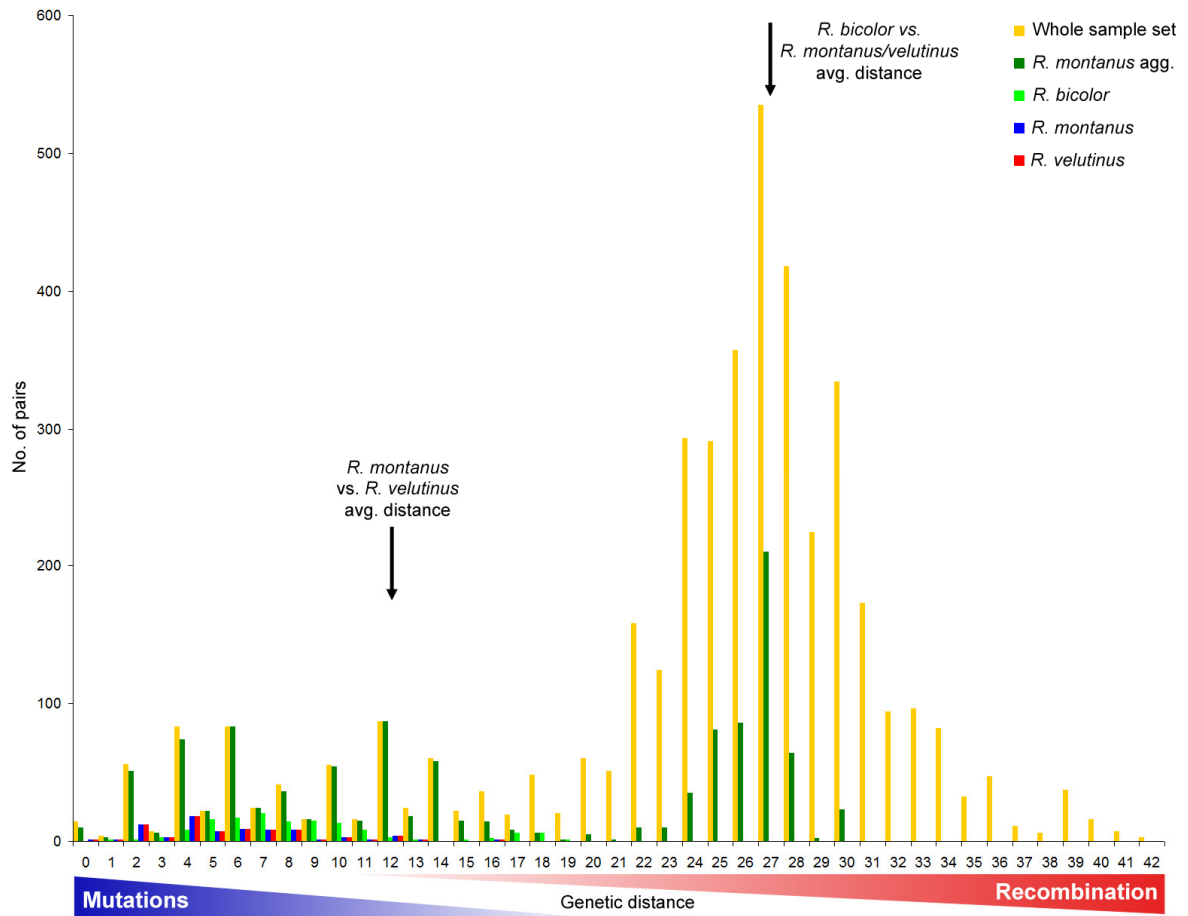


Király G., Sochor M. & Trávníček B. (2017): Reopening an old chapter: a revised taxonomic and evolutionary concept of the *Rubus montanus* group. – Preslia 89: 309–331

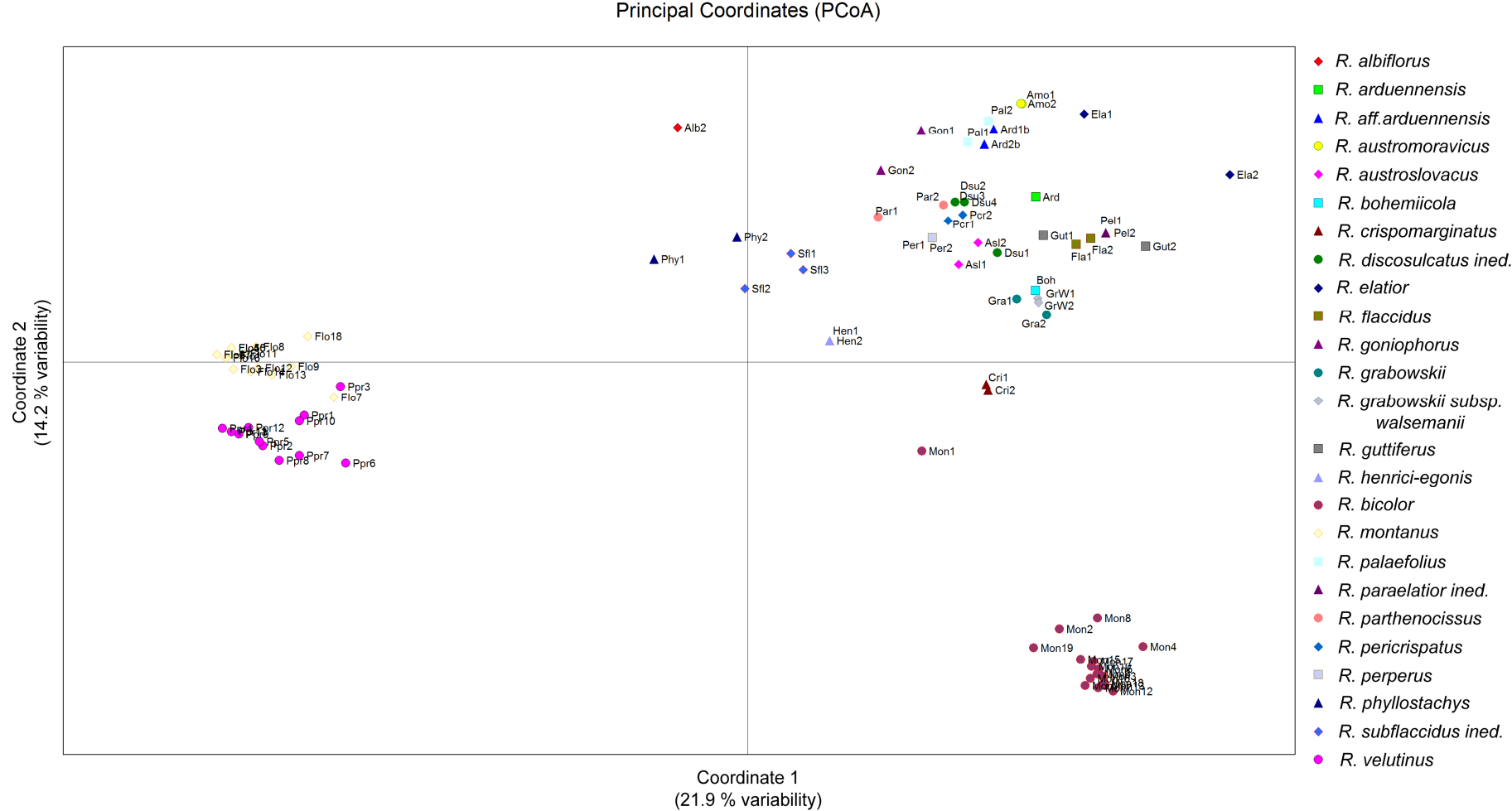
Electronic Appendix 3: Microsatellite loci used in the study with primer sequences, annealing temperature and number of PCR cycles used, number of detected alleles and expected heterozygosity in the whole sample set. F primers of loci analyzed fluorescently were supplemented by M13 tail at their 5' end (TGAAAACGACGCCAGT). * 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	GGAACCTTGGAGCCACCTAC	TCGGCAGGTTATTCATTGT	62.3	29	Graham et al. (2004)	9	0.756
SSR14	RubPara_SQ005_K23	(M13)-AGGTGAGGTGGGAGATGATG	ATCCTCGGTTCTCCAAAT	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







Lectotype of *Rubus montanus* Lib. ex Lej. (Bois en Goudoufat, M.-A. Libert, s.d., BR)
(photo: B. A. van de Beek)

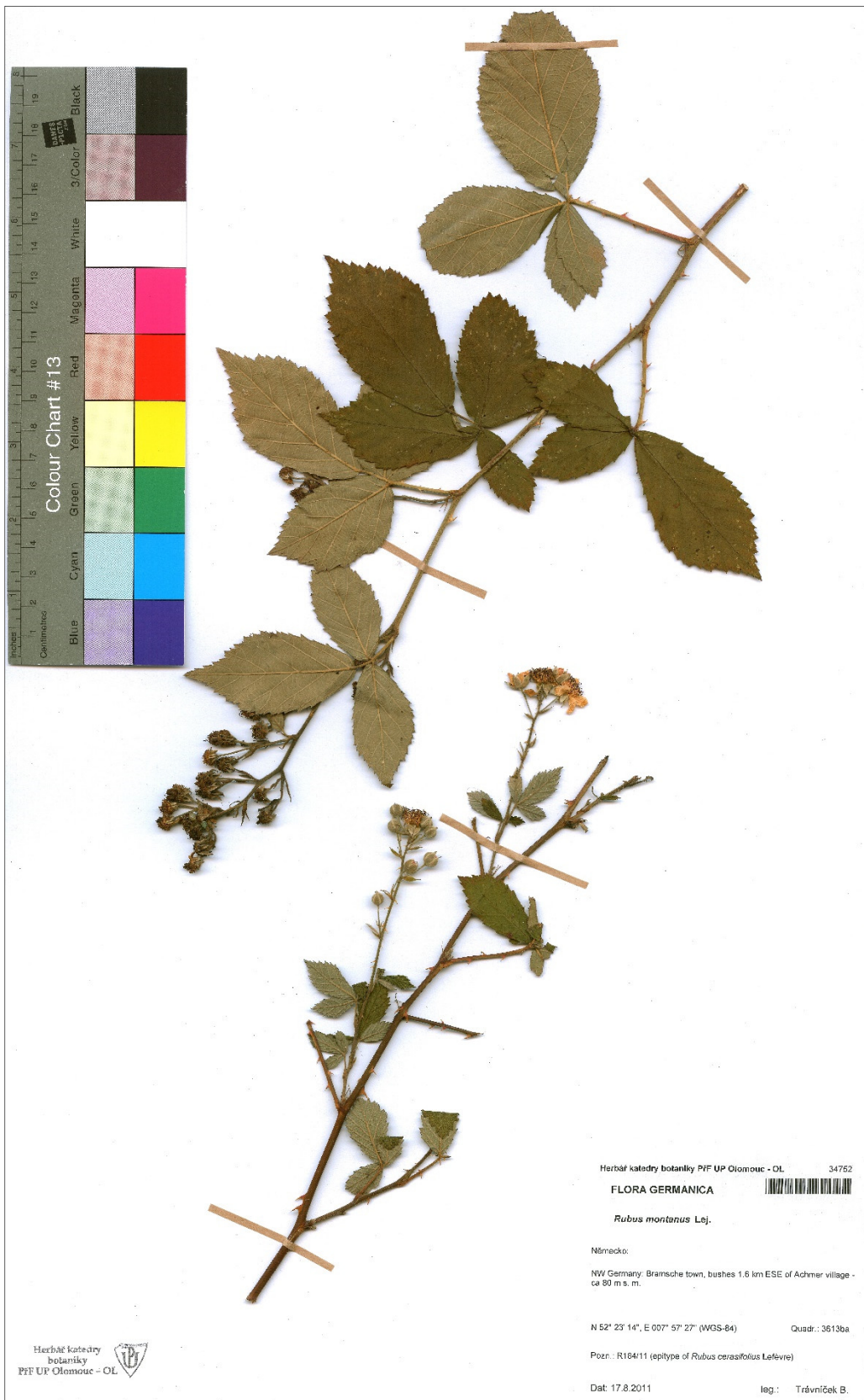


Epitype of *R. cerasifolius* Lefèvre 1851 (NW Germany, Bramsche, B. Trávniček, 17 VIII 2011, OL 34752) (photo: M. Oulehlová)

Part 1



Part 2



Herbář katedry botaniky PFF UP Olomouc - OL 34752

FLORA GERMANICA



Rubus montanus Lej.

Názevko:

NW Germany, Bransche town, bushes 1.6 km ESE of Achmer village -
ca 80 m s. m.

N 52° 23' 14", E 007° 57' 27" (WGS-84)

Quadr.: 3613ba

Pozn.: R164111 (epitype of *Rubus cerasifolius* Lefevre)

Dat: 17.8.2011

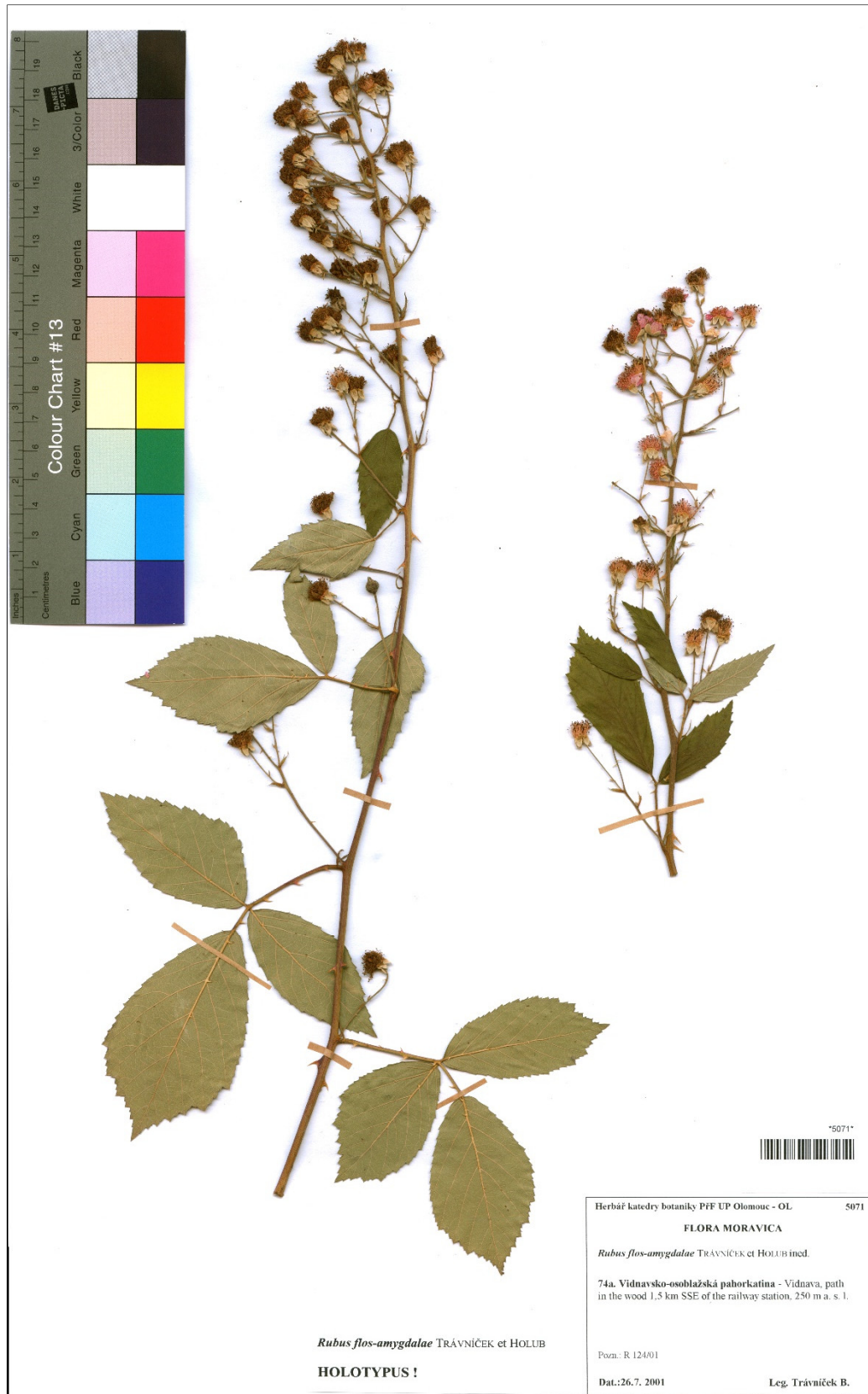
leg.: Trávníček B.





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

Part 1



Herbář katedry botaniky PFF UP Olomouc - OL 5071
FLORA MORAVICA
Rubus flos-amygdalae TRÁVNÍČEK et HOLUB ined.
74a. Vidnavsko-osoblazská pahorkatina - Vidnava, path
in the wood 1.5 km SSE of the railway station, 250 m a. s. l.
Pozn.: B 124/01
Dat.: 26.7. 2001 Leg. Trávníček B.

Rubus flos-amygdalae TRÁVNÍČEK et HOLUB
HOLOTYPUS !



Rubus flos-amygdalae TRÁVNÍČEK et HOLUB

HOLOTYPUS !

Herbář katedry botaniky PFF UP Olomouc - OL 5071

FLORA MORAVICA

Rubus flos-amygdalae TRÁVNÍČEK et HOLUB ined.

74a. Vidnavsko-osoblažská pahorkatina - Vidnava, path
in the wood 1,5 km SSE of the railway station, 250 m a. s. l.

Pozn.: R 124/01

Dat.: 26.7. 2001

Leg. Trávníček B.

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>)



L'ABBÉ BOULAY. — *Ronces vosgiennes.*

22. *RUBUS ROSEOLUS* P. J. Müll. in *Boupl.*
1861, p. 509. *R. phyllostachys*, forma *angustifolia*,
Ronc. vosg. n° 4 bis.

Forêt de Saint-Gorgon, près de Rambervillers;
lairières. Grès bigarré; sol arénacé, caillouteux.
Expos. nord. Alt. 530 m.
Fl. le 27 juin, fr. le 10 août 1865.

Herbier Muséum Paris
P01817212
HERBARIUM MUSEI PARIENSIS

TYPE
de *Rubus roseolus* Muller
det. M. Royer 17/11/2010 4/3

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

Part 1



Part 2



Herbář katedry botaniky PFF UP Olomouc - OL 34754

FLORA AUSTRIACA



Rubus velutinus Vest ex Tratt.

Rakousko:

Styria, Steiersberg-Pirka, 0,3 km E of Tobelbad village, coniferous
stanis along a forest road - ca 410 m s. m.

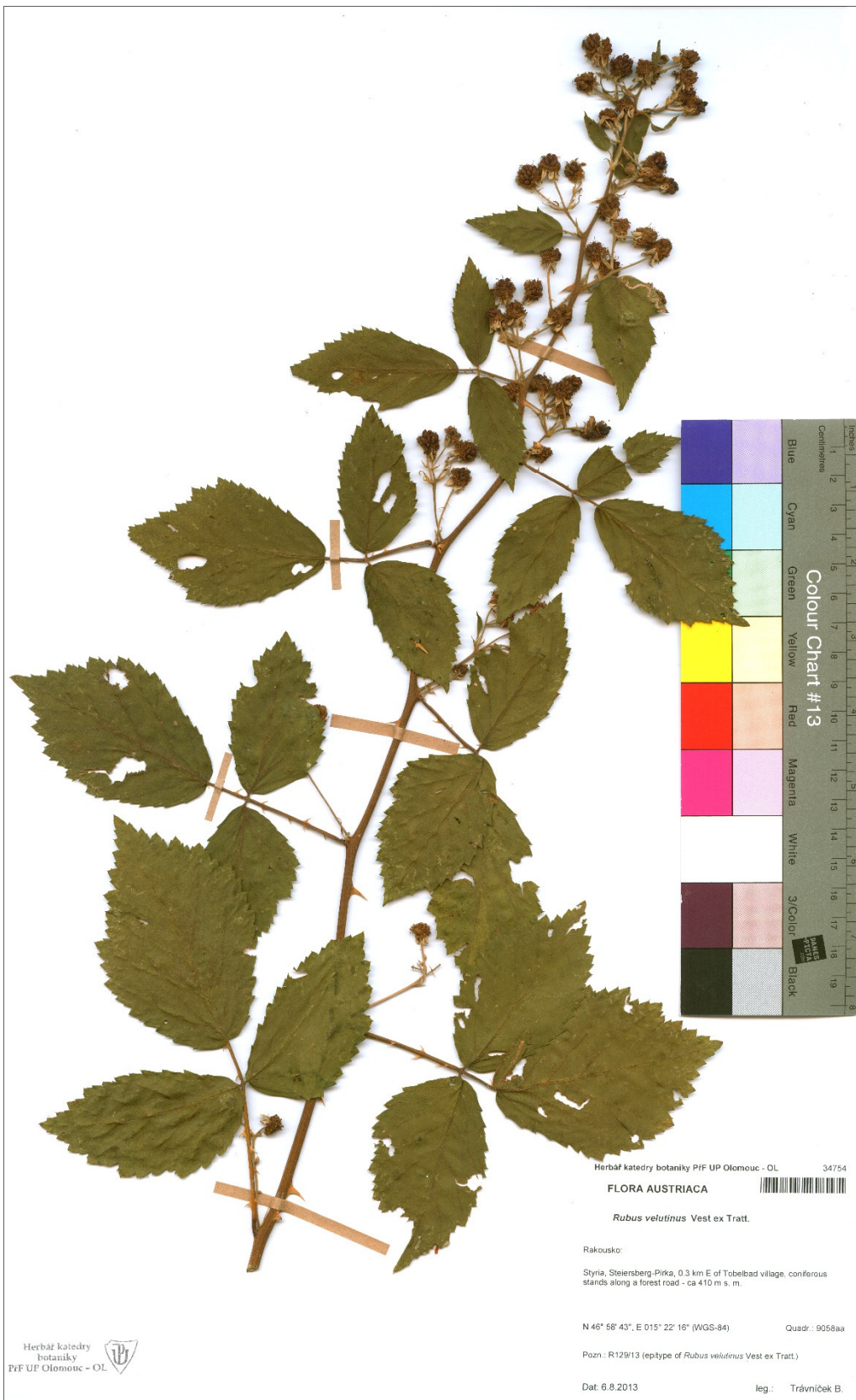
N 46° 58' 43", E 015° 22' 18" (WGS-84)

Quadr.: 9058aa

Pozn.: R129/13 (epitype of *Rubus velutinus* Vest ex Tratt.)

Dat.: 6.8.2013

leg.: Trávníček B.



Herbář katedry botaniky PFF UP Olomouc - OL 34754

FLORA AUSTRIACA



Rubus velutinus Vest ex Tratt.

Rakousko:

Styria, Steiersberg-Pirka, 0.3 km E of Tobelbad village, coniferous stands along a forest road - ca 410 m s. m.

N 46° 58' 43", E 015° 22' 16" (WGS-84)

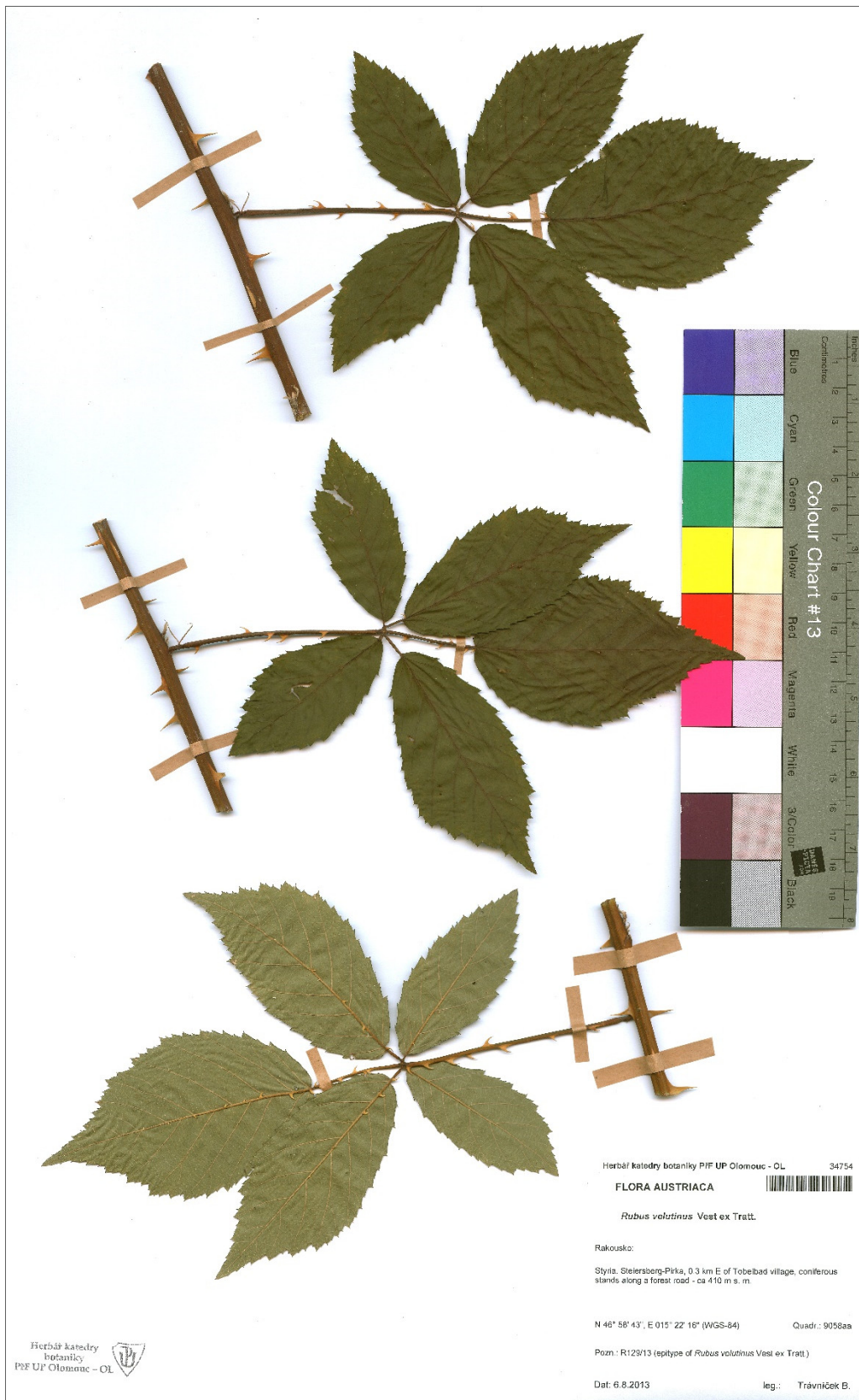
Quadr.: 9058aa

Pozn.: R129/13 (epitype of *Rubus velutinus* Vest ex Tratt.)

Dat.: 6.8.2013

leg.: Trávniček B.





Herbář katedry botaniky P.F. UP Olomouc - OL 34754

FLORA AUSTRIACA



Rubus volutinus Vest ex Tratt.

Rakousko:

Styria, Sielersberg-Pirka, 0.3 km E of Tobečad village, coniferous stands along a forest road - ca 410 m s. m.

N 46° 58' 43", E 015° 22' 16" (WGS-84)

Quadr.: 9058aa

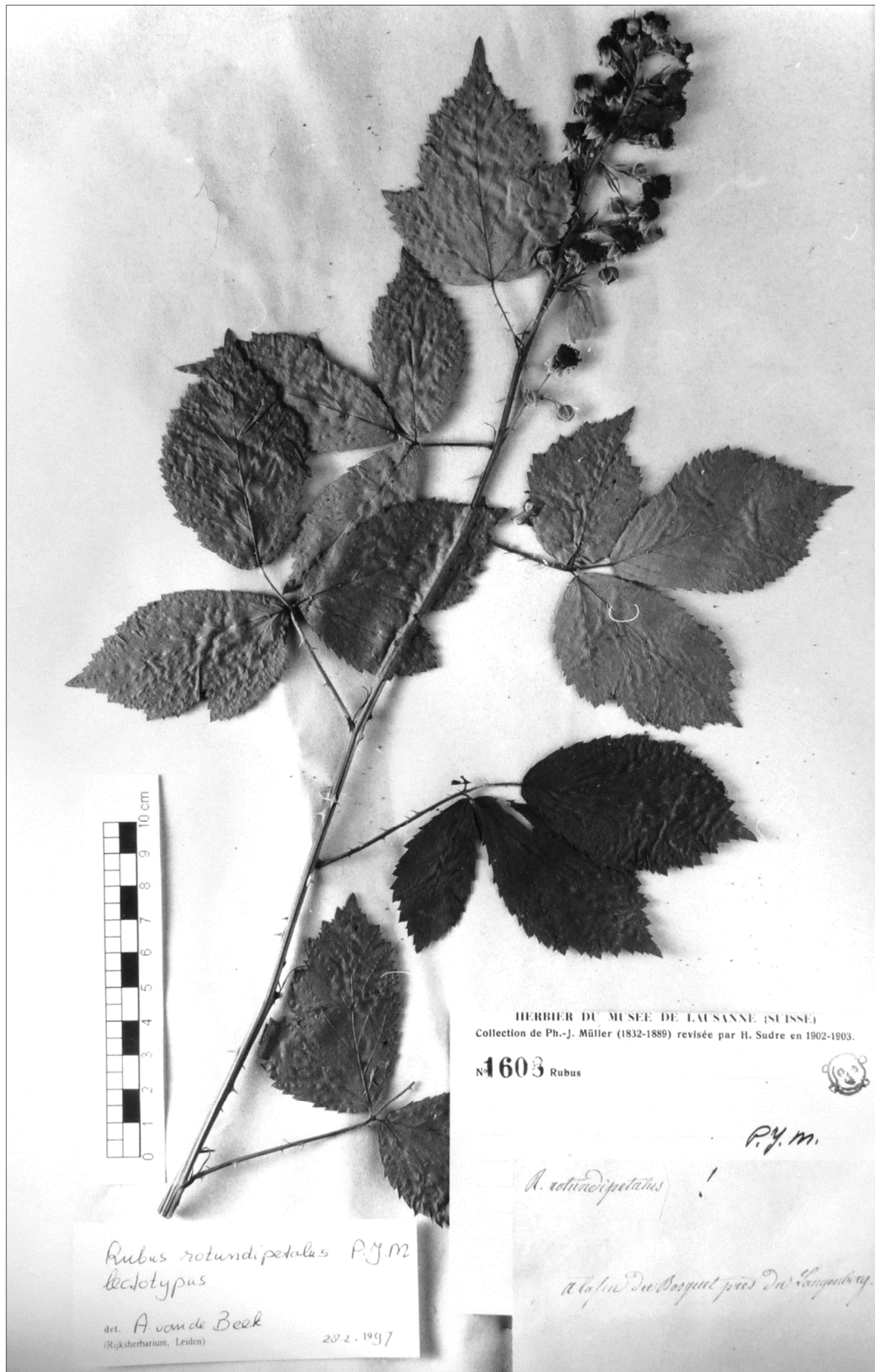
Pozn.: R129/13 (epitype of *Rubus volutinus* Vest ex Tratt.)

Dat: 6.8.2013

leg.: Trávníček B.



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)



Rubus rotundipetalus P.J.M.
lectotypus

det. A. van de Beek
(Rijksherbarium, Leiden)

20.2.1997

HERBIER DU MUSEE DE LAUSANNE (SUISSE)
Collection de Ph.-J. Müller (1832-1889) révisée par H. Sudre en 1902-1903.

N°1603 Rubus



P.J.M.

R. rotundipetalus !

à la fin du Bosquet près du Langenberg

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)

