





Seaweeds in red boxes are *Caulerpa* species that could be confused with other salt water seaweed and invertebrate species.

## Feather Algae

Photo: Dr. Linda Walters



**Feather *Caulerpa***  
**Color:** Bright green.  
**Runner:** Yes.  
**Characteristics:** Feathery blades that are smooth and flexible. Up to 25cm high.

Photo: Keoki Stender



**Laurencia**  
**Color:** Beige, pink, dark red, or purple with dark red/purple tips. Under intense sunlight: bright green.  
**Runner:** No runner.  
**Characteristics:** Feathery or bushy. Up to 25 cm high, blade diameter 1 – 2 mm.

Photo: Dr. Linda Walters



Photo: Dr. Linda Walters



**Bryopsis**  
**Color:** Dark green.  
**Runner:** Yes  
**Characteristics:** Feathery blades that are delicate and flexible. Up to 10 cm high.

Photo: Dr. Frederik Leljaert



**Gracilaria**  
**Color:** Dark red/purple. Under intense sunlight: tan to green.  
**Runner:** No runner.  
**Characteristics:** Few to many branches creating a feathery appearance. Rubbery to brittle and flexible. Blade diameter 0.2 - 2.5 cm. Up to 40 cm high.

Photo: Dr. Frederik Leljaert



**Gelidiella**  
**Color:** Dark red/purple.  
**Runner:** Small runners, difficult to detach from substrate.  
**Characteristics:** Feathery branches or few irregular branches. Wiry and stiff. Blades up to 5 cm high, narrow diameter (< 0.5 cm).

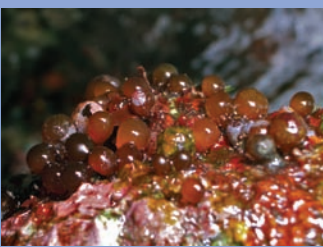
## Grape Algae

Photo: Dr. Arnez Ziljetic



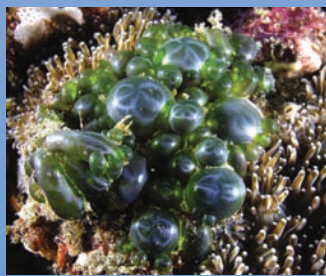
**Grape *Caulerpa***  
**Color:** Bright green.  
**Runner:** Yes.  
**Characteristics:** Branches resemble bunches of "grapes": spherical to club-like. Up to 15 cm high.

Photo: Keoki Stender



**Botryocladia (Red Grape *Caulerpa*)**  
**Color:** Dark red to maroon.  
**Runner:** A few species have red runners.  
**Characteristics:** Individual or clusters of oval to tear-shaped balloon-like blades (up to 3 cm). Smooth, full of water.

Photo: Dr. Heeren Verbruggen



**Valonia**  
**Color:** Yellow/green to dark green; reflects light.  
**Runner:** No runner.  
**Characteristics:** Clusters of large cylinders, irregular or club-shaped cells (up to 4 cm). Water filled, easy to pop.

Photo: Keoki Stender



**Valonia (AKA *Ventricaria*)**  
**Color:** Dark green; reflects light.  
**Runner:** No runner.  
**Characteristics:** Large individual or loosely connected clusters of balloon-shaped cells (up to 10 cm). Water filled, easy to pop.

## Flat Algae & Seagrass

Photo: Dr. John Huismann



**Flat *Caulerpa***  
**Color:** Bright green.  
**Runner:** Yes.  
**Characteristics:** Flat, elongate to oval fronds resembling grass blades (up to 15 cm), delicate or leathery.

Photo: Keoki Stender



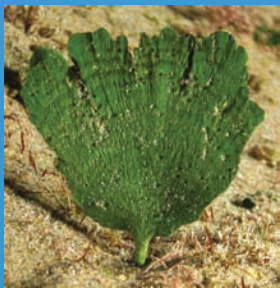
**Halimeda**  
**Color:** Light yellow, bright or dark green.  
**Runner:** No runner.  
**Characteristics:** Segments oval, disc-like, tear-drop, or tri-lobed. Calcified (stiff). Up to 25 cm high.

Photo: Dr. Tom Schills



**Ulva**  
**Color:** Bright green.  
**Runner:** No runner.  
**Characteristics:** Blades are ruffled-flat, thin, easily torn. Up to 70 cm across.

Photo: Dr. Heeren Verbruggen



**Udotea**  
**Color:** Bright to dark green.  
**Runner:** No runner.  
**Characteristics:** Fan-shaped, leathery, calcified blades, sturdy stalk. Up to 30 cm high.

Photo: Raphael Ritson-Williams



**Turtle Grass (*Thalassia*)**  
**Color:** Bright to dark green  
**Runner:** Yes, 3-6 mm diameter, white/brown.  
**Characteristics:** Grass-like plants, up to 1 m high. 2 – 6 blades emerge as bundles from runner. Blades: up to 1.5 cm wide, parallel veins along length, round tip.



## Toothed Margin Algae

Photo: Dr. John Huismann



### Toothed Margin *Caulerpa*

**Color:** Bright green.

**Runner:** Yes.

**Characteristics:** Toothed margins are wedge to cone-shaped with pointed tips. Up to 25 cm high.

Photo: Dr. Peter Wirtz



### *Halimeda*

**Color:** Light yellow, bright or dark green. Shaded segments may have little color.

**Runner:** No runner.

**Characteristics:** Segments oval, disc-like, tear-drop, or tri-lobed and may have a center rib. Little to heavy calcification (stiffening). Up to 25 cm high.

Photo: Dr. Frederik Leljaert



### *Gracilaria*

**Color:** Dark red/purple. Under intense sunlight: tan to green.

**Runner:** No runner.

**Characteristics:** Few to many branches creating a feathery appearance. Rubbery to brittle and flexible. Up to 40 cm high. Blade diameter: 0.2 - 2.5 cm.

Photo: Kathrine Grablow



### *Sargassum*

**Color:** Golden to dark brown.

**Runner:** No runner.

**Characteristics:** Distinct midrib, may have toothed margins. Air bladders are oval/spherical. Tough and leathery. Length >1 m, blade width <1 cm.

## Fuzzy Algae

Photo: Kathrine Grablow



Photo: D.S. Litter &amp; M.M. Litter 2000



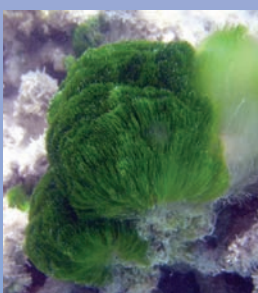
### Fuzzy *Caulerpa*

**Color:** Bright green.

**Runner:** Yes.

**Characteristics:** Finely branched blades creating a mat or whorl of branches along solid (up to 25 cm).

Photo: Dr. Linda Walters



### *Chlorodesmis*

**Color:** Yellow/green to bright green.

**Runner:** No runner.

**Characteristics:** Long (8 cm) flexible filaments, tightly packed clumps/tufts.

Photo: Dr. John Huismann



### *Penicillus*

**Color:** Bright to dark green.

**Runner:** No runner.

**Characteristics:** Single calcified stalk, stiff calcified shaving-brush cap. Up to 25 cm high.

Photo: Kathrine Grablow



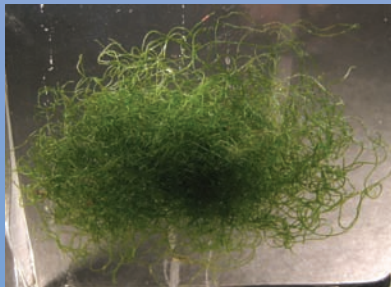
### *Derbesia*

**Color:** Yellow/green to bright green.

**Runner:** No runner.

**Characteristics:** Fine, thin, tangled, flexible filaments (1 – 5 cm long).

Photo: Susan Zaleski



### *Chaetomorpha*

**Color:** Yellow/green to bright green.

**Runner:** No runner.

**Characteristics:** Forms clumps that can exceed 1 m in each direction. Spaghetti-like strand diameter < 0.5 cm.

## Invertebrates

Photo: J. Watanabe



### Bryozoan (*Bugula*)

**Color:** Tan to dark purple.

**Runner:** No runner.

**Characteristics:** Stiff colony branches that curve inward toward central axis. Up to 8 cm high.

Photo: Dr. Linda Walters



### Sea Plume

**Color:** White, gray, purple, or yellow.

**Runner:** No runner.

**Characteristics:** Soft corals, bushy clusters of feather-like plumes. Visible feeding structures feel slimy. Individuals can exceed 2 m in height.

Photo: Kathrine Grablow



### Feather Duster Worm

Photo: Dr. Linda Walters



### Christmas Tree Worms

Photo: Kathrine Grablow



### Corkscrew Anemone

Photo: Kathrine Grablow



### Giant Anemone

**Easiest distinguishing characteristic:** These living worms and anemones will retract into tube or crevice if disturbed.



## Disposal of *Caulerpa* and any other unwanted plants and animals:



### To Learn More:

<http://www.usc.edu/org/seagrant/caulerpa/index.html>

**Questions? Want copies of this key or our complimentary "*Caulerpa* Species Identification Key?"**

#### Contact:

Susan Frisch Zaleski  
Sea Grant Program  
University of Southern California  
3616 Trousdale Pkwy, AHF 254  
Los Angeles 90089-0373  
phone: (213) 740 - 8602  
FAX: (213) 740 - 5963  
Email: szaleski@usc.edu

Dr. Linda Walters  
Department of Biology  
University of Central Florida  
4000 Central Florida Blvd.  
Orlando, FL 32816 - 2368  
phone: (407) 823 - 2148  
FAX: (407) 823 - 5769  
Email: ljwalter@mail.ucf.edu

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#### References

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