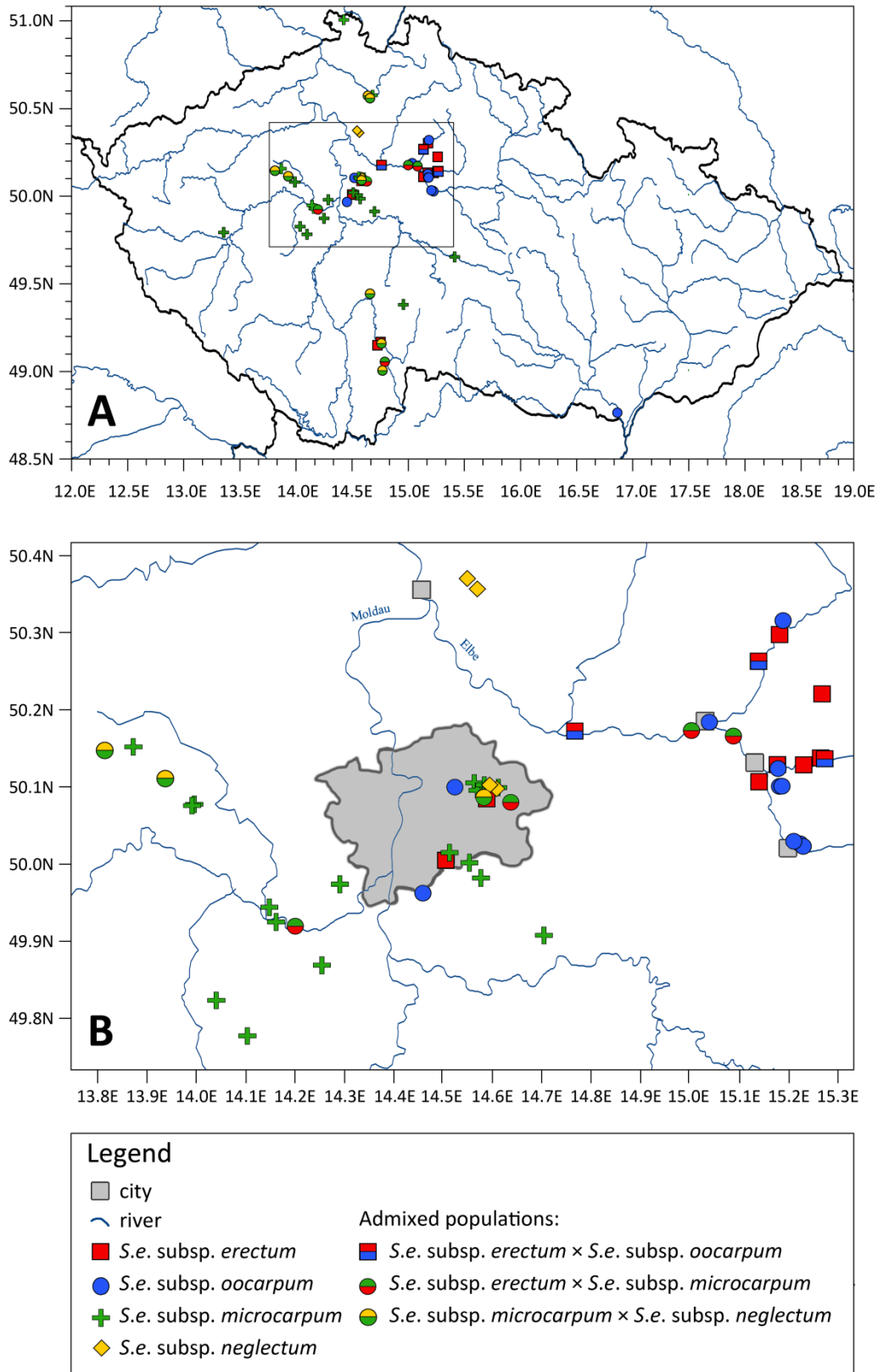


1 Electronic Appendices

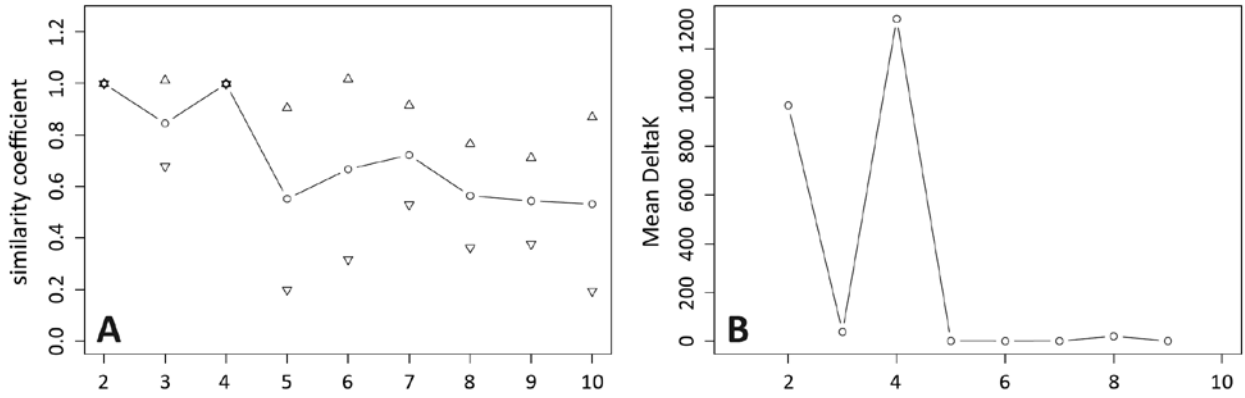
2 Electronic Appendix 1. – Map of localities



3

4 Fig. E1.1. – Map of localities of *Sparganium erectum* in the Czech Republic (A) and in Central Bohemia and the Elbe
5 river basin (B, for list of localities see Appendix 1).

1 **Electronic Appendix 2.** – STRUCTURE analysis similarities



2 Fig. E2.1. – STRUCTURE analysis of 242 individuals of *Sparganium erectum* based on 103 AFLP loci. Graphical
3 representation of estimated: (A)similarity coefficient, (B) mean DeltaK.

4

1 **Electronic Appendix 3.** – STRUCTURE analysis similarities (table)

2 Table E3.1. – Results of STRUCTURE simulations for K 1-10 based on 242 individuals of *Sparganium erectum* and
3 103 AFLP loci. Mean similarity coefficient, standard deviation and ΔK was computed using Structure-sum-2009 R
4 script.

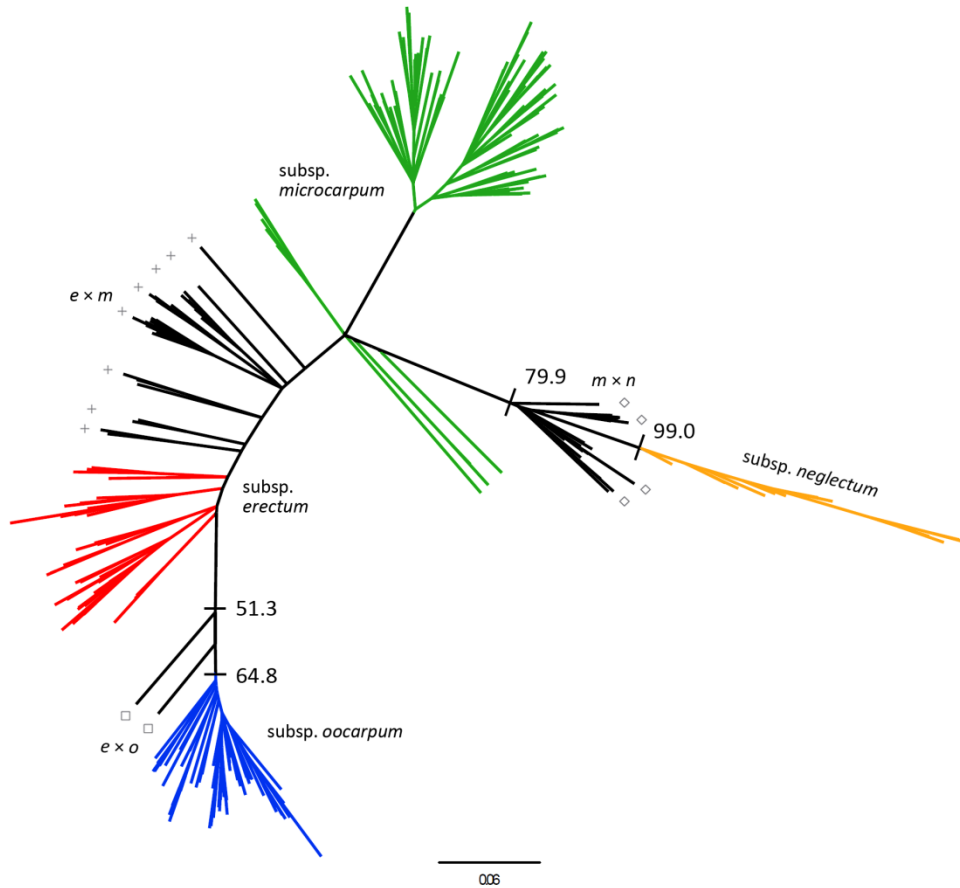
5

Cluster (K)	Number of runs	Mean similarity coeff.	Standard dev.	ΔK
1	10	-16083.08	40.96	-
2	10	-11669.08	2.48	968.41
3	10	-9653.74	27.45	37.80
4	10	-8676.26	1.89	1324.04
5	10	-10201.03	3822.82	0.62
6	10	-9341.88	2102.82	0.01
7	10	-8494.58	895.34	0.26
8	10	-7880.84	184.72	19.72
9	10	-10909.22	5187.72	0.48
10	10	-11441.57	6007.04	-

6

7

1 **Electronic Appendix 4.** – Neighbour-joining tree



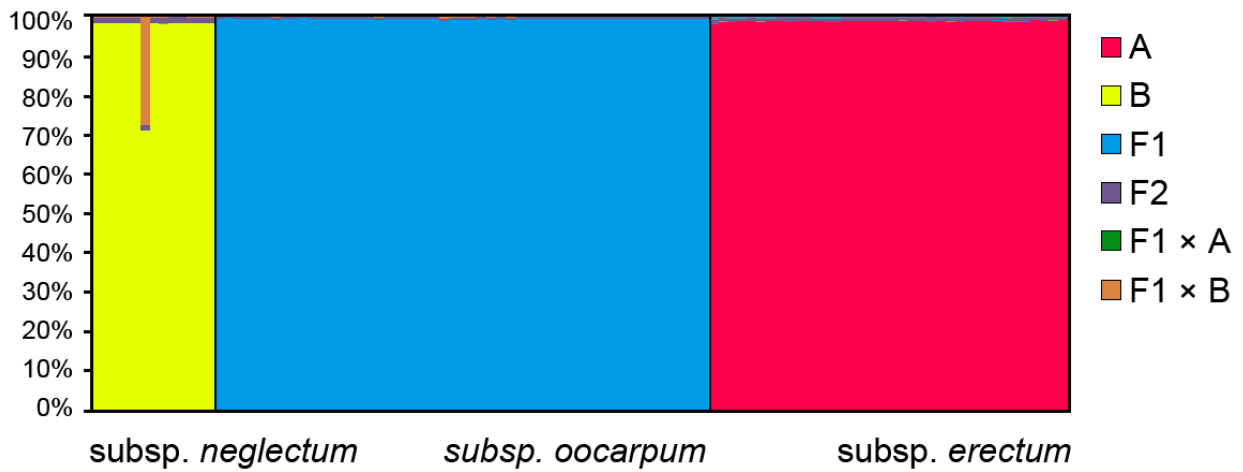
2

3 Fig. E4.1. – Neighbour-joining tree based on 242 individuals of *Sparganium erectum* and 103 AFLP loci.

4 Bootstrap support values obtained with 1000 replicates and only values higher than 50% are shown. Colours indicate
5 AFLP groups detected by STRUCTURE.

6

1 **Electronic Appendix 5.** – NewHybrids analysis



2

3 Fig. E5.1. – NewHybrids classification of 104 individuals of *Sparganium erectum*, two putative parental taxa (A, *S. e.*
4 *subsp. erectum* and B, *S. e. subsp. neglectum*) and *subsp. oocarpum* (F1), which is of hybrid origin, based on 103 AFLP
5 loci.

6

1 **Electronic Appendix 6.** – Morphological characters correlation

2 Table E6.1. – Spearman correlation coefficient of 12 morphological characters of fruits of *Sparganium erectum*.

Character	Ped.	Lf	Ll	Lu	Ls	Wf	Na	Con.	Lf/Wf	Lu/Ll	Ls/Lf	Sl/Wf
Peduncle (Ped.)	1.00	-0.43	-0.50	0.12	-0.01	-0.68	0.35	0.84	0.47	0.41	0.29	0.52
Length of fruit (Lf)	-0.43	1.00	0.88	-0.05	0.06	0.32	-0.47	-0.42	0.20	-0.62	-0.57	-0.24
Length of lower part of fruit (Ll)	-0.50	0.88	1.00	-0.37	-0.10	0.37	-0.47	-0.42	0.09	-0.88	-0.64	-0.36
Length of upper part of fruit (Lu)	0.12	-0.05	-0.37	1.00	0.51	-0.12	0.00	0.02	0.12	0.74	0.37	0.36
Length of style (Ls)	-0.01	0.06	-0.10	0.51	1.00	-0.18	-0.23	-0.10	0.24	0.31	0.73	0.65
Width of fruit (Wf)	-0.68	0.32	0.37	-0.12	-0.18	1.00	-0.07	-0.65	-0.83	-0.32	-0.39	-0.84
Number of angles (Na)	0.35	-0.47	-0.47	0.00	-0.23	-0.07	1.00	0.45	-0.17	0.32	0.13	-0.02
Constriction (Con.)	0.84	-0.42	-0.42	0.02	-0.10	-0.65	0.45	1.00	0.45	0.30	0.22	0.46
Lf/ Wf	0.47	0.20	0.09	0.12	0.24	-0.83	-0.17	0.45	1.00	0.01	0.10	0.75
Lu/ Ll	0.41	-0.62	-0.88	0.74	0.31	-0.32	0.32	0.30	0.01	1.00	0.62	0.43
Ls/ Lf	0.29	-0.57	-0.64	0.37	0.73	-0.39	0.13	0.22	0.10	0.62	1.00	0.70
Ls/ Wf	0.52	-0.24	-0.36	0.36	0.65	-0.84	-0.02	0.46	0.75	0.43	0.70	1.00

3

4

1 **Electronic Appendix 7.** – Morphological characters statistics

2 Table E7.1. – Details of fruit morphological characters of *Sparganium erectum* subspecies. Mean \pm SD – mean of a
 3 character based on individuals of AFLP groups corresponding to subspecies with standard deviation (SD), maximum
 4 (Max.) and minimum value (Min.). The values are in mm.

Character	subsp. <i>erectum</i>			subsp. <i>microcarpum</i>			subsp. <i>neglectum</i>			subsp. <i>oocarpum</i>		
	Mean \pm SD	Min.	Max.	Mean \pm SD	Min.	Max.	Mean \pm SD	Min.	Max.	Mean \pm SD	Min.	Max.
Sterility of fruit heads	0.00 \pm 0.00	0.00	0.00	0.00 \pm 0.00	0.00	0.00	0.00 \pm 0.00	0.00	0.00	1.00 \pm 0.00	1.00	1.00
Peduncle	0.00 \pm 0.00	0.00	0.00	0.61 \pm 0.46	0.00	1.00	0.51 \pm 0.45	0.00	1.00	0.00 \pm 0.00	0.00	0.00
Length of fruit (Lf)	7.31 \pm 0.57	4.46	8.80	5.99 \pm 0.93	3.38	8.00	6.65 \pm 0.59	5.44	8.14	5.84 \pm 0.63	4.36	7.96
Length of lower part (Ll)	6.08 \pm 0.54	3.80	7.24	3.83 \pm 1.01	1.76	6.24	3.50 \pm 0.58	2.68	5.76	3.51 \pm 0.65	1.80	5.72
Length of upper part (Lu)	1.55 \pm 0.40	0.36	2.64	2.20 \pm 0.34	1.18	3.24	2.98 \pm 0.32	2.28	3.96	2.35 \pm 0.43	1.34	3.82
Length of style (Ls)	1.46 \pm 0.32	0.90	2.70	1.84 \pm 0.31	1.02	3.52	2.28 \pm 0.25	1.70	3.14	1.77 \pm 0.23	1.12	2.44
Shoulder	1.00 \pm 0.00	1.00	1.00	0.00 \pm 0.00	0.00	0.00	0.00 \pm 0.00	0.00	0.00	0.00 \pm 0.00	0.00	0.00
Width of fruit (Wf)	5.44 \pm 0.63	4.00	7.60	3.15 \pm 0.51	1.46	4.98	3.69 \pm 0.38	2.62	4.66	5.33 \pm 0.42	4.18	7.02
Number of angles	5.31 \pm 0.38	4.40	6.60	5.98 \pm 0.96	4.40	8.60	5.05 \pm 0.33	4.40	6.20	5.74 \pm 0.48	4.80	7.40
Constriction	0.00 \pm 0.00	0.00	0.00	0.59 \pm 0.45	0.00	1.00	0.00 \pm 0.00	0.00	0.00	0.00 \pm 0.00	0.00	0.00
Lf/ Wf	1.39 \pm 0.16	0.77	1.91	1.96 \pm 0.28	1.33	3.17	1.85 \pm 0.33	1.43	2.90	1.13 \pm 0.14	0.78	1.57
Lu/ Ll	0.26 \pm 0.07	0.05	0.46	0.64 \pm 0.18	0.26	1.13	0.94 \pm 0.18	0.49	1.54	0.75 \pm 0.24	0.35	1.61
Ls/ Lf	0.20 \pm 0.04	0.12	0.40	0.31 \pm 0.06	0.14	0.54	0.35 \pm 0.05	0.28	0.47	0.31 \pm 0.05	0.22	0.47
Ls/ Wf	0.27 \pm 0.06	0.12	0.56	0.61 \pm 0.14	0.26	1.42	0.64 \pm 0.13	0.39	1.05	0.33 \pm 0.05	0.21	0.44

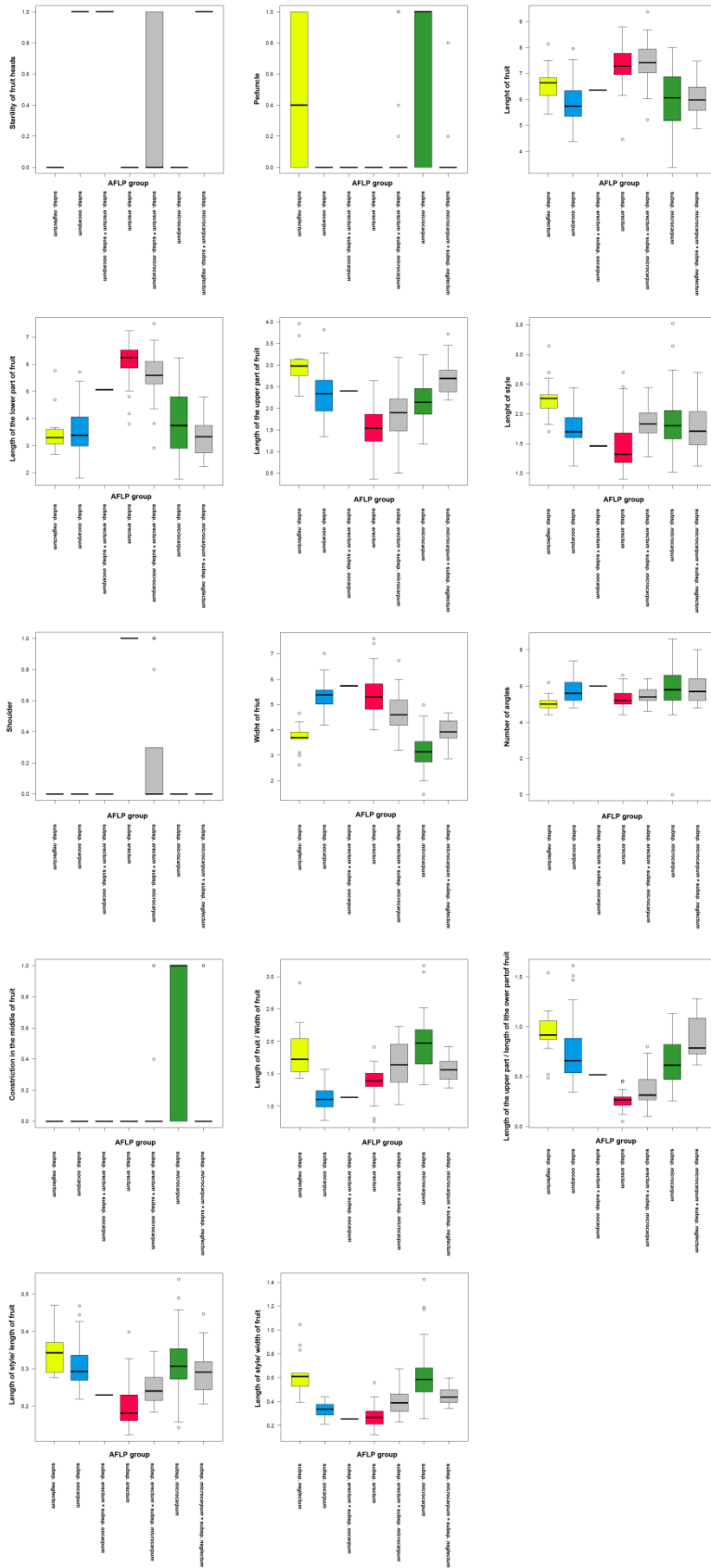
5
6

1 Table E7.2. – Details of fruit morphological characters of *Sparganium erectum* admixed groups. Mean \pm SD – mean of a
 2 character based on individuals of AFLP groups corresponding to subspecies with standard deviation (SD), maximum
 3 (Max.) and minimum value (Min.). The values are in mm.

Character	subsp. <i>erectum</i> \times subsp. <i>oocarpum</i>			subsp. <i>erectum</i> \times subsp. <i>microcarpum</i>			subsp. <i>microcarpum</i> \times subsp. <i>neglectum</i>		
	Mean \pm SD	Min.	Max.	Mean \pm SD	Min.	Max.	Mean \pm SD	Min.	Max.
Sterility of fruit heads	1.00 \pm 0.00	1.00	1.00	0.29 \pm 0.46	0.00	1.00	1.00 \pm 0.00	1.00	1.00
Peduncle	0.00 \pm 0.00	0.00	0.00	0.08 \pm 0.13	0.00	1.00	0.06 \pm 0.10	0.00	0.80
Length of fruit (Lf)	6.36 \pm 0.00	6.36	6.36	7.46 \pm 0.64	5.22	9.38	6.01 \pm 0.55	4.88	7.48
Length of lower part (Ll)	5.06 \pm 0.00	5.06	5.06	5.61 \pm 0.58	2.92	7.50	3.28 \pm 0.55	2.22	4.80
Length of upper part (Lu)	2.40 \pm 0.00	2.40	2.40	1.87 \pm 0.45	0.50	3.28	2.71 \pm 0.31	2.20	3.72
Length of style (Ls)	1.46 \pm 0.00	1.46	1.46	1.84 \pm 0.22	1.28	2.44	1.78 \pm 0.33	1.12	2.70
Shoulder	0.00 \pm 0.00	0.00	0.00	0.23 \pm 0.42	0.00	1.00	0.00 \pm 0.00	0.00	0.00
Width of fruit (Wf)	5.74 \pm 0.00	5.74	5.74	4.73 \pm 0.58	3.20	6.74	3.96 \pm 0.33	2.86	4.66
Number of angles	6.00 \pm 0.00	6.00	6.00	5.45 \pm 0.32	4.60	6.40	5.79 \pm 0.68	4.80	8.00
Constriction	0.00 \pm 0.00	0.00	0.00	0.07 \pm 0.13	0.00	1.00	0.17 \pm 0.28	0.00	1.00
Lf/ Wf	1.14 \pm 0.00	1.14	1.14	1.63 \pm 0.26	1.02	2.23	1.55 \pm 0.16	1.28	1.92
Lu/ Ll	0.52 \pm 0.00	0.52	0.52	0.36 \pm 0.12	0.10	0.80	0.88 \pm 0.19	0.62	1.28
Ls/ Lf	0.23 \pm 0.00	0.23	0.23	0.25 \pm 0.03	0.18	0.35	0.30 \pm 0.05	0.21	0.45
Ls/ Wf	0.25 \pm 0.00	0.25	0.25	0.40 \pm 0.08	0.23	0.68	0.45 \pm 0.06	0.34	0.60

4

1 **Electronic Appendix 8.** – Morphological characters boxplots



2
3 Fig 8.1. – Boxplots of 14 morphological characters of *Sparganium erectum* based on 227 individuals. Colours indicate
4 AFLP groups detected by STRUCTURE.

1 **Electronic Appendix 9.** – Discriminant analysis

2 Table 9.1. – Discriminant classification of fruit characters for *Sparganium erectum* subspecies. N – number of
3 individuals, % – percentage of correctly assigned individuals to predefined genetic groups.

Subsp.	<i>neglectum</i>	<i>oocarpum</i>	<i>erectum</i>	<i>microcarpum</i>	N	%
<i>erectum</i>	0	4	33	0	37	89.19
<i>microcarpum</i>	4	4	2	67	77	87.01
<i>neglectum</i>	9	2	0	2	13	69.23
<i>oocarpum</i>	1	44	2	0	47	93.62
Total	14	54	37	69	174	87.93

4