

Communicating Science Through the Lens of Culture and Identity

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Our Story

Contextualizing University of Guam's EPSCoR
GECCO Program

The Evolution of Communicating Science Through
the Lens of Culture and Identity

The Designer and Facilitator for Near Peer Seminars

Near Peer Seminars and Reflections ~ Awareness of Evolution
of Self and Sense of Belonging

Awareness of Self and Sense of Belonging as the conduit to
*Communicating Science Through the Lens of Culture and
Identity*

A scuba diver in full gear, including a silver tank and blue fins, is swimming horizontally over a diverse coral reef. The water is clear and blue, with many small fish visible in the background. The coral reef is composed of various species, including large, branching structures and smaller, more delicate forms. The diver is positioned in the upper right quadrant of the frame, looking towards the left. The overall scene is a beautiful underwater landscape.

University of Guam
EPSCoR GECCO Program



MISSION

The Guam Ecosystems Collaboratorium for Corals and Oceans (GECCO) mission is to address the challenges of climate change in coral reefs and associated ecosystems.

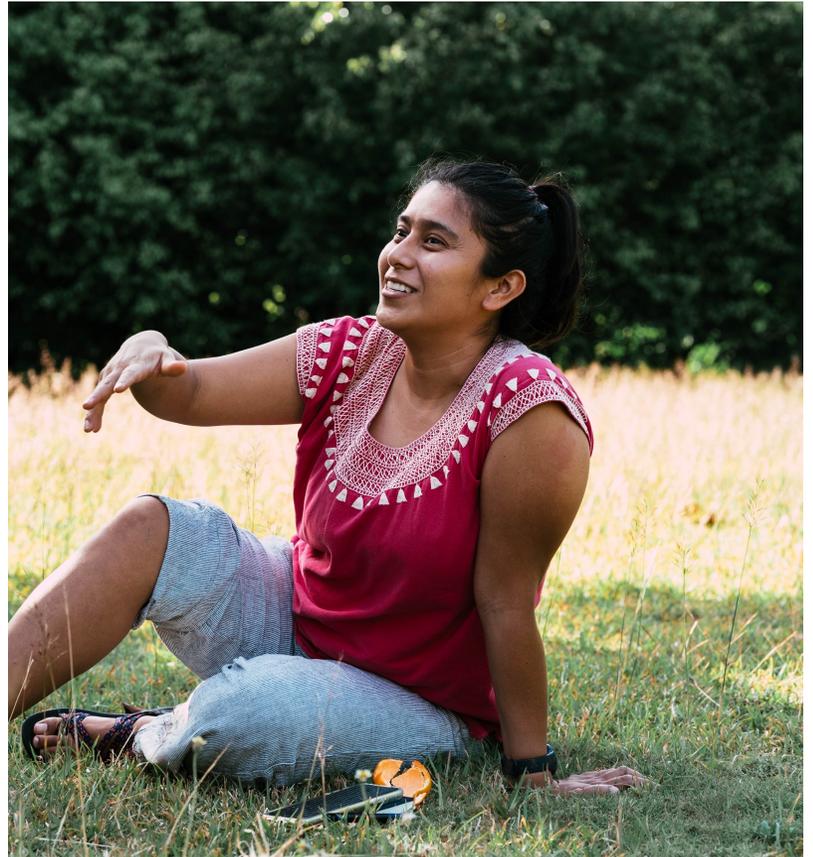
VISION

The vision of GECCO is to create a world-class research and STEM training facility that will address challenges to the survival of coral reefs under rapidly changing environmental conditions within the Marianas region.



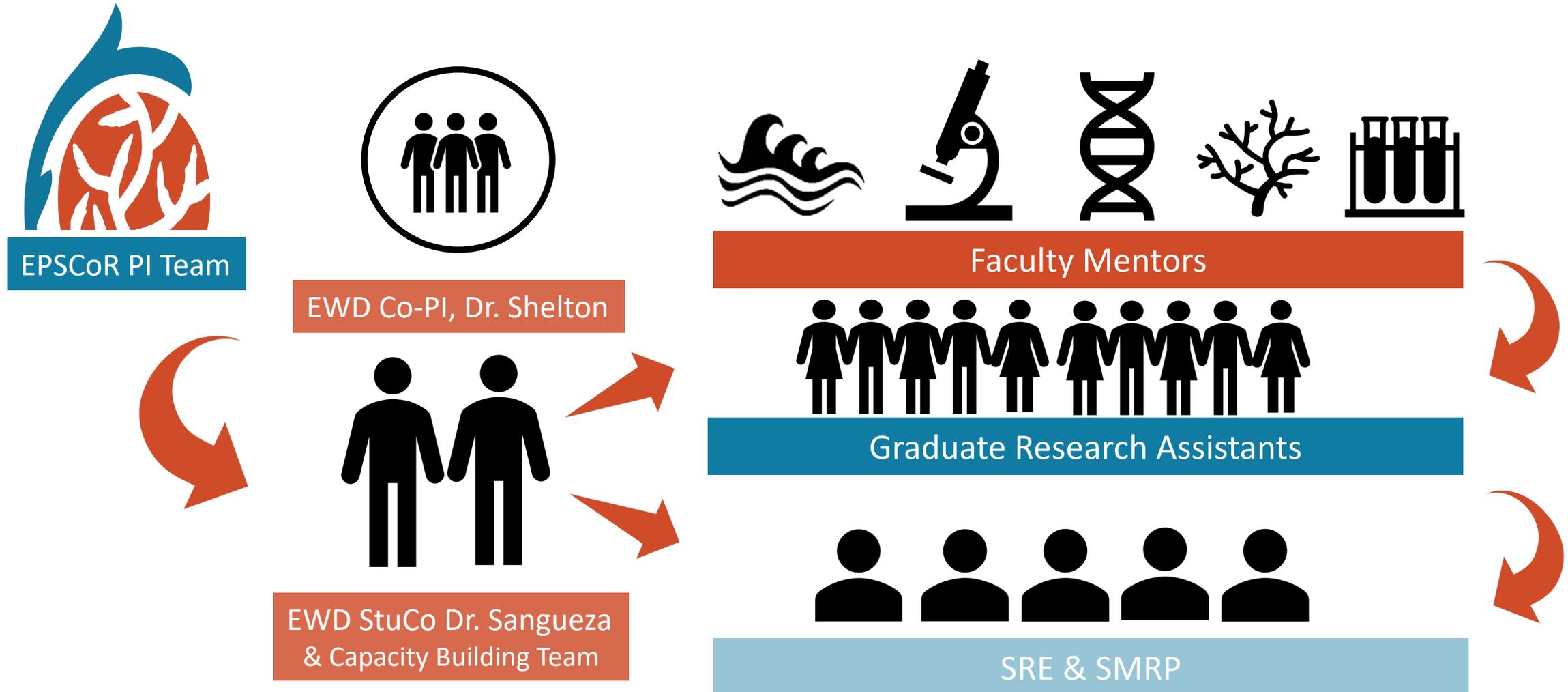


University of Guam's EPSCoR GECCO Program



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NEAR PEER CONCEPT REINFORCES SENSE OF BELONGING





The Designer and Facilitator for Near Peer Seminars

- Associate Professor, School of Education
- Co-PI NSF INCLUDES: SEAS Islands Alliance
- Oversees Student Experience in UOG INCLUDES and EPSCoR GECCO
- University High Impact Practices committee with focus on Sense of Belonging
- Passionate about falling in love with learning, sense of belonging, and best practices in teaching and mentoring – which is what informs the Near Peer Seminars and reflections.



Near Peer Seminars as the Platform for Awareness of Evolution of Self and Sense of Belonging



Near Peer Seminars as the Platform for Awareness of Evolution of Self and Sense of Belonging

island environment reefs around the island
member of the community community/culture community members
island and culture near peer island/community
member of our island **Guam culture**
importance of their research research people from Guam
impact their community peer seminars culture and community
local communities culture and island problems on our island

“It’s so easy to get tunnel visioned into doing research that you forget/don’t know how it actually impacts the island, so having these near peer seminars provide a way to get me thinking on how my research benefits the island community and Culture - speaking with others and their research allows for collaboration, amongst the different STEM fields, on how to help the island community which further strengthens our role as a member of the community.” – Louise Pascua, SRE

Near Peer Seminars as the Platform for Awareness of Evolution of Self and Sense of Belonging

A word cloud of terms related to seminars and research. The most prominent words are 'research', 'science', 'people', 'students', 'opportunity', 'lot', 'groups', and 'research projects'. Other visible words include 'seminars were more focused', 'confident in my research', 'talk', 'Spring seminars', 'better idea', 'culture', 'Seminars pre', 'Peer seminars', 'NP seminar', and 'pleased with the seminars'.

“It made me more conscious of how my work isn't necessarily an isolated project, but rather one that has many similarities and connections with the other projects discussed in the near peer seminars...

I think it's really fascinating to be able to see how our research and findings can contribute to other scientists' endeavors.” – Hunter Sidell, SRE

Near Peer Seminars as the Platform for Awareness of Evolution of Self and Sense of Belonging



“One takeaway from the Near Peer seminars was that although we all are doing different things in our labs, we have common experiences and overall goals. Another takeaway was how understanding and inclusive the Near Peers make us feel. One of the most memorable aspects of the Near Peers were how we all got to talk amongst new and continuing members about what they are doing in their labs.” – Rita Taitague, SRE

Awareness of Self and Sense of Belonging
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The model shared posits that as students develop a refined sense of self as scientists and as members of multiple communities how they articulate their studies follow suit. Understanding self as a change agent in our environment and in a community shifts the traditional regurgitation of scientific actions and results to the communication of science anchored in culture and identity.

Workshops for presentations continue with our support communicating science through the lens of culture and identity.

Awareness of Self and Sense of Belonging
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Communicating science through the lens of culture and identity is less a “how to” and more efforts in developing a strong sense of self grounded in science.

ELEMENTS OF NEAR PEER SEMINARS

Purposefully designed mixed small group discussions.

- Mixed lab, mixed program
- Mixed levels of experience
- Mixed academic levels

Prompts aligned with timing in the program to address in small groups



Prompts in February

- **ONE STATEMENT:** what you have been doing so far with your research mentor.
- Do you have a research project already identified? **ONE** sentence what it is.
- **ONE** statement: Funniest thing so far in your lab.

Prompts in March

- Find a common leisurely activity (one you like to do on Guam and outside the realm of your research activities) you all enjoy.
- Find a leisure activity only one of you would enjoy, and the others say I would never enjoy that 😊.



Prompts in April

- One main takeaway from prepping for, presenting, and attending the CIS conference.
- Link your main takeaway to the impact of CIS on your evolving self as a researcher, an academic, a member of our island community, etc
- Select the most unique or common takeaway shared for each and any links to the impact of CIS on your evolving self as researcher, academic, member of our island community, etc.





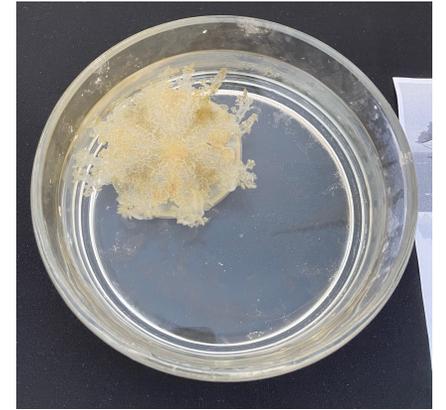
Questions in May

- Ways the research in your group can intersect to solve environmental issues on our island and globally.
- Ways the research in your group **OVERALL** contributes to the local **culture** and **island community**.

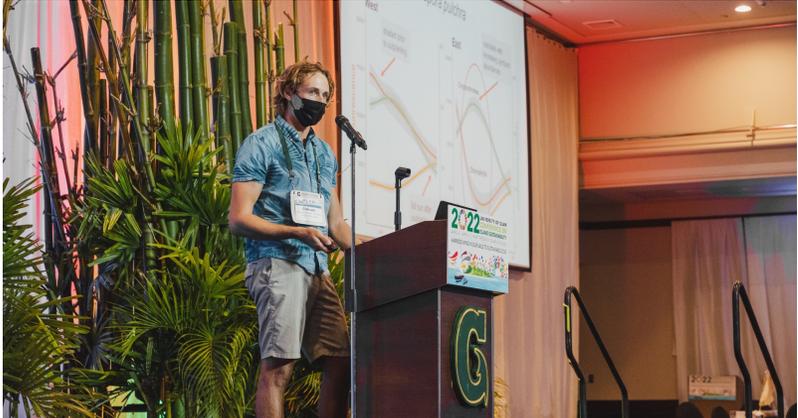
Impact of purposefully timed prompts

Guides the evolution of sense of self, self as a part of the group, and self as a part of the research and community.

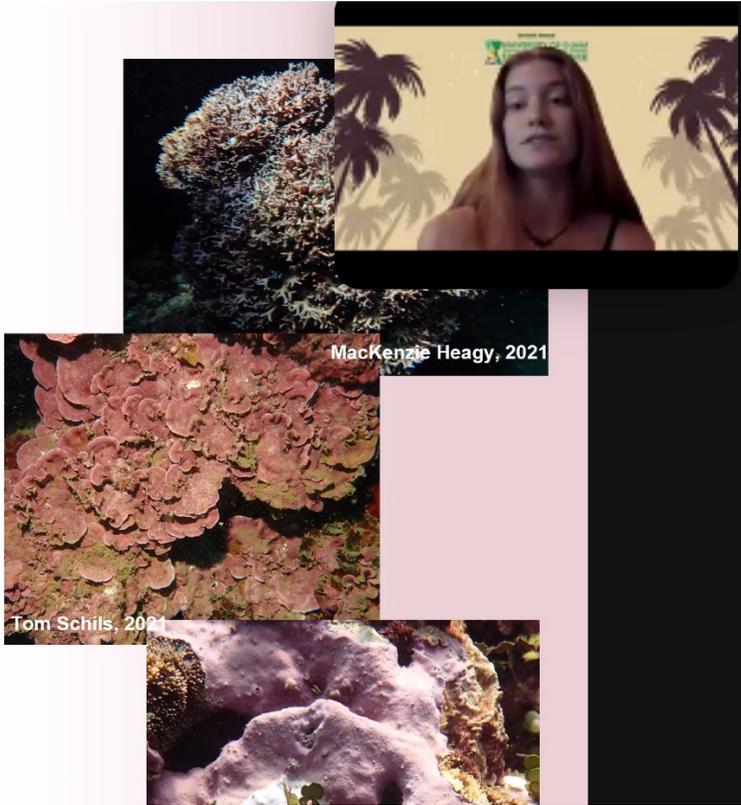
“It made me realize that there is more to presenting results than just cold numbers. It also made me realize the importance of knowing your public and know their background so presentations can grab their interest.” – Pablo De La Vega Barsurto, GRA



What Communicating Science Through the Lens of Culture and Identity Looks Like



What Communicating Science Through the Lens of Culture and Identity Looks Like



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Genetic Barcoding of Amphidromous **Nerite** and **Thiarid Snails** Native to Guam

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Louise Pascua, UOG Undergraduate Student
Dr. Daniel Lindstrom, UOG Faculty Mentor

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Seasonal photosystem acclimation in staghorn coral, *Acropora cf. pulchra*

Colin Anthony & Bastian Bentlage
University of Guam Marine Laboratory



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