

Table S1 – The position of the largest chromosome in anaphase-telophase transition

Species	chromatids at the edge		chromatids close to central interpolar axis	
	Y (%)	X (%)	Y (%)	X (%)
<i>S. latifolia</i>	54.29	34.29	45.71	65.71
<i>S. dioica</i>	68.42	65.79	31.58	34.21

Table S2 – The length of the spindle axis during anaphase A, anaphase B and telophase in studied species

Species	anaphase A (μm)	+/-	anaphase B (μm)	+/-	Telophase (μm)	+/-
<i>S. latifolia</i>	7.39	0.59	15.39	2.74	21.98	1.71
<i>S. dioica</i>	7.29	1.88	15.33	2.11	24.03	2.07
<i>S. vulgaris</i>	7.66	0.82	11.24	0.84	15.37	1.01

Table S3 – The X and Y chromosome arm length during anaphase A, anaphase B and telophase in studied species

Species		anaphase A (μm)	+/-	anaphase B (μm)	+/-	Telophase (μm)	+/-
<i>S. latifolia</i>	Y q	5.59	0.6 9	7.19	1.0 0	7.74	1.6 6
	Y p	4.46	0.3 5	5.55	0.7 6	5.86	1.8 1
<i>S. dioica</i>	Y q	6.46	1.7 4	7.14	1.2 8	8.63	1.5 3
	Y p	4.52	1.4 4	5.58	1.4 4	6.04	1.6 2

Table S4 – The comparison of chromosomal arm length and predicted arm limit size for the longest arm in studied dioecious plants during telophase

Species	Length of longest arm (μm/Mb) ^a	+ / -	Length of the spindle axis in telophase (μm) ^b	+ / -	Predicted upper limit for the longest arm extension (μm/Mb) ^c
<i>S. latifolia</i>	7.74 (327.3 Mb)	1.66	21.98	1.71	10.99 (464.7 Mb)
<i>S. dioica</i>	8.63 (301.2 Mb)	1.53	24.03	2.07	12.02 (419.6 Mb)

^a the length estimated from the average longest arm chromosomal length in telophase^b the length estimated from the most two distal points (centromere) in telophase^c the length estimated = the length of the spindle axis in telophase/2

*the length of the X chromosome

Table S5 – The genome and the sex chromosome size according to their chromosomal length

Species	Genome size (Mb) ^b	2n	Y (%) ^c	+/-	Y (Mb)	+/-	X (%) ^c	+/-	X (Mb)	+/-
<i>S. latifolia</i> ^a	5535.5	24, XY	10.4	1.9	575.1	106.8	7.2	1.1	397.9	62.8
<i>S. dioica</i> ^a	5398.6	24, XY	9.5	1.4	512.0	77.4	6.4	0.4	346.7	20.3

^a– the size of the *S. vulgaris* genome = 2210.3 Mb

^b– genome size estimated from 2C (pg) Kew mean value (*978Mb)

^c– relative size (%) of the sex chromosome estimated from the average sex chromosome length in c-metaphase (μm)/whole genome length (μm), 10 cells counted

Table S6 – Plant material

Species	Population	No. of chromosomes	The biggest chromosome	Origin
<i>Silene latifolia</i>	U16*	24, XY	Y	Bačovský et al. 2020**
<i>Silene dioica</i>	Tišnov	24, XY	Y	
<i>Silene vulgaris</i>	Čertovica (CERT)	24		

*population made by 16 generations of full-sib mating

** Bačovský V, Čegan R, Šimoníková D, et al (2020) The Formation of Sex Chromosomes in *Silene latifolia* and *S. dioica* Was Accompanied by Multiple Chromosomal Rearrangements . Front. Plant Sci. 11:205