

Biological invasions and their management: bridging ecological to sociological considerations

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Session description

Biological invasion studies, which seeks generic processes underlying invasiveness and invisibility, are relatively new, and must be geared to meet the new challenges of socio-economic context. The ecological impacts of invasive species remain controversial. Meanwhile, case studies reported that biological invasions can jeopardize the viability of some species within an invaded community, particularly species with small densities or low fecundity, ending in the erosion of biodiversity. The understanding of existing feedbacks between the biological underpinnings of an invasion process and socio-economic policies represents another caveat in our understanding of invasion processes. Our current knowledge of biological invasions remains incomplete, and we must regroup the environmental, economic, and sociological researches to provide a holistic approach of the phenomenon. A diversity of independent case studies and context-dependent explanatory factors leads to difficulty in formulating a general framework to investigate biological invasions, resulting in shortcomings in developing a unified theory. Consequently, we believe our knowledge in this field of study will grow substantially by bridging different scientific disciplines, sub-disciplines, and technologies, and to share our results at national and international levels. This is the major aim of the research group (GdR) "Biological Invasions" funded by InEE- CNRS. The bridge among these various forms of analyses will facilitate a better understanding of invasive species success and impacts within the invaded ecosystems. This consortium will meet on October 2016 at Palais du Pharo (Marseille), and we are proposing to underscore and synthesised the main points on this topic *via* plenary lectures in this symposia.

Speakers

- **Dries BONTE** (Ghent University, Belgium) Eco-evolutionary dynamics of dispersal during biological invasions
- **Emili GARCIA-BERTHOU**. (University of Girona, Spain) Hydrological alteration and invasibility in Mediterranean streams
- **Franck COURCHAMP** (ESE, Paris-SUD) Massive yet massively underestimated global costs of invasive insects
- **Eric LOMBAERT** (INRA-Sophia Antipolis) Insights from evolutionary genetics of invasive species: introduction routes, bottlenecks and admixtures
- **Anke Fisher** (James Hutton Institute) How people make sense of invasive species: values, attitudes and (shared) understandings