



Watch those Fins and Anchors!

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By Gianna Minton, ESO Founding Member

Did you know that there is a Royal Decree which makes it illegal to touch, harass, or collect anything that you encounter under water – whether it be dead or alive? The **Marine Law and Protection of Living Aquatic Resources** states that “Legal actions will be taken against violators and penalties ... shall be applied”. “So what?”, you may be thinking. Enforcing this law is indeed difficult. However, if you are a SCUBA diver or a snorkeler, a recreational boater or fisherman or simply someone who cares about Oman’s marine environment, there are some very good reasons to read on and learn about things you can do to protect Oman’s coral communities and underwater habitats.

Often when we watch the Discovery Channel or Animal Planet, we are bombarded with beautiful images of the underwater realm, and emphasis is often placed on those inhabitants that nature has equipped to bite sting, devour or otherwise harm humans. We see images of sharks, lion fish, sting rays, moray eels and deadly jellyfish that would make any sane person think twice before going for a dip. We spend a lot of time worrying about how creatures in the sea might harm us – but do we ever stop to think about how we can harm creatures in the sea? As “ecotourism”, recreational boating and fishing, snorkeling and scuba diving become more prevalent in Oman, we need to be increasingly aware of the impact we have on local coral reefs, and do our best to protect them.

You probably already know that corals are living animals and not lumps of inanimate rock. But did you know that the two meter high stands of “hump coral” (*Porites Lutea*) like those found around Fahal Island, in Bandar Khayran or Bandar Jissah have taken several hundred years to grow to their current size? Most corals only grow 1-4cm per year, and as they grow, the living polyps are concentrated on the outermost layer of the calcium carbonate structure. The coral is protected by a thin layer of mucus and every knock, bump, or even gentle brush against a coral head can remove this mucus, damage the delicate polyps, and render the entire colony more susceptible to further damage and disease. Branching corals are even more vulnerable. It doesn’t take much more than a stray snorkeler’s fin to knock off the tip of a branch, which may represent several years’ growth. Even small bare patches of coral where polyps have died can be colonized by fast-growing algae, barnacles, bivalves and other marine organisms which may further stress the coral colony and eventually kill it. Now picture the damage caused by a misplaced anchor, which can crush or rip up entire coral colonies, devastating up to a square meter of coral at a time, and leaving barren rubble that can take 10 years or longer to recover

Corals in Oman are already under a great deal of stress from wildly fluctuating sea temperatures, crown-of-thorns starfish, and abandoned fishing nets. Imagine the additional effect that careless recreational fishing, boating and diving could have on your favorite coral reef. Take, for example, Fahal Island, which probably receives an average of 5-10 visits a day by recreational fishermen, snorkelers or divers. A few extra knocks and bumps from each diver or anchor could result in over 10,000 damaging events to corals at the island, jeopardizing centuries of growth and survival. Of course, when corals die, the knock-on effect for all the organisms in the coral reef can be devastating.





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A recent study estimated that a mere 2% reduction in coral cover could significantly reduce both the total number and the variety of species of fish found on a reef – making diving, snorkeling and fishing much less interesting.

So... Here are just a few reminders of ways that you can avoid harming the marine environment that we all go to so much trouble to view:

- **Watch those fins:** Don't ever stand on corals, and when swimming, control your buoyancy - keep ALL of your body far enough from the reef that you won't accidentally knock into it. Be especially aware of your fins, and other equipment (such as spare regulators or gauges) as you may not feel them knocking or brushing against corals.
- **Look but don't touch:** It may be tempting to pick up and feel shells, lobsters, shrimp, or turtles or anything else you come across. But in many cases, you may be causing more damage than you realise. Many forms of marine life are protected by a thin layer of mucus, which can easily be rubbed off and render the organism more vulnerable to predators or disease. Picking up a living animal and displacing it may jeopardize its feeding opportunities or cause an immeasurable amount of stress. Every organism plays an integral role in maintaining the delicate balance of the reef ecosystem. Even dead animals (like empty conch shells or bleached coral), serve a purpose by providing shelter for other organisms or the recycled materials needed to build up the reef. Resist the urge to collect pretty souvenirs and leave them where they are!
- **As a boater or recreational fisherman:** If you are looking for a place to stop and snorkel or simply take a break, try to find a bay with a mooring buoy, and tie on to this rather than using your own anchor. If you have to anchor, find a site where you are CERTAIN that your anchor will fall in sand and not on coral. Look for light sandy areas next to, or just beyond coral reefs. Make sure that your anchor rope and chain are both long enough to allow you to anchor in slightly deeper water. If you can, snorkel down and check that your anchor has set properly in sand, and that neither the anchor or it's chain are abrading any corals.

A number of scientific studies have documented diver damage to coral reefs in various parts of the world. Fortunately, studies have also shown that these effects can be drastically reduced through education and awareness-raising activities. In one study in the Red Sea, attending a single awareness briefing reduced the average rate of diver contact with living corals from .9 to .15 instances per diver per 7 minutes (that's an average of 1 coral per 50 minute dive rather than 6).

Most of the local commercial dive operators are very good at reminding divers of Oman's "no touching and no taking" rules, and thus, many of the tourists who come to dive in Oman learn to care for Oman's coral reefs. However, this will have little positive effect if those of us who live here don't abide by the same rules. So, if you or anyone you know is planning to be out on the water in the upcoming summer season, remember: watch those fins and anchors!!

