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# Invasive Crayfish moving Northwards: management challenges and policy implications at the local scale

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Poster Session 1, June 20, 2023, 1:15 PM - 2:15 PM

## **Biography:**

*Dr. Bruno is an aquatic ecologist with a particular interest in animal biodiversity and ecosystem processes. One of her current research interests is the conservation of endangered species, and she has prepared the management plant for the endangered crayfish Austropotamobius pallipes in Trentino, and is supervising all the implementation activities described in the Plan: monitoring, control of alien invasive species, active conservation measures.*

Freshwater ecosystems in Italy, as in most European countries, have been severely impacted by the invasion of alien crayfish. The two most widespread species in Trentino (NE Italy) are *Procambarus clarkii* and *Faxionus limosus*; for both species, the high elevation and cold climate of most of the Trentino territory represent a climatic barrier to their northwards spread. *Procambarus clarkii* is present in one small lake at 950 m asl, and *Faxionus limosus* in a group of 5 lakes at 450 m asl, over an area of about 80 km<sup>2</sup>. The introduction of both species is associated with fish restocking, and leads to the extinction of existing populations of the native stone crayfish *Austropotamobius pallipes*. The Management Plan of *Austropotamobius pallipes* in Trentino listed the eradication/containment of these IAS populations among the conservation priorities for the native populations. The eradication campaigns of *P. clarkii* started in 2018 with a release/recapture campaign aimed at assessing the abundance of the population and continued in 2020-2022. As a result, the capture efficiency decreased, suggesting a population reduction trend. The containment of *Faxionus limosus* is more difficult, given its presence in a higher number of lakes, three of which are hydrologically connected. A first containment campaign to prevent its spread in the river network is planned for summer 2023. The financial support for these activities has been granted by the local Nature 2000 networks and by the local administrations, which have also promoted communication with citizens and stakeholders to raise consensus and collaboration.

