

VARIATIONS IN CAULERPENYNE CONTENTS
IN *Caulerpa taxifolia* AND *Caulerpa racemosa*

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Abstract—Caulerpenyne (CYN) contents was measured in two Chlorophyceae algae, *Caulerpa taxifolia* and *Caulerpa racemosa*, between July 1999 and July 2000. Sampling was performed at three stations exhibiting increasing levels of competition with the seagrass *Posidonia oceanica*. Significant differences were observed as a function of the *Caulerpa* species, the season, and the level of competition. CYN concentrations were always greater in *C. taxifolia*, regardless of either season or level of competition (35–80 times greater, according to the season). For a given species, maximum concentrations were recorded in autumn (September/November) and minimum values occurred in spring (April/May). CYN contents decreased with increasing level of competition, whereas frond length increased over this same gradient. It would appear that when the algae are in competition with *P. oceanica*, *Caulerpa* is more inclined to accelerate vegetative growth (competition for light) than to produce secondary metabolites.

Key Words—*Posidonia oceanica*, *Caulerpa taxifolia*, *Caulerpa racemosa*, competition, caulerpenyne.

INTRODUCTION

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