

ABSTRACTS POSTER PRESENTATIONS

Session 1: Patterns, mechanisms and evolution of species invasiveness**Soil-dependent growth strategy of invasive plants: experimental evidences and model predictions using *Carpobrotus edulis* as target species**

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Several invasive species modify the biotic and abiotic composition of the soil, which results in a contrasting mosaic of soil environments within the invaded landscape. However, up to date, it has not been addressed how the mosaic created by the residual effects of these species on soil influence their own establishment. This is particularly important for invasive species that are able to disperse by means of seeds or vegetative growth. Using a combination of lab experiments and a evidence-based Monte-Carlo simulation model we assessed on one hand whether the residual effects on soil caused by *Carpobrotus edulis* (a highly invasive species in Mediterranean Europe and also in the British Isles) would affect the vegetative and reproductive traits of the species; and on the other hand, the consequences for the dynamics of establishment under different scenarios. The outcome of the experiments and the simulation model indicated that slight initial differences attributed to the residual effect on soil of *C. edulis* have determinant consequences in the rate and the dynamics of colonization and re-colonization of landscapes in invaded areas. Our results highlight the plasticity of the species as a function of the soil environment and put forward a model that can be useful to understand the dynamics of invasion not only of *C. edulis* but of other exotic species.

de la Peña, E., Rodríguez-Echeverría, S., Roiloa, S., Freitas, H., Bonte, D. Soil-dependent growth strategy of invasive plants: experimental evidences and model predictions using *Carpobrotus edulis* as target species. *Oecologia*, in review

Roiloa, S., Rodríguez-Echeverría, S., de la Peña, E. Freitas, H. Understanding the role of clonality in plant invasions: a field experiment with *Capobrotus edulis*. *Annals of Botany*, in review