



# Semporna Marine Ecological Expedition (SMEE) 2010



**What is it?** SMEE is a rapid ecological survey to document marine biodiversity and reef status in the Semporna Priority Conservation Area. The research team spent 17 days diving the area's diversity of reefs to meet the objectives of documenting biodiversity and reef status. With 3-4 dives per day, more than 1000 hours were spent under water. 12 kilometers of reef status transects were surveyed. The results will be published into a formal report and several scientific papers are expected soon.

**Why?** Semporna lies within the boundaries of the Coral Triangle, but the reefs are not fully studied. Many species remain undiscovered and conservation action is urgent because of high threats from overfishing, destructive fishing, pollution, and development.

Semporna has a rich mix of reef types and habitats. Fringing reefs, patch reefs, pre-atoll reefs, a barrier reef, and the oceanic island reefs of Sipadan are all mixed in a variety of habitat types, contributing to Semporna's extremely rich biodiversity.

## Preliminary results:

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Mushroom coral species:		43
Reef fish species:		756
Total fish species census:		844
Coral shrimp species:		90+
Algae species:		100+
Live coral:	Excellent	5%
cover	Good	23%
percentage	Fair	36%
	Poor	36%



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**Urgency** The situation is critical. Coral reefs are showing signs of stress from local pressures at the same time that climate change is starting to have bigger and bigger impacts on reefs. Overfishing and fish bombing have reduced the quality of many reefs.



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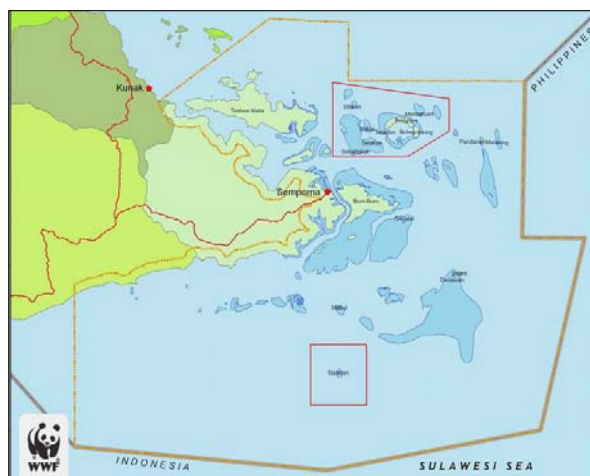


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Four unexploded fish bombs were found on the reefs and 15 bombs were heard exploding. Some reefs have good coral cover but few fish. There is an absence of important invertebrates such as sea cucumbers and shells.

Many people depend on the reefs for their livelihoods. They collect food and income sources from the reefs on a daily basis. Seaweed farming and other alternatives in Sabah must be expanded to all people to reduce pressure on scarce marine resources. Semporna's marine resources are an important heritage to be managed sustainably.

**Collaboration** SMEE was co-organised by WWF-Malaysia, NCB Naturalis, Universiti Malaysia Sabah, and Universiti Malaya, with collaboration from Sabah Parks, Universiti Kebangsaan Malaysia, Universiti Malaysia Sarawak and Old Dominion University. We are grateful to the Economic Planning Unit, Economic Planning Unit Sabah, Sabah Parks, Department of Fisheries Sabah, and Majlis Keselamatan Negara for assistance and permission to conduct this research. The expedition was generously funded by the Adessium Foundation and WWF Netherlands.



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**Watch videos of the expedition at:**

You Tube

<http://www.youtube.com/user/2010SMEE>

Or at NCB Naturalis blog site

<http://blog.ncbnaturalis.nl/?tag=semporna-marine-ecological-expedition>

**For more information, contact:**

Angela Lim, Senior Communications Officer  
SSME Programme, WWF-Malaysia  
T:+60 88 262 420, F:+60 88 242 531  
E: [ALim@wwf.org.my](mailto:ALim@wwf.org.my), [www.wwf.org.my](http://www.wwf.org.my)

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