

NEW MENTIONS OF *CAULERPA RACEMOSA* (Forsskål) J. Agardh IN THE GABES GULF (TUNISIA)

by

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ملخص

تعتبر *Caulerpa racemosa* من الطحالب المعروفة أساسا بالمياه المدارية و يبدو أنها ظهرت في عدة مناطق من البحر الأبيض المتوسط. و قد لاحظنا خلال حملة استكشافية قمنا بها مؤخرا في جوان ١٩٩٤ وجود هذا الطحلب بكثافة في خليج قابس في أعماق غير مألوفة.

Abstract

Caulerpa racemosa, a tropical and subtropical alga, seems extend its distribution sites in the Mediterranean sea. In june 1994, we have localised important meadows of this green alga in the open sea of Gabes gulf region by uncommon depths.

Key-words: *Caulerpa racemosa*, Gabes gulf, Tunisia.

I - INTRODUCTION

Caulerpa racemosa (Forsskål) J. Agardh, a tropical and subtropical green alga by Birth (Taylor, 1960), is observed generally in urbanized stations where the ecological conditions of this sea are jujed suboptimal to its affinities (Bouderesque and al., 1990).

In the Mediterranean sea, *Caulerpa racemosa* has been mentionned in Italy (Alongi and al., 1993 and Piazzzi and al., 1994), in Greece (Panayotidis and Montesanto, 1994), in Turkey (Huvé, 1957 et Cirik and Oztürk, 1991), in Syria (Huvé, 1957 and Mayhoub, 1976), in Libanon (Aleem, 1950), in Israël (Rayss and Edelstein, 1960) and in Egypt (Aleem, 1950 and 1992).

In Tunisia, this alga has been displayed by HAMEL en 1926 in the seaport of Sousse and BEN ALAYA (1971) observed it in Mahdia, Salakta and the Gabes gulf by 15 m depth . This alga makes dense tufts on rocky bloks of Salakta harbour (Ben Maiz, 1984 ; Ben Maiz and al., 1987) and colonises *Posidonia oceanica* meadows at Monastir (Ben Mustpha and Hattour 1992).

In this work concernig *Caulerpa racemosa*, we report results on mediolittoral zone prospection and experimental trawling survey in Gabes gulf area.

II - MATERIEL AND METHODS

The Gabes gulf coast (principally the mediolittoral zone) ha been prospected at many times during the last 10 years to make flora and fauna inventory.

During an experimental trawling survey, accomplished from 3 to 6 june 1994, we have realised 7 trawling and dragging stations (map 1).

The bringing in of both trawl and of drag and the sea bottom nature has been analysed, the fauna and the flora systematically identified.

III - RESULTS

During over ten years prospection of Gabes gulf area coast (principally the mediolittoral zone), we have observed *Caulerpa racemosa* only two times stranded on Mellita (Jerba) and on Kratten (Kerkennah island) beaches respectively in 1985 and 1987.

Otherwise, fragments of *Caulerpa racemosa* have been observed last years at many times, mixed with fish caught by trawler in the Gabes gulf.

Caulerpa racemosa has been brought - back abundantly at T1 (34° 35' N, 11° 54' E) by 44 and at D1 and D5 (34° 39' N, 12° 24' E) by 52 m depth (T: trawling station, D: dragging station). In

these stations, *Caulerpa racemosa* forms dense tufts of this alga. Its presence has been also noted at T2 (72 m), T5 (60 m) and T6 (80 m) and at D2 where much isolated fragments of this species, often fixed on calcareous alga, have been brought-back.

The collected specimens are composed by rampant long and cylindric stolons with 1.6 mm diameter. On these stolons, branches of 2 to 3 cm long are spaced by an interval of 1 cm. These last are garnished by vesiculeform boughs disposed distishly or suboppostly, with a mean length of 6 mm and a diameter of 1.2 mm and spaced by an interval of 3 mm.

Caulerpa racemosa samples of Gabes gulf site are like those observed by ALONGI et al. (1994) in Lampadusa by 40 m depth. These authors have not found particular variety for their samples.

On the sandy sea bottom, rich with shell debris of various molluscs, live nemerous bryozoaires, different corallinales, sponges and a great variety of echinoderms.

The principal accompanist vegetal species of *Caulerpa racemosa* determined in this study are *Codium bursa*, *Caulerpa prolifera*, *Flabellia petiolata* (green alga), *Dictyopteris membranacea*, *Cystoseira fucoïdes* (brown alga), *Osmundaria volubilis*, *Rytiphlea tinctoria* (red alga), *Mesophyllum lichenoides*, *Lithophyllum racemus*, *Lithothamnion fruticulosum*, *Lithothamnion corallioides* and *Phymatholiton calcareum* (red and calcareous alga).

IV - CONCLUSION AND DISCUSSION

In the Mediterranean sea, *Caulerpa racemosa* is communelly noted in the dephts of 0,5 m to 22 m. It is often in forme of small tufts covering rocky surfaces (Ben Maiz, 1984). This study reveals us that this alga can reach important dephts for from urbanized agglomerations. It can also constitute dense lawns covering no negligible surfaces (T1 and T5) (map 1).

In our site, this species seems limit its extension at the longitude 12° 30' E. Beyond this meridian, this alga is absent (T3, T4, T7 and T7 bis) (map 1).

The fact that the characteristics of the site (facies of maerl), approach to the tropical coralligene facies (Péres and Picard, 1964), should explain the presence of this alga in such depths.

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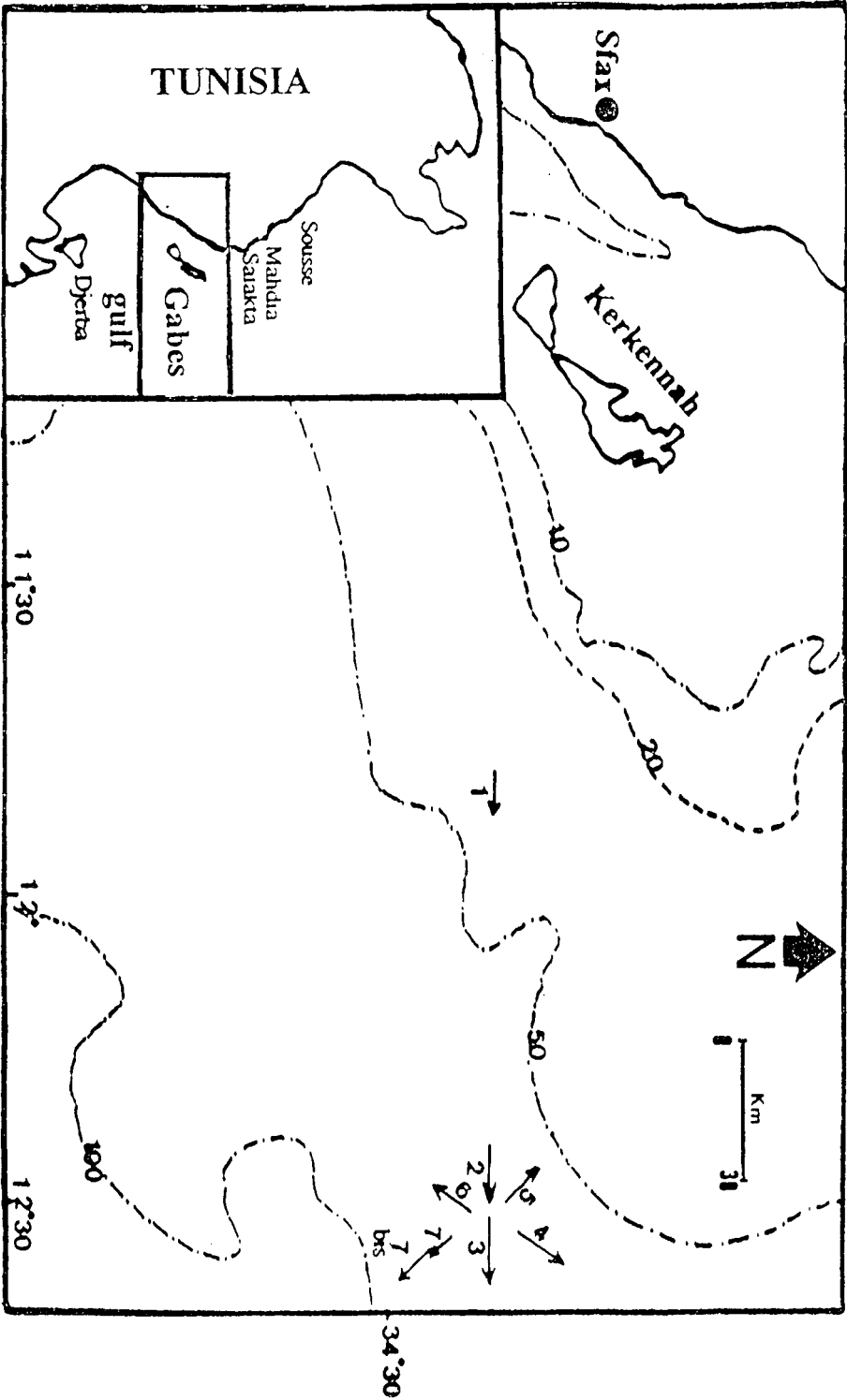
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Map 1 : Localisation of trawling and dragging stations in Gabes gulf

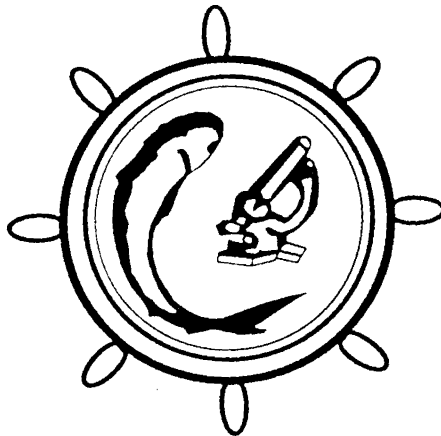
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