

Corallium rubrum (linnaeus, 1758) research paper example

[Parts of the World](#), [Europe](#)



Report on:

Kingdom: Animalia

Phylum: Cnidaria

Subclass: Alcyonacea

Order: Gorgonacea

Family: Coralliidae

Genus: Corallium

Species: Corallium rubrum

Synonyms: Red coral, Precious coral, Reed coral, noble coral, Sardinia coral, midway coral, angel skin coral (Arkive, para. 1)

Changes in Taxonomy: Madrepora rubra Linnaeus, 1758; Isis nobills Pallas, 1766; Gorgonia nobills Linnaeus, 1789; Corallium rubrum Lamarck, 1816. (FAO, para. 1)

Introduction:

Every colony of *Corallium rubrum* is formed by thousands of individuals who are genetically identical. The branches of this coral spread in all directions. It is often said to be similar to anemone having a skeleton. *C. rubrum* has polyps that are white or transparent in color and bear eight tentacles. Its colonies look like tall trees from far away. (Arkive, para. 1) The color of this coral ranges from orange, pink, red and white. Their skeleton is very valuable and durable as it is made up of calcium carbonate. It is used for a variety of purposes.

Native Range and Habitat:

Corallium rubrum belongs to Mediterranean Sea and Eastern side of the Atlantic Ocean. (Follesa and Maria et al., 2013) It lives on rocky seabottom with low levels of sedimentation having dark surroundings- like from 10 to 300 meters deep below sea where there are crevices or dark caverns. They grow in crowded patches (127-1300 colonies per m²) but are only 5 to 20 centimeters tall where temperature and salinity have minor changes. The largest coral can attain a diameter up to 3 centimeter. Red coral has a very long life like up to 100 years but grows really slowly like few centimeters in a year. (CITES Cop14 Prop. 21, 2007)

Diet and mode of feeding:

Most coral species have symbiotic algae zooxanthellae living in their tissues; they are also called azooxanthellate. However, Corallium rubrum is not azooxanthellate, meaning that it needs to feed itself through another method. (Phlips et al., 2011) Hence, it gets its essential nutrients from particles of organic matter, found in the water. It catches these particles through its tentacles. It usually consumes zooplankton. (Arkive, pars. 3-4)As the temperature of water changes or the prey gets concentrated in the water, the feeding rate of C. rubrum increases and the main preference becomes autotrophic flagellates. (FAO, para. 3)

Lifecycle:

Precious corals show late reproduction. They fertilize internally because the male colonies are separate from female colonies. (Bramanti, Rossi, Tsounis, Gili, and Santangelo 219-224) So the free swimming sperm from a male

Precious coral reaches the polyps of female Precious coral. Inside the female coral polyp's body cavity, the fertilized egg transforms into a larva.

(Bramanti, and Lorenzo 69-78) The gestation process takes up to 30 days and after that the mother releases the larvae in the sea during the months from July to August. The larvae swim and settle close to the parent and form a new colony. (Bramanti, Magagnini, and Santangelo 175-178)

Interest of Fisheries:

C. rubrum is one of the most important corals. Because *C. rubrum* is so much beautiful, it is harvested commercially in the Mediterranean Sea to make jewelry (like necklaces, earrings, rings, bracelets, brooches and pendants) and other luxurious ornaments. These products are said to be in use for thousands of years because remains are found in prehistoric European and ancient Egyptian graves. In some parts of the world, *C. rubrum* is used as an effective homeopathic remedy for various diseases. Some even believe that this coral has magical powers and can be used to overcome evil eye. The amount of economic importance, Noble coral in different countries has is as follows:

Italy 33.5%, Spain 17.6%, Tunisia 15.3%, France 9.9%, Morocco 8.9%, Algeria 7.7%, Greece 3.6%, Croatia 2.4% and Albania 1.1%. These figures are said to vary. (Secretariat, G. F. C. M. 6-7)

Earlier, *C. rubrum* was pulled out by a wooden or metal instrument having cross shape with nets attached to each side (ingegno). This instrument was used by fishermen on the boats to pull out corals from the water around the sea cliffs. However, now this technique is no longer in use because it caused

damages to the corals and other sea creatures. Now coral harvesting is done by the hands of professional coral divers who have license from the Fishery and Agriculture authorities. (Pesco 629)

In the Mediterranean Sea, harvesting of *C. rubrum* has decreased drastically. In the last 20 years, the age, size and reproduction outputs have become very low. (Tsounis, Rossi, Gili, and Arntz 91) The commercial beds are found only around the African coast from Morocco to Tunisia. However, its demand is still high in Italy, who is the largest importer of this coral, Spain and France. (Gallmetzer, Haselmair, and Velimirov 1-10)

Since a long time, *C. rubrum* is vulnerable to overexploitation because of its increasing demand in different countries of the world. Moreover, now human activities like habitat degradation, pollution and water recreational activities have also caused great threats to these marine creatures. Increased global warming, on the other hand is also causing death of Red corals in many areas where rise in temperature is noted. Up till now, no international measures have been taken place to protect Red corals but some European and American countries have passed some regulations to save these precious marine species.

Reference:

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