



Eidg. Forschungsanstalt für Wald, Schnee und Landschaft WSL
Swiss Federal Institute for Forest, Snow and Landscape Research WSL
Istituto Federale Svizzero per il bosco, la neve e il paesaggio WSL

Master thesis project in Invasion Biology

Effects of an exotic palm species on arthropod diversity and ecosystem functioning in Ticino



There is still limited understanding on how non-native plants affect biodiversity and functioning of invaded ecosystems. Here we focus on the Chinese windmill palm (*Trachycarpus fortunei*), which is considered invasive in Southern Switzerland. However, no empirical evidence of ecosystem effects of this species exist, even though this is essential to assess the role of this palm in its new environment.

The proposed Master thesis investigates potential effects of this palm species on arthropod diversity and ecosystem processes, such as predation success by birds and decomposition of leaf litter on the ground.

Link: the thesis is part of a global project led by the Aarhus University (DK) focusing on the role of non-native palms as generators of novel ecosystems (contact: Vincent Fehr, PhD student, vincent.fehr@bios.au.dk).

Fieldwork date and locations: May and June 2019 (2 months) - The study areas are distributed in woodlands in the regions of Locarno, Lugano, Mendrisio/Chiasso. Working place is at the Swiss Federal Research Institute WSL in Cadenazzo for the field season (June-July) and WSL Birmensdorf/ZH for lab work and data analyses.

Requirements: Highly motivated master student in ecology or related field with ability to work independently to move in rough terrain Driving license. Good English skills. No particular taxonomic knowledge needed; just the willingness to learn. Skills in statistics with R are favorable

Offers: Possibility to publish in a peer-reviewed journal. Stay at the WSL in Birmensdorf-ZH for lab work and data analyses. Opportunity to work within a breathtaking scenery with a Mediterranean atmosphere.

The main supervisors are Dr. Marco Moretti (WSL Birmensdorf) and Vincent Fehr (PhD student, Aarhus University, DK), with the collaboration of Boris Pezzatti and Marco Conedera (WSL Cadenazzo).

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