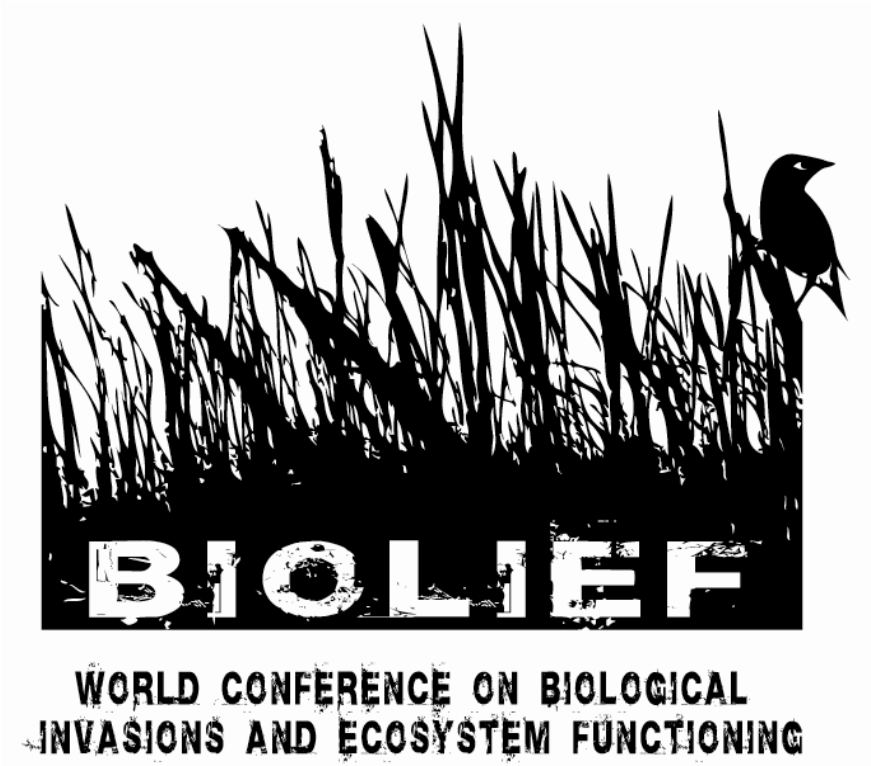

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Interactive effects of functional diversity and propagule limitation at different invasion stages

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Invasion success is ultimately determined by the interaction of invaders arrival (propagule pressure) and the availability of resources needed by the invader to establish. Our aim is to examine the effects of propagule pressure and native diversity on the invasion success through an experimental design that will manipulate simultaneously both factors. Experiments will be conducted in rock pools, where diversity of functional groups will be modified by using synthetic assemblages of varying diversity. Propagule pressure can be manipulated by attaching near the synthetic assemblages different ratios of sterile/reproductive tissue of invaders while maintaining the total biomass. Colonization success will be recorded through continuous monitoring of invader survivorship and growth. Impact of invaders on the assemblages will be recorded through the changes in species abundances and primary productivity. Our initial hypothesis is that there is a positive relationship between invasibility of communities and propagule pressure of the invader but its shape is determined by the diversity of the invaded assemblages.

The biological invasion of *Corythucha ciliata* (Hemiptera: Tingidae) in Portugal: An habitat modeling approach using a maximum-entropy technique

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Corythucha ciliata is native to North America and has been introduced into Europe, through Italy, in 1964. Since then it has expanded across Europe being its date of arrival and distribution in Portugal unknown. This pest feeds on the underside of the leaves of sycamore trees (one of the most widespread ornamental tree in urban areas of Portugal) causing their premature senescence and death, in case of consecutive severe infestations. Habitat modeling is becoming an increasingly important tool for managing biological invasions, either prior or after the introduction of the invasive species. The models can be used to proactively assess the threat before introduction or, once the organism is introduced, to develop measures to stop or slow down dispersal. In this study we used the software Maxent (maximum entropy) to model the distribution of *C. ciliata* in its Portuguese invasive range. As input, we used a set of environmental variables, as well as a set of georeferenced occurrence locations.