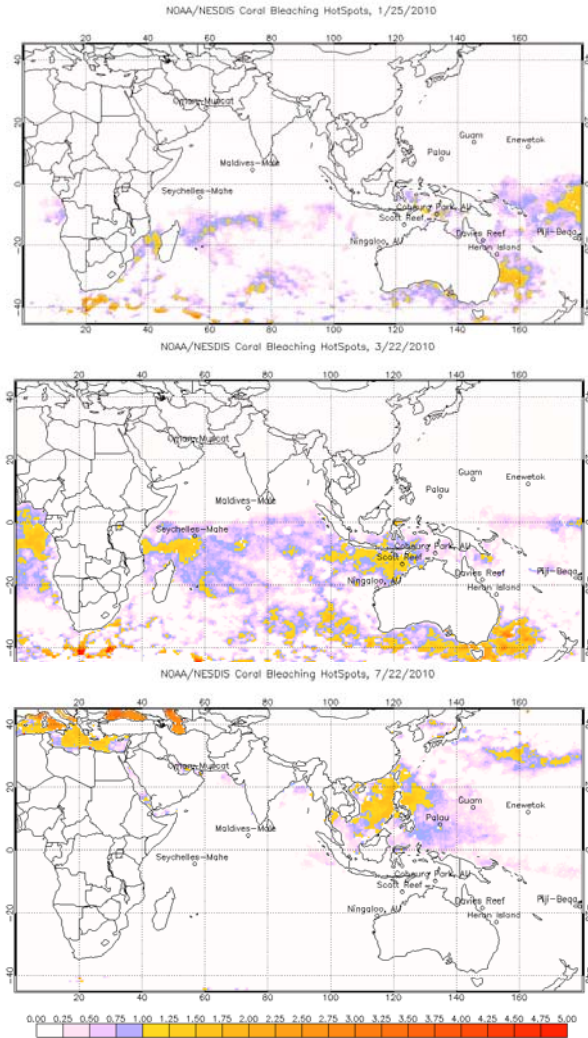


# The hot sea !!!

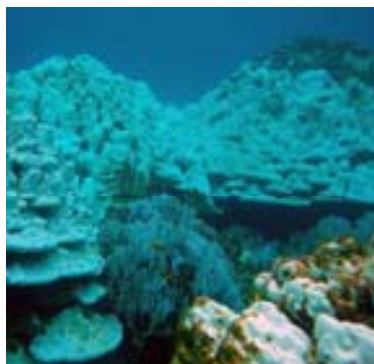
This year the sea is exceptionally hot. NOAA hot spot maps showed that the temperature in South Indonesia was above average since February, peaking in March, and fading off in June. The heat is now moving north towards the Philippines, Palau, and Guam.



A HotSpot value of 1.0 °C means the sea surface temperature is currently 1.0 °C warmer than the highest monthly average temperature for that location, and is a threshold for thermal stress leading to coral bleaching. HotSpot values <1.0 °C are shown in purple, and HotSpots ≥1.0 °C range from yellow to red. Global images and data sets are at 0.5° (50km) resolution, and are updated twice-weekly. Source: <http://www.esdip.noaa.gov/ml/occean/ccb/hotspots.html>

This year, bleaching has been reported from Madagascar to Andaman Sea. In Indonesia, about 20 locations have reported mass bleaching, and in Sabang and East Aceh up to 90% of corals were reported bleaching. Bali has a mild-medium bleaching (up to 40% at Lypah Bay, Amed). It is predicted that by 2020, coral reefs in many parts of the world may suffer mass bleaching and mortality every year (Hoegh-Guldberg 1999).

Many of famous diving sites in the Maldives, Thailand, and Malaysia have reported severe bleaching; up to 100% of corals were reported to be bleaching. The Malaysian government has closed some sites in Tioman and Redang to help to reduce stress to the corals.



Bleaching at Racahi Yai, Thailand.  
Photo: Dr. Mark Eakin

## GILI INDAH DAN BLEACHING



Initial ecological surveys in mid-June 2010 showed that the three Gili Islands were experiencing up to 55% bleaching. A more recent survey showed that the peak of the bleaching had passed, with most of the surveyed areas showing less than 10% bleaching.

### What can we do?

In the same way that people who are in shape can fight and recover from disease, corals that are tough and healthy are more likely than weaker corals to survive stressful events, such as coral bleaching. Here are some ways that you can help corals stay strong and healthy during and after bleaching events:

1. Inform your guests about the bleaching. Ask snorkelers and divers not to touch, step, or kick the corals. Make sure divers have good buoyancy and that their dive equipment is securely attached. Consider keeping beginner divers at a distance from bleached corals.
2. Help maintain healthy populations of herbivorous reef fish, such as parrotfish, rabbitfish, surgeon fish, rudder fish, as well as sea urchins. Consider reducing the removal of these species. These creatures play an important role in removing algae, which can overgrow areas of the reef that have bleached and died. Algae-free areas are crucial for baby coral to settle and grow.
3. Help us to understand the extent of a bleaching event by telling us about the bleaching and non-bleaching areas among your dive sites. Therefore we can have preliminary information on which areas are stronger than others.
4. Help us to monitor the condition of affected and unaffected dive sites. Monitoring gives us clues about which areas recover better than others.
5. Help reefs to recover faster by stabilizing substrates through rehabilitation efforts.
6. Help authorities to enforce rules in the area.
7. Encourage your divers to actively reduce their greenhouse gas emissions.

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