



Coral Reef Ecosystems in a Changing Climate

U.S. Coral Reef Task Force Meeting

August 2007, American Samoa

Panelists: Gerhard Kuska, CEQ; Mark Eakin, NOAA

Chuck Birkeland, USGS; Espen Ronneberg, SPREP

Moderator: Bob Richmond, Kewalo Marine Lab

Problems

1. Massive bleaching events from ▲ temperatures
2. Ocean acidification
3. Changes in weather, coastal water/substratum quality and sea level

Outcomes

Options for responses beneficial at multiple levels

Global Climate Change is impacting corals reefs worldwide and is believed by many to be the single greatest threat for their future

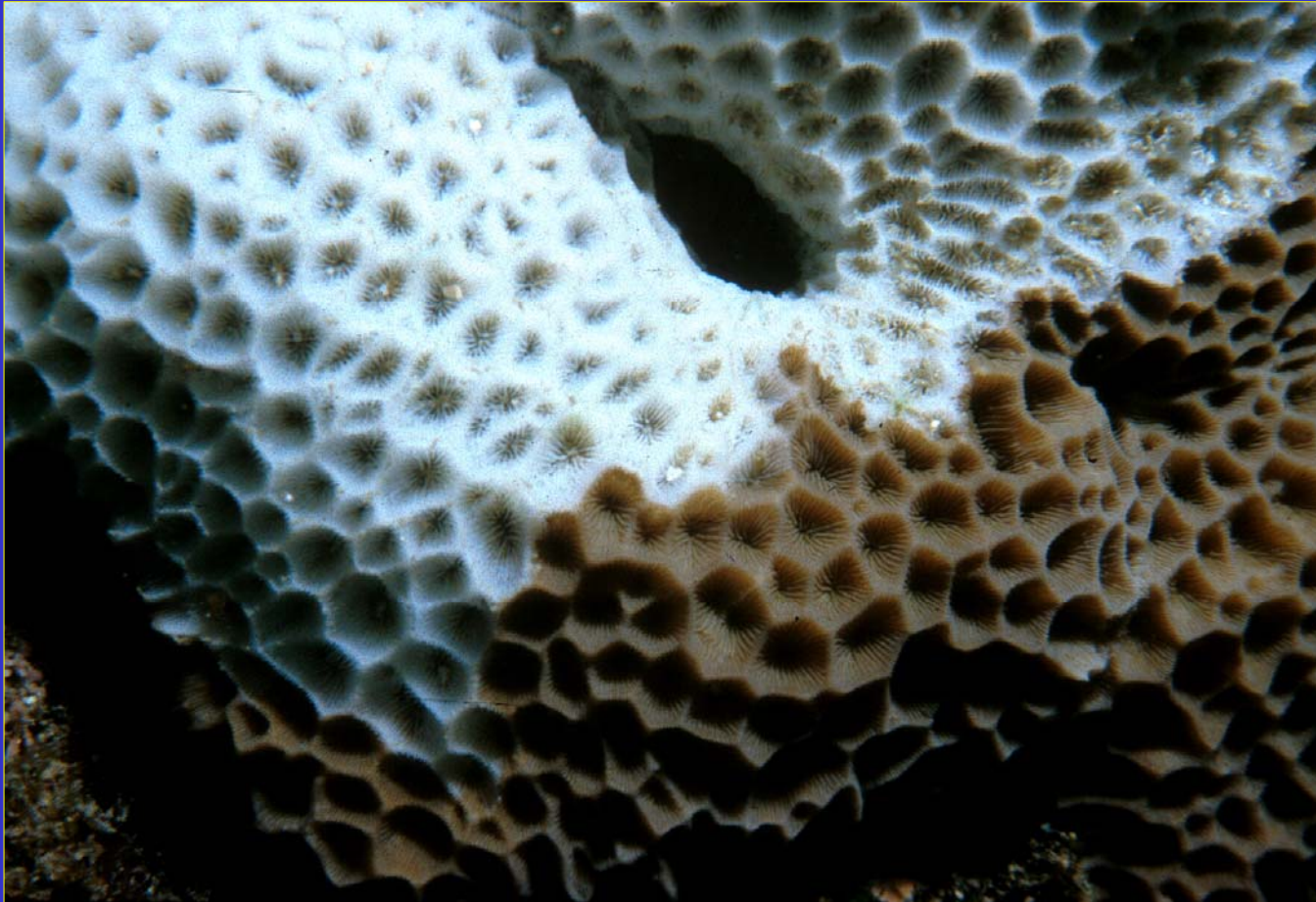
Concerns

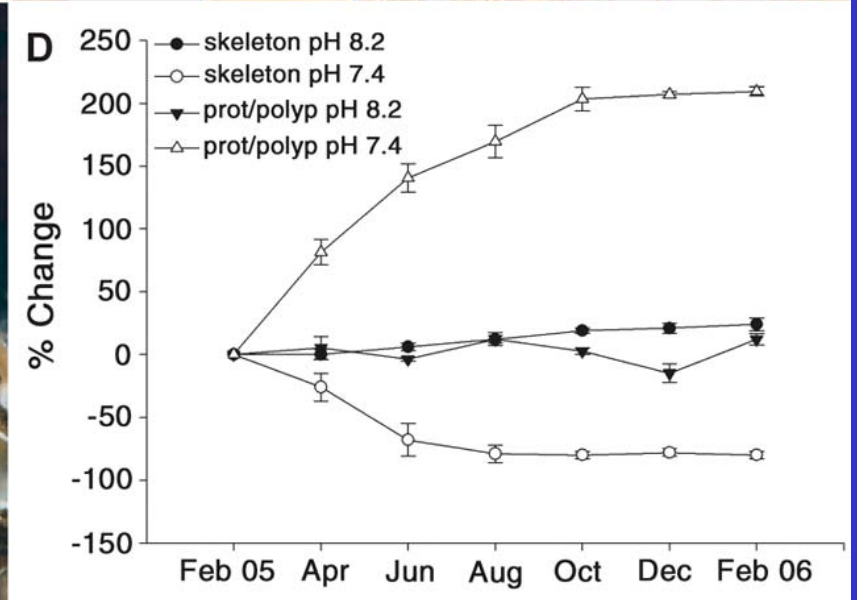
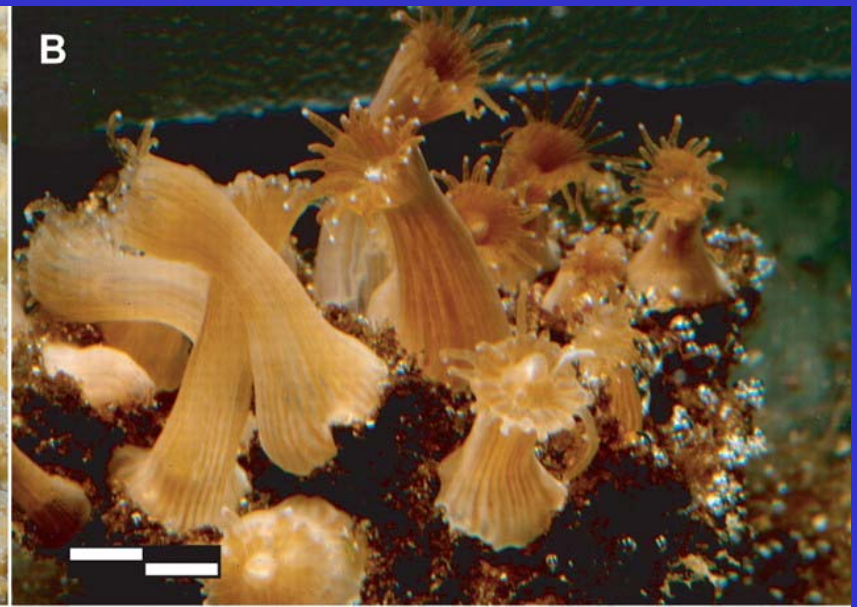
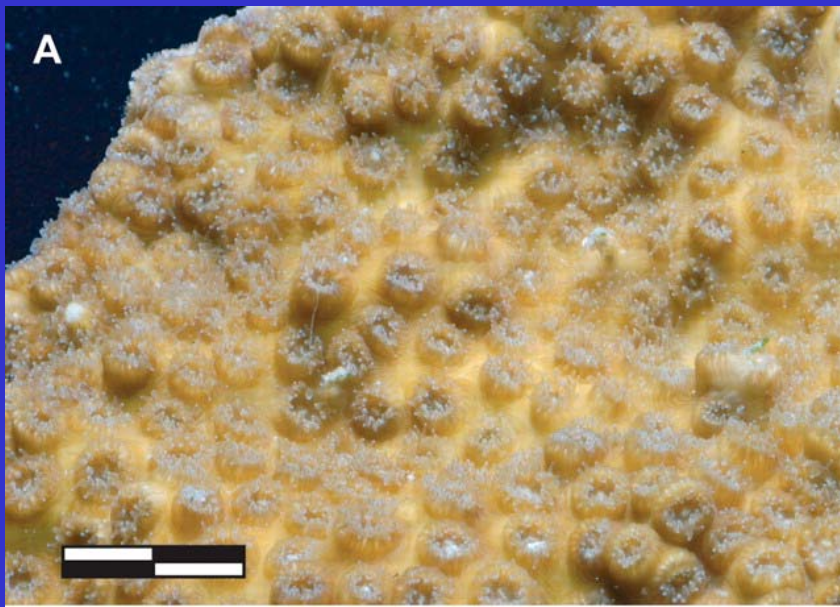
Economic, Ecological & Cultural losses

Actions

1. Inactivity not a viable option
2. Local efforts needed to reduce stressors
3. National/International responses needed

Temperature induced bleaching



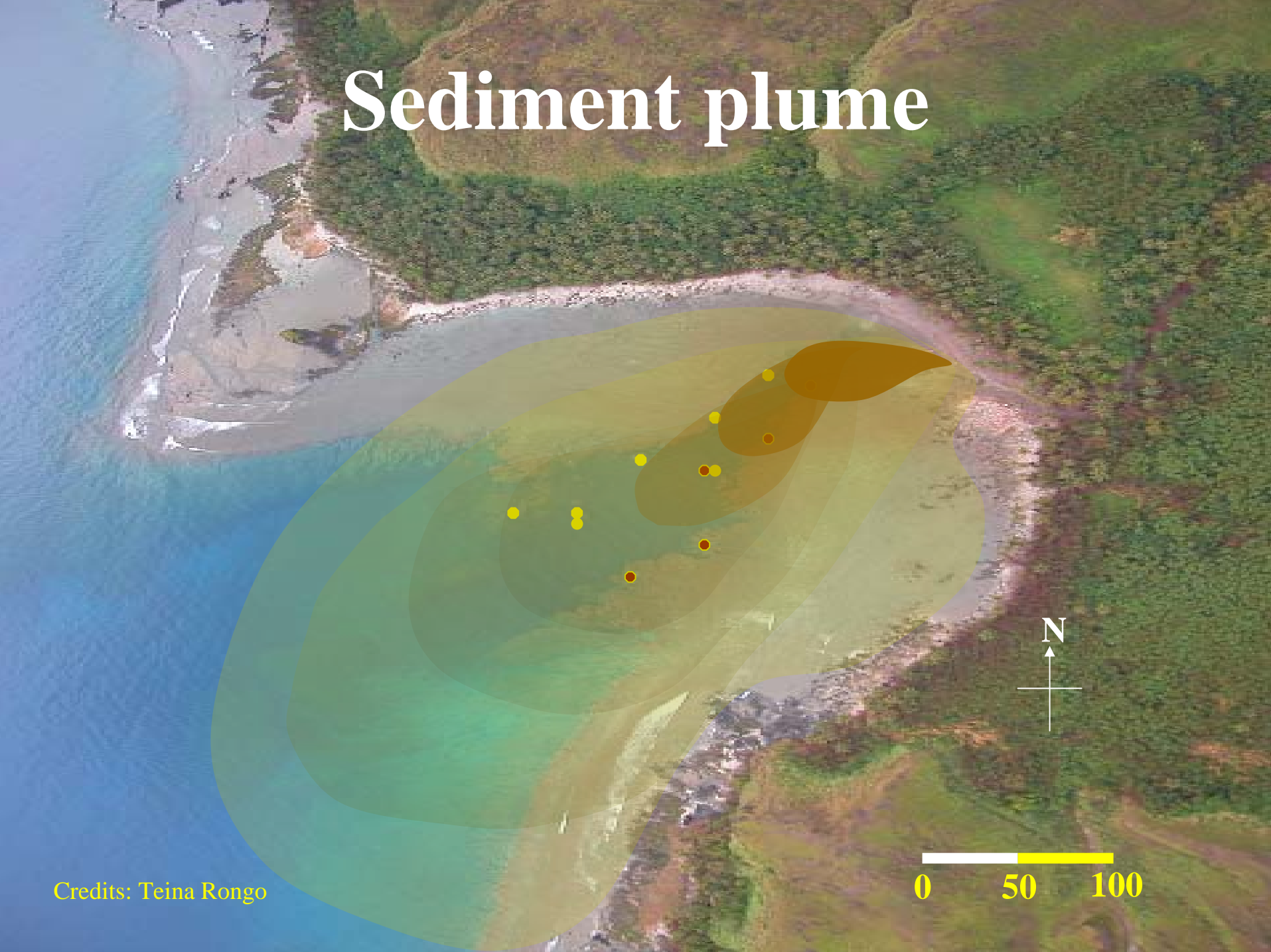


M. Fine et al., Science 315, 1811 (2007)

Changes in weather patterns

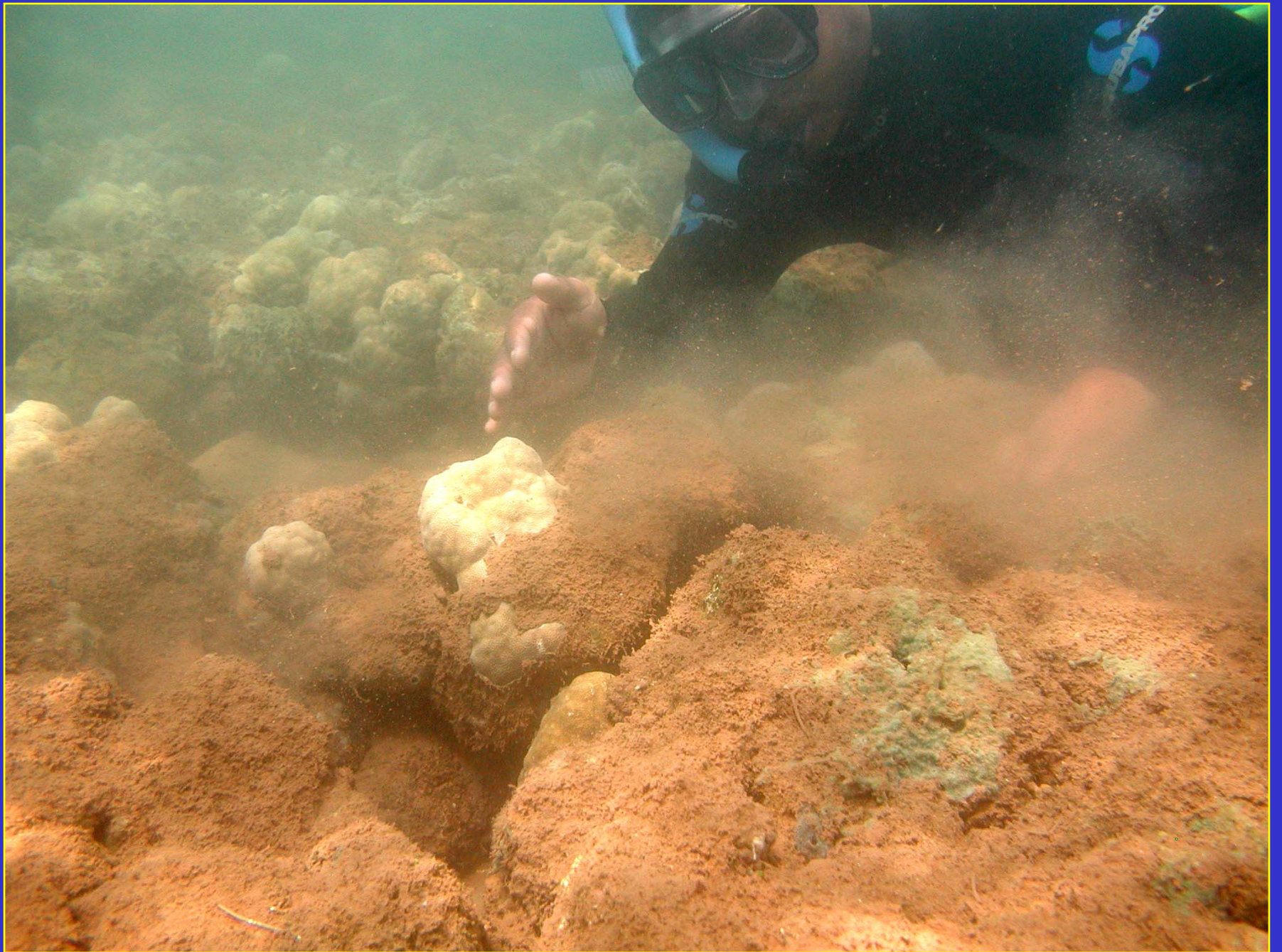


Sediment plume



Credits: Teina Rongo

0 50 100



Sea level changes



THE BRIDGE TRAGEDY - MURDOCH'S WAR PLAN

Newsweek



**Global
Warming Is
A Hoax.***

* Or so claim well-funded naysayers who still reject the overwhelming evidence of climate change. Inside the denial machine. By Sharon Begley

"Warming of the climate system is unequivocal," concluded a report by 600 scientists from governments, academia, green groups and businesses in 40 countries.

Washington Post 2/07

Exxon Mobil Warming Up To Global Climate Issue By Steven Mufson

Washington Post Staff Writer

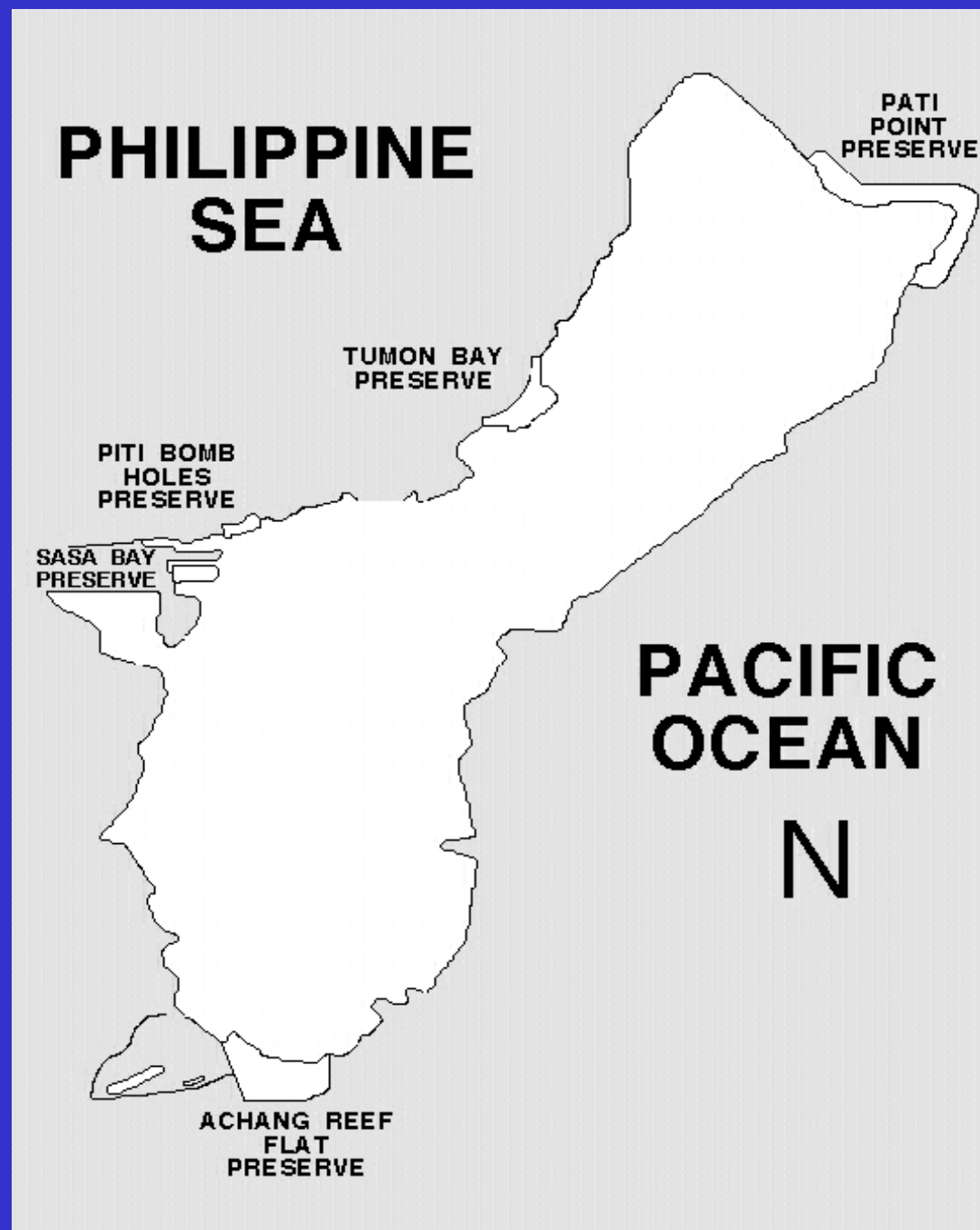
Saturday, February 10, 2007; Page D-1

“When it comes to the issue of climate change, Exxon Mobil says it has been misunderstood.”

Reef Resilience



Establishment and
Placement of
MPA's



Human Resilience and Response: “Delay is a subtle form of rejection”



Gov. Tulafono AIC Resolution

- UN Framework Convention on Climate Change
- Intergovernmental Panel on CC
- SPREP

