SUPLEMENTARY MATERIAL

Table S1. Descriptive variables of the organisms used in LMS of each species: size, neutral red retention time (NRRT) and percentage lysosomal membrane stability (%LMS). T: temperature; S: salinity; N: individuals. Data are expressed as mean ± SE.

Test treatment			*Chamelea gallina*			*Donax trunculus*		
T	**S**	**N**	**Size (mm)**	**NRRT (min)**	**LMS (%)**	**Size (mm)**	**NRRT (min)**	**LMS (%)**
Low	27-28	16	18.2 ± 0.7	55.3 ± 9.5	53.3 ± 4.1	23.4 ± 0.5	86.3 ± 11.9	64.1 ± 5.7
	32-33	16	17.8 ± 0.7	116.3 ± 14.0	72.2 ± 5.4	22.9 ± 0.3	69.4 ± 8.9	60.6 ± 3.6
	37-38	16	16.9 ± 0.6	68.4 ± 14.0	52.2 ± 13.0	22.9 ± 0.3	105.0 ± 6.7	72.5 ± 2.4
Medium	27-28	16	23.4 ± 0.5	131.3 ± 16.6	59.8 ± 6.1	23.2 ± 0.4	92.8 ± 19.9	55.9 ± 7.0
	32-33	16	24.1 ± 0.9	60.9 ± 12.8	49.2 ± 5.1	22.3 ± 0.3	165.9 ± 10.7	82.7 ± 5.1
	37-38	16	25.4 ± 0.5	133.1 ± 11.9	71.3 ± 4.9	23.6 ± 0.5	136.9 ± 13.1	72.8 ± 6.7
High	27-28	16	24.4 ± 0.4	68.4 ± 11.7	50.8 ± 4.6	-	-	-
	32-33	16	23.6 ± 0.4	65.6 ± 10.2	53.1 ± 5.0	21.1 ± 0.4	28.1 ± 12.7	20.8 ± 7.0
	37-38	16	23.3 ± 0.3	82.5 ± 15.1	61.2 ± 3.6	20.2 ± 0.6	42.2 ± 9.9	36.9 ± 5.4

Table S2. Means for groups in homogeneous subsets of Tukey's HSD ($p < 0.05$) test of neutral red retention time (NRRT) and percentage of lysosomal membrane stability (%LMS) among the 9 treatments for *C. gallina* ($n = 16$).

NRRT				
Test condition	**N**	**Subset for a ∝ = 0.05**		
		1	**2**	**3**
12°C/ 27-28	16	55.31		
20°C/32-33	16	60.94		
27.5°C/32-33	16	65.63		
12°C/37-38	16	68.44		
27.5°C/27-28	16	68.44		
27.5°C/37-38	16	82.50	82.50	
12°C/32-33	16		116.25	116.25
20°C/27-28	16			131.25
20°C/37-38	16			133.13

%LMS			
Test condition	**N**	**Subset for a ∝ = 0.05**	
		1	**2**
20°C/32-33	16	49.17	
27.5°C/27-28	16	50.75	
12°C/37-38	16	52.17	
27.5°C/32-33	16	53.08	
12°C/27-28	16	53.34	
20°C/27-28	16	59.75	59.75
27.5°C/37-38	16	61.17	61.17
20°C/37-38	16		71.33
12°C/32-33	16		72.17

Table S3. Pairwise comparisons of LMS (expressed as NRRT and %LMS) at three salinity (S) levels (27-28, 32-33 and 37-38) for each temperature (T) and at three temperature levels (low, medium and high) for each salinity, for both species.

Factor		*C. gallina*		*D. trunculus*	
T	S	α (NRRT)	α (%LMS)	α (NRRT)	α (%LMS)
	27-28 /32-33	.003	.014	ns	ns
Low	27-28 /37-38	ns	ns	ns	ns
	32-33 /37-38	.003	.014	.040	ns
	27-28 /32-33	.002	ns	.005	.014
Medium	27-28 /37-38	ns	ns	ns	ns
	32-33 /37-38	.002	.017	ns	ns
	27-28 /32-33	ns	ns	-	-
High	27-28 /37-38	ns	ns	-	-
	32-33 /37-38	ns	ns	ns	ns
S	T				
27-28	Low/Medium	.007	ns	ns	ns
	Low/High	ns	ns	-	-
	Medium /High	.007	ns	-	-
32-33	Low/Medium	.004	.005	.000	.000
	Low/High	.004	.005	.000	.000
	Medium /High	ns	ns	.000	.000
37-38	Low/Medium	.005	.032	ns	ns
	Low/High	ns	ns	.000	.000
	Medium /High	.005	ns	.000	.000

– no data in this treatment. ns = $p > 0.05$. ANOVA – Tukey's HSD *post hoc*, *p*-value 0.05.

Table S4. Pairwise comparisons of the condition index (CI) of the four salinities (T) levels (reference, 27-28, 32-33 and 37-38) for each temperature (S) (reference, low, medium and high).

	Factor		*C. gallina*		*D. trunculus*	
	T (°C)	S	α (%CI)	α (CI size)	α (%CI)	α (CI size)
Reference	15.4	36.9 /27-28	-	-	-	-
	Low	27-28 /32-33	ns	ns	ns	ns
		36.9 /32-33	-	-	-	-
		27-28 /37-38	ns	ns	ns	ns
		36.9 /37-38	-	-	-	-
		32-33 /37-38	ns	ns	ns	ns
Reference	19.5	36.8 /27-28	ns	.040	.007	ns
	Medium	27-28 /32-33	ns	ns	ns	ns
		36.8 /32-33	ns	.040	.007	.000
		27-28 /37-38	.006	ns	.007	ns
		36.8 /37-38	ns	.040	ns	.000
		32-33 /37-38	ns	ns	ns	ns
Reference	23.5	37.1 /27-28	.007	ns	-	-
	High	27-28 /32-33	ns	ns	-	-
		37.1 /32-33	.007	.001	.000	ns
		27-28 /37-38	ns	ns	-	-
		37.1 /37-38	.007	.001	.000	ns
		32 - 33 /37-38	ns	ns	ns	ns

27-28	Low/Medium	ns	.000	.000	.005
	Low/High	ns	.000	-	-
	Medium /High	ns	ns	-	-
32-33	Low/Medium	.000	.000	.000	ns
	Low/High	ns	.000	.000	.000
	Medium /High	.000	ns	.000	.000
37-38	Low/Medium	.000	.000	.000	ns
	Low/High	ns	.000	.000	.000
	Medium /High	.000	ns	ns	.000

– no data in this treatment. ns = $p > 0.05$. ANOVA – Tukey's HSD *post hoc,* p-value 0.05.

Table S5. Correlation analysis between the different variables for *C. gallina*: salinity (S), temperature (T), condition index (CI), neutral red retention time (NRRT) and percentage of lysosomal membrane stability (%LMS) ($n = 9$).

Variable		Salinity	Temperature	CI	NRRT	%LMS
Salinity	Coeff. correlation	1.000	.000	.390	.162	.341
	Sig. (two-way)	-	1.000	.300	.676	.369
Temperature	Coeff. correlation	.000	1.000	.000	-.126	-.225
	Sig. (two-way)	1.000	-	1.000	.746	.560
CI	Coeff. correlation	.390	.000	1.000	.431	.265
	Sig. (two-way)	.300	1.000	-	.247	.491
NRRT	Coeff. correlation	.162	-.126	.431	1.000	.881
	Sig. (two-way)	.676	.746	.247	-	.002**
%LMS	Coeff. correlation	.341	-.225	.265	.881	1.000
	Sig. (two-way)	.369	.560	.491	.002**	-

**The correlation is significant at the 0.01 level (two-way).

Table S6. Means for groups in homogeneous subsets of Tukey's HSD ($p < 0.05$) test of neutral red retention time (NRRT) among the 9 treatments for *D. trunculus* ($n = 16$).

Test condition	N	Subset for a ∝ = 0.05					
		1	2	3	4	5	6
27.5°C/27-28	-						
27.5°C/32-33	16	30.00					
27.5°C/37-38	16	42.19	42.19				
12°C/32-33	16		69.38	69.38			
12°C/27-28	16			86.25	86.25		
20°C/27-28	16			92.81	92.81		
12°C/37-38	16				105.00	105.00	
20°C/37-38	16					136.88	136.88
20°C/32-33	16						165.94

Table S7. Means for groups in homogeneous subsets of Tukey's HSD ($p < 0.05$) test of percentage of lysosomal membrane stability (%LMS) among the 9 treatments for *D. trunculus* ($n = 16$).

Test condition	N	Subset for a ∝ = 0.05			
		1	2	3	4
27.5°C/27-28	-				
27.5°C/32-33	16	21.87			
27.5°C/37-38	16	36.94	36.94		
20°C/27-28	16		55.94	55.94	
12°C/32-33	16		60.81	60.81	
12°C/27-28	16			64.13	64.13
20°C/37-38	16			72.50	72.50
12°C/37-38	16			72.81	72.81
20°C/32-33	16				82.69

Table S8. Correlation analysis between the different variables for *D. trunculus*: salinity, temperature, condition index (CI), neutral red retention time (NRRT) and percentage of lysosomal membrane stability (%LMS) ($n = 8$).

Variable		Salinity	Temperature	%CI	NRRT	%LMS
Salinity	Coeff. correlation	1.000	.000	-.195	.071	.030
	Sig. (two-way)	-	1.000	.643	.868	.945
Temperature	Coeff. correlation	.000	1.000	-.976**	-.422	-.624
	Sig. (two-way)	1.000	-	.000	.298	.098
%CI	Coeff. correlation	-.195	-.976**	1.000	.562	.737
	Sig. (two-way)	.643	.000	-	.147	.037*
NRRT	Coeff. correlation	.071	-.422	.562	1.000	.969
	Sig. (two-way)	.868	.298	.147	-	.000**
%LMS	Coeff. correlation	.030	-.624	.737	.969	1.000
	Sig. (two-way)	.945	.098	.037*	.000**	-

*The correlation is significant at the 0.05 level and ** at the 0.01 level(two-way).