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Phenology and alginates of two *Sargassum* species from the Caribbean coast of Colombia

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The genus *Sargassum* (Phaeophyceae) forms large beds on rocky shores of the Colombian Caribbean, showing large seasonal fluctuations in biomass that are related to upwelling events in the area. This study describes the phenology of two benthic species of *Sargassum* from the Caribbean coast of Colombia, and presents a preliminary assessment of the alginate concentration and properties of viscosity and gel strength to determine their potential as an exploitable resource. Samples were collected during 2007 in the Santa Marta area. The first species was identified at genus level as *Sargassum* sp. The highest values of biomass and abundance of receptacles were recorded in April and the lowest between June and February. The other species was *Sargassum cymosum*. It showed higher biomass and persisted a longer time than *Sargassum* sp. In spite of this, the biomass and reproductive period of both species were markedly seasonal and low during most of the year. Alginate yield was relatively high in both species, compared to that reported for other *Sargassum* species. The viscosity of the alginates was very low and may thus have only few applications in the industry; however, the gel strength of the alginates of both species was competitive, compared with other commercial algal products. This study suggests that while these two species of *Sargassum* in Colombia are potential candidates for the commercial production of alginates in regard to some applications, the marked seasonality of the species advises caution for a sustainable exploitation.

Palabras clave: Caribbean, *Sargassum*, phenology, alginates, Colombia

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