

Supplement 1. Descriptive statistical parameters for measured and derived morphological traits of investigated *Berberis* samples. For abbreviations of populations, see Table 1.

Population	Descriptive parameters				
	Mean	Min	Max	Std. dev.	CV (%)
Number of leaves on short shoot					
Bc_VP	7.29	4.00	15.00	2.01	27.5
Bc_Me	5.03	2.00	10.00	1.84	36.6
Bc_OV	5.57	2.00	11.00	1.74	31.3
Bc_Sa	5.22	3.00	11.00	2.14	41.1
Bc_Cr	5.52	2.00	11.00	2.36	42.7
Bc_Sn	7.69	4.00	20.00	3.40	44.3
Bc_Ka	3.90	3.00	7.00	0.99	25.4
Bc_Bl	5.18	2.00	13.00	1.76	33.9
Bc_Ca	4.76	3.00	11.00	1.38	29.1
Bc_Gr	4.50	2.00	9.00	1.26	27.9
Bv_RP	7.33	5.00	10.00	1.30	17.7
Bv_Sk	8.57	6.00	12.00	1.57	18.3
Bv_CL	6.54	4.00	13.00	1.87	28.5
Bv_Pr	6.53	3.00	13.00	2.54	38.9
Bv_Os	5.47	3.00	9.00	1.55	28.3
Bae_MV	8.90	6.00	12.00	1.75	19.6
Bae_Li	9.90	6.00	15.00	2.02	20.4
Bcre_K	6.95	3.00	16.00	2.69	38.8
Bcre_O	6.25	4.00	12.00	2.27	36.4
Blade length (mm)					
Bc_VP	17.80	8.50	31.00	3.89	21.9
Bc_Me	28.05	7.00	59.00	9.55	34.1
Bc_OV	16.06	5.50	29.00	4.60	28.6
Bc_Sa	12.76	5.00	23.00	3.86	30.2
Bc_Cr	23.24	6.00	43.00	7.51	32.3
Bc_Sn	20.22	6.50	48.00	7.13	35.3
Bc_Ka	12.73	5.00	33.00	5.41	42.5
Bc_Bl	31.27	11.00	79.00	11.60	37.1
Bc_Ca	15.41	5.00	45.50	7.61	49.4
Bc_Gr	16.86	6.00	43.00	5.95	35.3
Bv_RP	40.29	16.00	78.00	13.21	32.8
Bv_Sk	40.43	13.00	67.00	11.80	29.2
Bv_CL	27.88	5.00	56.00	8.60	30.8
Bv_Pr	25.78	7.50	49.00	9.10	35.3
Bv_Os	37.53	13.00	68.00	12.73	33.9

Bae_MV	19.46	7.00	34.00	6.00	30.8
Bae_Li	20.33	9.00	33.00	4.63	22.8
Bcre_K	12.38	4.50	27.00	4.05	32.7
Bcre_O	11.36	5.00	40.50	3.97	34.9
Blade width (mm)					
Bc_VP	10.01	3.50	16.00	2.28	22.8
Bc_Me	17.15	3.50	30.00	4.72	27.5
Bc_OV	7.08	3.00	11.50	1.59	22.5
Bc_Sa	7.85	3.00	16.00	2.82	35.9
Bc_Cr	10.86	3.90	17.00	2.92	26.9
Bc_Sn	9.95	3.00	26.50	3.92	39.4
Bc_Ka	6.56	3.00	19.00	3.17	48.3
Bc_Bl	15.71	5.00	48.00	5.92	37.7
Bc_Ca	8.80	3.00	21.00	4.26	48.4
Bc_Gr	9.67	3.00	26.00	3.52	36.4
Bv_RP	19.74	8.00	35.00	5.39	27.3
Bv_Sk	20.42	7.00	33.00	5.65	27.7
Bv_CL	13.16	3.00	30.00	4.09	31.1
Bv_Pr	11.39	4.00	22.00	3.91	34.4
Bv_Os	19.50	5.50	33.00	5.93	30.4
Bae_MV	8.71	4.00	14.00	1.97	22.6
Bae_Li	9.69	5.00	15.00	1.94	20.0
Bcre_K	4.64	2.50	11.00	1.53	33.0
Bcre_O	4.20	2.50	13.20	1.34	31.9
Blade length/width					
Bc_VP	1.82	1.00	3.43	0.38	21.0
Bc_Me	1.63	0.80	3.43	0.30	18.5
Bc_OV	2.26	1.20	3.58	0.44	19.2
Bc_Sa	1.71	0.71	3.00	0.43	25.5
Bc_Cr	2.14	1.00	3.23	0.37	17.4
Bc_Sn	2.08	1.06	3.17	0.34	16.3
Bc_Ka	2.05	1.00	3.50	0.46	22.3
Bc_Bl	2.02	1.20	3.22	0.37	18.1
Bc_Ca	1.84	0.71	6.67	0.52	28.2
Bc_Gr	1.78	0.95	4.33	0.31	17.5
Bv_RP	2.03	1.19	3.06	0.33	16.2
Bv_Sk	1.99	1.30	2.86	0.32	16.2
Bv_CL	2.14	1.00	4.17	0.37	17.4
Bv_Pr	2.31	1.00	4.46	0.51	22.1
Bv_Os	1.94	0.84	2.91	0.37	19.1
Bae_MV	2.22	1.13	3.43	0.45	20.1
Bae_Li	2.11	1.38	3.00	0.32	15.3
Bcre_K	2.73	1.22	8.40	0.64	23.6
Bcre_O	2.76	0.95	9.64	0.72	26.1
Number of teeth on left side of blade					
Bc_VP	8.41	0.00	28.00	5.36	63.8

Bc_Me	15.97	0.00	34.00	5.93	37.2
Bc_OV	11.06	1.00	18.00	2.78	25.1
Bc_Sa	13.06	2.00	33.00	6.10	46.7
Bc_Cr	17.82	0.00	42.00	8.73	49.0
Bc_Sn	9.87	0.00	30.00	7.18	72.7
Bc_Ka	4.03	0.00	19.00	3.11	77.2
Bc_Bl	13.69	0.00	44.00	8.25	60.3
Bc_Ca	5.92	0.00	19.00	3.99	67.5
Bc_Gr	12.84	0.00	27.00	5.55	43.2
Bv_RP	30.99	3.00	49.00	8.02	25.9
Bv_Sk	31.68	18.00	61.00	7.99	25.2
Bv_CL	20.26	0.00	43.00	8.44	41.7
Bv_Pr	13.65	0.00	31.00	7.29	53.4
Bv_Os	25.81	4.00	47.00	10.24	39.7
Bae_MV	16.05	5.00	30.00	4.37	27.2
Bae_Li	17.41	6.00	27.00	4.69	26.9
Bcre_K	0.11	0.00	5.00	0.53	-
Bcre_O	0.01	0.00	1.00	0.08	-

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Number of teeth on right side of blade

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Bc_VP	8.39	0.00	24.00	5.37	63.0
Bc_Me	16.01	0.00	32.00	5.84	36.5
Bc_OV	11.13	1.00	18.00	2.84	25.5
Bc_Sa	12.81	2.00	51.00	6.38	49.8
Bc_Cr	18.16	2.00	35.00	8.49	46.7
Bc_Sn	10.35	0.00	34.00	7.24	69.0
Bc_Ka	3.94	0.00	17.00	3.11	78.9
Bc_Bl	13.61	0.00	44.00	8.30	60.0
Bc_Ca	5.66	0.00	23.00	4.06	71.6
Bc_Gr	12.61	0.00	26.00	5.54	43.9
Bv_RP	31.29	18.00	59.00	7.94	25.4
Bv_Sk	30.61	4.00	50.00	7.99	26.1
Bv_CL	20.20	0.00	45.00	8.33	41.2
Bv_Pr	13.78	0.00	31.00	7.29	52.9
Bv_Os	25.87	4.00	46.00	10.16	39.3
Bae_MV	15.52	0.00	27.00	4.84	31.2
Bae_Li	17.09	6.00	32.00	4.54	26.6
Bcre_K	0.10	0.00	3.00	0.40	-
Bcre_O	0.01	0.00	1.00	0.08	-

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Length of longest teeth (mm)

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Bc_VP	1.18	0.20	2.40	0.46	39.2
Bc_Me	1.34	0.40	2.80	0.39	29.0
Bc_OV	0.98	0.20	1.50	0.15	14.9
Bc_Sa	1.01	0.30	4.00	0.30	29.7
Bc_Cr	1.03	0.40	2.00	0.25	23.8
Bc_Sn	0.99	0.20	5.50	0.60	60.0
Bc_Ka	0.89	0.30	2.00	0.28	31.0

Bc_Bl	0.71	0.30	2.00	0.37	52.5
Bc_Ca	0.93	0.30	1.50	0.24	25.4
Bc_Gr	1.26	0.20	9.00	0.72	57.0
Bv_RP	0.74	0.30	2.00	0.32	43.2
Bv_Sk	1.06	0.30	2.30	0.41	38.4
Bv_CL	1.11	0.20	4.00	0.40	35.0
Bv_Pr	0.97	0.00	2.50	0.31	31.4
Bv_Os	1.14	0.30	2.30	0.51	44.4
Bae_MV	1.50	0.30	3.00	0.52	34.4
Bae_Li	1.36	0.50	2.50	0.47	34.9
Bcre_K	0.52	0.20	1.60	0.31	59.3
Bcre_O	0.50	0.30	0.70	0.28	56.6
Greatest distance between two teeth (mm)					
Bc_VP	4.48	1.00	17.00	2.09	46.7
Bc_Me	3.71	1.00	22.00	2.07	55.9
Bc_OV	3.10	0.90	8.20	1.07	34.7
Bc_Sa	1.99	0.50	7.50	0.98	49.3
Bc_Cr	3.37	1.00	9.00	1.38	41.1
Bc_Sn	3.15	0.30	7.00	1.21	38.3
Bc_Ka	3.37	1.00	8.00	1.38	40.8
Bc_Bl	4.09	1.50	16.00	1.74	42.6
Bc_Ca	3.45	1.00	10.00	1.57	45.4
Bc_Gr	2.62	0.70	13.00	1.47	56.2
Bv_RP	3.08	1.00	8.00	1.14	36.9
Bv_Sk	3.83	1.00	11.00	1.81	47.3
Bv_CL	3.40	0.50	15.00	1.38	40.8
Bv_Pr	3.30	1.50	10.00	1.38	41.7
Bv_Os	3.10	1.00	5.50	1.06	34.2
Bae_MV	2.68	1.00	6.00	0.95	35.7
Bae_Li	2.68	1.00	6.00	1.07	40.0
Bcre_K	2.65	0.40	6.50	1.70	63.9
Bcre_O	0.30	0.30	0.30	–	–
Petiole length (mm)					
Bc_VP	2.97	0.50	8.00	1.54	51.7
Bc_Me	3.97	0.50	10.00	2.07	52.1
Bc_OV	3.87	0.50	8.50	1.78	46.1
Bc_Sa	2.16	0.70	16.00	1.33	61.5
Bc_Cr	4.02	1.40	8.00	1.56	38.8
Bc_Sn	3.45	1.00	15.00	2.01	58.4
Bc_Ka	1.47	0.30	6.00	0.91	62.4
Bc_Bl	3.02	0.30	12.50	1.96	64.8
Bc_Ca	2.51	0.50	8.00	1.44	57.4
Bc_Gr	2.21	0.40	8.00	1.20	54.5
Bv_RP	3.93	0.30	17.00	3.19	81.2
Bv_Sk	7.78	2.00	17.00	3.36	43.3
Bv_CL	4.96	0.50	14.00	2.51	50.6

Bv_Pr	2.94	0.50	7.00	1.30	44.1
Bv_Os	6.30	1.00	27.00	4.15	65.9
Bae_MV	2.06	0.30	7.00	1.30	63.1
Bae_Li	2.35	0.30	8.00	1.39	59.0
Bcre_K	1.81	0.40	4.50	0.81	44.5
Bcre_O	1.41	0.40	9.00	0.77	54.4
Number of spines					
Bc_VP	1.15	0.00	5.00	1.07	93.7
Bc_Me	1.89	0.00	5.00	1.08	57.0
Bc_OV	1.93	1.00	3.00	0.95	49.3
Bc_Sa	2.71	1.00	5.00	0.81	30.0
Bc_Cr	1.50	1.00	6.00	1.05	69.7
Bc_Sn	1.37	0.00	4.00	0.88	64.4
Bc_Ka	1.48	1.00	3.00	0.83	56.3
Bc_Bl	1.14	0.00	3.00	0.70	61.0
Bc_Ca	1.21	1.00	3.00	0.62	51.0
Bc_Gr	2.23	0.00	6.00	1.23	55.1
Bv_RP	1.12	0.00	3.00	1.12	100.2
Bv_Sk	1.21	0.00	3.00	0.62	51.1
Bv_CL	0.70	0.00	3.00	0.73	105.5
Bv_Pr	1.34	0.00	3.00	0.71	53.2
Bv_Os	1.24	0.00	5.00	1.32	105.7
Bae_MV	2.53	1.00	6.00	0.87	34.4
Bae_Li	1.99	1.00	4.00	0.92	46.3
Bcre_K	2.45	0.00	5.00	0.96	39.2
Bcre_O	2.63	1.00	3.00	0.66	25.2
Spine length (mm)					
Bc_VP	4.37	2.00	8.00	1.35	30.8
Bc_Me	6.74	2.00	16.00	2.56	38.0
Bc_OV	7.23	3.00	14.00	2.36	32.6
Bc_Sa	6.64	2.00	17.00	3.22	48.5
Bc_Cr	5.08	3.00	9.50	1.22	24.1
Bc_Sn	6.10	2.50	19.50	2.72	44.6
Bc_Ka	10.38	3.00	27.00	6.54	63.0
Bc_Bl	4.59	2.00	12.00	2.23	48.6
Bc_Ca	6.20	3.00	15.00	1.91	30.9
Bc_Gr	8.61	3.50	18.00	3.16	36.7
Bv_RP	5.48	2.00	12.00	2.15	39.1
Bv_Sk	9.67	3.00	27.00	5.28	54.6
Bv_CL	7.99	2.80	17.00	3.31	41.4
Bv_Pr	12.01	2.00	26.50	5.94	49.5
Bv_Os	12.04	2.00	29.00	5.10	42.4
Bae_MV	21.08	10.00	36.00	5.56	26.4
Bae_Li	19.04	6.00	31.00	4.93	25.9
Bcre_K	10.45	4.00	18.00	2.96	28.3
Bcre_O	12.61	5.50	19.00	1.35	25.2

	Internode length (mm)				
Bc_VP	13.56	6.00	30.00	4.32	31.9
Bc_Me	15.06	3.00	31.00	5.16	34.3
Bc_OV	12.86	6.00	25.00	2.87	22.3
Bc_Sa	12.09	3.00	30.00	3.61	29.9
Bc_Cr	10.75	6.00	16.00	2.25	21.0
Bc_Sn	14.46	6.00	27.00	4.83	33.41
Bc_Ka	13.25	4.50	22.00	3.47	26.2
Bc_Bl	15.19	6.00	32.00	5.62	37.0
Bc_Ca	12.76	4.00	23.00	3.45	27.0
Bc_Gr	11.46	6.00	18.00	2.54	22.2
Bv_RP	37.05	8.00	63.00	10.17	27.4
Bv_Sk	31.50	12.00	60.00	8.82	28.0
Bv_CL	31.04	12.50	57.00	7.47	24.1
Bv_Pr	22.69	10.00	33.00	4.79	21.1
Bv_Os	40.22	21.00	59.00	8.48	21.1
Bae_MV	15.67	10.00	21.00	2.26	14.4
Bae_Li	15.18	3.00	25.00	3.44	22.7
Bcre_K	12.76	4.00	22.00	3.01	23.6
Bcre_O	12.82	5.00	18.00	2.20	17.2