

Supplementary Information

A model for predicting the phenology of *Philaenus spumarius*

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Table S1. Values of the parameters a , T_{inf} (minimum temperature threshold, °C) and T_{sup} (maximum temperature threshold, °C) of the temperature-dependent development rate functions based on Brière equation, of post-diapausing eggs and 1st–5th nymphal instars (N1–N5) of *Philaenus spumarius*, after the parameterization and calibration processes. The values of T_{opt} (optimum development temperature, °C) and r_{max} (maximum development rate, day⁻¹) were obtained from the estimated functions.

Stages	Parameterization					Calibrated				
	a	T_{inf}	T_{sup}	T_{opt}	r_{max}	a	T_{inf}	T_{sup}	T_{opt}	r_{max}
Egg	0.00003	6.5	32.0	26.3	0.0373	0.00003	3.0	35.0	28.3	0.0519
N1	0.00015	3.0	33.0	26.7	0.2382	0.00011	3.0	33.0	26.7	0.1747
N2	0.00011	3.0	33.0	26.7	0.1747	0.00010	3.0	33.0	26.7	0.1588
N3	0.00013	2.1	33.0	26.6	0.2177	0.00013	2.1	33.0	26.6	0.2177
N4	0.00015	3.0	33.0	26.7	0.2382	0.00012	3.1	33.0	26.7	0.1960
N5	0.00014	3.0	33.0	26.7	0.2224	0.00010	5.0	33.0	27.0	0.1441