PFEN 241

The Department of Forestry and Natural Resources presents:

Ecoacoustics as a monitoring tool in low visibility environments

An important diversity of animal species produces sounds during communication, orientation, movement, or prey-predator acts. These sounds are not distributed randomly in space and time and are therefore thought to follow assembly rules forming either acoustic populations or acoustic communities. The use of acoustics is particularly suited to detect the presence, density, location and status of acoustic populations and communities in low visibility environments. The main aim of this seminar is thus to explore the prospects of using acoustic monitoring in low visibility environments. These prospects are studied with examples of underwater and substrate-borne sounds. First, to understand the potential factors structuring freshwater acoustic communities, an environmental variable was assessed along with the composition of acoustic communities found in six secondary channels of the Rhône riverine floodplain. Then to test the possibility to monitor a whole population and its acoustic dynamics, a population of aquatic insect, Micronecta scholtzi, was acoustically monitored in a Mediterranean pond. This experiment revealed that changes in the population dynamics can be detected with acoustics. Finally, to test for effects of seasonal and social experience on calling repertoire in arthropods, the vibrational communication system of Enchenopa was studied. Those three levels of study (community, population and individual) strongly suggest that acoustic monitoring can be used to monitor environments closely, continuously and non-invasively.

FNR
GRADUATE SEMINAR SERIES

Join us for a lecture and conversation with

Dr. Camille Desjonquères

TUESDAY
February 13, 2018
3:30PM

FNR 67900
SPRING 2018

Everyone is welcome to attend. This series aims to stimulate discussion and create opportunities for collaborations.

Dr. Camille Desjonquères
Post-Doctoral Fellow,
University of Wisconsin, Milwaukee

If you are interested in meeting with Dr. Desjonquères, please contact Ben Gottesman at bgottesm@purdue.edu.

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