

# KEY FEATURES OF A SUCCESSFUL INVASIVE MACROALGAE: THE CASE OF *ASPARAGOPSIS TAXIFORMIS* IN ALBORAN SEA

## COMUNICACIÓN ORAL

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*Asparagopsis taxiformis* (Bonnemaisoniales, Rhodophyta) is considered one of the most invasive seaweeds in the Mediterranean, and is included in the Spanish checklist of invasive species. Recorded for the first time in Southern Spain nearly twenty years ago, we are now ready to highlight its key features to have become a successful invader in Alboran Sea.

Genetic studies showed that only one lineage of this species complex, is invasive in Alboran Sea, the lineage 2, which exhibits a wide physiological plasticity, exhibited in a wide thermal adaptation of performances of photosynthetic parameters like  $P_{max}$  and  $\alpha$ . Furthermore, the species is able to inhabit from shallow subtidal up to depths over -30m, due to its low  $I_c$ .

The species exhibits a trigenetic life-cycle, with an invasive gametophyte dominating the host community, and a free-living tetrasporophyte (*Falkenbergia* phase) being the dispersal one. The gametophyte is present all the year round, and exhibits a high recruitment and vegetative growth capacity, which support more than 90% of the community biomass. Furthermore, sexual reproduction was performed during the whole year, except in winter months, accounting in summer months with more than 50% of the population with reproductive structures. Minimum size for reproduction was low (4-6 cm), considering the maximal size observed for the species in the study site (30 cm). Statistical analysis has shown no relationship of reproduction with environmental factors, such as nutrients or temperature.

These features, together with some other more, become *A. taxiformis* in an invasive species already well settled in Alboran Sea.