

BVI protected coral reef

Large boat damages

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Special to *The StandPoint*

Massive damage was inflicted upon one of the BVI's most beautiful coral reefs in a quiet incident last month. Sadly, such incidents will continue to occur with even greater cumulative impact as the BVI invites mega-yachts to our waters.

On July 7, the *Holo Kai*, a ship of 165 feet in length, sailed into Muskmelon Bay on Guana Island, where it dropped two very large bow anchors in a small patch of sand, then backed up as it laid out 150 feet of heavy chain across the coral reef and finally placed a third, stern anchor with heavy chain lying across a deeper part of the coral reef. Muskmelon Bay, because of its healthy coral reef and abundant fish populations, is a recently-declared Fishing Priority Area, a popular dive site, and, as a result of the new fisheries regulations, a site where any anchoring is illegal.

Smaller boats anchoring and causing damage in Muskmelon Bay and other protected marine areas mostly go unreported, but marine scientists on Guana observed the *Holo Kai*'s position the morning after it anchored in Muskmelon Bay and reported the event to the Conservation and Fisheries Department.

These scientists had surveyed coral reefs in this same area only two days earlier and knew that the ship was positioned over a healthy and diverse community of large corals. In fact, the coral reef at this site has been monitored annually since 1992, providing abundant evidence for its long-term vitality. This pre-existing information on the state of the reef provided a rare opportunity to precisely determine

the destructive effects of anchoring.

Though the ship departed early on the morning of July 8, the marine scientists had located its position in the water and found a correspondingly large area of severely damaged coral reef. Brain corals the size of large boulders were severely scraped; medium-sized and smaller coral heads were broken or completely overturned; sea fans and soft corals were flattened. The most visually dramatic damage was evident in broken columns of pillar coral that stood three feet high the day before. Photographs of this damage can be viewed on the internet at <http://www.irf.org/guanareefdamage.html>.

The area of continuous damage caused by the *Holo Kai* anchors measured 30,000 square feet, more than 2/3 of an acre. Broken corals and sea fans covered roughly one-third of the bottom within this area. Virtually all of the large coral colonies were overturned or broken and are now dying. The incidence of damaged corals inside this area was more than ten times that recorded in nearby areas, where some coral damage may be due to the anchors and chains of charter yachts, representing another point of concern. The potential for recovery from such damage is low because corals grow extremely slowly (most grow less than half inch per year).

Several countries have begun to fine boats for causing damage to reefs. The Belize government, for example, charged a fine of \$75,000 for each of two incidents of anchor damage in 1997, one caused by a 282-foot sailing ship and the other by a 185-foot schooner. The *Windspirit* paid \$350,000 to the U.S. government in a court settlement

after it dragged anchor in 1988 across a reef in the Virgin Islands National Park, St. John. Fourteen years later, biologists from the VI National Park found no sign of corals recovering or re-growing in the damaged area.

The damage at Muskmelon Bay occurred despite the fact that the captain of the *Holo Kai* thought that he had taken all precautions to avoid environmental damage—checked the charts for any indication of a no-anchoring zone or protected area (these are not currently indicated on any BVI charts); used sonar to determine the nature of the bottom, which showed up as "rock" (much of the hard ground in BVI waters is the living "rock" produced by corals, but he and many other visiting captains are not aware of this); placed his two bow anchors in sand (but did not concern himself with the heavy chain between the anchors and his ship). The mission of the *Holo Kai* in the BVI was one of conservation and research, and the captain was very concerned about the damage he had caused when notified.

In the case of the *Holo Kai*, a simple indication of the location of Fisheries Priority Areas and Marine Protected Areas on charts or other documents given to captains when they check in at Customs would have prevented this particular tragic incident. But, at present there is no organized effort to disseminate such information effectively. Furthermore, there are many sensitive reef and seagrass areas in the BVI that are not afforded special protective designations. Large boat anchors can destroy these areas in a few hours.

We are therefore faced with an impending tragedy as the BVI makes plans to accommodate

mega-yachts. Mega-yachts are too large to use the existing moorings system, which accommodates boats up to 60 feet in length. The incident of the *Holo Kai* should be taken as an urgent warning that the BVI must find the means to control boat anchoring and limit anchoring to large sandy areas where the potential damage to our marine resources is low. Healthy coral reefs,

such as Muskmelon Bay, are too valuable to the BVI to allow their destruction by uncontrolled visitation.

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Boulder coral scraped by anchor chain. Photos submitted.



Pillar coral broken by anchor chain