A rose is a rose? Variation in the responses of the True Rose of Jericho to neighbors and habitat conditions

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Disentangling the ecological processes that govern the success of populations and shape their specific characteristics lies at the heart of the ecological discipline. Understanding the role that environmental conditions play in shaping such processes is particularly relevant for understanding plant's capability to cope with and survive in extreme habitats, such as the Israeli desert. In such extreme habitats, limiting soil moisture, high soil salinity and high temperatures combined with high climatic intra- and inter annual fluctuations to generate unique and challenging conditions for plants. The True Rose of Jericho *(Anastatica hierochuntica),* an annual plant of the Brassicaceae family, serves as an excellent model species to study life in extreme deserts, because it is distributed along a broad range of dry ecosystems and exhibits tolerance to high temperatures and salinity level. With a set of controlled experiments and field observations, I aim at entangling the forces governing this species success. I suggest that adaptation to dry conditions, combined with flexible response and maintenance of relatively high variability in functional traits at the site level, explain the ability of the True Rose of Jericho to grow in a relatively broad spectrum of conditions within the desert region.