Research is Better

UNDERWATER

UCLA Pathways to PhDs

The Diversity Project 1.0

The Diversity Project 1.0

Success

Martha Muñoz, Professor Yale

Alexis Jackson, TNC

Rob Lasley, Curator
U. Guam

Sam Cheng, WWF

Melissa Kemp, Professor
UT Austin

Kadeem Gilbert, Professor
Michigan St.

Forced to Pivot in 2014

Separated education and mentoring programs from primary research goals

TDP 2.0: Student Centered Research Experience

The Diversity Project

TDP 2.0: Student Driven

Herbivory Increases Energy Allocation Towards Reproduction in Small *Turbinaria ornata*

TDP 2.0: Student Driven

Exploring How Coral Reef Structural Complexity Impacts Ecosystem Function

Key Innovation: Student Driven

Sea Urchin Importance in Cropping Algal Turf and Removing Sediment on Coral Reefs

TDP 2.0: Student Driven

Student Driven does not mean lesser outcomes

J. Phycol. **59,** 277–280 (2023)

DOI: 10.1111/jpy.13292

NOTE

ONTOGENETIC VARIATION IN BLADE TOUGHNESS MAY CONTRIBUTE TO THE SPREAD OF *TURBINARIA ORNATA* ACROSS THE SOUTH PACIFIC[1]

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TDP 2.0: Student Driven

Student Driven does not mean lesser outcomes

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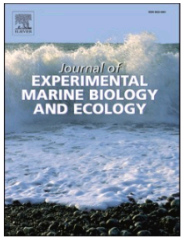

Check for updates

Structural complexity shapes the behavior and abundance of a common herbivorous fish, increasing herbivory on a turf-dominated, fringing reef

Judith Santano [a], Isaiah A. Milton [b,1], Bianca Navarro [c,1], Raines M. Warren [d,1], Paul H. Barber [c], Peggy Fong [c], Caitlin R. Fong [e,*]

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TDP 2.0: Student Driven

Student Driven does not mean lesser outcomes

www.nature.com/scientificreports

scientific reports

Check for updates

OPEN

Herbivorous sea urchins (*Echinometra mathaei*) support resilience on overfished and sedimented tropical reefs

Caitlin R. Fong[1✉], Nefertiti Smith[2,3], Elijah Catalan[4,5], Blanca Alvarez Caraveo[5,6], Paul H. Barber[5] & Peggy Fong[5]

Human impacts are dramatically changing ecological communities, motivating research on resilience. Tropical reefs are increasingly undergoing transitions to short algal turf, a successional community that mediates either recovery to coral by allowing recruitment or transitions to longer

TDP 2.0: Sustained mentoring

The Diversity Project Research and Networking Symposium

TDP 2.0: Sustained mentoring

Western Society of Naturalist and Ocean Sciences Conference

TDP 2.0: Sustained mentoring

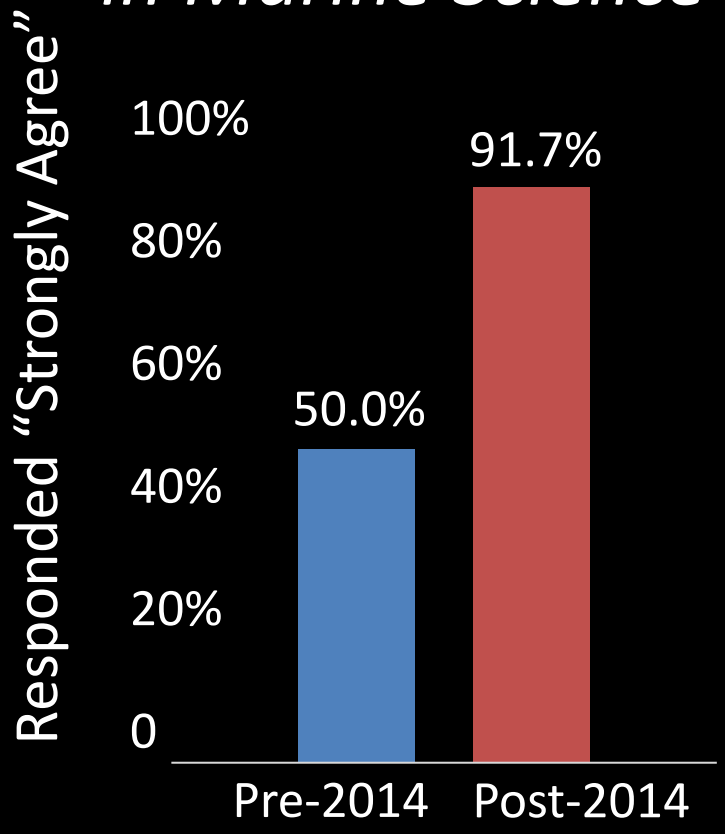
Dedicated Postdoctoral Scholar

Alex Davis

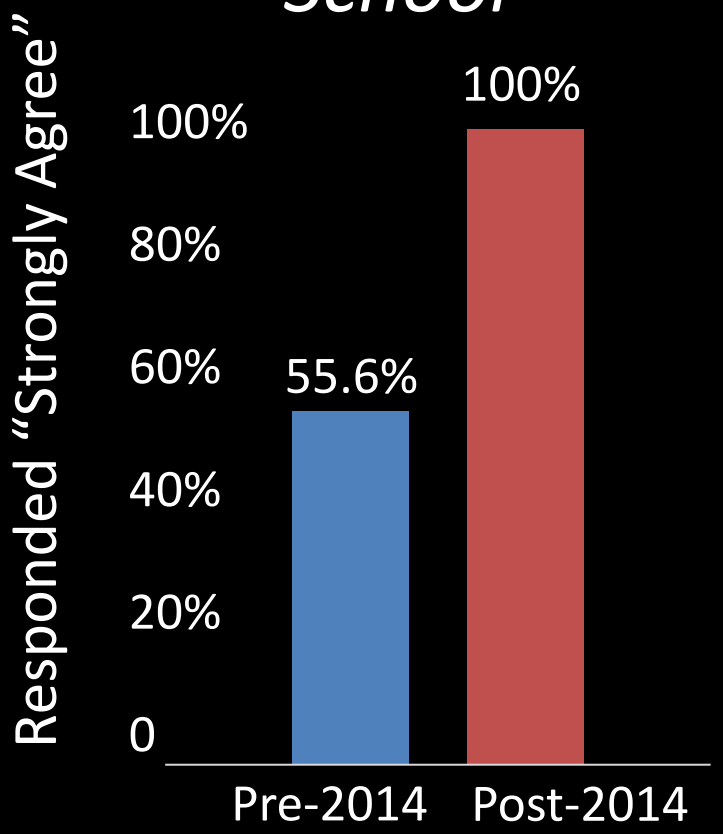
TDP 2.0: Engage Family

Dramatic Shift in Outcomes

Desire to Pursue a Career in Marine Science



Desire to Pursue Graduate School



TDP Impact

120 Alumni since 2005
20 PhD's awarded (Harvard, Stanford, UCLA)
31 Current PhD Students (8 applying now)
19 M.S. degrees awarded
3 Fulbright Fellows
18 NSF GRFP Recipients
6 Tenure Track Faculty (Yale, UT Austin, UCI)
2 Staff Scientists, The Nature Conservancy
1 Staff Scientist, WWF
2 ASLO Board Members

TDP Impact

Mahogany Mermaids®

Aliyah Griffith, PhD Student

TDP Impact

Camille Gaynus, PhD
Black in Marine Science

Tiara Moore , PhD
Black in Marine Science

TDP 1.0: Traditional REU

Traditional REU

- Based on PI's research
- Students assigned projects
- Little opportunity for students to shape research directions

Better Model Yields Better Outcomes

Traditional REU

- Based on PI's research
- Students assigned projects
- Little opportunity for students to shape research directions

TDP Model

- PI's mentor students in developing *their own* projects
- Projects *aligned* with student interests.
- Develops students' *identity* as a scientist