

Sessão 34
Ecologia B

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COLONIZATION ON LEAVES BY MACROINVERTEBRATES AND LEAF BREAKDOWN OF NATIVE AND EXOTIC SPECIES IN AN ATLANTIC FOREST STREAM (RIACHO SOLIDÃO) IN SOUTHERN BRAZIL. *Kaisa Maria Mustonen, Gilberto Goncalves Rodrigues*

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Terrestrial vegetation that enters the stream channel is an important food source to the stream ecosystem and provides habitat for many stream invertebrates. Processing of this material is a functional characteristic of streams, involving microbial, animal and physico-chemical interactions, and understanding these processes is essential to conservation of the hydrological basis. The leaf breakdown state indicates metabolism and function of the aquatic ecosystems. By comparing leaf breakdown of native and exotic riparian species, and researching colonisation by benthic macroinvertebrates on the leaf material, this study is aimed to verify the aspects involved in the decomposition of organic matter derived from the surrounding vegetation in stream ecosystems in the selected study area. Two native species (*Trema micrantha* and *Inga uruguensis*.) and one exotic species (*Populus* sp.) were chosen for the experiments. Exactly 4 grams of air-dry leaves of each species were inserted in nylon-made litter bags (97 bags) and exposed to water in the study area. 3-4 leaf bags are removed from the water after periods of 24 hours, 7 days, 14, 28, 56, 90, 120, 150 and 180 days, and removed and transported into the laboratory for further handling. All the leaf bags have been exposed to water and the first bags have already been removed after 24 h, 7 and 14 days of exposure. At the time of removing the leaf bags, physical parameters, such as pH, temperature, conductivity and dissolved oxygen, have been measured from the water. *T. micrantha* shows higher leaf breakdown than *I. uruguensis* and *Populus* sp.. After 7 days of exposure the leaves of *T. micrantha* had lost 44, 67 % of their original dry weight.