

BENTHIC BIODIVERSITY – Monitoring links ecosystem function to public outreach

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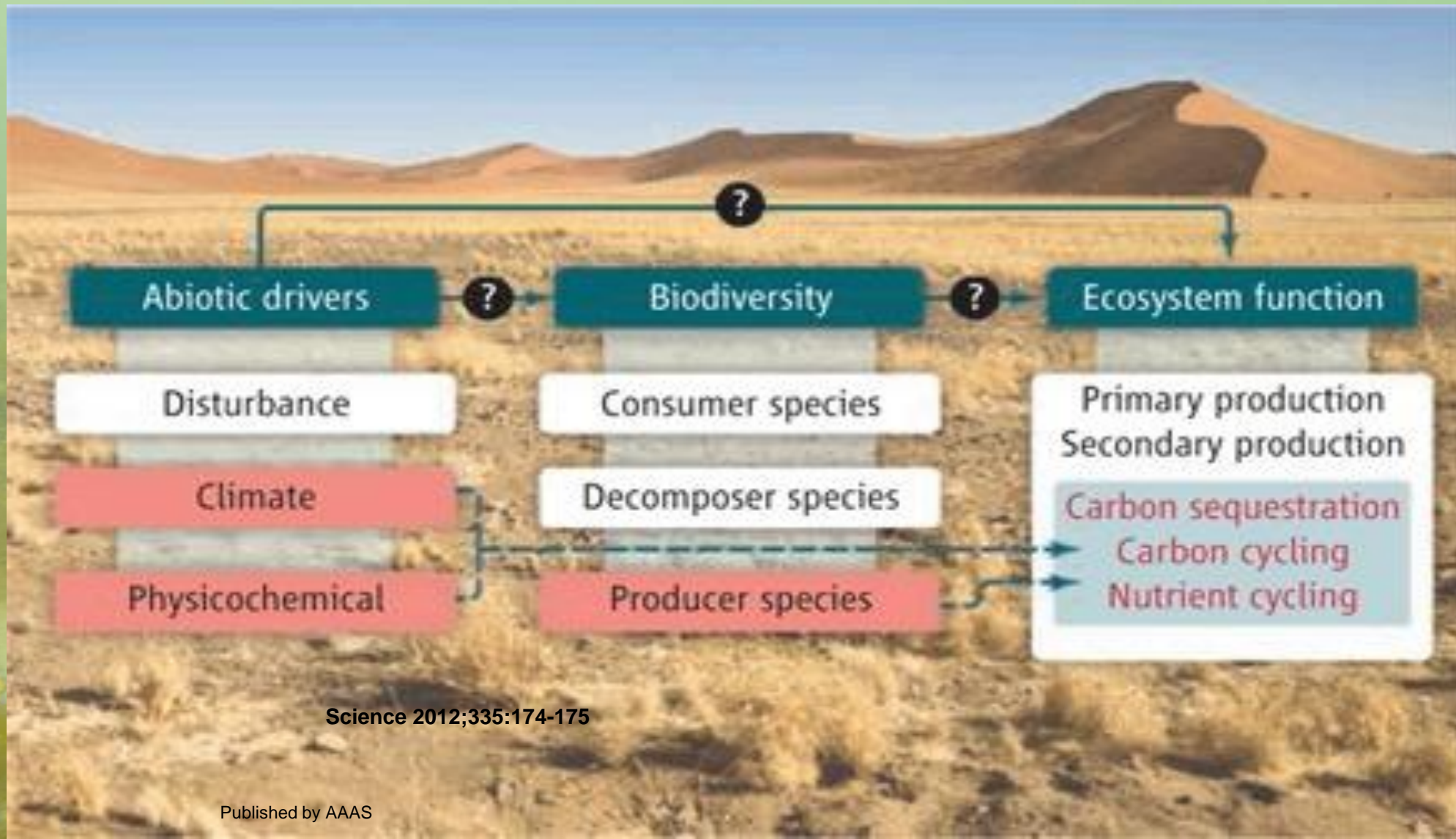
UNIVERSITY
OF MIAMI



COASTAL
ECOLOGY
LABORATORY



THERE IS A QUANTITATIVE LINK BETWEEN DIVERSITY AND FUNCTION



Science 2012;335:174-175

THROUGH BIO-BLITZ EVENTS and NEW NATURALIST TOOLS, THE PUBLIC SEES THE VALUE OF DIVERSITY



- **Bio-BLITZ EVENTS** to engage scientists and students in diversity assessments
- **i-NATURALIST** app
- **MARINE DEBRIS** tracker

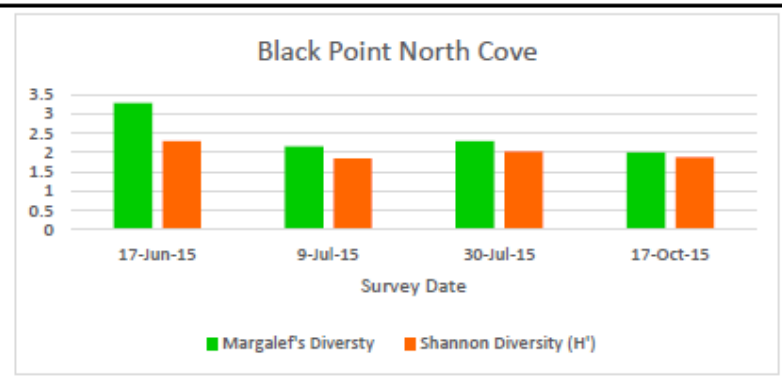
BISCAYNE NATIONAL PARK

- *QUICK LOOK* REPORT WITHIN A WEEK OF SURVEYS
- TRENDS ON CHANGES IN DIVERSITY
- VISUAL REPORT ON WHAT STAKEHOLDERS SEE

Survey Site Name: Black Point
 Location: Biscayne National Park
 GPS Grid: 17R X: 0567742 Y: 2824668
 Date of Survey: 17-Oct-2015

Abiotic Parameters for 17-Oct-2015:

Air Temperature (°C)	27.6*	Secchi Turbidity (m)	3.25
Water Temperature (°C)	26.37	Average Rainfall (mm/day)	6.6*
Oxygen (%)	61.78	Average Temperature Range (°C)	19.4-29.4*
Recent Rain (24 hours)	Yes		
Salinity (ppt)	15.95	*taken from Homestead Air Reserve Base	



Invasive Species (highlighted if observed):

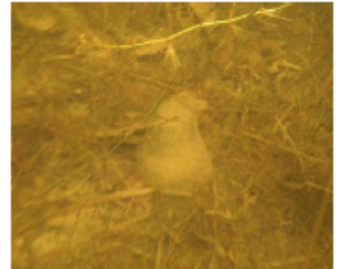
Lionfish (*Pterois volitans/miles*)
 Mayan Cichlid (*Cichlasoma urophthalmus*)
 African Jewelfish (*Hemichromis letourneuxi*)

Surveyed Species:

	Fish	Epifauna/Invertebrates
Species Count	7	3
5 most common fish; notable epifauna	Silversides (<i>Atherinidae</i>)	Scorched Mussel (<i>Brachidontes exustus</i>)
	Mullet (<i>Mugil curema</i>)	Bamboo Worms (<i>Clymenella torquata</i>)
	Grey Snapper (<i>Lutjanus griseus</i>)	Rock Oyster (<i>Isognomon alatus</i>)
	Mottled Mojarra (<i>Eucinostomus lefroyi</i>)	
	Yellowfin Mojarra (<i>Gerres cinereus</i>)	



The entry point for the fish survey.

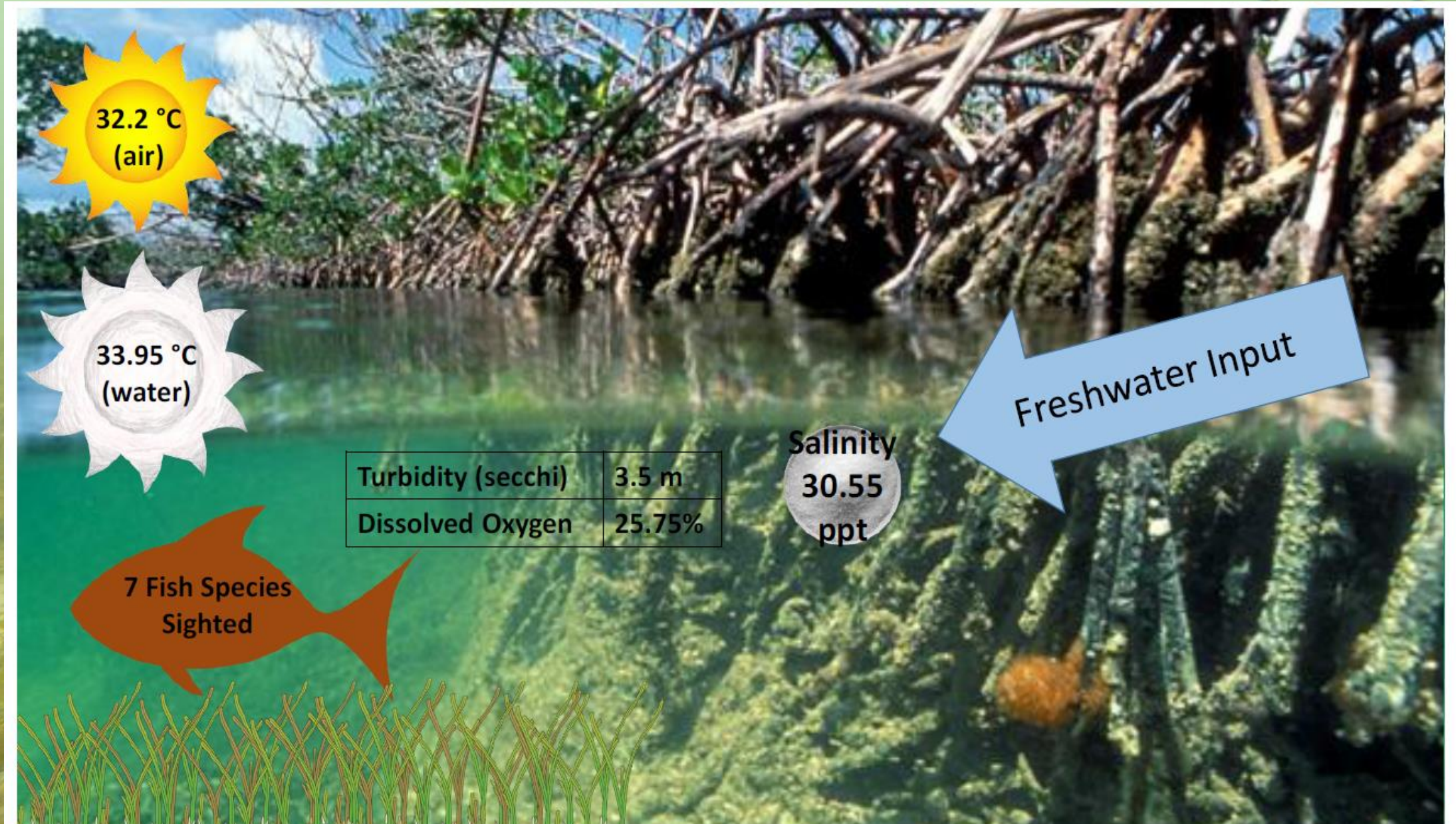


The mucus sac of a bamboo worm (*Clymenella torquata*)



A juvenile barracuda

Visualize Water Quality - JUNE



Visualize Water Quality - DECEMBER

