

Fungal communities as an experimental approach to Darwin's naturalization hypothesis

Morales, María Camila

Verdejo, Valentina

Orlando, Julieta

Carú, Margarita

© 2015 Institut Pasteur. Darwin's naturalization hypothesis suggests that the success of an invasive species will be lower when colonizing communities are formed by phylogenetically related rather than unrelated species due to increased competition. Although microbial invasions are involved in both natural and anthropogenic processes, factors affecting the success of microbial invaders are unknown. A biological invasion assay was designed using *Trichoderma cf. harzianum* as the invader and two types of recipient communities assembled in microcosm assays: communities phylogenetically related to the invader, and communities phylogenetically unrelated to it. Both types of communities were invaded by *T. cf. harzianum*, and the success of colonization was monitored by qPCR; its effect on the genetic structure of recipient fungal communities was then assessed by DGGE profiles. *T. cf. harzianum* established itself in both communities, reaching 1000-10,000 times higher copy numbers in the non-relat