

{rokbox title=|Pachygrapsus marmoratus :: Image: A. M. Arias (Ictiobase)|
thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-adaptation-native-crab-pachygrapsus-marmoratus-invasive-percnon-gibbesi-tejada-et-al-2015-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-adaptation-native-crab-pachygrapsus-marmoratus-invasive-percnon-gibbesi-tejada-et-al-2015.jpg{/rokbox}

Silvia Tejada, **Salud Deudero**, Antonio Box, Antoni Sureda, 2015. [Physiological adaptation to Mediterranean habitats of the native crab *Pachygrapsus marmoratus* and the invasive *Percnon gibbesi* \(Crustacea: Decapoda\)](#). Scientia Marina. 79(2): 257-262.

Abstract: Markers of oxidative stress in the hepatopancreas and carotenoid and vitamin E content in the carapace of the invasive crab *Percnon gibbesi* and the native crab *Pachygrapsus marmoratus* were compared as indicators of their physiological condition and environmental adaptation. Crabs similar in size were collected from coastal waters of Portals Vells (Mallorca Island, Spain; 39°28'18.79"N, 2°28'19.63"E) at less 1 m depth. Vitamin E levels were significantly higher in *P. marmoratus* than in *P. gibbesi*, whereas all carotenoid concentrations, except astaxanthin, were significantly higher in *P. gibbesi*. Catalase, glutathione peroxidase and glutathione reductase activities were significantly greater in *P. marmoratus*. Malondialdehyde concentration, a marker of lipid peroxidation, was higher in the hepatopancreas of *P. gibbesi*. The differences in carotenoid and vitamin E contents and in the antioxidant enzyme activities are a reflection of the different physiological activity of the two species and may suggest that *P. gibbesi* is not a potential competitor for the native crab *P. marmoratus*.

Keywords: antioxidants, carotenoids, alien species, Mediterranean Sea, oxidative stress, vitamin E