

{rokbox title=|Trigloporus lastoviza on a corallinaceae algae bottom :: Image: Project LIFE+ INDEMARES (IEO)|
thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-red-algal-fishes-francesc-ordines-et-al-2014-thumb.jpg|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-red-algal-fishes-francesc-ordines-et-al-2014.jpg{/rokbox}

Francesc Ordines, Marco Bauzá, Miquel Sbert, Pilar Roca, Magdalena Gianotti, **Enric Massutí**,
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[Red algal beds increase the condition of nekto-benthic fish](#)

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Abstract: The present study analysed the effect of three different benthic habitats, the maërl, *Peyssonnelia*

red algal beds and sandy bottoms, on the condition of two nekto-benthic fish species:

Serranus cabrilla

and

Trigloporus lastoviza

. Sampling was conducted during the MEDITS 2010 and 2011 surveys around the Balearic Islands. The condition of the spawning females of both species was determined by using i) biochemical measurements of proteins and lipids in the muscle, liver and gonads, and ii) weight at length relationships based on eviscerated, liver, and gonad weights. Moreover, based on the total weight at length relationship, the mean somatic condition (SC) of the sexually inactive individuals of

S. cabrilla

and males of

T. lastoviza

was calculated. Lipid reserves were higher in the livers of

S. cabrilla

and

T. lastoviza

from the maërl beds. Additionally,

S. cabrilla

showed higher lipid reserves in the gonads both in the maërl and

Peyssonnelia

beds. The mean weights of the liver and gonads at a given individual length revealed the same pattern as the lipids, whereas the mean eviscerated weight was higher in the maërl beds but only for

S. cabrilla

. A positive correlation was detected between the SC and the biomass of the algal species characterizing the maërl beds for both

S. cabrilla

and

T. lastoviza

. The high habitat quality of the red algal beds off the Balearic Islands increased the condition of nekto-benthic fish. In oligotrophic areas, such as the archipelago, these “oases” could help fish to maintain healthy populations.

Keywords: High Quality Habitats, Benthic Communities, Nekto-Benthic Fish, Fish Condition, Biochemical Condition Indexes, Weight at Length Condition Measurements