

How does light influence the microbial and macroinvertebrate mediated breakdown of leaves?

Institute of microbiology (SUPSI), [Stream ecology](#) group.

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Duration : 2 months between June and August

Location: Campus Mendrisio

Keywords: stream ecosystem functioning, leaf litter decomposition, biodiversity

We are looking for an enthusiastic MSc student for a pre-stage project who will be working on the abiotic and biotic factors influencing the ecosystem process of leaf breakdown in streams. The project involves field work and lab work at SUPSI in Mendrisio (TI). This project is part of a larger research program investigating the effects of the riparian vegetation on streams and leaf litter breakdown therein.

Leaf litter breakdown is an important ecosystem process that links terrestrial and aquatic ecosystems. Microbial decomposers, such as aquatic fungi, and macroinvertebrates, such as aquatic insects and crustaceans, both contribute to leaf litter breakdown. However, we lack in understanding about the effects of ongoing deforestation of the riparian vegetation and as consequence an altered light regime on aquatic ecosystem processes. Therefore, the main goal of this project is to explore how light availability affects microbial and macroinvertebrate mediated breakdown of leaves through a combination of field and subsequent lab experiments manipulating light intensity. The student will have the opportunity to help design and execute suitable experiments incorporating their own ideas on how to best answer the main research question.

Requirements: Interest in aquatic ecology and willingness to independently perform extensive field and lab work. English language skills are required.



We are looking forward to meeting you!