Cladiella australis (Macfadyen, 1936)

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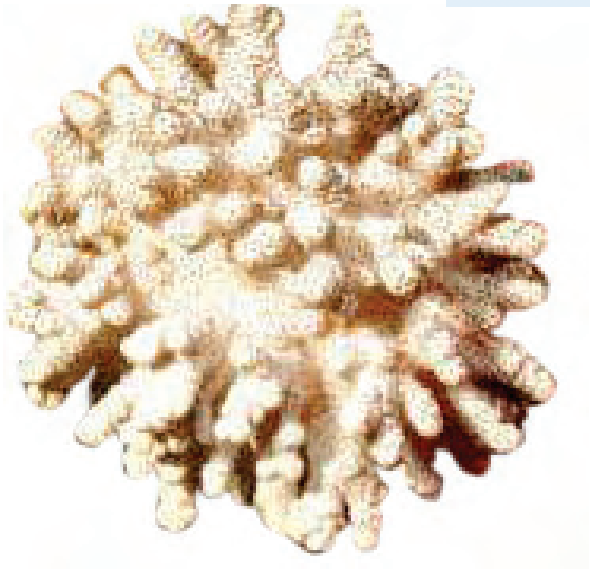
IDENTIFICATION

Order	:	**Alcyonacea**
Family	:	**Alcyoniidae**
Common/FAO Name (English)	:	**Finger branching soft coral**

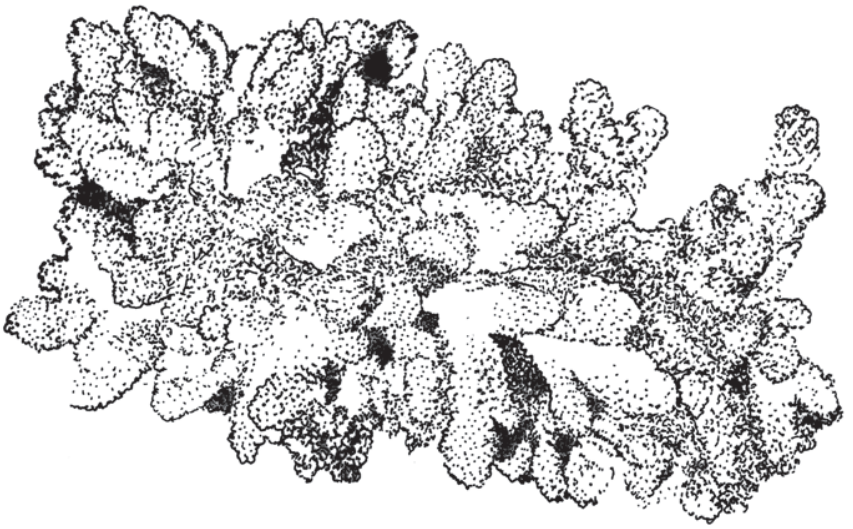


Local names: Not available

MORPHOLOGICAL DESCRIPTION

The species has stubby projections resembling fingers that are round to cone-shaped which project out from a short stalk. The projections branch-out in various directions and have polyps extending out from their tips. They are hardy and fast growing. Most specimens are pale in color, with contrasting greenish-brown to brown polyps. Corals of this genus are slimy to touch since they produce a lot of mucous. They can grow up to 41 cm in height.

Source of image : www.wetwebmedia.com



PROFILE

GEOGRAPHICAL DISTRIBUTION

It is distributed in the Indo-Pacific region; southern Taiwan, the Ryukyu Archipelago (Japan) and the Andaman Sea.

HABITAT AND BIOLOGY

It inhabits current swept reef areas; from back reefs to reef slopes, and reef flats and are found growing with other members of the Alcyoniidae family. It is often found in turbid waters. Similar to other soft coral species, it can reproduce asexually or sexually. During sexual reproduction gametes are released into the water. Reports also indicated internal fertilization and ejection of larvae from the adults. Like other soft corals, it may also use several different forms of reproduction, such as fission, fragmenting and/or branch dropping.

It captures microscopic food particles from the water column and can absorb dissolved organic matter. It is photosynthetic, having a symbiotic relationship with marine algae zooxanthellae, from where it also

receives some of its nutrients. It also has many autozooid polyps (feeder polyps), which does not need phytoplankton (green water). In aquarium tanks, it feeds on small invertebrate larvae produced by the refugium or fully mature sand beds.

PRODUCTION SY STEMS

BREEDING IN CAPTIVE CONDITIONS

In captivity, several methods of propagation, including constriction and cutting (fragging a small piece or large piece) are possible. *Cladiella* is suitable for propagation in aquarium, due to its ability to heal its wounds and regenerate its tissue rapidly. The most common practice for soft coral propagation is to remove tissue from the parent colony using sharp scissors or scalpel and leaving this tissue exposed to fresh seawater or dipping in sand for several days. These specimens can then be attached to a hard substrate within four to twelve months.

LARVAL REARING

Information not available

FOOD AND FEEDING

As *Cladiella* possesses zooxanthella, with which it shares a symbiotic relation, it does not require plankton or special feeds. However in cases where the coral is found to be shrinking in aquarium tanks, green water should be provided.

GROWTH RATE

Information not available

DISEASES AND CONTROL MEASURES

This species is prone to diseases and when stressed, it releases a large amount of mucous. This mucous in turn attracts a large number of bacteria which can lead to diseases in the coral.

PRODUCTION, MARKET AND TRADE

PRODUCTION

Information not available

MARKET AND TRADE

This is one of the most commonly traded soft coral genus in the world. Indonesia is the largest exporter for soft corals and United States is the largest importer.

CHALLENGES TO MARICULTURE

Continuous propagation of *Cladiella australis* with suitable captive breeding technology is the major researchable issue.

FUTURE PROSPECTS

Cladiella is suitable in aquariums because of its tolerance to fluctuations in water quality and stress during collection and shipping and its regeneration of tissues. Once established, it tends to grow quickly and is regularly observed to propagate asexually. There are reports of women groups culturing soft corals as a source of income in other countries. Hence such examples can be emulated in India as well. Additionally *Cladiella* is a widely studied genus in terms of its bioactive molecules. Nearly 55 secondary metabolites have been isolated from various species of this genus. Hence propagation of *Cladiella australis* will provide a steady and sustainable source of this species for research.

SUGGESTED READING

Arvedlund, M., Craggs, J. and Pecorelli, J. 2003. Coral culture - possible future trends and directions. In: Cato, J. C. and Brown, C. L. (Eds.), Marine ornamental species: collection, culture, and conservation, p. 233-248.

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Radhika, P. 2006. Chemical constituents and biological activities of the soft corals of genus *Cladiella*: A review. Biochem. Syst. Ecol., 34: 781-789.

Wabnitz, C., Taylor, M., Green, E. and Razak, T. 2003. From Ocean to Aquarium. UNEP - WCMC, Cambridge, UK, 66 pp.

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