

Master thesis in the team “Functional Aquatic Ecotoxicology”

Fungicides are introduced into the aquatic environment via point (wastewater discharges) and non-point sources (surface runoffs). There, fungicides can affect shredders via waterborne exposure (1). Additionally, these antimicrobial substances can influence shredders via their diet (2): firstly, fungicides can adsorb on leaf material and cause toxic effects in shredders via dietary uptake (2.1). Secondly, fungicides can affect the composition of leaf-associated microbial communities (2.2). These microorganisms are crucial for the nutritional value of the leaf material for shredders and shifts in the community may influence the food quality for these macroinvertebrates.

In a 24-day-bioassay with a 2x2-factorial design, you will investigate the effects of these two effect pathways (1 + 2) on the energy processing (feeding rate & feces production) and the physiological fitness (growth & energy reserves) of the amphipod shredder *Gammarus fossarum*.



