



Figure S1. Example of experimental protocol. After a habituation period, individuals were exposed for 12 weeks to three consecutive environmental challenges. For each environment, two weeks of control were alternated to two weeks of treatment. The syringe symbol represents blood sampling points for glucocorticoid levels, in which a blood sample was taken and individual mass recorded. Note that the environmental challenge order (here wind, food unpredictability, and heat) was randomized across the experimental subjects.

Table S1. AICc comparison between the corticosterone models with and without Individual ID as random intercept. 'Repeat ID' nested within 'Challenge ID' was also included as random term to account for the structure of the experimental design.

Rank levels	Models for corticosterone	<i>Df</i>	<i>LogLik</i>	<i>AICc</i>	$\Delta AICc$
1	Treatment + (1 Individual ID) + (1 Challenge ID/Repeat ID)	6	-126.64	265.95	0.00
2	Treatment + (1 Challenge ID/Repeat ID)	8	-129.52	269.51	3.75