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BULLETIN

INVASIVE MARINE ALGAE ALERT!

Anyone who observes the presence of this marine algae, *Caulerpa brachypus*, in the Indian River Lagoon or offshore waters are advised to contact the FDEP office above with the following information:

- Exact or approximate map location (GPS coordinates would be appreciated)
- Is algae rooted or floating?
- If rooted, what is the water depth where found?
- What is the approximate growth coverage (how much bottom area is it covering?)
- What is the approximate height (how high above the bottom is it growing?)
- Collect a 6 inch long sample and save in plastic baggie on ice for delivery to FDEP office

Background

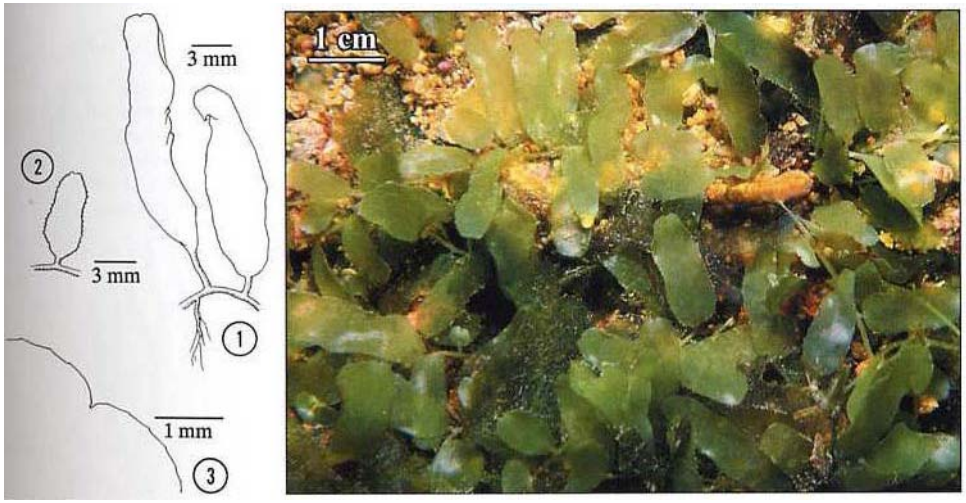
The marine algae, *Caulerpa brachypus*, is a non-native species, originating from the Pacific Ocean. It may have arrived either in ship bilges, or discarded by aquarium hobbyists. The algae, therefore, has no known natural enemies in Florida waters, and can spread rapidly, overgrowing upon native bottom dwelling organisms and damaging the ecosystem. It is fueled by nutrients from sewage, stormwater runoff, and groundwater discharge. Scientists have recently observed it encroaching over large areas of coral reef around Palm Beach County. It now has the potential of spreading northward into the marine environments of Martin and St. Lucie counties.

Identification

* This non-native algae should not be confused with its native counterparts that do occur naturally in Florida waters. The reverse side of this bulletin provides a description for both the non-native invasive and a similar native Florida species.

* This non-native algae should not be confused with short native seagrasses. Algae lack leaf veins whereas seagrass blades have veins.

IDENTIFICATION



(diagram, photo and description adapted from Caribbean Reef Plants 2000 Littler & Littler)

Non-native algae - *Caulerpa brachypus*. Features include:

1. Oval shaped leaf blades, that are about 3-5 mm wide ($^1/_8$ -¼ inch) and 1-3 cm long (½- 1 ½ inch)
2. Younger, shorter leaf blades have toothed edges
3. Tips of older, longer leaf blades usually have a tiny notch at tips

Leaves grow off creeping runners (as shown in diagram on left). The leaf blades are paper thin, lime green and delicate, sometimes transparent. Due to the delicate nature, the algae often entangles along bottom structures, or may be found drifting.

The algae can grow in shallow seagrass beds, in open sandy areas, or attach onto rocks. It can also grow in deep water, to about 30 m (90 ft).

(diagram, photo and description adapted from Caribbean Reef Plants 2000 Littler & Littler)

Florida native algae - *Caulerpa prolifera*. Features include:

1. Dark green, oval shaped leaf blades, that are about 15 - 25 mm wide (1½ -2 inches) and 6 - 15 cm long (2½ - 5 inches)

Similar to the non-native algae, the leaves of this native species also grow off creeping runners, as seen in diagram on left. The leaf blades can be thin and delicate, but become thick and leathery with age, as seen in the photo. Often, a secondary blade will grow out of the center of the parent blade, as seen encircled in the foreground of the photo.

This algae is naturally found in shallow seagrass beds of the Indian River Lagoon areas. It can also grow in deep water, to about 15 m (45 ft).