## From Seahorses & Selfridges to Society – Making a real difference

Dr Heather Koldewey and many many many collaborators

Head of Global Conservation Programmes

Zoological Society of London



@heatherkoldewey
#oceanoptimism

#### Many, many, many collaborators





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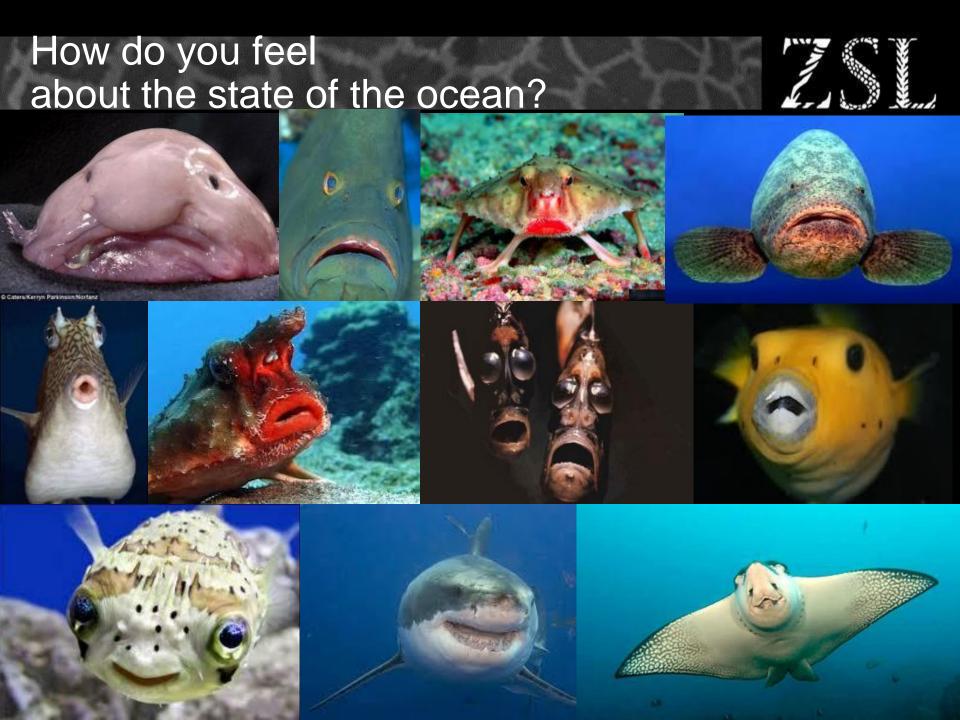












# HOPELESSNESS AMONG SCIENTISTS





"We contend that there is a continuing culture of hopelessness among conservation biologists."

2010 editorial, *BioScience*.

#### Dramatic changes within our lifetime



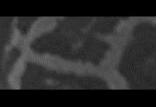


# Growing evidence of children and adults feeling overwhelmed and hopeless about the state of the environment



- Ecophobia (Sobel, 1996)
- Environmental Grief (Windle, 1995; Kervorkian, 2010;)
- Environmental Depression (Lysack, 2009; Zeyer & Kelsey, 2011)
- Environmental Apathy (Renée Lertzman, 2008; Twenge, Campbell and Freeman, 2012)
- Compassion Fatigue (Moeller, 1999; Dominelli, 2012)





# Study: Everyone hates environmentalists and feminists





Bashir, N. Y., Lockwood, P., Chasteen, A. L., Nadolny, D. and Noyes, I. (2013), The ironic impact of activists: Negative stereotypes reduce social change influence. Eur. J. Soc. Psychol., 43: 614–626. doi: 10.1002/ejsp.1983











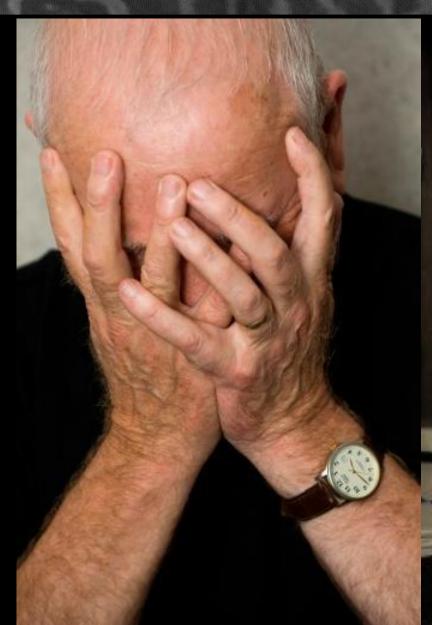






### What are our options?







#### What are our options?

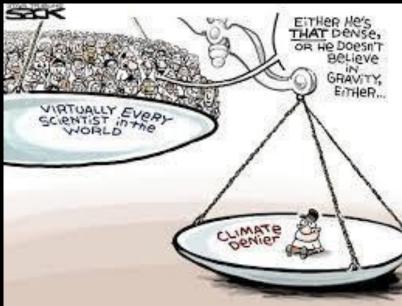




#### What happens if we are optimistic?











#### How we choose to present information

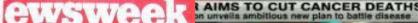




CANCER BREAKTHROUGH







CANCER AND INTERESTIBLE The

Search for a

Cure

#### MINNESOTA DAILY

U enzyme discovery could lead to breast cancer cure







Old killer, new hope



Cancer survivor rides to fund research













# Ecologists should learn to look on the bright side

The planet is in a bad state but remorseless pessimism is a turn-off. It's time conservationists talked up their successes.

Kelsey, January 2012

#### The Ocean is at crisis point





### Great Barrier Reef faces catastrophe



The Telegraph

The rich West is ruining our planet

The industrialised economies have created climate change, but the poorest are the price for it. We must do more to help

The ocean is broken has seen the seen t

The Alarming Rise of Sea Levels

By GREG RAY Oct. 18, 2013, 10 p.m.

The observe are in a women state than previously suspected, according to an expert panel of scientists.

In a loss of otherwise, a property of extraction of

The Disaster We've Wrought on the World's Oceans May Be Irrevocable

By Alex Renton / July 2, 2014 6:31 A34 EDT





he Global Mean Sea Level (GMSL) has risen by 4- B inches (10 to 80 cm) over the past century. Midlights, this clogati, and fine the stories

### Beyond the Obituaries



## Telling the *stories* of *success* in marine conservation

Professor Nancy Knowlton, Smithsonian Institution



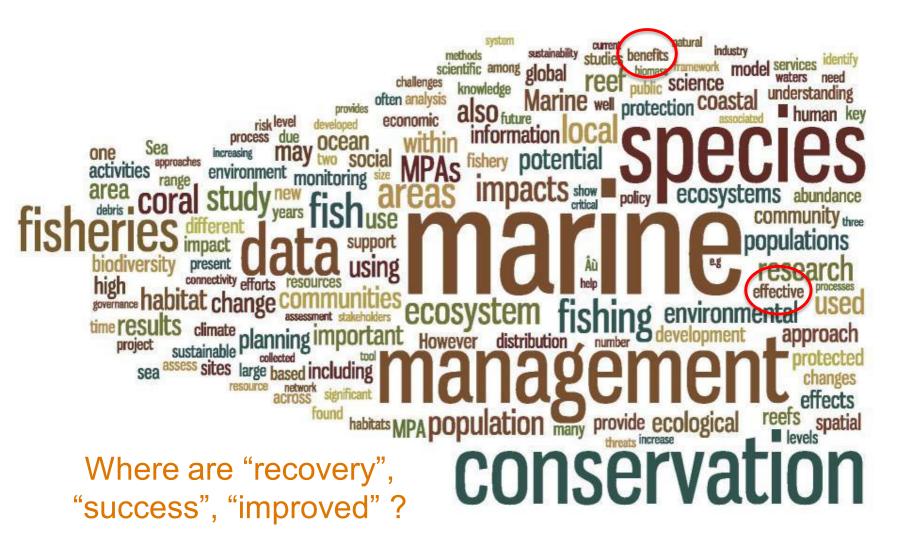




www.ocean.si.edu

## International Marine Conservation Congress, Glasgow August 2014





#### Coastal Futures, London January 2015





Where are "effective", "recovery", """ "success", "improved"?

#### Success in Marine Conservation





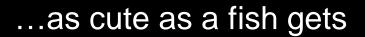
Saving Species
Protecting Spaces
Harvesting Wisely
Restoring Habitats
Reducing Pollution





#### Seahorses

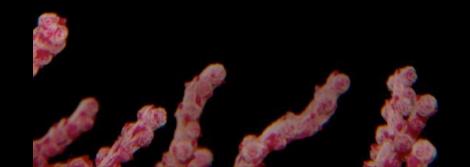






advancing marine conservation





# Vulnerable... **Coral Reefs** Seagrasses Mangroves **Estuaries**

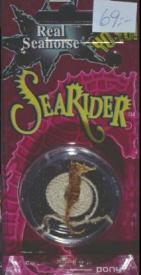
### Vulnerable....











### Vulnerable...





#### Project Seahorse in the Philippines







#### Working with fishing communities











#### Community managed no-take MPAs





Community liaison and training



Watchtowers and patrol boats



MPA monitoring





Community engagement

#### Project Seahorse assisted MPAs





### Project Seahorse Assisted Marine Protected Areas





## MPA effectiveness ecological vs socioeconomic

- Even small reserves can increase abundance of most valuable species (for fisheries).
- Enforcement critical

Diverse benefits e.g. social capital (measured as trust, social cohesion, community support, compliance)







#### Thinking local...and being pragmatic



"The choice is not between perfect and imperfect advice/action, it's between imperfect and none at all". (Johannes, 2006)

"Everything we know indicates that the longer we wait to create 'no-take' pieces of the sea, the more difficult it will be to do so (more users with more entrenched interests) and less we will benefit (more damage taking longer to restore). It is not sensible to delay." (Ballantine 1997)

"Don't just gather data, do something. Scientists need to stop using a lack of knowledge as an excuse for not doing more to protect threatened species". (Vincent, 2014)





#### Resource limitations





#### iSeahorse www.iseahorse.org

iSeahorse is a website and mobile app that allows anyone, anywhere in the world to contribute to seahorse science and conservation.









advancing marine conservation













## Data inform management

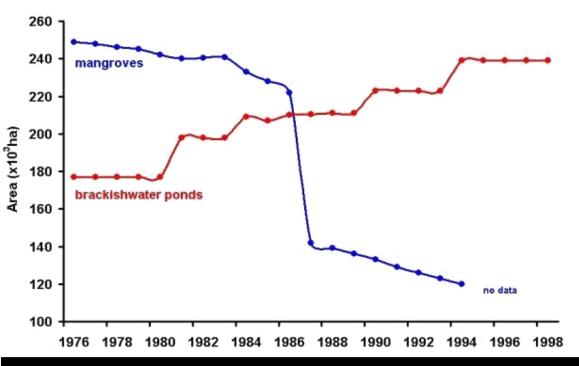




# Uneven habitat representation



### Mangroves to fishponds (Primavera, 2000)





### MANGROVES PONDS

1918: 450,000 ha 1940: 61,000 ha

2010: 240,800 ha 1994: 232,000 ha

**Present MANGROVE: POND RATIO - 1: 1** 

IDEAL RATIO (Saenger et al 1983) - 4: 1



### Protect remaining mangrove forest



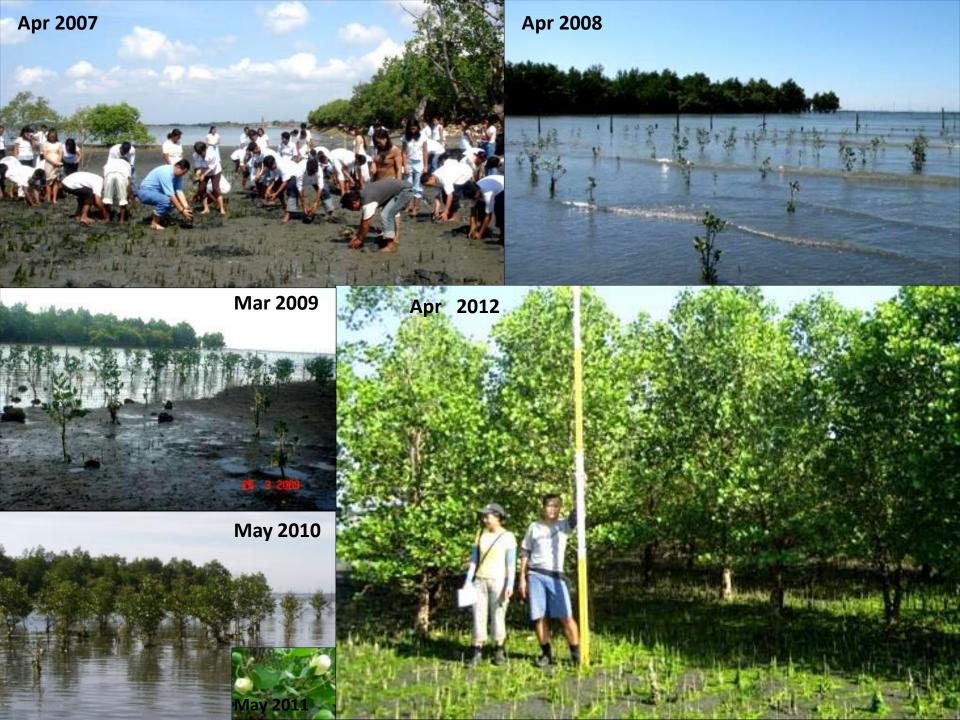


### Expand mangrove area through replanting









### Maintain mangrove biodiversity





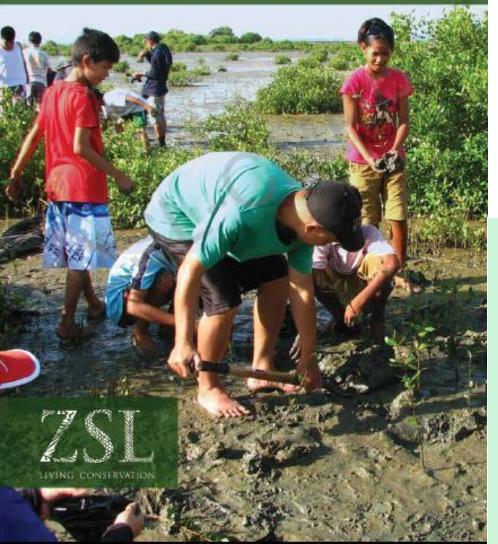


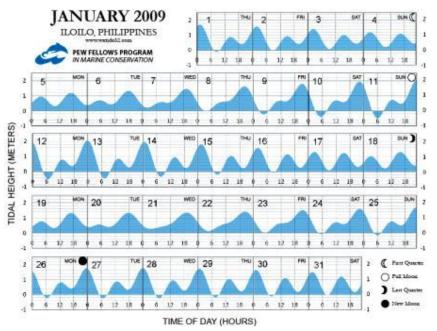


### MANUAL ON COMMUNITY-BASED MANGROVE REHABILITATION

MANGROVE MANUAL SERIES NO.1

JH Primavera, JP Savaris, BE Bajoyo, JD Coching, DJ Curnick, RL Golbeque, AT Guzman, JQ Henderin, RV Joven, RA Loma and HJ Koldewey







### **Philippine Mangrove Laws**

### Protection

P.D. 705 (1975) - Revised Forestry Code: Retention of 20 m-wide mangrove strip facing oceans

P.D. 953 (1976) - Fishpond/ mangrove leaseholders required to retain or replant 20-m mangrove strip along rivers, creeks

P.D. 1067 (1976) - 3 to 20 m of riverbanks, seashore for public use (recreation, navigation, floatage, fishing and salvage), building of structures not allowed

P.P. 2151 & 2152 (1981) - Declaration of 4,326 ha of mangroves including Palawan as wilderness areas and 74,767 ha as forest reserves

DENR A.O. 15 (1990) - Granting/ renewal of mangrove timber license and/or permit no longer allowed; mangrove released to BFAR for fishpond that are not utilized or have been abandoned for 5 years from date of release shall revert to category of forest land

R.A. 7161 (1991) - Internal Revenue Code: Ban on cutting of all mangrove species

DENR A.O. 34 (1991) - Guidelines for Environmental Clearance Certificate (applied to fishponds)

R.A. 8550 (1998) - Fisheries Code: Prohibits mangrove conversion to fishponds and other uses

Zoning, Tenure, Pond Conversion, Reversion and FLAs

## Increasing MPA area and resilience



Lipata MPA	10 ha	104.2 ha
Sinandigan MPA	50 ha	245.4 ha
Aquino-Ondoy MPA	35 ha	102.8 ha

### 15<sup>th</sup> October 2013 7.2 magnitude earthquake, Bohol and Cebu







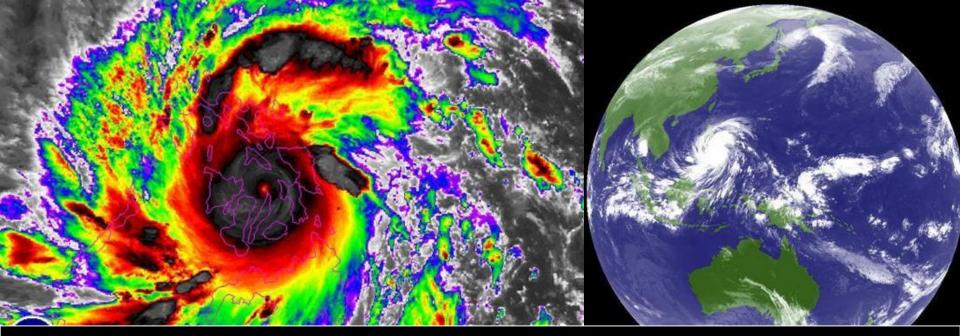




# November 8<sup>th</sup> 2013, Typhoon Haiyan (Yolanda locally)







TY. YOLANDA (HAIYAN): STRONGEST STORM/Category 5 TO MAKE LANDFALL (315 kph); 4<sup>TH</sup> STRONGEST IN HISTORY (1750 km across, up to 5-/10-meter storm surges)



### Aid distribution – social resilience





### Ecological impacts of earthquake









### Mangroves post-Haiyan



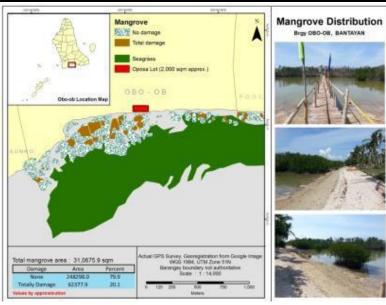


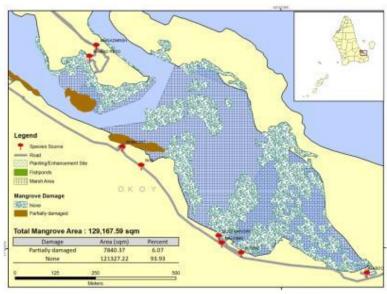


### Mapping damage













### Changing the way we communicate





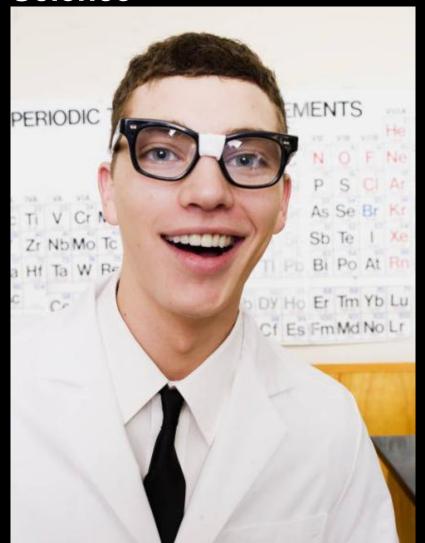


SELFRIDGES&CQ

### Perceptions...



**Science** Fashion









YOU WOULDN'T EAT A PANDA

> STOP EATING ENDANGERED TUNA

### Reaching new audiences





**SELFRIDGES** 



Haddock 7 over 7



### Making a difference - 2011







### WHAT IS SQUALENE?

SQUALENE IS EXTRACTED FROM THE OIL FOUND WITHIN THE SHARK'S LIVER, COMMONLY USED IN COSMETICS, IT'S ESTIMATED THAT THE GLOBAL MARKET FOR SQUALENE IS 1,000-2,000 TONS.
IT TAKES 3000 SHARKS TO PRODUCE JUST ONE TON.

OUR BEAUTY HALL IS SHARK SQUALENE-FREE.





### 2015 – marine debris





### Collaboration





























blue ventures



SUSTAINABLE FISH CITY



















# Strength through collaboration www.marinereservescoalition.org





# Marine Reserves Coalition







### The 'Selfridges MPA' Philippines





### The big challenge...





### Innovative approaches - Net-Works™





Interface®





### Net-Works



• www.net-works.com

