

## **Coral Reefs: They Take Care of Us, Too!**

By: Jeff Miller

### **St. John has spectacular coral reefs.**

The coral reefs found around the island of St. John are spectacular living works of nature. The building blocks of coral reefs are the tiny animals called coral polyps. These polyps combine into colonies and many colonies combine to form reefs. The reefs provide food and shelter for countless fishes, sea turtles, and other marine mammals. Coral reefs, in combination with mangroves and seagrass beds provide the habitat for marine animals to hide, to feed, to sleep, to breed and to live.

Coral reefs also protect humans. The shorelines and beaches of the Virgin Islands would be much different if not for the protection reefs provide. The beauty of the coral reefs attracts many visitors, divers, boaters, beach-goers, and their economic contribution to the Virgin Islands is vital to our survival; all because of healthy reefs.

There is less living coral and more sea weed on VI coral reefs now than in the past. There are fewer lobster, conch; and finfish are smaller and less abundant. The reasons for these changes include hurricanes, fishing pressure, vessel groundings, careless anchoring, poor land-based development practices, snorkeler and diver damage, warmer sea water temperatures and coral disease. The reefs of the future depend upon every living coral today, and they depend upon us to behave responsibly.

### **What Can YOU Do to Help Save the Coral Reefs?**

By: William Stelzer (reprinted with permission)

Although there are many factors affecting the coral that are outside our control, such as disease, global warming and hurricanes, I asked Jeff Miller, fisheries biologist for the National Park Service, what people can do today to help save the reefs. He gave me this list of steps. They are simple, effective and don't require any additional research or funding, just education and awareness.

### **Realize that coral is an extremely vital, living organism. Don't collect corals or shells, even from the beach.**

Though at first glance coral may look like a brightly colored rock, it isn't. Instead it is an animal with a thin layer of delicate, slow growing polyps, blanketing a hard inner skeleton - living in a fragile balance with its environment. Don't collect these items for souvenirs. Old coral skeletons and seemingly empty shells are used by nature in the continual creation of the marine environment. Take all the pictures you want, but leave the shells and corals behind.

**Don't drop anchors or anchor chains on the coral.**

Anchors can plow through coral, breaking it, even dislodging and killing it. Anchor chains can do just as much damage or more as they scour the ocean floor, grinding everything in their path.

**Don't touch, stand on or kick coral. Or drag dive equipment across it. Or kick sand on it.**

Look at your fins; they shouldn't have scratches on them. If they do, ask yourself, what are you kicking that is scratching your fins? All you should be kicking is water. Fins and other dive equipment can crush the coral polyps and break off whole sections of coral. Sand smothers the polyps, cuts off sunlight and requires the coral to expend precious energy to try and expel it. When already stressed by other factors, it may require more energy than they have.

**Don't drive boats, paddle or surf boards, kayaks or dingys into coral.**

Boats and boards move. Coral stays in the same place. It is the responsibility of the more maneuverable boater and paddler not to crash into coral colonies and break apart and kill them.

**Manage fisheries properly.**

Although obviously a subject not without controversy, fishing equipment used directly on coral and sea grass beds damages them. Also removing plant eating fish from the sea removes important consumers of macroalgae, coral's primary competitor.

**Understand that what we do on land affects the coral.**

You may live far from the shoreline, yet whatever you dump on the ground or into the soil eventually makes it to the sea, the reefs.

**Don't allow sedimentation to run off into the sea.**

Sedimentation from unpaved roads and improperly secured building sites washes into the sea and smothers the coral. It also blocks off sunlight necessary for survival.

**Maintain septic systems, fix sewer plants and prevent runoff from garbage dumps. Use fertilizers appropriately.**

The nutrients from these sources promote the growth of macroalgae, crowding out the hard surfaces coral polyps need to attach and grow. In addition, toxins from some of these sources may poison and inhibit the growth of coral, even cause disease and kill them.

**Don't litter.**

It may save somebody a couple seconds, but trash thrown into the bush, or litter not properly disposed of, winds up being washed and blown into the guts, and then from there into the ocean. Once in the water, it does nothing but cause destruction.

**Vote.**

You live in a democracy. Some politicians believe in working to protect the environment, other politicians believing the environment is worth sacrificing for economic gain. Educate yourself on the difference and let your opinion be known. Kids who can't vote, educate your parents.