

## Workshop 2

### Poster presentation

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### Germination Responses to Salt Stress in *Plantago crassifolia*

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*Plantago crassifolia* is a perennial halophyte spread in salt marshes throughout the Mediterranean region. Responses to salt stress of this Mediterranean halophyte were studied during the germinative phase of the life cycle. The responses to salt stress are diverse at different stages of plant development. Seed germination in particular is extremely sensitive to salinity. Once the bottleneck of seed germination is overcome, salt tolerance increases progressively with the age of plant. Seedling survived NaCl concentrations of 200-300mM NaCl, which completely inhibited germination, showing little or no damage, and adult plants survived up to 500mM NaCl. Germination of seeds sampled in the wild, almost quantitative in water, was drastically inhibited by external concentrations of NaCl. On the other hand, seeds obtained from plants cultivated in different NaCl treatments showed a different pattern of germination, the salt tolerance gradually increasing from wild seeds to those sampled in the second generation and third generation of plants grown in experimental conditions. These preliminary data indicate a possible adaptation of the process of germination to increasing conditions of salt stress.