Table S3. Parametric model summaries. Parameter estimates (± standard error, SE) and associated *z* statistics are reported for Weibull analyses of each experiment by temperature ('Temp.') and application rate (AR), with significance ('Sig.') indicated by asterisks (* indicates $P<0.05$, ** indicates $P<0.001$). In the first (non-blood-fed) *An. stephensi* experiments, the two experimental dates were analysed separately (indicated by 1 and 2). In the blood feeding experiment, separate models were fit for the blood-fed groups (10–32 ℃) and for the blood-fed vs. non-blood-fed treatments (26 ℃ only). In the diurnal temperature variation experiment, diurnal temperature range (DTR) was included as a separate parameter.

Experiment	Parameter		Estimate ± SE	*z*	Sig.
An. stephensi (1)	Intercept		3.680 ± 0.161	22.894	**
	Temp.	20	3.409 ± 1.537	2.218	*
		22	2.209 ± 0.834	2.648	*
		24	-0.196 ± 0.195	-1.007	
		28	-0.184 ± 0.204	-0.902	
		30	-0.668 ± 0.168	-3.981	**
		34	-0.767 ± 0.164	-4.689	**
	AR	High	-2.089 ± 0.162	-12.910	**
		Low	-1.825 ± 0.163	-11.234	**
	Temp. × AR	20, High	-3.169 ± 1.537	-2.062	*
		22, High	-2.098 ± 0.835	-2.514	*
		24, High	0.177 ± 0.197	0.900	
		28, High	0.107 ± 0.206	0.519	
		30, High	0.658 ± 0.170	3.873	**
		34, High	1.309 ± 0.165	7.912	**
		20, Low	-3.141 ± 1.537	-2.043	*
		22, Low	-1.885 ± 0.835	-2.257	*
		24, Low	0.297 ± 0.198	1.496	
		28, Low	0.128 ± 0.207	0.618	
		30, Low	0.708 ± 0.171	4.146	**
		34, Low	1.286 ± 0.168	7.657	**
	Log(shape)	26, Control	-0.854 ± 0.205	-4.174	**
		26, High	-1.647 ± 0.072	-22.985	**
		26, Low	-1.437 ± 0.069	-20.827	**
		20, Control	0.443 ± 0.350	1.267	
		20, High	-1.687 ± 0.065	-26.170	**
		20, Low	-1.186 ± 0.061	-19.372	**
		22, Control	0.347 ± 0.253	1.370	
		22, High	-1.563 ± 0.074	-21.056	**
		22, Low	-0.966 ± 0.061	-15.854	**
		24, Control	-0.969 ± 0.180	-5.396	**
		24, High	-1.745 ± 0.067	-26.073	**
		24, Low	-1.242 ± 0.062	-19.998	**
		28, Control	-0.947 ± 0.205	-4.626	**
		28, High	-1.768 ± 0.069	-25.752	**
		28, Low	-1.503 ± 0.068	-22.125	**
		30, Control	-0.783 ± 0.096	-8.135	**
		30, High	-1.658 ± 0.076	-21.811	**
		30, Low	-1.499 ± 0.063	-23.751	**
		34, Control	-1.200 ± 0.090	-13.329	**
		34, High	-1.760 ± 0.068	-25.732	**
		34, Low	-1.159 ± 0.074	-15.716	**
An. stephensi (2)	Intercept		3.666 ± 0.510	7.185	**
	Temp.	10	0.155 ± 0.558	0.278	

Experiment	Parameter		Estimate ± SE	*z*	Sig.
		14	3.866 ± 3.219	1.201	
		18	2.416 ± 0.550	4.393	**
		32	-0.671 ± 0.511	-1.314	
	AR	High	-2.238 ± 0.511	-4.384	**
		Low	-1.805 ± 0.518	-3.486	**
	Temp. × AR	10, High	1.070 ± 0.558	1.918	
		14, High	-3.078 ± 3.219	-0.956	
		18, High	-1.936 ± 0.550	-3.518	**
		32, High	0.970 ± 0.513	1.893	
		10, Low	0.855 ± 0.565	1.513	
		14, Low	-3.173 ± 3.220	-0.985	
		18, Low	-2.038 ± 0.557	-3.657	**
		32, Low	0.883 ± 0.519	1.700	
	Log(shape)	26, Control	-0.646 ± 0.495	-1.305	
		26, High	-2.045 ± 0.103	-19.846	**
		26, Low	-1.256 ± 0.098	-12.861	**
		10, Control	-0.644 ± 0.142	-4.527	**
		10, High	-1.855 ± 0.076	-24.399	**
		10, Low	-1.777 ± 0.122	-14.586	**
		14, Control	0.272 ± 0.648	0.419	
		14, High	-2.135 ± 0.182	-11.763	**
		14, Low	-1.488 ± 0.107	-13.892	**
		18, Control	0.227 ± 0.075	3.018	*
		18, High	-2.147 ± 0.077	-28.056	**
		18, Low	-1.700 ± 0.088	-19.392	**
		32, Control	-1.253 ± 0.177	-7.079	**
		32, High	-1.583 ± 0.151	-10.469	**
		32, Low	-1.551 ± 0.049	-31.485	**
An. gambiae	Intercept		2.567 ± 0.024	107.065	**
	Temp.	20	0.298 ± 0.046	6.497	**
		32	-0.314 ± 0.038	-8.221	**
	AR	High	-1.186 ± 0.026	-45.520	**
		Low	-0.882 ± 0.039	-22.904	**
	Temp. × AR	20, High	0.027 ± 0.050	0.536	
		32, High	0.430 ± 0.043	10.084	**
		20, Low	0.145 ± 0.066	2.189	*
		32, Low	0.352 ± 0.054	6.467	**
	Log(shape)	26, Control	-1.355 ± 0.073	-18.646	**
		26, High	-2.230 ± 0.072	-30.804	**
		26, Low	-1.178 ± 0.063	-18.727	**
		20, Control	-0.915 ± 0.074	-12.430	**
		20, High	-1.769 ± 0.075	-23.677	**
		20, Low	-0.961 ± 0.066	-14.644	**
		32, Control	-1.169 ± 0.070	-16.673	**
		32, High	-1.798 ± 0.071	-25.391	**
		32, Low	-1.367 ± 0.074	-18.448	**
Blood-fed	Intercept		3.478 ± 0.108	32.110	**
	Temp.	10	-1.428 ± 0.134	-10.656	**
		14	-0.781 ± 0.130	-6.008	**
		18	0.058 ± 0.196	0.295	
		22	0.322 ± 0.225	1.434	
		30	-0.698 ± 0.129	-5.418	**
		32	-0.534 ± 0.133	-4.029	**
	AR	High	-1.973 ± 0.111	-17.787	**
		Low	-1.745 ± 0.117	-14.884	**

Experiment	Parameter		Estimate ± SE	*z*	Sig.
	Temp. × AR	10, High	1.903 ± 0.152	12.520	**
		14, High	1.313 ± 0.133	9.894	**
		18, High	0.247 ± 0.198	1.246	
		22, High	-0.227 ± 0.226	-1.004	
		30, High	0.778 ± 0.137	5.697	**
		32, High	0.743 ± 0.141	5.290	**
		10, Low	1.787 ± 0.153	11.698	**
		14, Low	1.408 ± 0.157	8.949	**
		18, Low	0.318 ± 0.218	1.462	
		22, Low	-0.175 ± 0.230	-0.761	
		30, Low	0.776 ± 0.142	5.477	**
		32, Low	0.856 ± 0.141	6.054	**
	Log(shape)	26, Control	-0.209 ± 0.164	-1.275	
		26, High	-1.528 ± 0.033	-46.552	**
		26, Low	-1.246 ± 0.141	-8.844	**
		10, Control	-0.470 ± 0.051	-9.135	**
		10, High	-0.628 ± 0.086	-7.287	**
		10, Low	-0.596 ± 0.070	-8.479	**
		14, Control	-0.230 ± 0.062	-3.741	**
		14, High	-1.042 ± 0.102	-10.191	**
		14, Low	-0.762 ± 0.026	-29.175	**
		18, Control	0.085 ± 0.034	2.513	*
		18, High	-1.253 ± 0.058	-21.467	**
		18, Low	-0.979 ± 0.034	-29.108	**
		22, Control	0.166 ± 0.046	3.626	**
		22, High	-1.584 ± 0.137	-11.600	**
		22, Low	-1.314 ± 0.058	-22.782	**
		30, Control	-0.541 ± 0.047	-11.630	**
		30, High	-1.425 ± 0.059	-24.299	**
		30, Low	-1.305 ± 0.070	-18.733	**
		32, Control	-0.561 ± 0.106	-5.275	**
		32, High	-1.269 ± 0.118	-10.723	**
		32, Low	-1.225 ± 0.025	-48.346	**
Blood vs. no blood	Intercept		3.660 ± 0.084	43.540	**
	Diet	Blood	-0.115 ± 0.024	-4.800	**
	AR	High	-2.057 ± 0.085	-24.320	**
		Low	-1.788 ± 0.086	-20.800	**
	Log(shape)	26, Control, No blood	-0.352 ± 0.136	-2.600	*
		26, High, No blood	-1.975 ± 0.084	-23.420	**
		26, Low, No blood	-1.424 ± 0.077	-18.530	**
		26, Control, Blood	-0.186 ± 0.121	-1.530	
		26, High, Blood	-1.509 ± 0.091	-16.640	**
		26, Low, Blood	-1.260 ± 0.092	-13.660	**
Diurnal temperature variation	Intercept		7.250 ± 1.055	6.872	**
	DTR	DTR=12	-2.013 ± 0.388	-5.193	**
	AR	High	-5.725 ± 1.055	-5.426	**
		Low	-5.289 ± 1.055	-5.013	**
	Temp.	20	-0.232 ± 1.008	-0.230	
		32	-2.495 ± 0.924	-2.700	*
	DTR × AR	DTR=12, High	2.190 ± 0.387	5.656	**
		DTR=12, Low	2.037 ± 0.387	5.263	**
	DTR × Temp.	DTR=12, 20	-0.086 ± 0.043	-1.983	*
		DTR=12, 32	-0.025 ± 0.043	-0.571	
	AR × Temp.	High, 20	0.527 ± 1.008	0.523	
		Low, 20	0.606 ± 1.008	0.601	

Experiment	Parameter		Estimate ± SE	*z*	Sig.
		High, 32	2.693 ± 0.924	2.915	*
		Low, 32	2.647 ± 0.924	2.865	*
	Log(shape)	26, Control, DTR=0	0.348 ± 0.217	1.604	
		20, Control, DTR=0	0.260 ± 0.152	1.715	
		32, Control, DTR=0	-0.143 ± 0.172	-0.831	
		26, High, DTR=0	-2.059 ± 0.011	-180.892	**
		20, High, DTR=0	-1.831 ± 0.158	-11.618	**
		32, High, DTR=0	-1.951 ± 0.042	-46.188	**
		26, Low, DTR=0	-1.544 ± 0.073	-21.148	**
		20, Low, DTR=0	-0.954 ± 0.046	-20.756	**
		32, Low, DTR=0	-1.439 ± 0.073	-19.611	**
		26, Control, DTR=12	-0.558 ± 0.448	-1.246	
		20, Control, DTR=12	-0.056 ± 0.100	-0.557	
		32, Control, DTR=12	-1.021 ± 0.117	-8.702	**
		26, High, DTR=12	-2.013 ± 0.058	-34.533	**
		20, High, DTR=12	-1.857 ± 0.025	-73.292	**
		32, High, DTR=12	-1.857 ± 0.068	-27.453	**
		26, Low, DTR=12	-1.669 ± 0.119	-14.085	**
		20, Low, DTR=12	-1.167 ± 0.110	-10.642	**
		32, Low, DTR=12	-1.303 ± 0.114	-11.418	**