



Catalina Chaparro-Pedraza receives John Maynard Smith Prize

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Every year the European Society for Evolutionary Biology (ESEB) distinguishes an outstanding young evolutionary biologist with the John Maynard Smith Prize. This year's prize goes to Catalina Chaparro-Pedraza, postdoc at the aquatic research institute Eawag.

Catalina Chaparro-Pedraza on her research work: “Anthropogenic changes impose stress upon ecosystems at an unprecedented rate. It is a major challenge to understand how those changes alter ecosystem resilience. To meet this challenge, ecologists have thoroughly investigated how altered ecological processes influence ecosystem resilience. However, environmental changes do not only alter ecological processes but also evolutionary processes. During my PhD with Prof. André de Roos at the University of Amsterdam, I investigated the eco-evolutionary consequences of diverse environmental stressors on migratory populations. In this work, we showed that adaptive evolution in response to altered environmental conditions can drive ecological communities beyond tipping points, causing dramatic shifts in the function and structure of such communities. Currently, as a Marie Curie fellow at Eawag, I am studying how environmental conditions by shaping evolutionary and ecological processes, and their feedbacks, alter ecosystem functioning. My research showed that adaptive evolution can both prevent ecosystem collapse but delay ecosystem recovery. I expect that this work will provide valuable insights for understanding how adaptative evolution contributes to the capacity of ecosystems to maintain their functions in the face of rapid environmental change. These insights should contribute to improve the sustainable exploitation of ecosystem services.”

The prize will be celebrated at the ESEB congress in Prague, Czech Republic, where Catalina Chaparro-Pedraza will give the 2022 John Maynard Smith Prize Lecture.

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John Maynard Smith Prize

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