

## **‘UNDERSEA EYE’ UPDATE FOR REEF CHECK TRIP M107 May 5–11, 2007**

This week Undersea Explorer welcomed aboard nine volunteers trained by the Australia Reef Check Foundation. Reef Check Australia is part of an international Reef Check network which has teams monitoring coral reefs in over 80 countries. Undersea Explorer played an important role in supporting the early development of the Reef Check program in Australia which is now an Australian environmental charity. In order to participate in Reef Check surveys, volunteers must first undergo basic training in coral and fish identification, Reef Check methods, and coral reef ecology. The training offered by Reef Check Australia is the most extensive Reef Check course in the world!



### **Reef Check Methods**



Reef Check teams monitor a series of biological parameters which serve as indicators of ecosystem health, and can also identify the presence of specific human impacts. First divers lay out four 20 metre transect lines using graduated tape measures, along a continuous section of reef. Next, several surveys are undertaken. The “substrate” team records the benthic substrate beneath the transect line every 0.5 metres. This information can be used to determine the percentage cover of hard coral and other benthic communities. The “fish” team estimates the numbers of target indicator species seen within 2.5 metres of each side of the transect line. The target species chosen are either economically or ecologically important species. The “invertebrate and impact” team then uses the same belt transect as the fish team, but records the presence of indicator invertebrate species, as well as the presence of various impacts such as coral damage, bleaching, or disease. Finally, a video of the transect is taken, to keep a record for future, more detailed data analysis.

Undersea supports Reef Check Australia each year by giving free and discounted berths so that volunteers can conduct surveys at 6-7 different sites along the Ribbon Reefs and at Osprey Reef. These are the same sites dived regularly by our passengers, so we are able to get feedback on the health of our favorite sites. Reef Check Australia is currently building an online database which will display their results for the general public. We are pleased to report that over the ten years that Reef Check has been conducting surveys at Osprey Reef, the health of the reefs has not substantially changed. Keep tuned to this site and to the Reef Check Australia site ([www.reefcheckaustralia.org](http://www.reefcheckaustralia.org)) for more details as they become available.

While the Reef Checkers were conducting their site surveys, the other passengers were treated to the same high quality Great Barrier Reef and Coral Sea diving as on all of Undersea Explorer's Osprey Reef trips. Fantastic visibility, plenty of sharks, a school of bumphead parrotfish, 20 pipefish on one dive, manta rays, nudibranchs, and schooling trevally and barracuda were just some of the highlights.

### **Creature Feature: Barramundi Cod**



**Did you know...**that barramundi cod are NOT the same as the barramundi that you eat at fish and chips shops? The edible variety lives in mangrove estuaries and freshwater streams, while the barramundi cod lives in reef areas.

### **Ask a Biologist**

**Q:** What does the dwarf minke whale eat? – *Sophia, Australia*

**A:** During the 12 years of dwarf minke whale research that we have undertaken on the Great Barrier reef, our researchers have never observed feeding in these waters. We believe that the minkes feed elsewhere during their annual migration, most likely in more southern waters, though it is not known exactly where they migrate to. However, minkes are baleen whales, which means that they filter the water for their food. They probably eat small schooling fish and krill.

### **Environmental Tip of the Week: Kettles use a lot of power.**

A typical household kettle requires about 2400 watts, which is the equivalent of switching on 160 energy saving lightbulbs for however long you boil the kettle! You can save a lot of energy by only using the amount of water you need. If you're making tea for one, only use one cup of water. You can measure the water you need using the cup(s) you make your tea in. ([www.tiptheplanet.com](http://www.tiptheplanet.com))



*In the end we conserve only what we love,  
We love only what we understand,  
And we understand only what we are taught.  
- Baba Dioum, 1965*