

# Is size & behavior affected by predators?

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## Introduction

The freshwater isopod *Asellus aquaticus* can in some lakes be found as two ecotypes.

One ecotype mainly lives in the reed while the other mainly lives in the stonewort stands. Previous studies show that the ecotypes differ in size, pigmentation and behavior.

Each habitat has a dominant type of predator which has a specific type of hunting tactic.

**Are the predators the cause of the difference between the ecotypes?**

## Method

Both ecotypes were subjected to predation according to the table:

Predator	Substrate
Perch	Stonewort
Perch	Reed
Damselfly larva	Reed
Damselfly larva	No substrate

The length of the isopods was measured before and after the trials.

To test behavior both ecotypes were presented with chemical cues from the predators.



Stonewort ecotype



Fish (Perch)



Stonewort and reed habitat

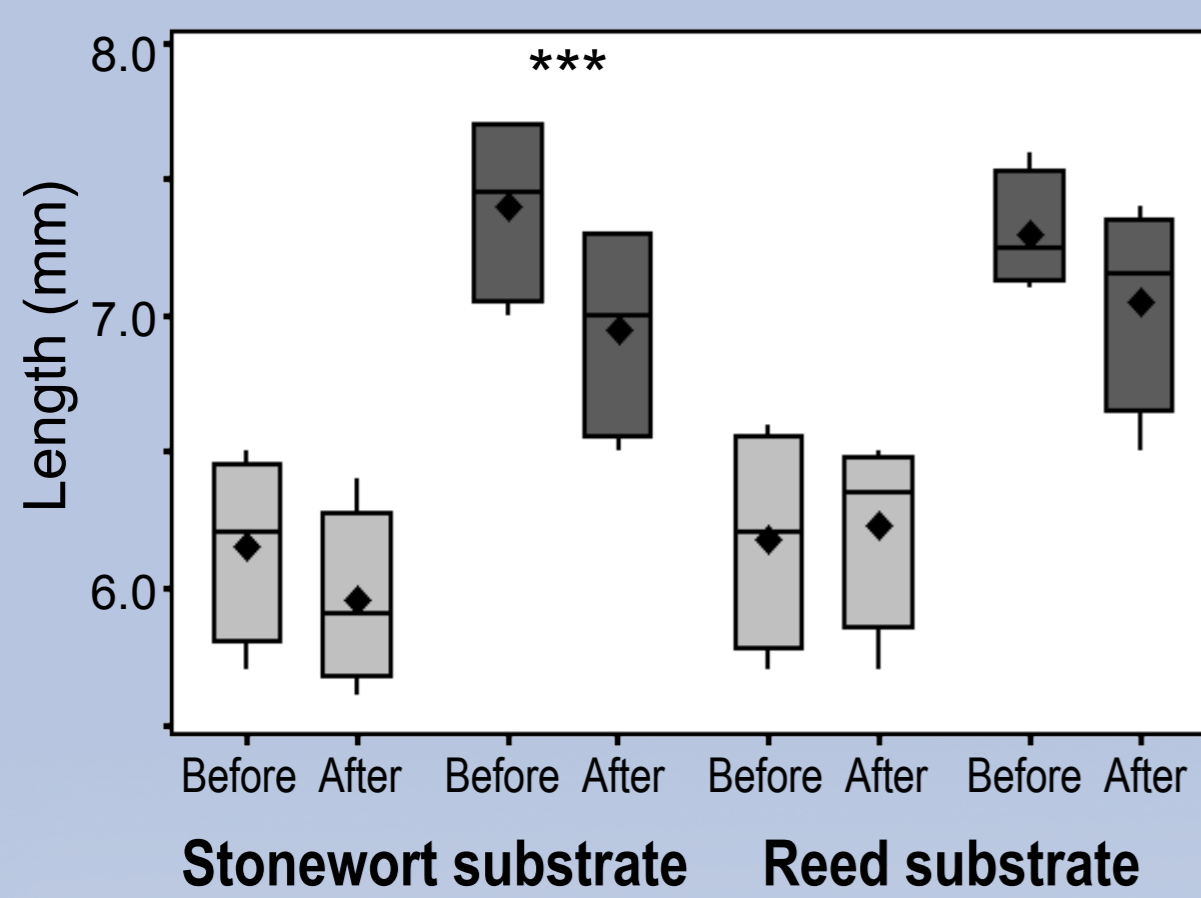


Invertebrate predator (Damselfly)

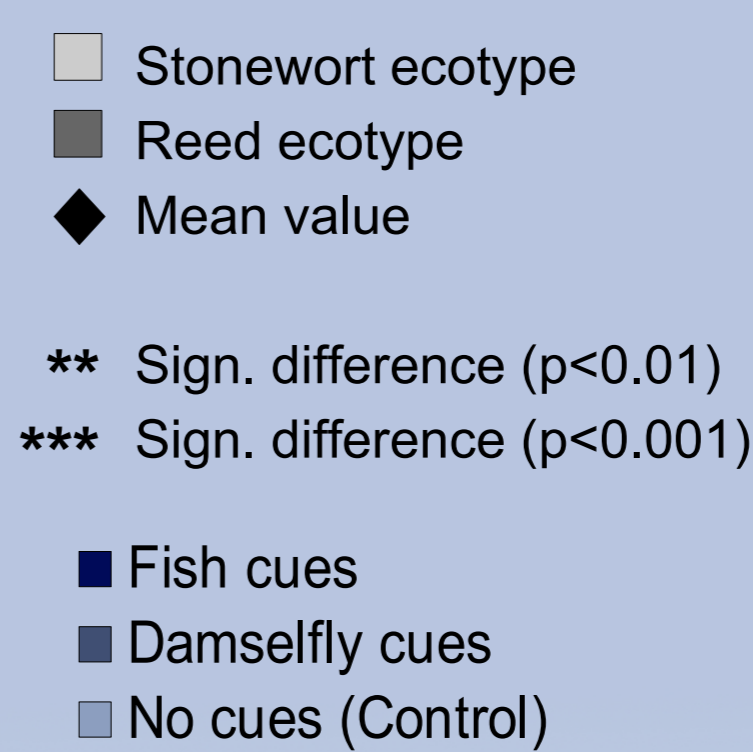
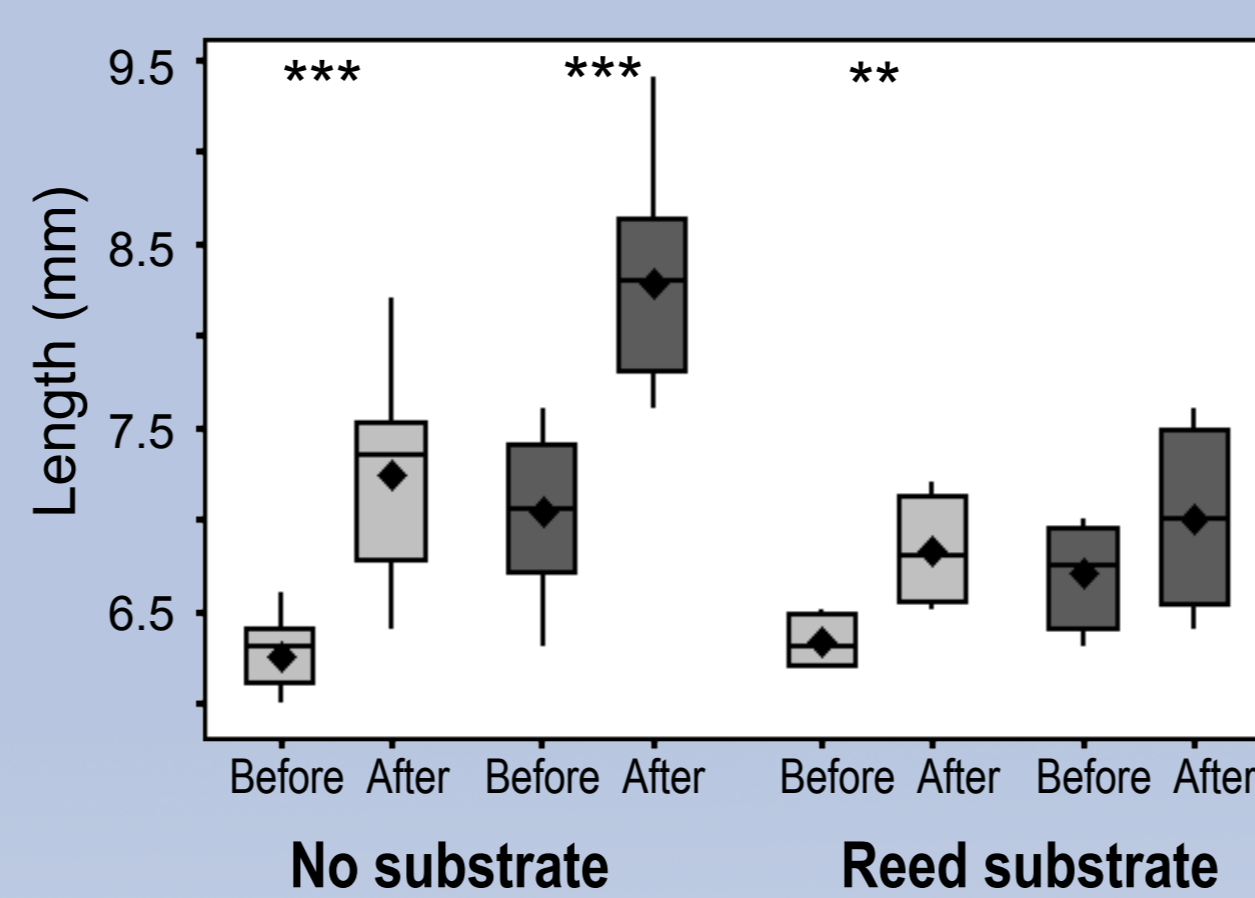


Reed ecotype

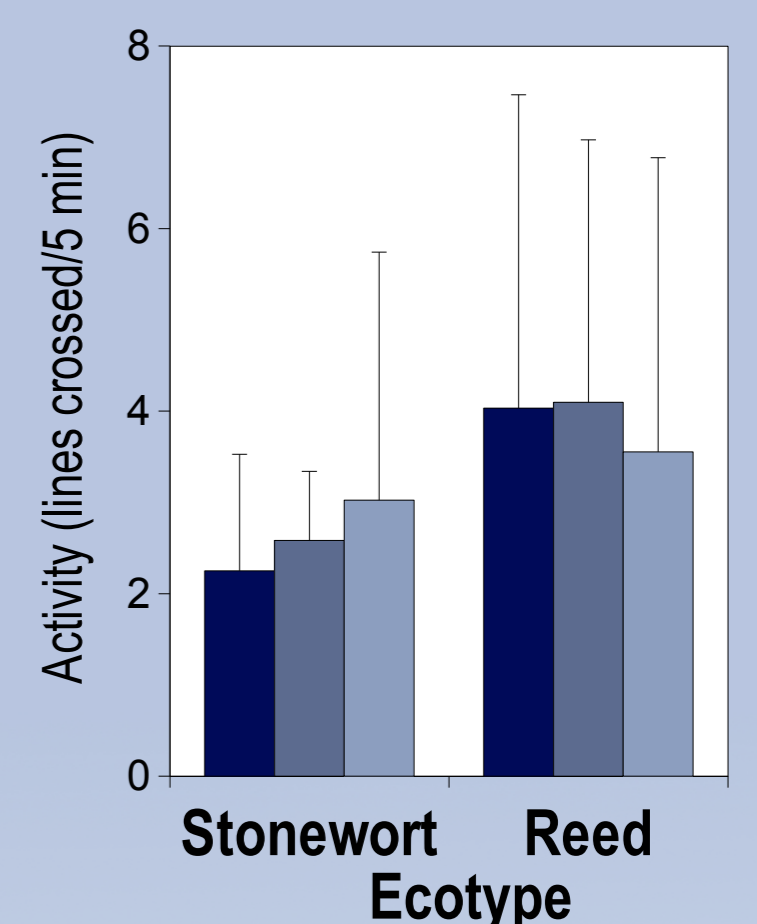
### 1. Perch predation



### 2. Damselfly predation



### 3. Behavior



## Conclusion

1. Perch prefers large isopods.
2. Damselflies prefer small isopods.
3. The behavior did not differ. This suggests that it is a plastic trait.

**The predators are likely to cause the difference in size between the ecotypes. No effect on the behavior could be found.**

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