

Xi, X., Wu, X., Nylin, S. and Sun, S. 2015. Body size response to warming: time of the season matters in a tephritid fly. – Oikos doi: 10.1111/oik.02521

## Appendix 1

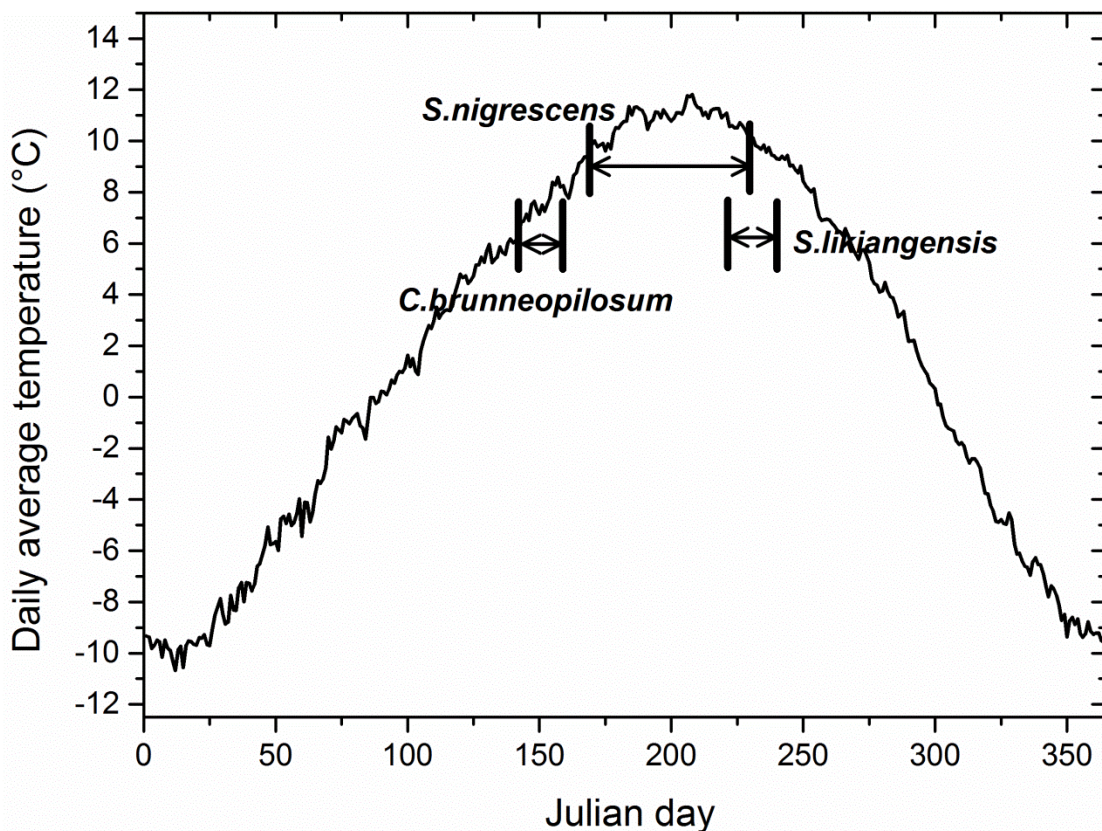


Figure A1. Daily average temperatures during 1965 to 2013 and the flower phenology of the three host-plant species in study meadow. The flowering phenology was determined following the method in Liu, Y. et al. 2012. Global warming reduces plant reproductive output for temperate multi-inflorescence species on the Tibetan plateau. – New Phytol. 195: 427–436.

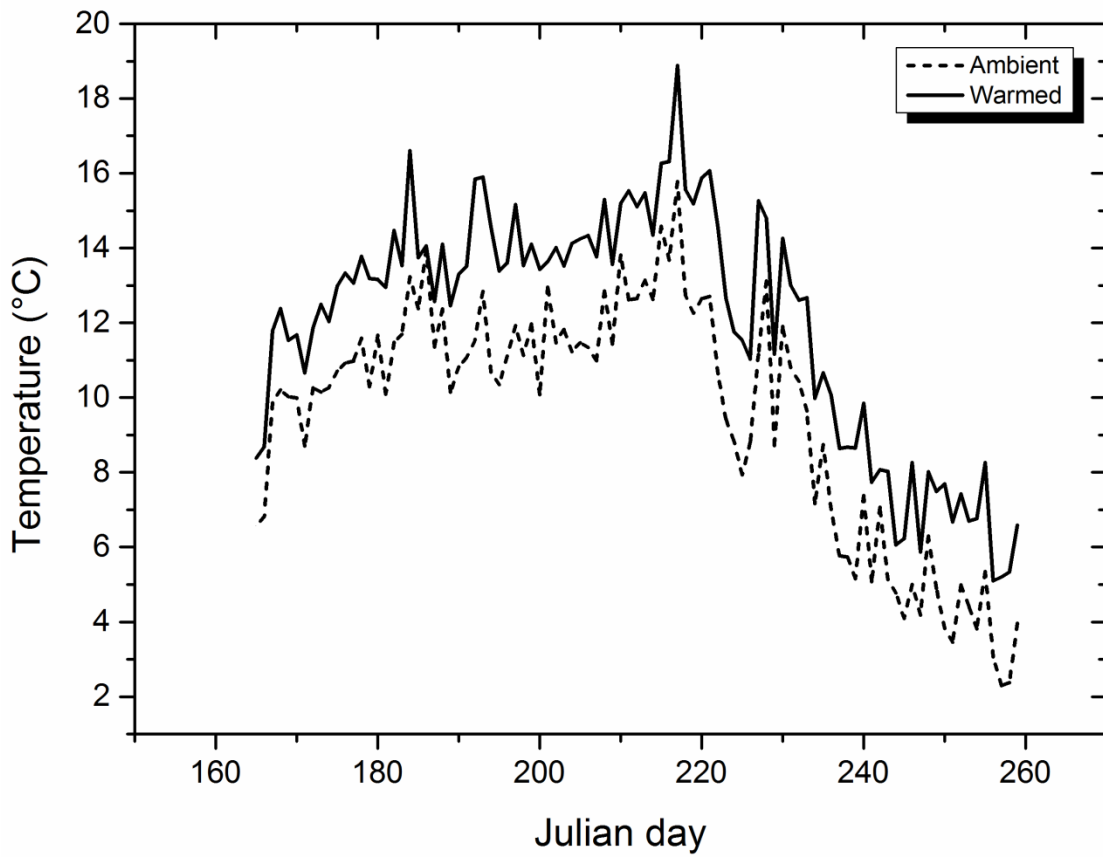


Figure A2. Temperature variation recorded for both ambient and warmed treatments during the field experiment.

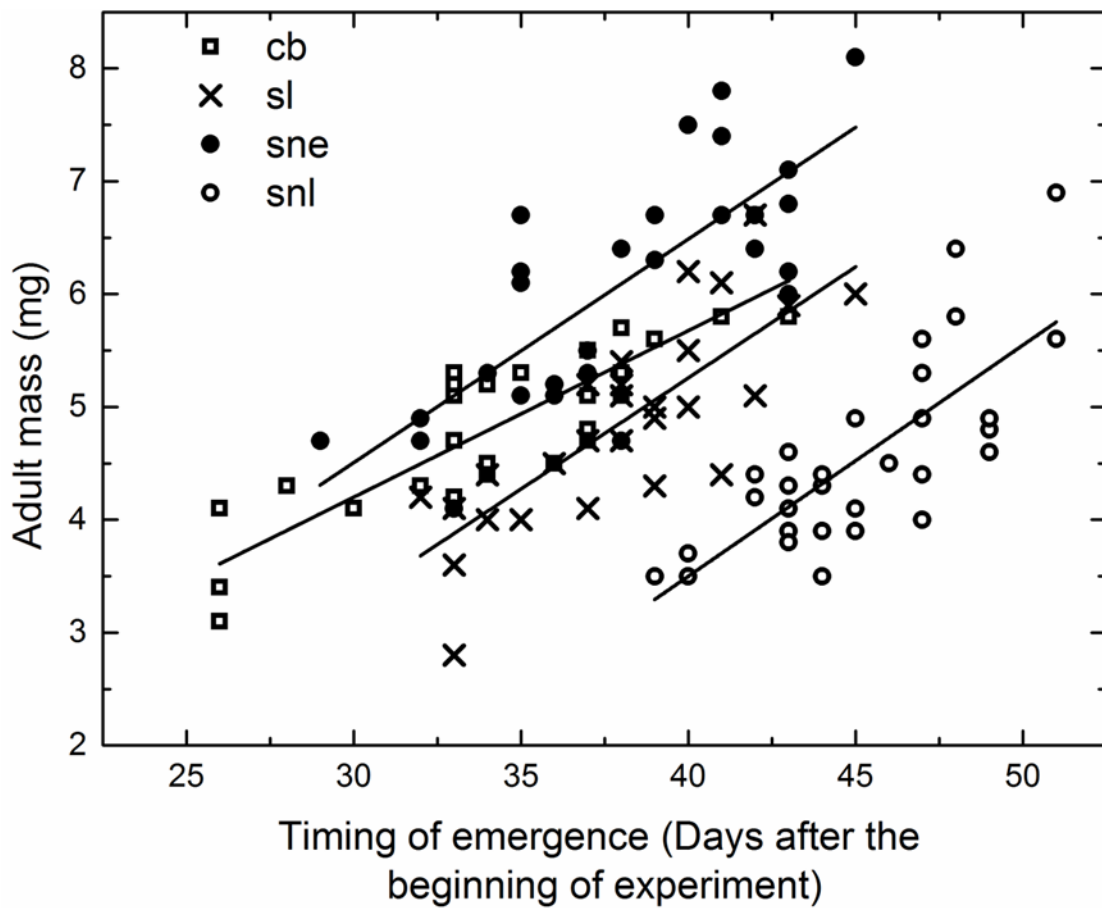


Figure A3. Regression relationships between timing of emergence and adult mass for the flies in the field warming experiment. cb, *Cremanthodium brunneopilosum*; sl, *Saussurea likiangensis*; sne, *Saussurea nigrescens* in early season; snl, *Saussurea nigrescens* in late season.  $n = 30$ ,  $R^2 > 0.58$  and  $p < 0.001$  for all the host-plants.

Table A1. Results of Tukey HSD post hoc tests showing differences between treatments for timing of emergence and body mass of tephritid fly *Tephritis femoralis* grown in different host-plant species in the field and chamber warming experiments. FW, warmed females; FA, ambient females; MW, warmed males; MA, ambient males.

	Timing of emergence		Body mass	
	Difference	p	Difference	p
<i>Cremanthodium brunneopilosum</i> (host-plant)				
FW-FA	-4.60	0.0018	-0.60	0.016
MA-FA	-4.22	0.0088	-1.12	<0.001
MW-FW	-5.91	<0.001	-1.16	<0.001
MW-MA	-6.29	<0.001	-0.64	0.028
<i>Saussurea likiangensis</i> (host-plant)				
FW-FA	4.26	0.018	1.09	0.0043
MA-FA	-1.71	0.68	-0.83	0.079
MW-FW	-1.38	0.77	-0.93	0.025
MW-MA	4.6	0.038	-0.98	0.040
<i>Saussurea nigrescens</i> (host-plant) in early season				
FW-FA	-3.28	0.066	-1.29	<0.001
MA-FA	-4.30	0.093	-0.36	0.0023
MW-FW	-4.39	0.061	0.14	0.14
MW-MA	-3.37	0.12	0.43	0.084
<i>Saussurea nigrescens</i> (host-plant) in late season				
FW-FA	2.75	0.071	1.09	0.010
MA-FA	-3.39	0.25	-0.69	0.38
MW-FW	-4.00	0.15	-1.20	0.016
MW-MA	2.14	0.87	0.57	0.75
Simulated early season				
FW-FA	-2.46	0.57	-1.179	0.0020
MA-FA	-5.05	0.0085	-1.49	<0.001
MW-FW	-5.51	0.0081	-1.01	0.0072
MW-MA	-2.92	0.32	-0.68	0.044
Simulated late season				
FW-FA	3.90	0.078	0.71	0.076
MA-FA	-1.87	0.84	-0.72	0.058
MW-FW	-0.54	0.99	-0.68	0.10
MW-MA	5.24	0.0031	0.75	0.043