viewpoint

COMMUNICATING HOPE FOR CORAL REFES

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There is hope for coral reefs and communicating excitement around coral reef research and discoveries is a key opportunity to grow it. Amidst the trawling scars and gear tangles on the Northwestern Hawaiian Ridge and Emperor Seamounts, researchers have identified signs of coral recovery since protection measures were expanded 30-40 years ago (Baco et al. 2019). It is expected that coral ecosystems will take centuries or more to recover from anthropogenic influence, and the discovery that improvements can be seen in decades is reason to celebrate. The current narrative tone for coral reefs revolves around difficulties to restore their ecosystems and conserve the species. This often means combating the communications conundrum that comes with the constant imagery of dead and dying reefs that are used so often to depict the climate crisis.

To convey the urgency and scope of the challenges without causing people to lose hope we need to shift the narrative. By engaging broader audiences in case studies like the Emperor Seamounts that show what management actions can achieve, the gleam of hope it inspires can provide an impactful promise (Duarte 2020). Things can get better. Yes, it is impossible to deny the increased urgency and concern our community feels around coral ecosystems, but we also need to prioritize space for the increased excitement around new discoveries and successful management practices. Therefore, our goal is to harness that excitement we hold and to share it with those entering the field, as well as a broader audience, so we can foster productive conversations as we continue to strengthen and improve our actions to save coral reefs.

To communicate this excitement, we need to find ways for our audiences to connect to and identify the strong link between coral reefs and humans. Therefore, putting corals into a context that your audience is both engaged in and can relate to will help fuel the conversation. This can be done by changing the delivery of our narrative and in turn, our dialogue

around corals. Presenting coral reefs as a standalone, struggling system that is already bound to be doomed makes saving them seem like a hopeless task. This set up can quickly lead to the end of a conversation: "No, I don't see what I can do about this. Coral reefs are dying anyways." By making the change from No to Yes, you completely reframe the argument and open the conversation to many more possible outcomes: "Yes, corals are dying, but evidence shows there is hope for their survival, therefore we must take care of them and make proactive decisions" (Palermo 2014). A second method to reshape the way we present science narratives is to incorporate elements of humanity and vulnerability. This approach emphasizes what we have in common-emotions-and helps make the content more relatable. This could look like sharing personal narratives of those who experience how the loss of coral reefs in their comredefined their socioeconomic framework (McKinnon et al. 2016). By sharing emotions with our audiences, we connect through vulnerability and trust. By communicating optimism, we move another step in the direction of mobilizing people to act.

In addition to changing our tone, we can present the scientific method as a narrative process; delivering it in the context of a story gives our message both more power and structure (Olson 2015). Learning how to apply storytelling skills to communicate excitement takes practice that can be accelerated through training. Therefore, seeking out workshops that target these skills, such as Improve 2020 (www.palermoimprovtraining.com) and The Story Collider 2020 (www.storycollider.org/ workshops), can be an invaluable undertaking. Investing in these soft social skills calls for applying the value we place in scientific publications and presentations to broader public engagement efforts as well. This can include written or video logging (blog or vlog), as well as social media platforms. These platforms are well suited for sharing stories and developing personal connections; by distributing science in this format, we are fostering a broader audience connection than was historically possible. Social media posts can simultaneously reach communities from island nations to the most inland schools while enabling conversations between every location and promoting discussion far past the traditional show and tell methods. Additionally, these platforms are well suited for short anecdotes, which is important because the more

specific the stories are that we provide, the more effective our communication will be. By carving out individual narratives from the often overwhelming, broader context, we can then present approachable problems with relatable, easier to act on solutions. Taking steps to expand each scientist's ability to reach the public makes a long-term investment in the future for corals by expanding the breadth and application of our research and through building stronger communities and conversations around coral reefs.

We aim to ensure that our excitement resonates with as wide of an audience as possible; achieving this could look like reevaluating who we are communicating with while developing our research plans and goals. Corals are complex species that support the base of ecosystems all across the globe, and they require an extensive set of skills to understand and manage. Shifting from field specific collaborations to interdisciplinary teams and engagement with other communities will be key. This process should include learning how to share what makes us excited with groups outside of academia, such as both coastal and inland communities, policy makers, lawyers, shareholders and more. The level of excitement and investment we share reflects the level of investment other people can return. Afterall, if we cannot portray our own personal commitment, how can we expect someone else to take on saving coral reefs as their own passion too? By communicating where our personal excitement behind our careers in coral reefs comes from, we implore a powerful tool to call for motivation and action that can be directed at preserving and restoring our coral reef ecosystems.

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References

Baco, A. R., E. B. Roark, and N. B. Morgan. 2019. Amid fields of rubble, scars, and lost gear, signs of recovery observed on seamounts on 30-to 40-year time scales. Sci. Adv. 5: eaaw4513.

Duarte, C. M., and others. 2020. Rebuilding marine life. Nature 580: 39–51.

McKinnon, M. C., and others. 2016. What are the effects of nature conservation on human well-being? A systematic map of empirical evidence from developing countries. Environ. Evid. 5: 1–25.

Olson, R. 2015. Houston, we have a narrative: Why science needs story. Univ. of Chicago Press.

Palermo, B. 2014. Improv training for scientists. Limnol. Oceanogr. Bull. 23: 34–34.

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