{rokbox title=|Lophocladia lallemandii :: Foto: Salud Deudero (COB-IEO)| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-salud-deudero-lophocladia-2012-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-salud-deudero-lophocladia-2012.jpeg{/rokbox}

Silvia Tejada, **Salud Deudero**, Antonio Box, Antoni Sureda, (2012). **Physiological response of the sea urchin *Paracentrotus lividus* fed with the seagrass *Posidonia oceanica* and the alien algae *Caulerpa racemosa* and *Lophocladia lallemandii***. Marine Environmental Research. Volume 83, February 2013, Pages 48–53

Abstract: The aim was to determine the effects of alien algae feeding on biomarkers of oxidative stress in the sea urchin *Paracentrotus lividus*. Sea urchins were fed during three months with the native seagrass *Posidonia oceanica*, and the alien macroalgae *Caulerpa racemosa* and *Lophocladia lallemandii* and biochemical analysis were performed in the gonads. A control group was immediately processed after sampling from the sea. Antioxidant enzyme and glutathione S-transferase activities and GSH concentration were significantly higher in sea urchins fed with alien algae when compared with the control group and the one fed with *P. oceanica* group. This response was more intense in the group fed with *L. lallemandii* respect to the *C. racemosa* group. The concentration of MDA, protein carbonyl derivates and 8-OHdG reported no significant differences between treatments. In conclusion, the invasive algae *C. racemosa* and *L. lallemandii* induced an antioxidant response in *P. lividus*

without evident oxidative damage.

Keywords: Antioxidant response, Invasive algae, Mediterranean Sea, Oxidative stress