

Does Fish Conditioning in Aquaculture Increase Survival Success in the Wild? A Case Study on a Cyprinid Fish

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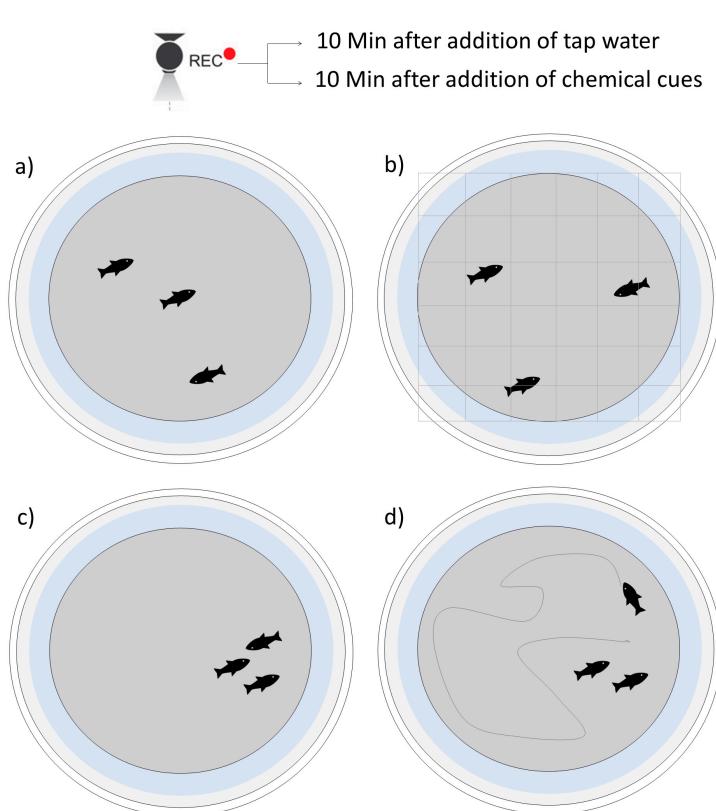


Figure S1. Schematic drawings of behavioral test conducted with asp (*Leuciscus aspius*) exposed to predator chemical cues and evaluation of its antipredator response: a) procedure of adding dechlorinated tap water or predator chemical cues, b) example of calculation activity score, c) example of calculation shoaling score and d) example of startle response.

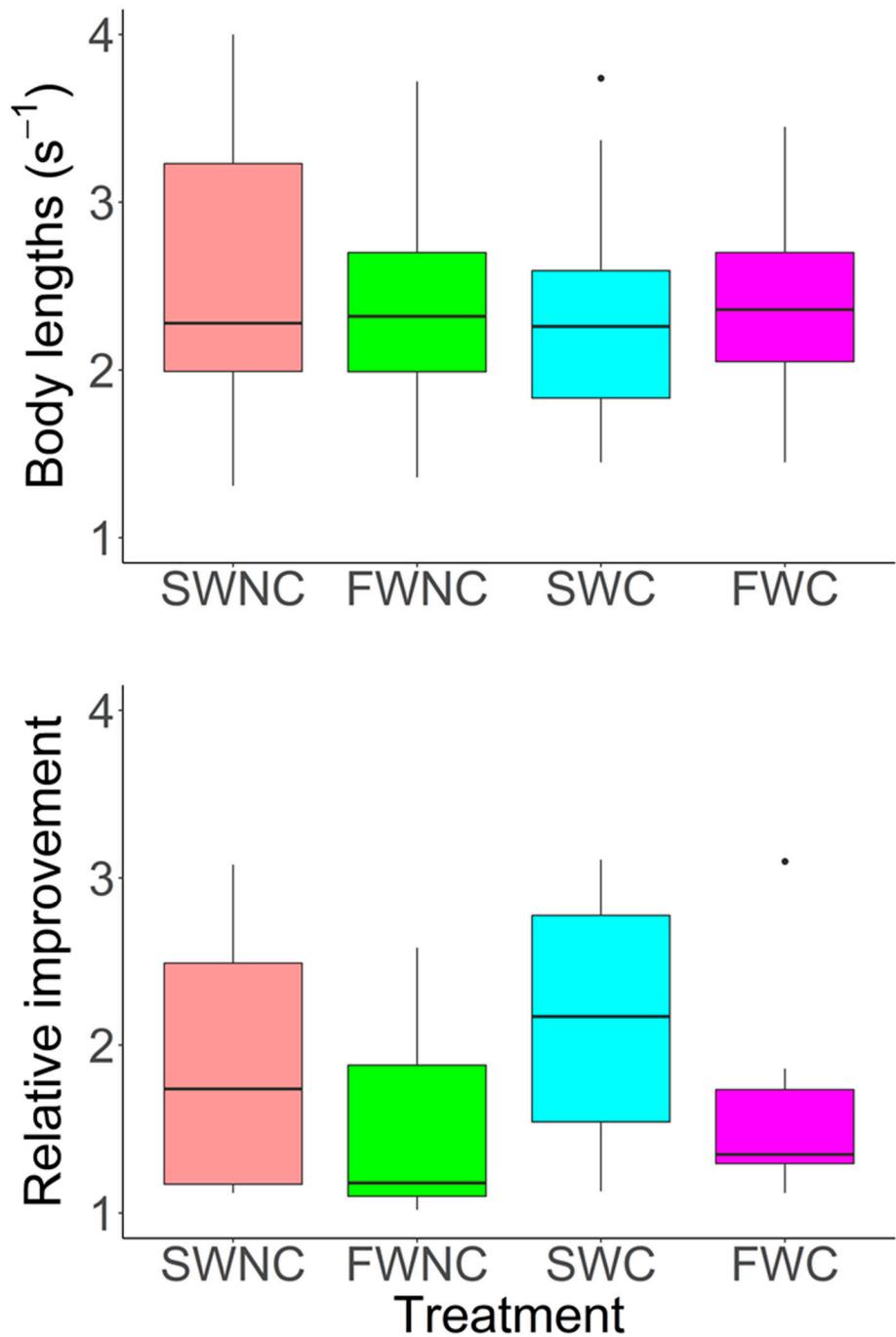


Figure S2. The absolute performance in body lengths $\times s^{-1}$ and relative performance the improvement before and after conditioning period of asp (*Leuciscus aspius*). Conditioning involved following treatments: SWNC – standing water and no cues; FWNC – flu-vial water and no cues; SWC – standing water and chemical cues; FWC – fluvial water and chemical cues. The thick line represents median, the box represents 50 % of interquartile range and whiskers outer 25 % of interquartile range excluding outliers.

Table S1. Summary of statistical tests used in the study: General linear mixed model (GLMM), Analysis of variance (ANOVA), General additive model (GAM), Wilcoxon signed-rank test (Wilcoxon) and Friedman test (Friedman). Explanatory variables used in the study were: treatment - treat., condition - cond., pond and their interaction - inter.

Pond mesocosm experiment					
Variable	Explanatory var.	Statistical test	DF	F	Significance
Survival	Treat., cond.	GLMM	3	-	no
Survival	Treat., cond.	ANOVA (type III)	3	3.336	no
Growth	Treat., pond (random)	ANOVA	3	3.887	yes
Growth	Pond	ANOVA	3	202.9	yes
Activity	Treatment, pond (random)	ANOVA	3	0.865	no
Large stocking experiment					
Variable	Explanatory var.	Statistical test	DF	F	Significance
Survival	Treat., pike, inter.	GAM	3	-	yes
Growth	Treat., pike, inter.	ANOVA	3	2.4	no
Laboratory assays					
Variable	Explanatory var.	Statistical test	DF	F	Significance
Swimming	Treat.	ANOVA	3	0.785	no
Behavior	Reaction to chemical cues	Wilcoxon	1	131.5–296.5 (W)	yes
Behavior	Treat.	Friedman	3	0.3–3.7	no