



# What you need to know to be a superplant

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*Carpobrotus edulis* (L.) N.E. Br is currently one of the major plant invaders in coastal habitats worldwide, being coastal dune systems one of the most easily affected given the environmental conditions in those habitats, being the most important, the salt concentration on the water and soil.

In order to find out *C. edulis* salt resistance and the possible effect of nutrients on its performance, groups of 10 plants were subjected to 5 salt treatments and 5 salt treatments with nutrients. For each plant information on root and shoot length, fresh and dry weight and physiological activity were collected.

- In all the treatments, *C. edulis* presents a similar photosynthetic activity, being slightly higher in the presence of nutrients on lower salt levels (Figure 1).
- As salt concentration increases, there is a higher mass allocation on the shoots. The difference between the mass on the roots and the shoots gets higher with the presence of nutrients (Figure 2).

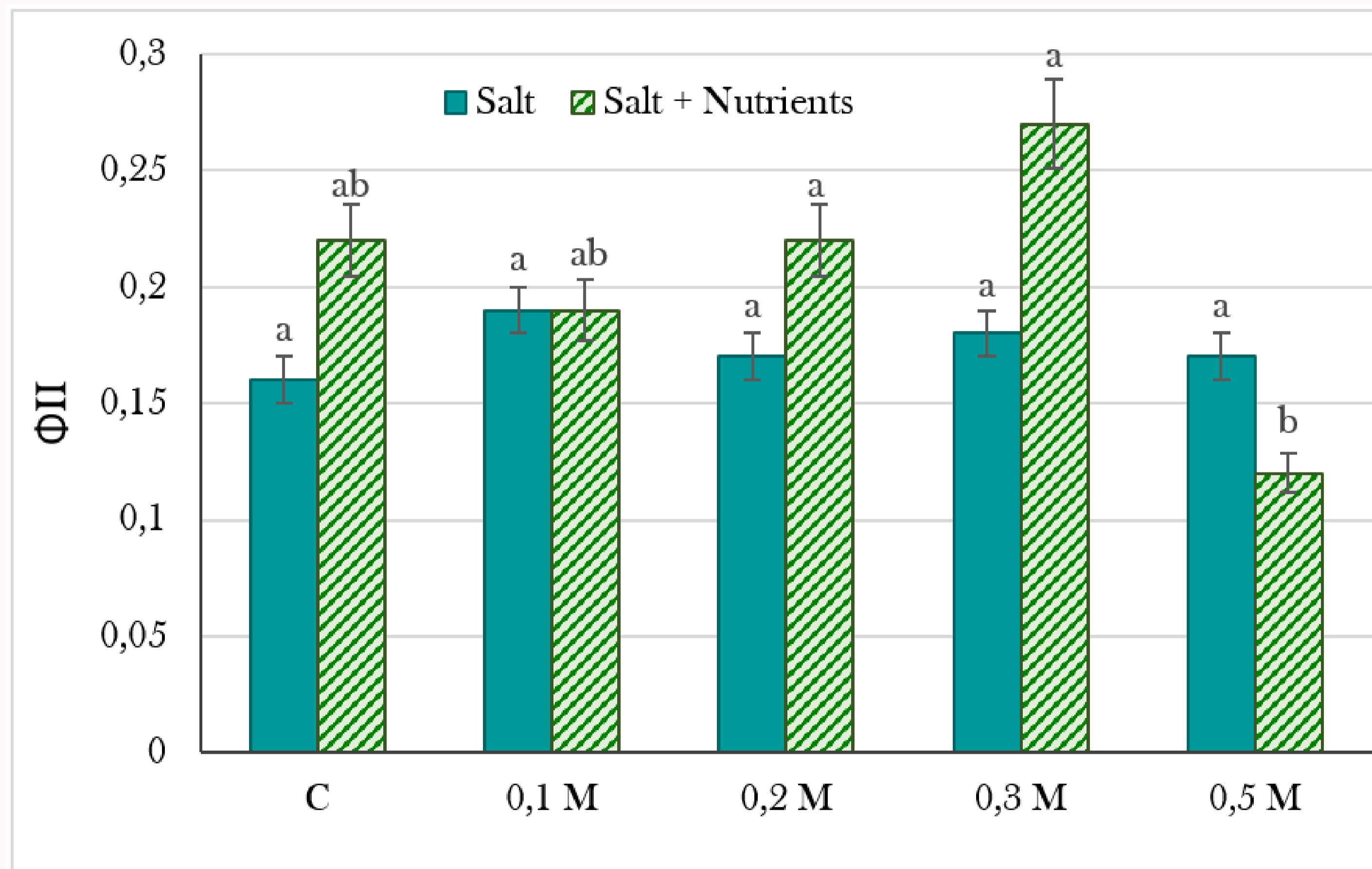


Figure 1. Quantum yield of photosystem II ( $\Phi_{II}$ ) of *C. edulis* growing on the different treatments.

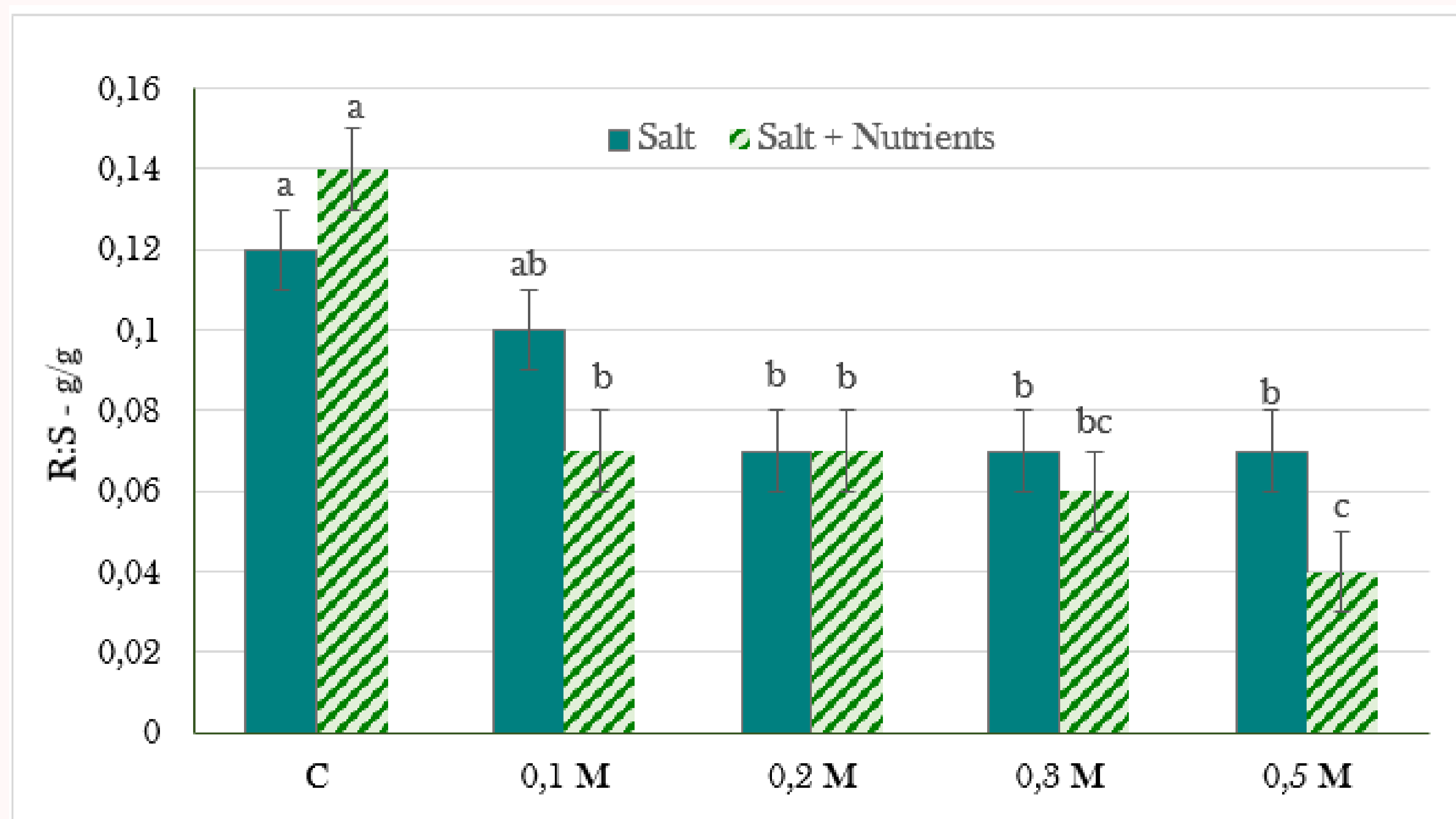


Figure 2. Root shoot ratio (root dry weight/shoot dry weight) of *C. edulis* growing on the different treatments.

*Carpobrotus edulis* has a healthy photosynthetic activity at any salt concentration. However, the biomass is not equal in all the concentrations, meaning the photosynthetic energy might be used in photoprotective mechanisms and stress resistance strategies. Further studies are needed.