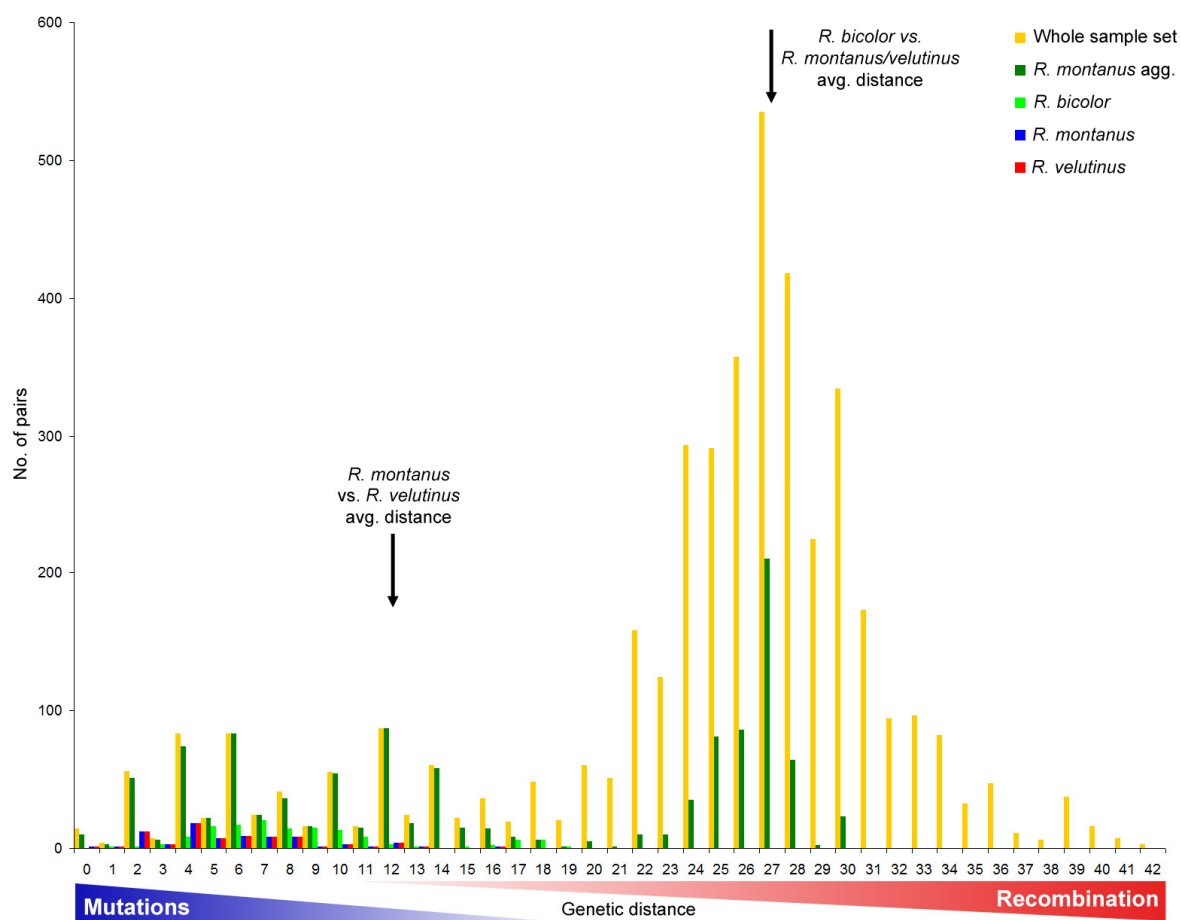


**Király G., Sochor M. & Trávníček B. (2017): Reopening an old chapter: a revised taxonomic and evolutionary concept of the *Rubus montanus* group. – Preslia 89: 309–331**

Electronic Appendix 3: Microsatellite loci used in the study with primer sequences, annealing temperature and number of PCR cycles used, number of detected alleles and expected heterozygosity in the whole sample set. F primers of loci analyzed fluorescently were supplemented by M13 tail at their 5' end (TGTAACGACGCGCCAGT). \* Primer sequences available at <http://www.fruitbreeding.co.uk/RubusMarkers2.asp>

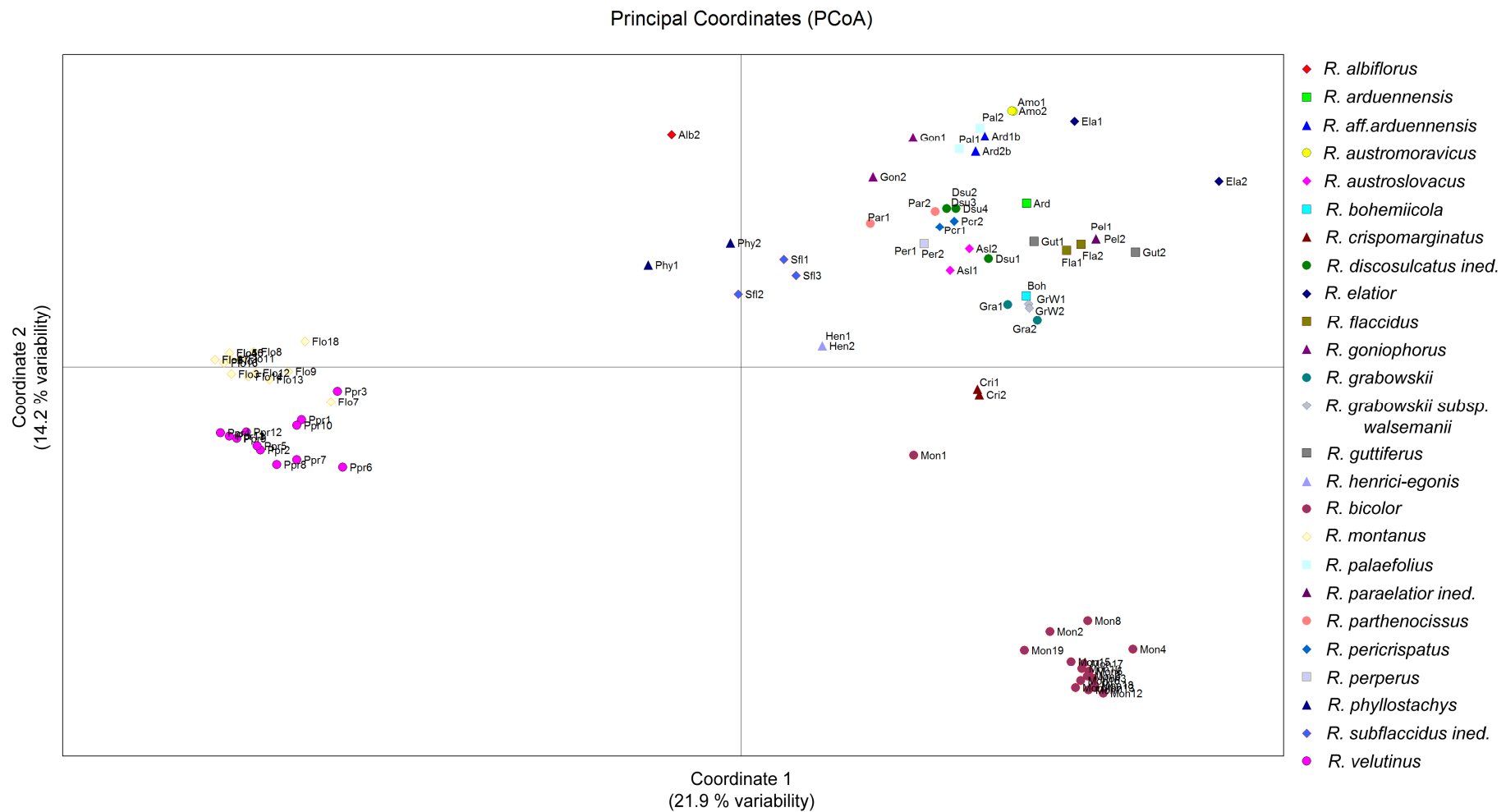
| Working name | Original name     | Sequence of F primer (5'-3') | Sequence of R primer (5'-3') | Ta [°C] | Cycles | Reference               | No. of alleles | He    |
|--------------|-------------------|------------------------------|------------------------------|---------|--------|-------------------------|----------------|-------|
| SSR01        | Rubus166b         | CCGCAAGGGTTGTATCCTAA         | GCATGAGGGCGATATAAAGG         | 51      | 30     | Graham et al. (2004)    | 17             | 0.870 |
| SSR05        | Rubus275a         | CACAACCAGTCCCGAGAAAT         | CATTTCATCCAAATGCAACC         | 51      | 32     | Graham et al. (2004)    | 29             | 0.922 |
| SSR13        | ERubLR_SQ01_G16   | GCACCCTAATCTCCATGACC         | CCGCTGTAGTTCCTGTAGGC         | 60.3    | 31     | Woodhead et al. (2008)  | 20             | 0.907 |
| SSR16        | Rub265a           | AGCACGTCAGACGAAATTGA         | AAAATTTGACGACCCGTTTC         | 61      | 32     | Graham et al. (2006)*   | 2              | 0.053 |
| SSR17        | Rub236b           | TGTGCCAAGAACTCATCGTC         | CCGAACGCCTCCCTACTT           | 62.5    | 31     | Graham et al. (2006)*   | 13             | 0.818 |
| SSR25        | Rubleaf86         | GGAACTTTGAGCCACCTAC          | TCGGCAGGTTATTCATTTGT         | 62.3    | 29     | Graham et al. (2004)    | 9              | 0.756 |
| SSR14        | RubPara_SQ005_K23 | (M13)-AGGTGAGGTGGGAGATGATG   | ATCCTCGGTTCTCCAAAAT          | 63      | 24+9   | Woodhead et al. (2008)  | 6              | 0.735 |
| SSR18        | Rub238h           | (M13)-GTGACCTCCGAGAGCTTGAG   | CTTCACCGCCACTAGTACCC         | 63      | 25+9   | Woodhead et al. (2008)* | 4              | 0.574 |
| RUB4         | Rubusr47a         | (M13)-AAGCAGGACACCTCAGATGC   | CAGCCAACCATCATCAGCTA         | 59      | 24+9   | Graham et al. (2004)    | 15             | 0.850 |
| RUB6         | Rubus105b         | (M13)-GAAAATGCAAGGCGAATTGT   | TCCATCACCAACACCACCTA         | 59      | 24+9   | Graham et al. (2004)    | 15             | 0.842 |

**Electronic Appendix 4:** Histogram of pair-wise genetic distances among individuals of each species of *Rubus montanus* group, whole aggregate and whole sample set of *Rubus* ser. *Discolores*. Estimated relative contribution of mutations and recombination to genetic differentiation is depicted below the histogram.





Electronic Appendix 5: Principal Coordinate Analysis diagram of triploid *Discolores* derived from SSR data.



**Electronic Appendix 6.** Pictures of type specimens of selected names in the *Rubus montanus* group.

Lectotype of *Rubus bicolor* Opiz (Hinter Selč, Ph. M. Opiz, 11 VII 1852, PR) (photo: M. Oulehlová)





Isotype of *R. macromontanus* (H. E. Weber) Vannerom (Vamberk, J. Holub, 12 VIII 1985, PRA – the holotype specimen in HBG was not accessible) (photo: J. Štěpánek)

Part 1













A. VAN DE BEEK - UTRECHT  
RUBI REVISI

Rubus *montanus* Libert ex Lej.  
HOLOTYPE

Dat 14-6 1974

Herbarium of the University of Utrecht  
25-9-1941  
52

Rubus a. Montanus L. f. canescens De Cand. Catal.  
Rubus a. Montanus L. f. canescens De Cand. Catal.

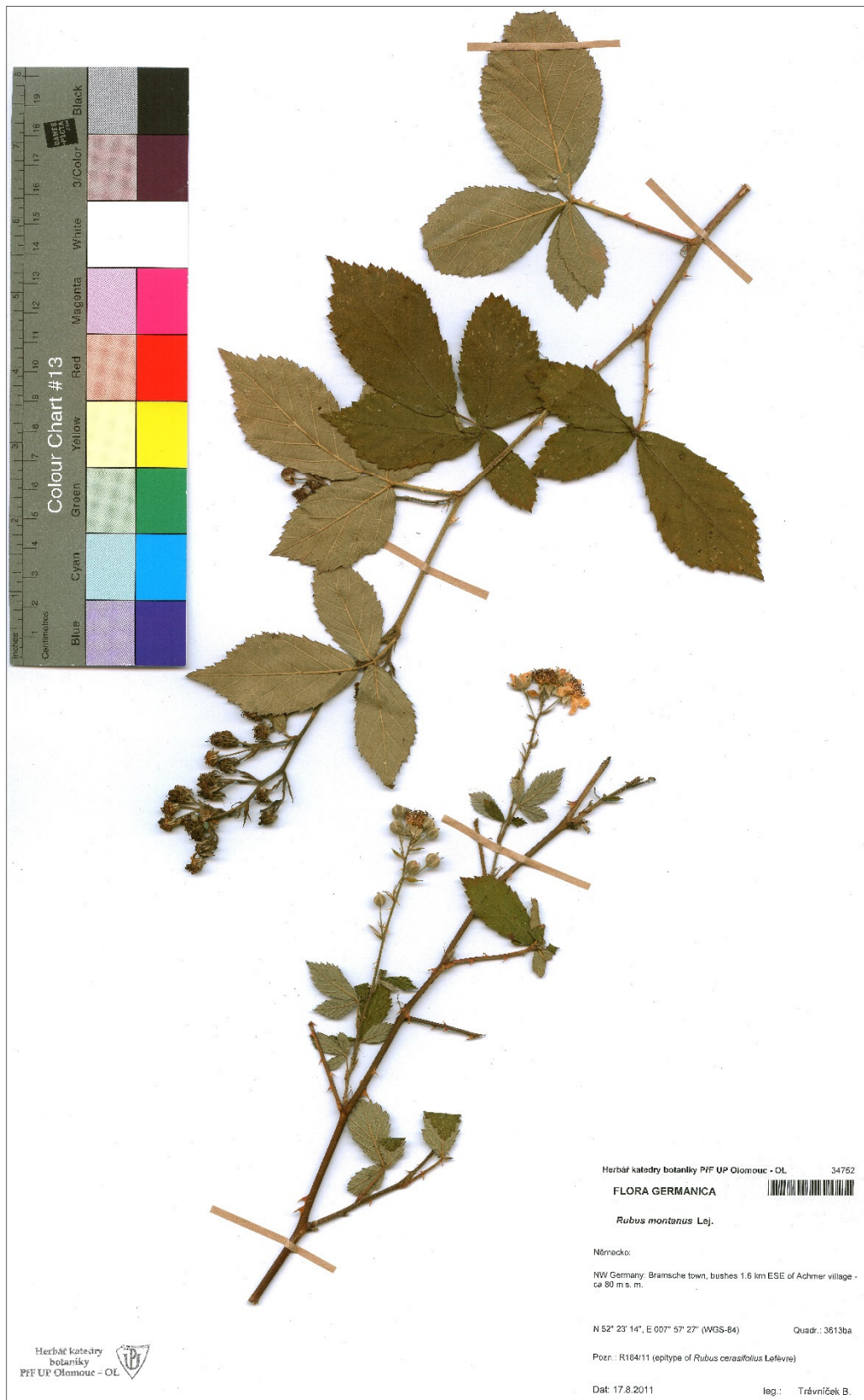


Epitype of *R. cerasifolius* Lefèvre 1851 (NW Germany, Brämsche, B. Trávníček, 17 VIII 2011, OL 34752) (photo: M. Oulehlová)

Part 1



Part 2



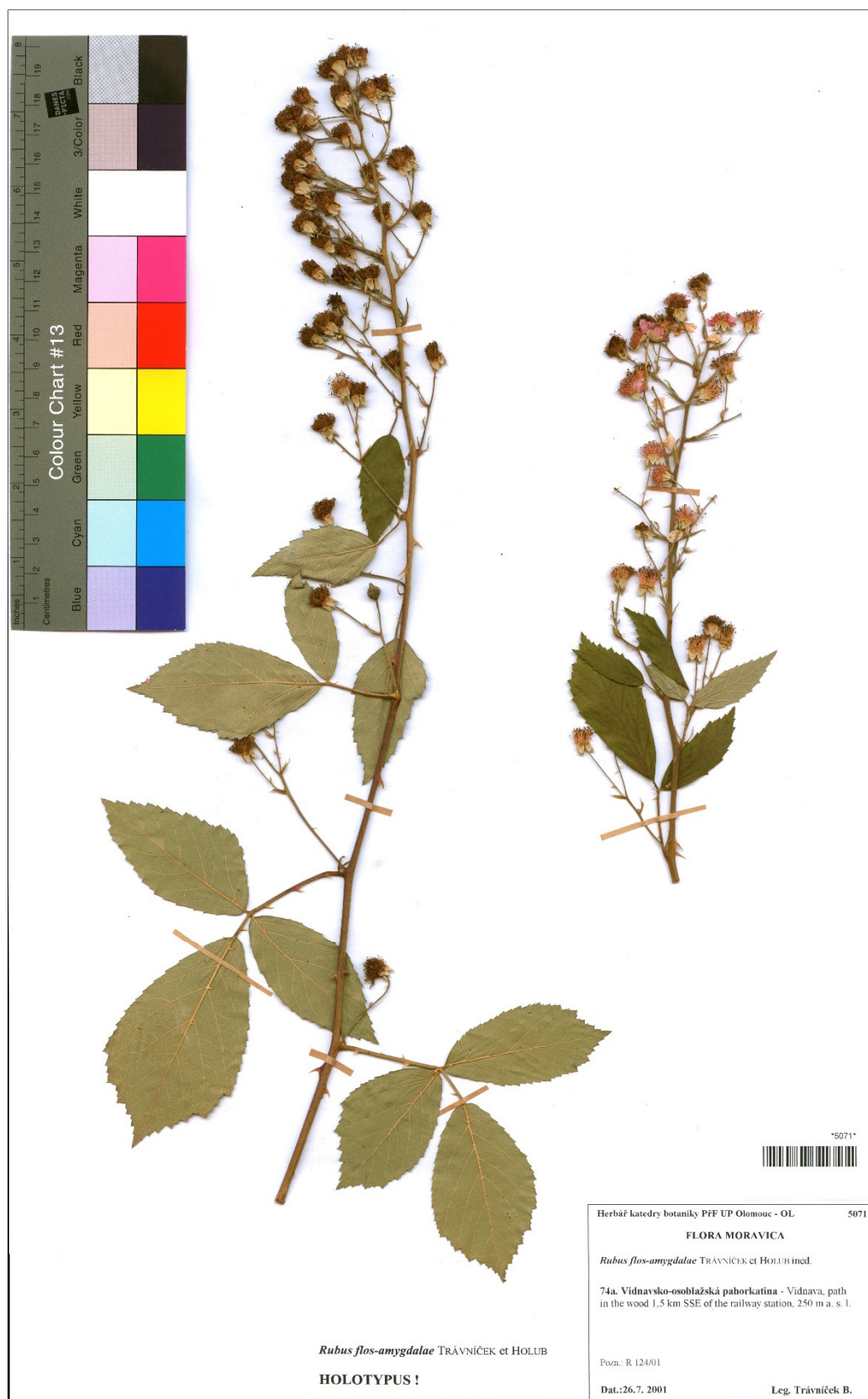


Part 3



Holotype of *R. flos-amygdalae* Trávn. & Holub (Vidnava, B. Trávníček, 26 VII 2001, OL 5071) (photo: M. Oulehlová)

Part 1





Part 2



Lectotype of *R. roseolus* P. J. Müll. ex Boulay (Forêt de Saint-Gorgon, près de Rambervillers, N. Boulay, 27 VI 1865, P 01817212) (source: <https://science.mnhn.fr/institution/mnhn/collection/p/item/p01817212>)





Lectotype of *Rubus velutinus* Vest ex Tratt. (s. loc., Ch. Vest, s. d., WU) (photo: G. Király)



Epitype of *Rubus velutinus* Vest ex Tratt. (Styria, Steiersberg-Pirka, B. Trávníček, 17 VIII 2011, OL 34752) (photo: M. Oulehlová)

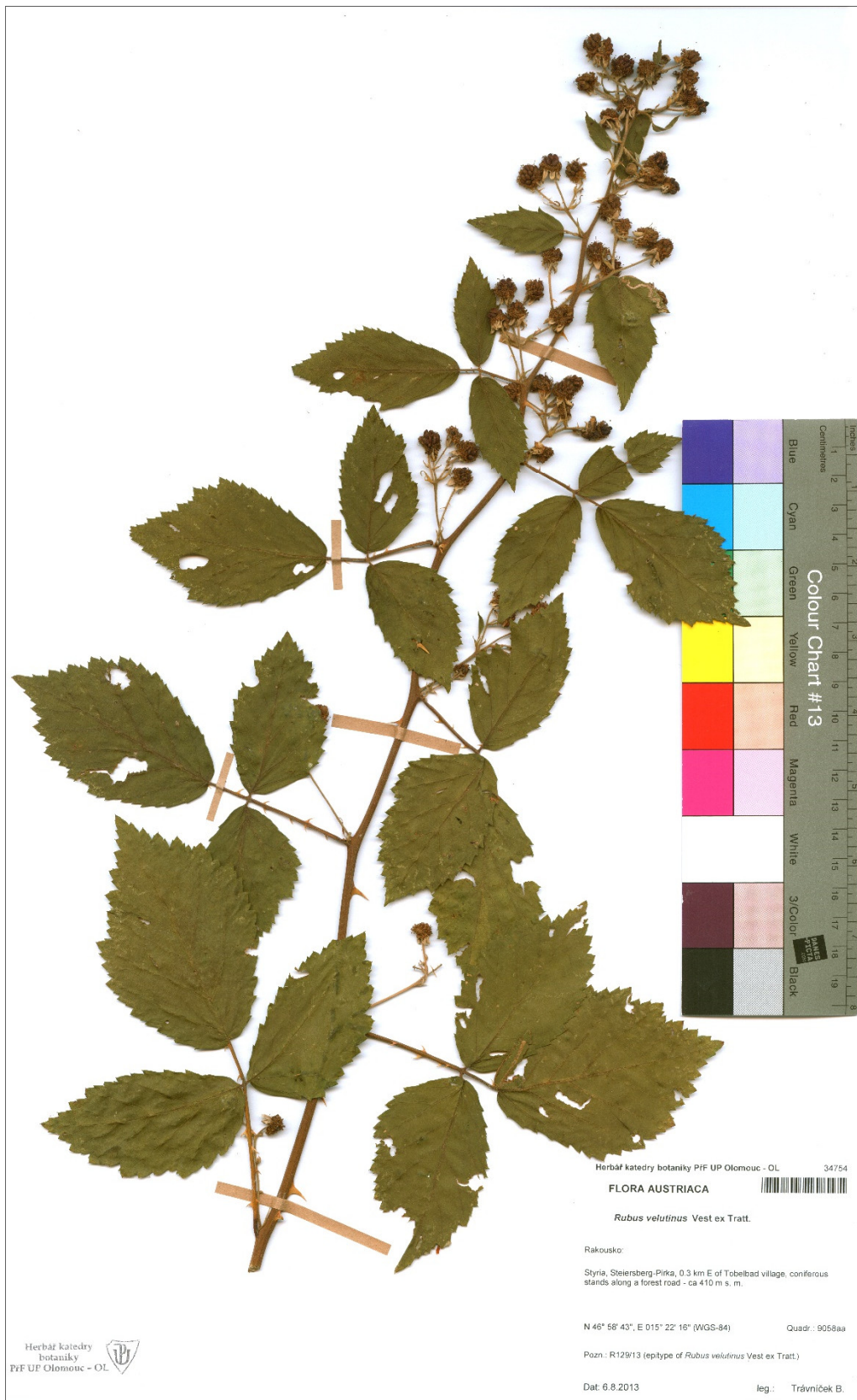
## Part 1





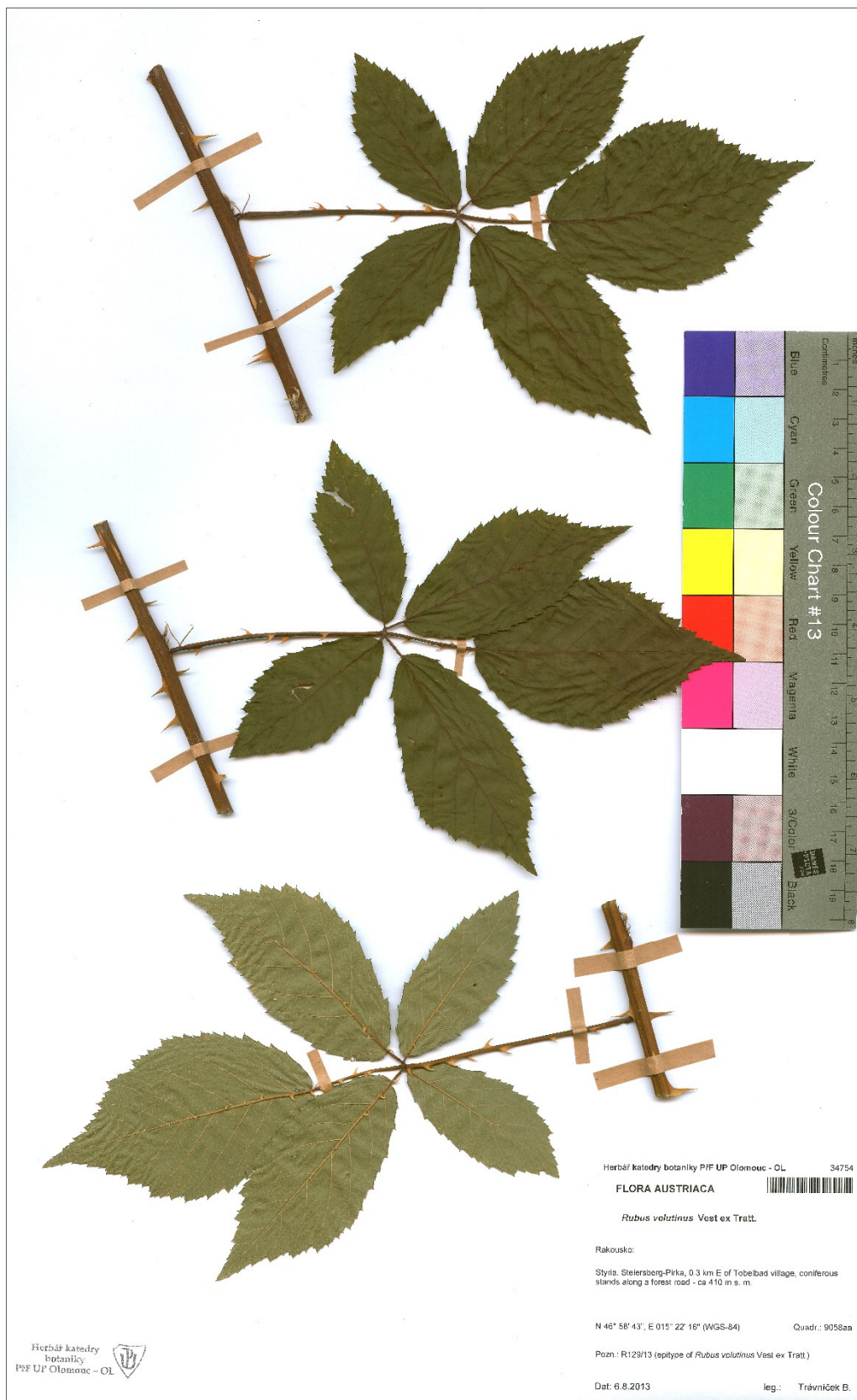
## Part 2



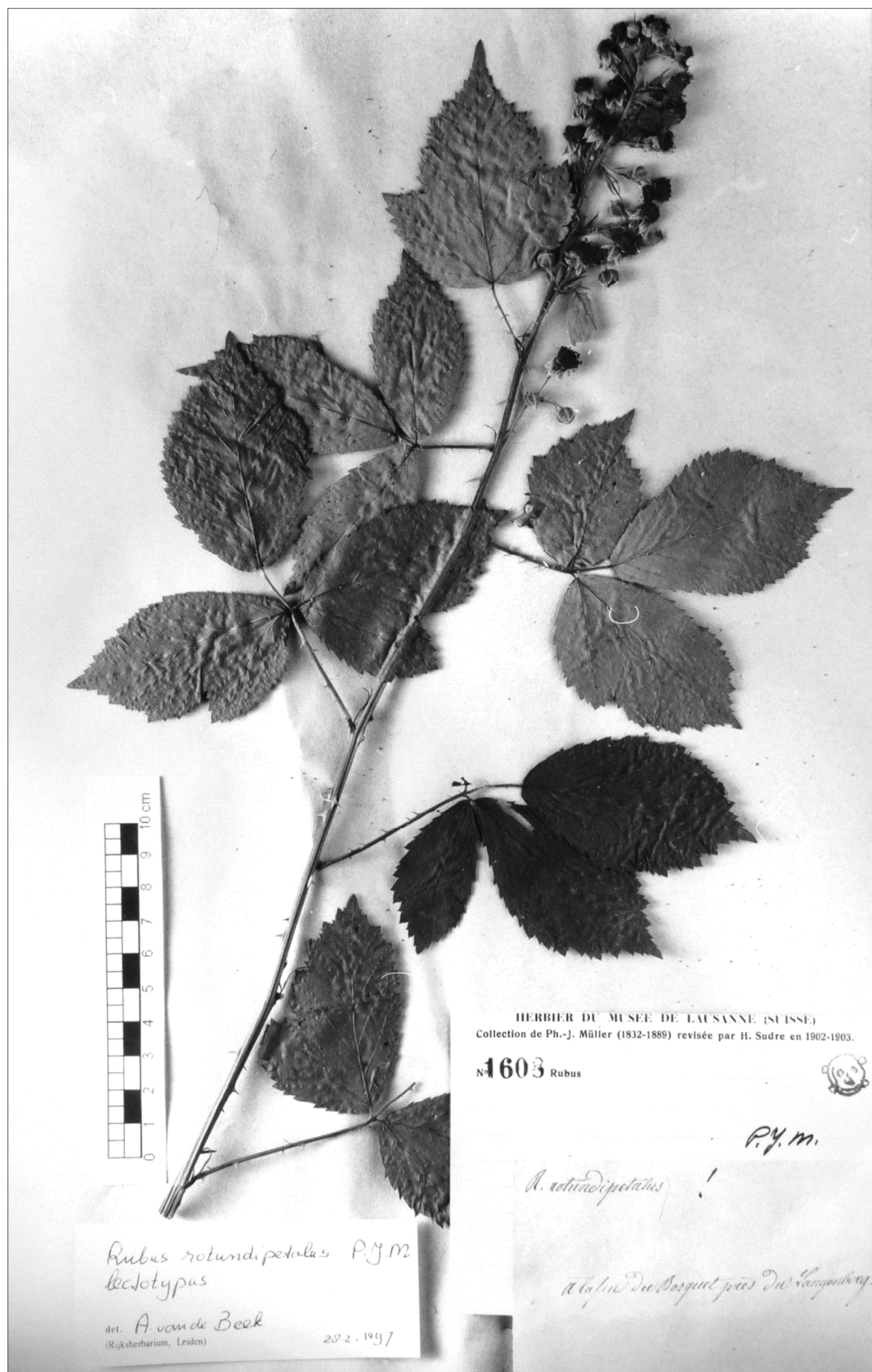




Part 4



Lectotype of *R. rotundipetalus* P. J. Müll. ("à la fin du Bosquet du Langenberg", Ph. J. Müller, 28 VII 1858, Müller 6108 in LAU) (photo: G. Matzke-Hajek)





## Electronic Appendix 7. Photographs of living specimens.

*Rubus bicolor* Opiz – first year stem with leaves (above: Austria, Lower Austria, Klement, 2016; below: NE France, Climbach, 2013, photo: G. Király)





*Rubus bicolor* Opiz – first year stem with leaves (Czech Republic, Bohemia, Vysoká Pec, 2014, photo: M. Sochor)





*Rubus bicolor* Opiz – first year stem (NE France, Climbach, 2013, photo: G. Király)





*Rubus bicolor* Opiz – inflorescence (above: NW Hungary, Újkér 2014, photo: G. Király),  
infructescence (below: NE France, Climbach, 2013, photo: B. Trávníček)





*Rubus bicolor* Opiz – part of inflorescence (SW Hungary, Nagykapornak, 2014, photo: G. Király)





*Rubus montanus* Lib. ex Lej. – first year stem with leaves (Austria, Vorarlberg, Schlins, 2014, photo: G. Király)





*Rubus montanus* Lib. ex Lej. – first year stem with leaves (Czech Republic, Moravia, Hradčany, 2013, photo: B. Trávníček)





*Rubus montanus* Lib. ex Lej. – first year stem (Austria, Vorarlberg, Schlins, 2014, photo: G. Király)





*Rubus montanus* Lib. ex Lej. – part of inflorescence (above: Czech Republic, Bohemia, Vysoká Pec, 2014, photo: M. Sochor; below: NW Hungary, Újkér, 2014, photo: G. Király)





*Rubus montanus* Lib. ex Lej. – infructescence (above: Czech Republic, Bohemia; Rejkovice, 2013, photo: B. Trávníček; below: Austria, Lower Austria, Klement, 2016, photo: G. Király)





*Rubus velutinus* Vest ex Tratt. – first year stem with leaves (Czech Republic, Bohemia, Hráz, 2013, photo above: G. Király; below: B. Trávníček)





*Rubus velutinus* Vest ex Tratt. – first year stem (above: with leaves, Germany, Rhineland-Palatinate, Bobenthal, 2013, below: Czech Republic, Bohemia, Hráz, 2013, photo: B. Trávníček)





*Rubus velutinus* Vest ex Tratt. – infructescences (Czech Republic, Bohemia, Hráz, 2013, photo above: G. Király; below: B. Trávníček)





*Rubus velutinus* Vest ex Tratt. – part of inflorescence/infrutescence (Slovenia, Istria, Pregarje, 2015, photo: W. Rottensteiner)

