

I found this to be very interesting and wonder if this type of coral is a candidate for farming by fragmentation as we do in our industry.

Dear colleagues,

The following paper dealing with recruitment and early growth rate of the highly valuable Mediterranean red coral

(Anthozoa-Octocorallia-Gorgonacea) has been recently published:

Patterns of variation in recruitment and post-recruitment processes of the Mediterranean precious gorgonian coral *Corallium rubrum*.

G. Santangelo a, L. Bramanti a,b, S. Rossi c, G. Tsounis b, I.

Vielmini a, C. Lott d, J.M. Gili

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Please, feel free to write to me for a pdf copy.

Abstract

This research seeks to quantify recruitment, early survival and early colony growth in different populations of the precious Mediterranean red coral. Although basic to our understanding of red coral ecology and population dynamics, these early life-history descriptors are still poorly understood. To fill this lack of knowledge, marble settlement tiles were placed at 35±1 m depth within 3 populations of *Corallium rubrum* dwelling in the coralligenous habitat of different geographic areas of the north-western Mediterranean: Calafuria and Elba Island (Italy), and Medes Islands MPA (Spain), following a multifactorial ANOVA model and sampled photographically for four years (2003-2006). Overall, 517 red coral recruits settled on the tiles during the experiment, 189 of which (126 at Calafuria and 63 at Elba) were still surviving, in 2007, when the tiles were removed. The recruitment density at Medes was only one tenth of that at Calafuria and Elba (0.56±0.21 vs. 6.06±1.75 and 4.66±1.01 recruits dm⁻², mean±SE). No colony survived after four years at Medes, where the lowest recruitment rate was also found. As the age of each new settled colony was known, it was possible to measure the early growth rates of individual colonies. The growth rates thus obtained were two to three times higher than that measured in older colonies and differed significantly between the geographic areas (the growth of colony basal diameter was 0.68±0.02 and 0.59±0.19 mm/year at Calafuria and Elba), while no significant difference was found between the actual colony growth and that previously measured in the former area. A test for secondary substrate selectivity, carried out in one area, showed that red coral preferentially settles on tubes of *Serpulida* than on other encrusting organisms. However, since recruitment density at Medes was lower despite the four-fold higher cover of *Serpulida* found there, other factors, intrinsic to the populations, such as different size-age structures or densities, leading to different larval output, may likely have determined red coral recruitment rates in the studied areas.