

Corals in the Red

Coral conservation gets an unlikely boost from the jewelry and design industries.

By Corinne Knutson

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These photos show a typical day aboard a bottom trawler as it hauls up some ancient red coral.
Photo courtesy Malcolm Pullman

The use of corals as decorative items dates back to ancient civilization. Greek mythology tells of blood droplets from Medusa's slain head sprinkling the sea with brilliant red corals, and in the 12th century Marco Polo wrote of the value of corals in Tibetan society.

In 2005, coral was the "it" fashion item on runways around the world, and the fashion industry's love affair with corals continues today, as coral print dresses grace the pages of magazines and chunky coral bangles dangle from thin-wristed models. Coral was and still is extremely popular as a jewelry and a home décor item.

This popularity has had an unfortunate side effect. Corals are in peril due to consumer demand for these animals and other environmental factors, such as global warming and pollution. In some cases, like the beautiful red and pink *Corallium* species, they are being loved to death, even with harvest levels at historic lows.

Too Precious Campaign

A new campaign hopes to tap into the popularity of coral in such a way that leads to a demand for coral conservation. Too Precious to Wear, a program of the conservation organization SeaWeb, is working with leaders in the fashion and jewelry industries to raise awareness of the threats facing these important marine animals. The program is also exploring ways that both industries, which have used these animals as inspiration for centuries, can play a part in their preservation.

Too Precious to Wear is working with celebrities such as Julia Louis-Dreyfus, who has long been an ambassador for ocean issues in California, as well as fashion designers Lela Rose and Vena Cava, beauty and cosmetics company Chantecaille and metalsmith and home décor designer Michael Aram. The campaign is a unique pairing between ocean scientists and fashion and design industry leaders committed to using coral-inspired alternatives in their collections.

Andrew Baker, Ph.D., is a coral scientist and professor at the University of Miami who has recently been awarded a prestigious Pew Fellowship to develop cutting-edge techniques to explore the tolerance of corals to the effects of global warming. Baker acknowledges the need for scientists and fashion and design leaders to work together saying: "Corals around the world are in jeopardy, and urgent action is needed to stem their decline. With the fashion industry and scientists uniting, we have an opportunity to reduce consumer pressure on corals and raise awareness of the global threats they face from climate change, overfishing, habitat destruction, pollution and disease."

While marine aquarists with reef tanks are intimately aware of the living and delicate nature of corals, to many others these complex and ecologically important animals are falsely thought of merely as colorful stones or decorative accent pieces. With 2008 designated the International Year of the Reef (IYOR), many groups and organizations are working to combat these threats by addressing the misconceptions surrounding both deep- and shallow-water corals. [Click images to enlarge](#)

Pictured is a colony of *Corallium rubrum*. Its brilliant red coloration makes it extremely popular in the jewelry industry.

Photo courtesy Giovanni Marola

This close-up clearly shows the individual *Corallium rubrum* polyps emerging to feed. Photo courtesy Giovanni Marola

Red Alert!

Commercial harvest to satisfy demand for *Corallium* has reduced colony size, density and age structure to small, immature groups that are worthless to the trade. Extraction has also lowered reproduction of this species and has decreased its genetic diversity.

Research indicates that removal of red and pink corals for the global trade has reduced the base diameter from up to 10 centimeters to 2 centimeters. And because these corals grow at rates of only .24 to 1.5 millimeters per year, they are extremely long-lived. In addition, they do not reach maturity until they are seven to 12 years old, so once wiped out, especially at a young age, there is virtually no chance for recovery.

Consumer Responsibility

Fortunately, the aquarium industry is already making a concerted effort to use sustainable corals. By using aquacultured and tank-raised corals, some responsible aquarists are attempting to protect living corals by allowing them to remain in their watery habitat. Conservation organizations such as ReefCheck are working for a sustainable marine aquarium trade through science-based management, consumer education and research on coral reef rehabilitation. By being an informed hobbyist and asking your marine supplier for in-depth information about your corals, you are taking steps to keep your aquarium healthy and vibrant, while also encouraging industry leaders to stock and sell more tank-raised species.

In a similar vein, Too Precious to Wear hopes to inspire the fashion and design industries to create coral alternatives that leave marine life in the ocean.

Corallium Corals

Red and pink corals (*Corallium* spp.) have been fished for more than 5,000 years in the Pacific and the Mediterranean and have taken on mythical properties in many cultures. Some believe that the animals promote fertility and energy, and pacifiers made from coral were once given to children to ward off evil spirits.

In the past two decades alone, red and pink corals have shown serious signs of decline. The United States, the world's largest documented consumer of *Corallium*, has placed significant pressure on these threatened animals and has imported 26 million pieces from 2001 to 2006. The rarity of these precious corals contributes to their coveted status, with finished pieces of jewelry and art ranging from \$20 to \$20,000.

Common Goal

Luckily, several companies have already taken steps to ensure the materials they use do not endanger these ancient animals. Tiffany & Co. removed red coral from its product lines as part of a wide-ranging sustainability initiative that includes using gold from environmentally friendly mines and a conflict-free diamond policy. Tiffany & Co. Chairman and CEO Michael J. Kowalski said, "We decided to stop using real coral in our jewelry over six years ago and feel that there are much better alternatives that celebrate the beauty of the ocean."

Connecting the Dots

While red and pink corals are the most valuable species in the jewelry industry, many other corals are removed for home décor. Currently, the United States annually imports approximately 129 metric tons of dead coral for home decorations and curios. Most of these corals are shallow-water species. However, scientists are finding that shallow and deep corals may have a much more intrinsic relationship than previously thought.

Alberto Lindner, Ph.D., a scientist and professor at the University of San Paolo in Brazil, revealed new research in February at the annual meeting of the American Association for the Advancement of Sciences that showed that the second most diverse group of corals — stylasterids or lace corals — evolved in the deep sea and eventually "invaded" shallow-water habitats.

This is just one example of the close relationship between shallow- and deep-water corals, and is one of the reasons Too Precious to Wear is focusing on increased awareness and stronger protection for all the world's corals.

Examples From Industry

In searching for examples of coral-inspired home décor items that do not harm the "rain forests of the ocean," as coral reefs are commonly called, Too Precious to Wear began working with designer and metalsmith Michael Aram. Aram is keenly attuned to the fragility and beauty of corals. His Coral Reef Collection is an entire line of coral-inspired bowls, candleholders, cutlery and serving trays made of hammered steel and lacquer. [Click images to enlarge](#)

The interconnectedness of shallow- and deep-water corals is much stronger than previously thought. Thus, impacts on one species such as *C. rubrum* may have a domino effect on other species.

Photo Courtesy Chuck Savall

Coral jewelry is popular in fashion and design circles. Finished red coral jewelry and artwork can command prices ranging from \$20 to \$20,000.

Photo Courtesy Patty Debenham

Aram's website says: "In ancient times, coral was believed to have protective powers, soothe fears and tensions, and encourage positive ways of living together. What could be a better symbol to have in your home than that?"

Industry giant Pottery Barn is also working with Too Precious to Wear to stress their decorative casts that reveal the

natural beauty of true coral by using resin instead.

The beauty industry is also jumping on the responsible coral bandwagon. Just last year, Chantecaille Beauté introduced a limited-edition coral compact designed by Jay Strongwater. Portions of the proceeds from the sales of these supported the Pew Institute for Ocean Science's Reefs of Hope project.

Sylvie Chantecaille, owner and founder of Chantecaille Beauté, said: "As designers and innovators our customers look to us for ideas and information. When we are creating our products, we have an excellent opportunity to help preserve rather than harm our natural environment. If we are not careful, we may love precious corals to death. The impact would be much greater than losing an accessory or a design idea; we would lose a vital part of a healthy ocean."

A key step to ensuring the future survival of these deep-water animals is national and international monitoring and trade protection. Current legislation in the U.S. does not include meaningful measures to ensure adequate monitoring of traded coral.

Patty Debenham, Ph.D., director of Too Precious to Wear, said policymakers have an opportunity during the IYOR to make coral conservation a priority. "The time for coral conservation is now. A strong United States Coral Reef Conservation Act that includes specific language about overfishing and trade will go a long way toward protecting corals from human impacts."

The Convention on International Trade in Endangered Species (CITES) is an international mechanism that could provide much-needed monitoring of the Corallium trade. Red and pink corals are the most widely traded and valuable of corals, and despite others being listed under CITES — Corallium is noticeably absent. Too Precious to Wear will ask member countries at the Convention, considered to be one of the more effective environmental treaties, to list Corallium under Appendix II at its next Conference of Parties (COP) meeting. This will require the international trade to be carefully regulated via a system of import and export permits.

Debenham says: "CITES provides a powerful tool for improving environmental management without discouraging ecologically sound trade. An Appendix II listing gives both producer and consumer countries the responsibility to ensure that [their] coral trade is sustainable. It is imperative that we support this listing at the next Convention of Parties in Qatar in 2010."

For more on Too Precious to Wear, go to www.tooprecioustowear.org. For more on IYOR, visit www.iyor.org.

Corinne Knutson coordinates communications and outreach for SeaWeb's Coral Program. As part of this program, she works on Too Precious to Wear, a new campaign to protect corals. Her previous writing experience includes articles for The Nature Conservancy, Honolulu Magazine and Honolulu Weekly.