

Impact of both desiccation and exposure to an emergent skin pathogen on transepidermal water exchange in the palmate newt *Lissotriton helveticus*

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Supplement. Estimates of the random effects from the mixed models performed by the SAS mixed procedure

Table S1. SAS mixed procedure (PROC MIXED) output for compound symmetric (CS) covariance structure for Model 1 and Model 2 (see Tables 2 & 3 in the main text). The models took into account the correlated error between measurements made on the same individual as a random effect

Covariance parameters	Subject	Estimate
Model 1 (moves min ⁻¹)		
CS	Individual(treatment)	0.000313
Residual		0.008462
Model 1 (adoption of 'I' posture min ⁻¹)		
CS	Individual(treatment)	0.002193
Residual		0.02309
Model 2		
CS	Individual(treatment)	0.001877
Residual		0.003947

Table S2. SAS mixed procedure (PROC MIXED) output for first-order autoregressive (AR(1)) covariance structure for Model 3 (see Table 4 in the main text). Two levels of random effect were considered. The models took into account the correlated error between measurements made on the same individual. Another level of random effect was considered: the interaction individual × day

Covariance parameters	Subject	Group	Estimate
Intercept	Individual(treatment)	/	0.001506
Day	Individual(treatment)	/	0.005228
Variance	Individual × day	Control - Day1	0.01471
AR(1)	Individual × day	Control - Day1	-0.1559
Variance	Individual × day	Control - Day16	0.01159
AR(1)	Individual × day	Control - Day16	0.1161
Variance	Individual × day	Exposed - Day1	0.01353
AR(1)	Individual × day	Exposed - Day1	-0.06066
Variance	Individual × day	Exposed - Day16	0.03548
AR(1)	Individual × day	Exposed - Day16	-0.1106

Table S3. SAS mixed procedure (PROC MIXED) output for unconstrained (UN) covariance structure for Model 4 (see Table 4 in the main text). Two levels of random effect were considered. The model took into account the correlated error between measurements made on the same individual. Another level of random effect was considered: the interaction individual \times day

Covariance parameters	Subject	Group	Estimate
Intercept	Individual (treatment)	/	0.00034
Day	Individual(treatment)	/	0.000237
UN(1,1)	Individual \times day	Day 1	0.3629
UN(2,1)	Individual \times day	Day 1	0.02222
UN(2,2)	Individual \times day	Day 1	0.3076
UN(3,1)	Individual \times day	Day 1	-0.06012
UN(3,2)	Individual \times day	Day 1	0.02757
UN(3,3)	Individual \times day	Day 1	0.2002
UN(4,1)	Individual \times day	Day 1	-0.07329
UN(4,2)	Individual \times day	Day 1	0.05429
UN(4,3)	Individual \times day	Day 1	0.01493
UN(4,4)	Individual \times day	Day 1	0.1252
UN(5,1)	Individual \times day	Day 1	-0.02132
UN(5,2)	Individual \times day	Day 1	0.00698
UN(5,3)	Individual \times day	Day 1	-0.01739
UN(5,4)	Individual \times day	Day 1	0.02851
UN(5,5)	Individual \times day	Day 1	0.1479
UN(6,1)	Individual \times day	Day 1	-0.06304
UN(6,2)	Individual \times day	Day 1	-0.06984
UN(6,3)	Individual \times day	Day 1	-0.03181
UN(6,4)	Individual \times day	Day 1	0.005476
UN(6,5)	Individual \times day	Day 1	0.03287
UN(6,6)	Individual \times day	Day 1	0.2197
UN(1,1)	Individual \times day	Day 16	0.307
UN(2,1)	Individual \times day	Day 16	-0.03889
UN(2,2)	Individual \times day	Day 16	0.1906
UN(3,1)	Individual \times day	Day 16	0.0447
UN(3,2)	Individual \times day	Day 16	-0.0472
UN(3,3)	Individual \times day	Day 16	0.1795
UN(4,1)	Individual \times day	Day 16	-0.0823
UN(4,2)	Individual \times day	Day 16	0.008242
UN(4,3)	Individual \times day	Day 16	0.04403
UN(4,4)	Individual \times day	Day 16	0.1537
UN(5,1)	Individual \times day	Day 16	-0.03826
UN(5,2)	Individual \times day	Day 16	-0.02875
UN(5,3)	Individual \times day	Day 16	-0.03392
UN(5,4)	Individual \times day	Day 16	-0.02482
UN(5,5)	Individual \times day	Day 16	0.1461
UN(6,1)	Individual \times day	Day 16	0.01253
UN(6,2)	Individual \times day	Day 16	-0.05274
UN(6,3)	Individual \times day	Day 16	-0.01361
UN(6,4)	Individual \times day	Day 16	-0.02494
UN(6,5)	Individual \times day	Day 16	0.05437
UN(6,6)	Individual \times day	Day 16	0.1021