## Supplementary Material: Spiller et al.

**Table S1.** Full model set used to test for an effect of the environmental predictors (entered as fixed effects) on the PCs, which explain variation in the number of superficial neuromasts over specific regions of the body. Body length (SL) was included as a covariate in all models for PC1.

Model 1 = Predation risk

Model 2 = Habitat complexity

Model 3 = Flow velocity

Model 4 = Turbidity

Model 5 = Benthic invertebrates

Model 6 = Surface invertebrates

Model 7 = Habitat complexity + Flow velocity

Model 8 = Flow velocity \* Surface invertebrates

Model 9 = Flow velocity + Predation risk

Model 10 = Flow velocity + Turbidity

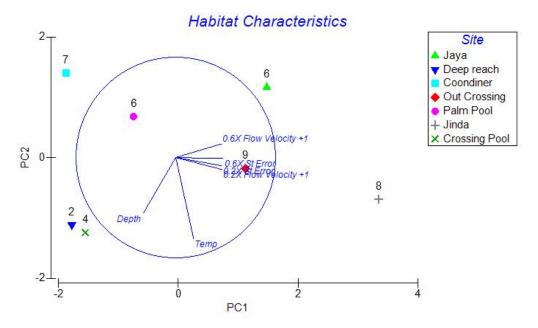
Model 11 = Surface invertebrates + Benthic invertebrates

Model 12 = Flow velocity \* Benthic invertebrates

Model 13 = Turbidity + Predation risk

Model 14 = random effect (site) only

**Fig. S1.** A plot of the principle components showing variation in the combined habitat characteristics among the sample sites. Data from one population (Weeli Wolli Creek) were excluded from the analysis owing to an incomplete dataset.



**Fig. S2.** A plot of the principle components for the flow measurements at the three different depths (0.2, 0.6, 0.8) for all three-flow directions (X, Y and Z) for Millstream National Park, Coondiner Creek and Weeli Wolli Creek.

