



Graphical abstract.

Yearly bioclimatic deviations of *P. edulis* from historical, pre-episode climatic suitability (1972-2000) during 2001-2007. Climatic suitability diminished dramatically during the die-off event period in concordance with localities where *P. edulis* exhibited die-off, but also where suitability had been higher during the historical period. The combined effect of historically high climatic suitability and a marked decrease in the suitability during the drought best explained the range-wide mortality.