Ladah, L.B., J.A. Zertuche González & **G. Hernández Carmona** (1999). Giant kelp (*Macrocystis pyrifera*, Phaeophyceae) recruitment near its southern limit in Baja California after mass disappearance during ENSO 1997-1998. Journal of Phycology, 35(6): 1106-1112. DOI: 10.1046/j.1529-8817.1999.3561106.x

Giant kelp (*Macrocystis pyrifera*, Phaeophyceae) recruitment near its southern limit in Baja California after mass disappearance during ENSO 1997-1998

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During the ENSO event of 1997-1998, density and population structure were evaluated in a *Macrocystis pyrifera* forest located in Bahía Tortugas, Baja California, Mexico, near the southern limit of the species' distribution in the Northern Hemisphere. Observations in Bahía Tortugas were made quarterly from January 1997 to September 1998 using SCUBA diving surveys. No macroscopic plants were found in the Bahía Tortugas area from October 1997 to April 1998, a local absence of at least 7 months. Aerial surveys further suggest regional disappearance along most of the Baja California coast during the event. Unexpectedly, plants were found in Bahía Tortugas again in July 1998, in spite of the widespread disappearance of the species less than a year earlier. Long-distance spore dispersal was an unlikely cause of the recruitment because: 1) the nearest spore source was more than 100 km away; 2) recruitment appeared to be simultaneous at many sites and occurred rapidly after the cessation of the ENSO event; and 3) the recruits occurred in the same areas as before disappearance. We suggest that a microscopic stage that was not visible during dive surveys survived the stressful conditions of ENSO and caused the recruitment event, supporting the hypothesis that a bank of microscopic forms can survive conditions stressful to macroscopic algae.

Palabras clave: Tendencias espaciales, ENSO, valoración económica, alginate, El Niño, Population dynamics, disturbance, extinction, giant kelp, microscopic stages