

**Supplementary Table S1.** – Locality details of populations of *Sorbus* subgen. *Aria* included in analyses. Country abbreviations: AT = Austria, CZ = Czech Republic, HU = Hungary, SK = Slovakia.

Taxon	Number of individuals analysed	Country (abbr.)	Locality (district, town or village – detailed localization)	Geographic coordinates (WGS-84)	Altitude (m a.s.l.)	Sampling date	Collector
<i>S. aff. cucullifera</i>	1	SK	Senica, Plavecký Peter – Hradisko hill	48°31'45.7"N, 17°20'24.6"E	260	1 IX 2015	JV
<i>S. aff. cucullifera</i>	1	SK	Senica, Plavecký Peter – Hradisko hill	48°31'45.5"N, 17°20'22.6"E	260	8 VI 2016	JV
<i>S. aff. cucullifera</i>	1	SK	Senica, Plavecký Peter – Ježovka hill	48°32'02.4"N, 17°21'14.0"E	300	6 VI 2017	JV
<i>S. aff. cucullifera</i>	5	SK	Senica, Plavecký Peter – Hradisko hill	48°31'45.9"N, 17°20'22.2"E	260	6 VI 2017	JV
<i>S. aria</i>	1	SK	Senica, Rozbehy – grove W of Trnkový vrch hill	48°33'44.6"N, 17°23'16.3"E	450	1 IX 2015	JV
<i>S. aria</i>	1	SK	Senica, Plavecký Peter – Skalka hill	48°31'36.3"N, 17°19'51.9"E	360	1 IX 2015	JV
<i>S. aria</i>	1	SK	Senica, Plavecký Peter – Klenie hill	48°31'26.8"N, 17°20'20.0"E	430	1 IX 2015	JV
<i>S. aria</i>	1	SK	Malacky, Sološnica – Malá Vápenná hill	48°27'20.7"N, 17°15'10.1"E	430	1 IX 2015	JV
<i>S. aria</i>	1	SK	Malacky, Sološnica – Vápenná mountain	48°27'36.1"N, 17°16'25.9"E	700	1 IX 2015	JV
<i>S. aria</i>	1	SK	Nové Mesto nad Váhom, Vad’ovce – scrub at the edge of wood	48°44'11.6"N, 17°43'51.5"E	270	3 IX 2015	JV
<i>S. aria</i>	1	SK	Senica, Plavecký Peter – Hradisko hill	48°31'46.3"N, 17°20'20.3"E	270	8 VI 2016	JV
<i>S. aria</i>	1	SK	Malacky, Sološnica – Čertova dolina gorge	48°28'10.0"N, 17°16'23.9"E	480	9 VI 2016	JV

<i>S. aria</i>	1	AT	Bruck an der Leitha, Hainburg an der Donau – Hundsheimer Berg hill	– 48°08'02.7"N, 16°55'53.9"E	350	3 VI 2017	JV
<i>S. aria</i>	3	SK	Trnava, Horné Orešany – Holý vrch hill	48°27'42.8"N, 17°25'36.1"E	270	5 VI 2017	JV
<i>S. aria</i>	5	SK	Trnava, Smolenice – rock above Hlbočianska dolina gorge	48°30'41.1"N, 17°25'13.5"E	320	6 VI 2017	JV
<i>S. aria</i>	1	SK	Senica, Plavecký Peter – Ježovka hill	48°32'03.9"N, 17°21'13.8"E	310	6 VI 2017	JV
<i>S. aria</i>	1	AT	Bruck an der Leitha, Hainburg an der Donau – Pfaffenberghill	48°07'46.5"N, 16°55'30.8"E	300	9 V 2018	JV, ML
<i>S. aria</i>	1	SK	Malacky, Kuchyňa – Pristodolok hill	48°24'52.7"N, 17°11'57.7"E	520	10 V 2018	JV, ML
<i>S. aria</i>	1	SK	Malacky, Kuchyňa – Vysoká mountain	48°24'58.0"N, 17°13'01.6"E	710	10 V 2018	JV, ML
<i>S. aria</i>	1	SK	Malacky, Kuchyňa – Taricové skaly rocks	48°25'17.5"N, 17°14'19.9"E	590	11 V 2018	JV, ML
<i>S. aria</i>	1	SK	Malacky, Plavecké Podhradie – Pohanská hill	48°29'18.4"N, 17°16'07.9"E	410	30 VIII 2018	JV, ML
<i>S. aria</i>	1	SK	Pezinok, Doľany – Jelenec hill	48°25'42.9"N, 17°17'03.6"E	500	10 V 2019	JV, ML
<i>S. aria</i>	1	SK	Pezinok, Doľany – Dlhý vrch hill	48°27'28.5"N, 17°19'01.8"E	440	10 V 2019	JV, ML
<i>S. aria</i>	1	SK	Malacky, Plavecké Podhradie – Kamenné hill	48°28'35.2"N, 17°17'09.3"E	450	11 V 2019	JV, ML
<i>S. aria</i> agg. 3x	1	SK	Malacky, Kuchyňa – Bačkorová hill	48°23'30.7"N, 17°10'20.1"E	410	29 VIII 2018	ML, PL
<i>S. aria</i> agg. 3x	1	SK	Bratislava IV, Devín – Fialková dolina gorge	48°10'08.4"N, 17°00'21.3"E	250	2 VI 2017	JV
<i>S. aria</i> agg. 3x	1	SK	Bratislava IV, Devín – Fialková dolina gorge	48°09'50.8"N, 17°00'16.3"E	230	2 VI 2017	JV
<i>S. aria</i> agg. 3x	1	AT	Bruck an der Leitha, Hainburg an der Donau – Hundsheimer Berg hill	– 48°08'02.1"N, 16°55'52.5"E	340	3 VI 2017	JV
<i>S. aria</i> agg. 3x	1	AT	Bruck an der Leitha, Hainburg an der Donau – Hundsheimer Berg hill	– 48°07'57.7"N, 16°56'18.4"E	480	3 VI 2017	JV

<i>S. aria</i> agg. 3x	1	AT	Bruck an der Leitha, Hainburg an der Donau – Hundsheimer Berg hill	– 48°08'11.0"N, 16°56'10.9"E	420	3 VI 2017	JV
<i>S. aria</i> agg. 3x	1	AT	Bruck an der Leitha, Hainburg an der Donau – Pfaffenberg hill	48°07'47.3"N, 16°55'31.9"E	300	9 V 2018	JV, ML
<i>S. aria</i> agg. 3x	1	AT	Bruck an der Leitha, Hainburg an der Donau – Pfaffenberg hill	48°07'47.3"N, 16°55'31.4"E	300	9 V 2018	JV, ML
<i>S. aria</i> agg. 3x	1	AT	Bruck an der Leitha, Hainburg an der Donau – Pfaffenberg hill	48°07'46.5"N, 16°55'30.8"E	300	9 V 2018	JV, ML
<i>S. aria</i> agg. 3x	1	AT	Bruck an der Leitha, Hainburg an der Donau – Pfaffenberg hill	48°08'04.2"N, 16°55'24.2"E	260	9 V 2018	JV, ML
<i>S. aria</i> agg. 3x	1	SK	Malacky, Kuchyňa – Vysoká mountain	48°25'16.4"N, 17°13'26.6"E	670	11 V 2018	JV, ML
<i>S. aria</i> agg. 3x	1	SK	Malacky, Kuchyňa – Vysoká mountain	48°25'16.1"N, 17°13'26.8"E	670	11 V 2018	JV, ML
<i>S. aria</i> agg. 3x	1	SK	Pezinok, Doľany – Dlhý vrch hill	48°27'26.6"N, 17°18'58.1"E	430	10 V 2019	JV, ML
<i>S. aria</i> agg. 3x	1	SK	Pezinok, Doľany – Dlhý vrch hill	48°27'27.4"N, 17°19'00.5"E	440	10 V 2019	JV, ML
<i>S. aria</i> agg. 4x	1	SK	Bratislava IV, Devín – Fialková dolina gorge	48°10'08.6"N, 17°00'21.7"E	250	2 VI 2017	JV
<i>S. aria</i> agg. 4x	1	AT	Bruck an der Leitha, Hainburg an der Donau – Pfaffenberg hill	48°07'47.4"N, 16°55'32.1"E	300	9 V 2018	JV, ML
<i>S. aria</i> agg. 4x	1	AT	Bruck an der Leitha, Hainburg an der Donau – Pfaffenberg hill	48°07'47.5"N, 16°55'31.3"E	300	8 V 2018	JV, ML
<i>S. collina</i>	2	CZ	Litoměřice, Velemín – summit of Ostrý hill	50°31'54.3"N, 13°57'04.2"E	540	8 VII 2013, 8 VI JN 2014	
<i>S. collina</i>	2	CZ	Litoměřice, Velemín – W slopes of Milešovka hill	50°33'16.7"N, 13°55'47.9"E	780	24 VI 2014 JN	
<i>S. collina</i>	2	CZ	Benešov, Rabyně – W slopes of Střeblov hill	49°48'56.1"N, 14°26'38.2"E	360	21 IX 2014 JN	
<i>S. collina</i>	2	CZ	Rakovník, Zbečno – Berounka valley, cliffs above town	50°02'36.1"N, 13°55'36.8"E	390	10 IX 2014 JN	

<i>S. collina</i>	2	CZ	Beroun, Srbsko – the upper edge of the Císařská rokle gorge, above the W slope	49°55'42.7"N, 14°07'47.6"E	340	16 2013	VII	JN
<i>S. collina</i>	5	HU	Bicske, Csákvár – Vértes Mts, Nagy-Vasar hegysége	47°25'45.7"N, 18°24'50.2"E	390	18 2011	VII	ML
<i>S. collina</i>	1	HU	Bicske, Csákvár – Vértes Mts, Szedres völgy	47°22'48.8"N, 18°19'41.9"E	360	19 2011	VII	ML
<i>S. collina</i>	2	HU	Várpalota, Várpalota – Bakony Mts, N of town	47°13'14.9"N, 18°06'37.8"E	300	19 2011	VII	ML
<i>S. collina</i>	1	HU	Veszprém, Márkó – Malom hegysége	47°06'38.7"N, 17°48'59.8"E	310	20 2011	VII	ML
<i>S. collina</i>	1	AT	Bruck an der Leitha, Hainburg an der Donau – Hundsheimer Berg hill	– 48°08'03.0"N, 16°55'54.3"E	350	3 VI	2017	JV
<i>S. collina</i>	1	AT	Bruck an der Leitha, Hainburg an der Donau – Hundsheimer Berg hill	– 48°08'19.2"N, 16°56'10.8"E	380	3 VI	2017	JV
<i>S. collina</i>	1	AT	Bruck an der Leitha, Hainburg an der Donau – Hundsheimer Berg hill	– 48°08'21.5"N, 16°56'12.7"E	360	3 VI	2017	JV
<i>S. collina</i>	1	AT	Bruck an der Leitha, Hainburg an der Donau – Pfaffenberg hill	48°07'43.2"N, 16°55'16.3"E	250	9 V	2018	JV, ML
<i>S. collina</i>	2	SK	Bratislava IV, Devínska Nová Ves – Devínska Kobyla hill	48°11'14.7"N, 16°59'33.5"E	470	31 2015	VIII	JV
<i>S. collina</i>	2	SK	Bratislava IV, Devín – Fialková dolina gorge	48°09'49.0"N, 17°00'13.2"E	215	2 VI	2017	JV
<i>S. collina</i>	5	SK	Bratislava IV, Devínska Nová Ves – Devínska Kobyla hill	48°10'53.6"N, 16°59'06.2"E	250	2 VI	2017	JV
<i>S. collina</i>	2	AT	Bruck an der Leitha, Hainburg an der Donau – Braunsberg hill	48°09'10.4"N, 16°57'34.5"E	290	4 2017	VIII	JV, PL, ML
<i>S. collina</i>	1	AT	Bruck an der Leitha, Hundsheim – Spitzerberg hill	48°06'12.1"N, 16°56'55.9"E	220	8 V	2018	JV, ML
<i>S. collina</i>	1	AT	Bruck an der Leitha, Hainburg an der Donau – Pfaffenberg hill	48°07'47.2"N, 16°55'29.9"E	300	9 V	2018	JV, ML
<i>S. danubialis</i>	2	CZ	Litoměřice, Velemín – summit of Ostrý hill	50°31'54.3"N, 13°57'04.2"E	540	8 2013, 8 VI 2014	VII	JN

<i>S. danubialis</i>	2	CZ	Litoměřice, Velemín – W slopes of Milešovka hill	50°33'16.7"N, 13°55'47.9"E	780	24 2014	VI	JN
<i>S. danubialis</i>	2	CZ	Litoměřice, Velemín – W slopes of Boreč hill	50°30'48.3"N, 13°59'14.7"E	410	1 2013,	VII	24 JN VI 2014
<i>S. danubialis</i>	2	CZ	Teplice, Žalany – Dlouhý vrch hill	50°34'16.2"N, 13°54'36.3"E	500	2 VII	2013	JN
<i>S. danubialis</i>	2	CZ	Ústí nad Labem, Nové Stadice – Stadické srázy slopes	50°37'25.9"N, 13°59'55.7"E	280	26 2013	VIII	JN
<i>S. danubialis</i>	1	DE	Neumarkt in der Oberpfalz, Hebersdorf – ca 0.3 km E of centre of village	49°03'50.0"N, 11°33'27.6"E	480	27 2011	VI	ML
<i>S. danubialis</i>	1	DE	Neumarkt in der Oberpfalz, Dietfurt an der Altmühl – ca 1.5 km NW of centre of village	49°02'27.0"N, 11°33'51.2"E	440	27 2011	VI	ML
<i>S. danubialis</i>	1	HU	Bicske, Csákvár – Vértes Mts, Pamlag völgy	47°25'53.3"N, 18°26'10.7"E	400	18 2011	VII	ML
<i>S. danubialis</i>	1	HU	Bicske, Csákvár – Vértes Mts, Szedres völgy	47°22'48.8"N, 18°19'41.9"E	360	19 2011	VII	ML
<i>S. danubialis</i>	1	SK	Bratislava IV, Devín – Fialková dolina gorge	48°09'49.2"N, 17°00'12.7"E	215	2 VI	2017	JV
<i>S. danubialis</i>	1	AT	Bruck an der Leitha, Hainburg an der Donau – Braunsberg hill	48°09'18.4"N, 16°57'06.1"E	280	4 2017	VIII	JV, PL, ML
<i>S. danubialis</i>	1	AT	Bruck an der Leitha, Hundsheim – Steinberg hill	48°05'43.3"N, 16°58'33.4"E	280	8 V	2018	JV, ML
<i>S. danubialis</i>	1	AT	Bruck an der Leitha, Hainburg an der Donau – Pfaffenberge hill	48°07'47.0"N, 16°55'30.1"E	300	9 V	2018	JV, ML
<i>S. petraea</i>	5	SK	Malacky, Kuchaňa – Tri Stôdolky rock ridge	48°25'33.6"N, 17°12'45.7"E	500	10 V	2018	JV, ML
<i>S. petraea</i>	2	SK	Malacky, Kuchyňa – Horný vrch hill	48°25'33.7"N, 17°14'01.5"E	550	11 V	2018	JV, ML
<i>S. petraea</i>	3	SK	Malacky, Kuchyňa – Vysoká mountain	48°25'16.9"N, 17°13'27.6"E	660	11 V	2018	JV, ML
<i>S. petraea</i>	3	SK	Malacky, Kuchaňa – Tri Stôdolky rock ridge	48°25'40.8"N, 17°13'06.3"E	400	11 V	2018	JV, ML

<i>S. petraea</i>	3	SK	Malacky, Kuchyňa – Bartalová hill	48°24'13.3"N, 17°11'16.8"E	360	28 2018	VIII JV, PL	ML,
<i>S. petraea</i>	1	SK	Malacky, Kuchaňa – Tri Stôdolky rock ridge	48°25'34.8"N, 17°12'55.4"E	470	29 2018	VIII JV, PL	ML,
<i>S. petraea</i>	5	SK	Malacky, Plavecký Mikuláš – Čierna skala hill	48°29'57.5"N, 17°20'34.0"E	650	20 2019	VIII JV, ML	