

# Women of the Water



*Research. Community. Collaboration. Celebration.*

## 2023 Final Conference Report

Mote Marine Laboratory  
Sarasota, Florida

September 29th - October 1st, 2023

Published August 2024



# We make aquaculture happen.

From developing innovative research, to managing environmental resources, and cultivating commodities - the legacy of women, gender-diverse folks, people of color, Indigenous and cultural heritage communities, and LGBTQIA+ individuals on the field of aquaculture is undeniable.

The second *Women of the Water* conference was held at Mote Marine Lab in Fall 2023. Over the course of two and a half days, we explored the values of research, community, collaboration, and celebration while bringing together the current and future generations of leaders in aquaculture. **We celebrated, uplifted, and empowered underrepresented voices in this industry.**

*Women of the Water* was formed with a vision to build community through connection and empowerment, catalyze learning and interdisciplinary collaboration, and enhance professional development opportunities for marginalized and underrepresented groups in aquaculture.

We are thrilled to continue building this community, hearing your stories, learning from you, and working together to find solutions for a more diverse, equitable, and inclusive aquaculture industry, now and into the future.

# Conveners



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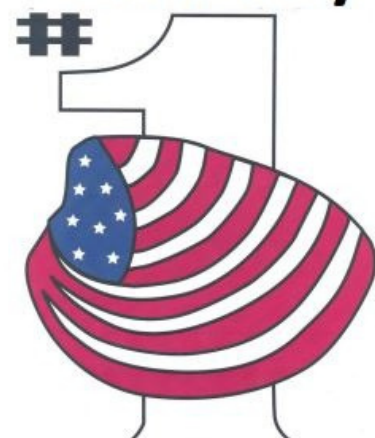


## Silver



## Bronze

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Aquaculture Association

# 2023 Steering Committee



Dr. Marcy Cockrell (Co-Director)

*Science Coordinator, NOAA Fisheries Office of Aquaculture*

Blair Morrison (Co-Director)

*Science and Monitoring Program Lead, Mobile Bay National Estuary Program*

Dr. Nicole Rhody

*Senior Scientist and Director, Mote Aquaculture Research Park*

Dr. Kevan Main

*Emeritus Senior Scientist, Mote Marine Lab and Aquaculture Park*

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*UF/IFAS Walton County Extension Director, Florida Sea Grant Agent*

Kaitlyn Theberge

*Knauss Policy Fellow, Seafood Resources, National Sea Grant*

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*Knauss Policy Fellow, NOAA Ocean Acidification Program*

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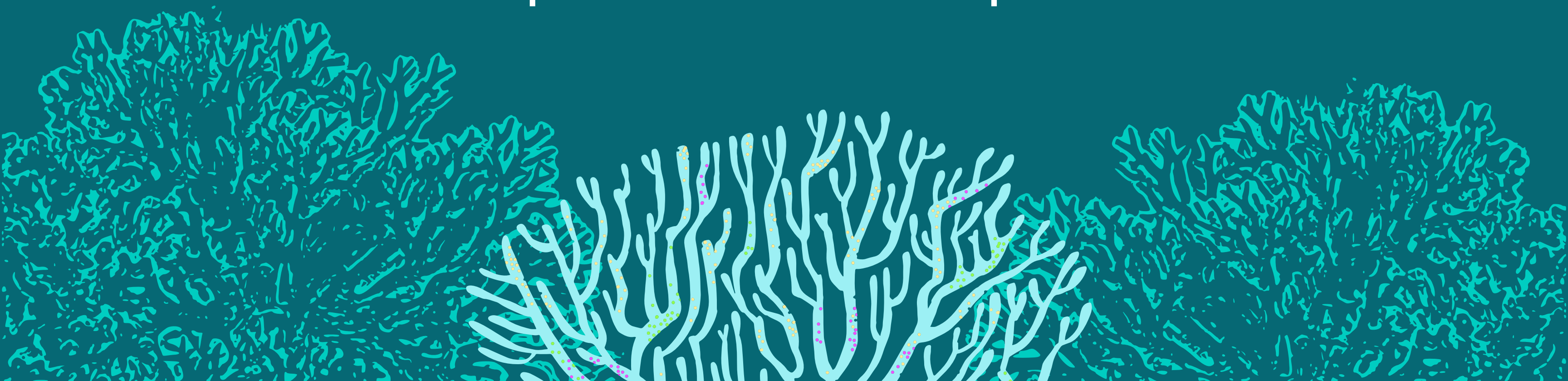
# Report Intent

Conference attendees participated in roundtable conversations, where they discussed how to tackle challenges faced by women and gender diverse folks in the industry, how to make the industry more inclusive, and what they envision for the future of aquaculture. The main takeaways from these discussions were captured and ranked with a prioritization exercise during the conference. This report summarizes those discussions and prioritization data.

This report is intended to summarize the various perspectives and priorities discussed during the conference, provide baseline data for measuring progress moving forward, and better understand how stakeholder groups within the industry can best work together in the future. Discussion topics with the greatest shared perspective among stakeholders highlight areas for productive future collaborations.

This document is *not* intended to be a comprehensive list of perspectives, recommendations, or actions that the entire aquaculture community wants. Furthermore, our stakeholder groups are not monolithic, and we recognize that priorities listed here do not represent the entire breadth of experiences or perspectives held by folks in the industry. All of the issues and topics raised during the conference warrant further and deeper discussions.

We hope that this report will provide much needed data on challenges in the industry, orient readers to the evolving nature of these issues, and highlight the importance of identifying synergies across stakeholder groups to work towards common goals. **It is only together that we will be able to break down the barriers and overcome the challenges facing women and people from other underrepresented identities in aquaculture.**



# Acknowledgements



First and foremost, we would like to thank our incredible *Women of the Water* community. You drive our mission to enhance diversity, equity, inclusion, and access in aquaculture. We appreciate all of the enthusiasm, experience, perspectives, and ideas that you brought to the table; we look forward to turning those ideas into action.

We would also like to thank our fantastic keynote speakers - Dr. Megan Davis (Florida Atlantic University/Harbor Branch Oceanographic Institute) and Imani Black (Minorities in Aquaculture). Your impactful words and wisdom of lived experience set a powerful tone for the conference.

Thank you to all of the speakers, sponsors, and supporters of the 2023 conference.

Top: 2023 conference group photo; Bottom left: Dr. Megan Davis presenting a keynote on Day 1; Bottom right: Imani Black presenting a keynote on Day 2

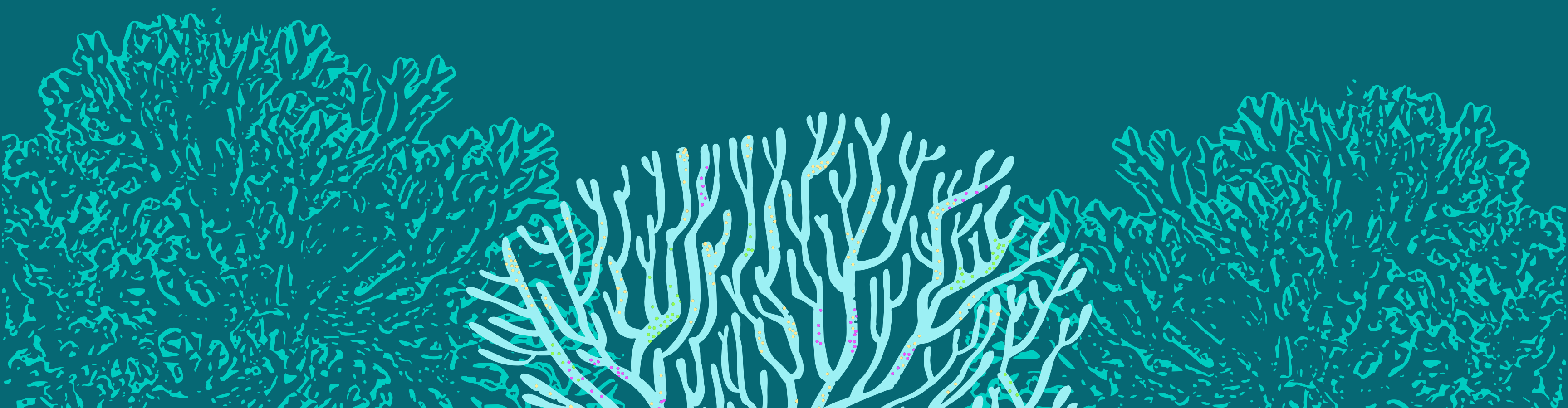
# Land Acknowledgement

*This land acknowledgement was developed by the steering committee and read aloud at the opening session of Women of the Water 2023.*

As we open the conference, we would first like to start by acknowledging that this meeting is being held on the traditional homelands of the Seminole Tribe of Florida, the Miccosukee Tribe of Indians of Florida, and many other tribes and cultural heritage communities including the Calusa and the Mascogo. These tribes and communities have been stewards and healers, farmers and fishers of these lands and waters for thousands of years. We recognize and honor them and their ancestors, their past and present work, and commit to honoring their legacy in our work here at Women of the Water. These communities continue to farm, fish, and tend the land throughout Florida, and elsewhere in the U.S.

We acknowledge that settler colonialism continues to oppress Tribal nations, cultural heritage communities, Indigenous, native, and First Nations people globally. We acknowledge that as beneficiaries of colonialism on this land and in this space - both physical space and in our scientific institutions - we must commit to learning and action. We must work to decolonize our scientific spaces - by valuing indigenous, cultural, and traditional ecological knowledge in our science; and by building meaningful partnerships to learn from, collaborate with, and build with these communities. The mission of *Women of the Water* seeks to set an example for this work - in even a small way - by empowering and uplifting marginalized voices.

Let us commit to learning more about these communities and to lending our voices to action in the places we live and work, wherever that may be. Let us commit to deepening the connections and relationships that may align us in powerful solidarity with Indigenous and cultural heritage communities, and renew our commitment to being active participants in the repair, healing, and caring stewardship of the lands and waters in the places we live.



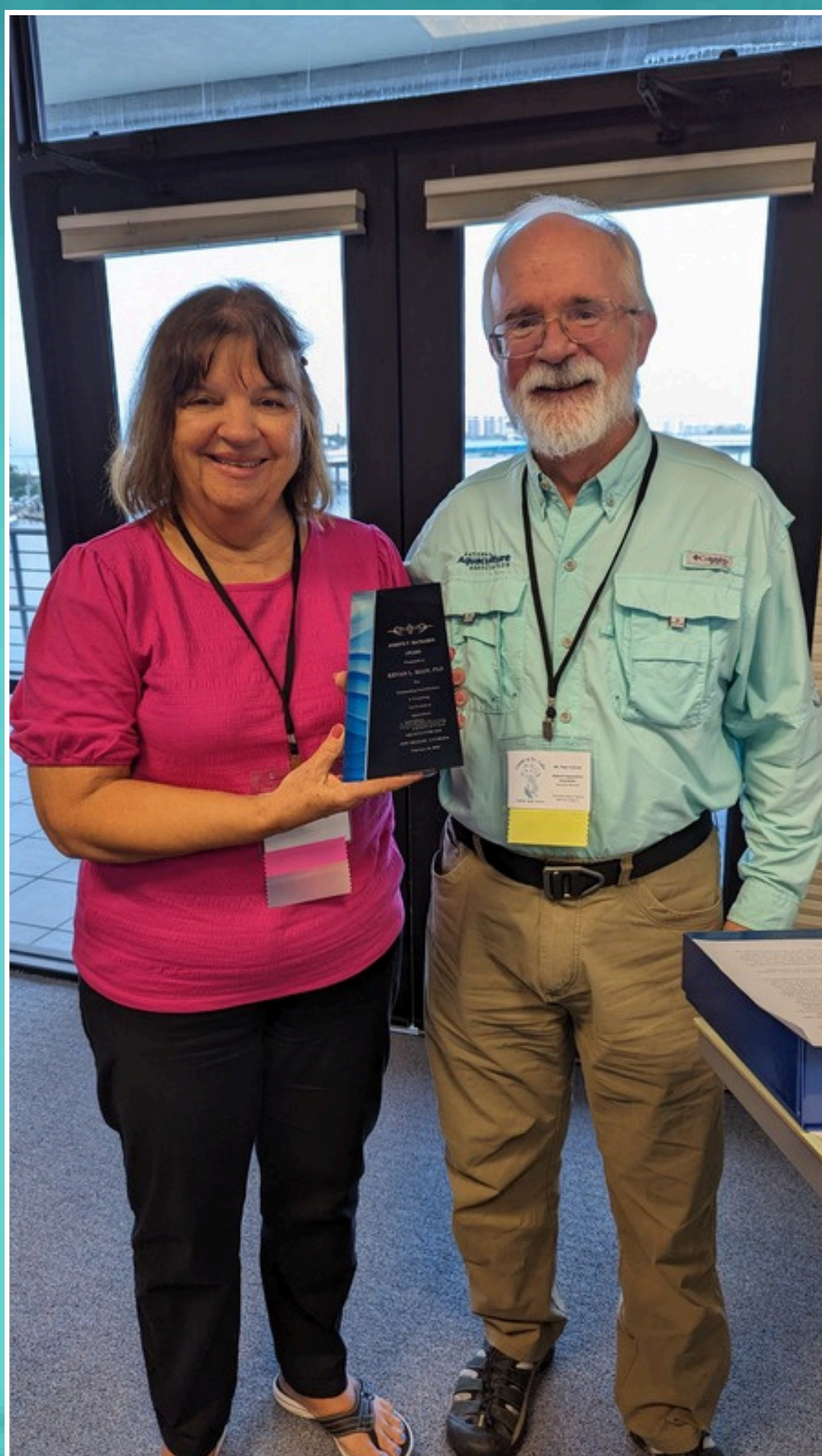
# Dr. Kevan Main recognized for a lifetime of service to the aquaculture industry

Dr. Kevan Main, 2023 McCraren Award Recipient  
*Joseph P. McCraren Award for Outstanding Contributions  
in Promoting the Growth of U.S. Aquaculture*

Annually, the National Aquaculture Association asks its voting membership for nominations for two awards given in honor of their first Executive Director, Joseph P. McCraren. This year's award recipient for outstanding contributions to the growth of U.S. aquaculture was Dr. Kevan Main, Mote Marine Lab Emeritus Senior Scientist.

Kevan has a distinguished career with over 30 years in aquaculture. She has done significant work across two oceans serving as a senior scientist, program manager and director, executive director, and as Associate Vice President for a variety of public and private aquaculture research programs. She isn't afraid of defending and addressing tough topics even at the risk of criticism both personally and professionally. She has a unique ability to truly listen to, respect, and work with private industry.

Kevan is a Past President of the World Aquaculture Society, was recognized in 2016 by President Obama as a Champion of Change for Sustainable Seafood, and recently retired from serving as Associate Vice President for Research and Director of Mote Aquaculture Research Park. Congratulations, Kevan!



Left: Dr. Kevan Main accepts the 2023 McCraren Award from NAA Executive Director Paul Zajicek;  
Right: Dr. Kevan Main gives remarks upon accepting the 2023 McCraren Award



# Conference by the Numbers



Left: Attendees listen to a presentation during Day 1; Right: Attendees engage and network during the poster session at the Mote Aquaculture Park on Day 2

**2.5 days**

**82 attendees**

**12 states + D.C. represented**

**2 roundtable discussions**

**5 workshops**

**24 hours of programming**

**17 mentoring pairs**

# Workshops:

## Exploring the opportunities and diversity of aquaculture

For 2023, we were so excited to present a new variety of workshop options for our attendees. Workshops offer a unique opportunity for learning and engagement.

### Tell Your Own Story Online

Led by: Sarah Curry

With social media being the ever present way to communicate your message and/or market your business, it's easier than ever to reach new audiences. But it can be hard. In this workshop, attendees learned how to think about visually communicating your message in a way that feels right for you and your business.

### Science Policy Careers

Led by: Dr. Marcy Cockrell

Attendees to the workshop heard from an exciting and distinguished panel of professional women working at the intersection of aquaculture and science policy. In the “fireside chat” style panel, workshop participants learned more about what science policy is, what an educational and career path in science policy might entail, and discuss how science policy can be used to strengthen diversity, equity, and inclusion in science more generally.



Participants engage in conversation during the Science Policy Careers workshop

# Workshops:

*Exploring the opportunities and diversity of aquaculture*



*Workshop leads Dana Henderson (left) and Blair Morrison (right) teach participants about effective climate and ocean change communication strategies.*

## Effectively Communicating Ocean and Climate Change

Led by: Blair Morrison and Dana Henderson

Workshop participants were introduced to the National Network for Ocean and Climate Change Interpretation, and how we can collectively change the national discourse on climate change to be more positive, civic-minded, and solutions-focused. As a key case study, attendees practiced strategic framing of sustainable aquaculture as a climate solution that can be woven into communications with a variety of stakeholders.

## Photovoice: a community based approach to social science research

Led by: Natalie Lord

Photovoice is a unique research method that allows the participants to take the lead in conducting data collection and guide the outcomes of the project. During this workshop, attendees learned about how to conduct a photovoice project (participant training, photo documentation, written narratives, one-on-one interviews, a focus group, and a community outreach event) and engaged in a mini photovoice focus group activity.



# Workshops:

*Exploring the opportunities and diversity of aquaculture*

## Gullah Geechee Foundations in Aquaculture

Led by: Marilyn L Hemingway and Victoria Smalls

Workshop participants joined executive directors from The Gullah Geechee Cultural Heritage Corridor (GGCHC) and the Gullah Geechee Chamber of Commerce (GGCC), as they shared the captivating intersection of Gullah Geechee heritage and the realm of aquaculture. The Gullah Geechee people are descendants of West and Central Africans enslaved in the lower Atlantic states during the era of slavery. Their distinctive heritage, nurtured on isolated coastal plantations, finds expression in their culinary traditions, arts, crafts, and the unique Gullah language. Attendees explored the enduring legacy of the Gullah Geechee people and uncovered how aquaculture serves as a foundational pillar for cultural preservation, economic empowerment, and environmental sustainability.



*Workshop leads Marilyn Hemingway (left) and Victoria Smalls (not pictured) shared about the impact of aquaculture in Gullah Geechee heritage and ways that the Gullah Geechee Chamber of Commerce and Cultural Heritage Corridor support the industry.*

# Mentorship Program

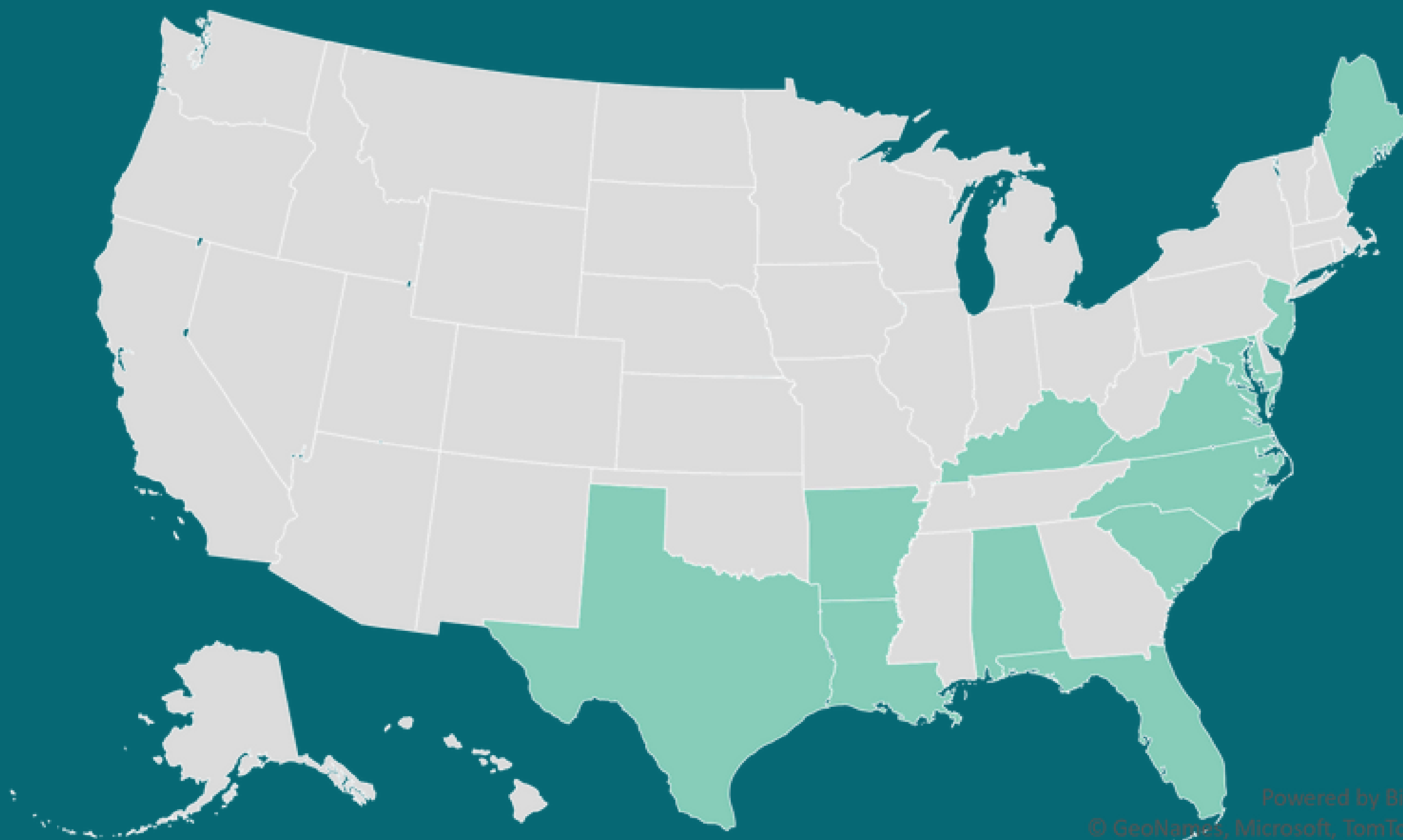
The inaugural year of the WoW Mentorship Program was a great success! Participants sought to grow together and empower each other through connection and shared experiences.

Matched mentor-mentee pairs were invited to a welcome breakfast on the first day of the conference. The program committee also hosted a pre-conference webinar to provide some guidance on how to get the most out of a mentorship relationship. Program participants received a [workbook](#) with guiding questions and prompts to build the mentoring relationship. Aside from these planned activities, pairs were able to choose how they wanted to continue their engagements throughout the conference and beyond.



Top left: Mentorship program committee lead Kaitlyn Theberge celebrates a successful first mentorship meeting; Top right: mentorship program pre-conference webinar; Bottom left: mentorship program workbook cover; Bottom right: participants forge connections during the mentorship program breakfast on Day 1.

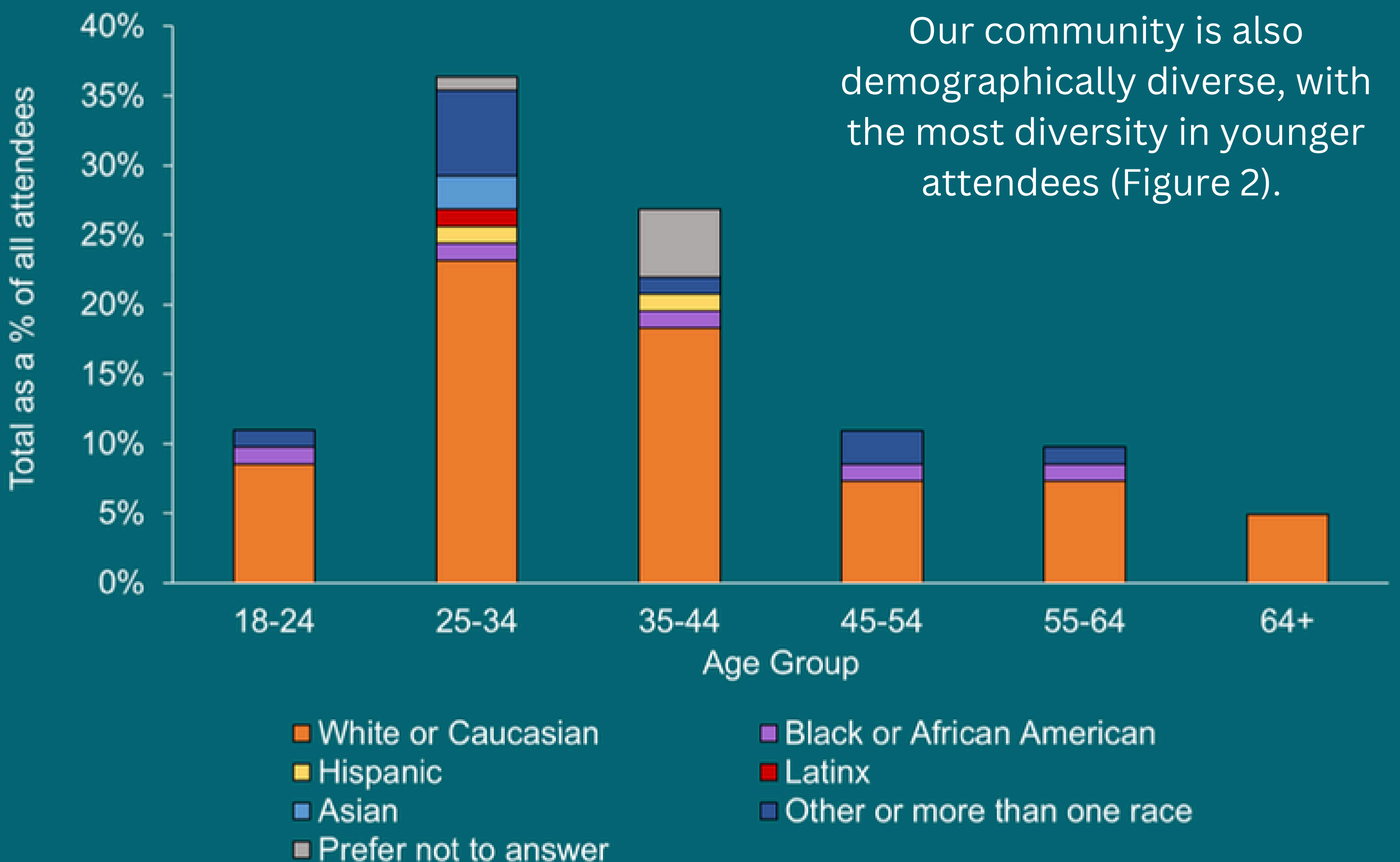
# Our Community



The *Women of the Water* network grew significantly this year - the 2023 conference attendees hailed from 12 states and the District of Columbia (Figure 1).

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Figure 1. Map of 2023 attendee home locations (green states)



Our community is also demographically diverse, with the most diversity in younger attendees (Figure 2).

Figure 2. Self-reported demographics of all attendees by age and race (n=82)

# Our Community

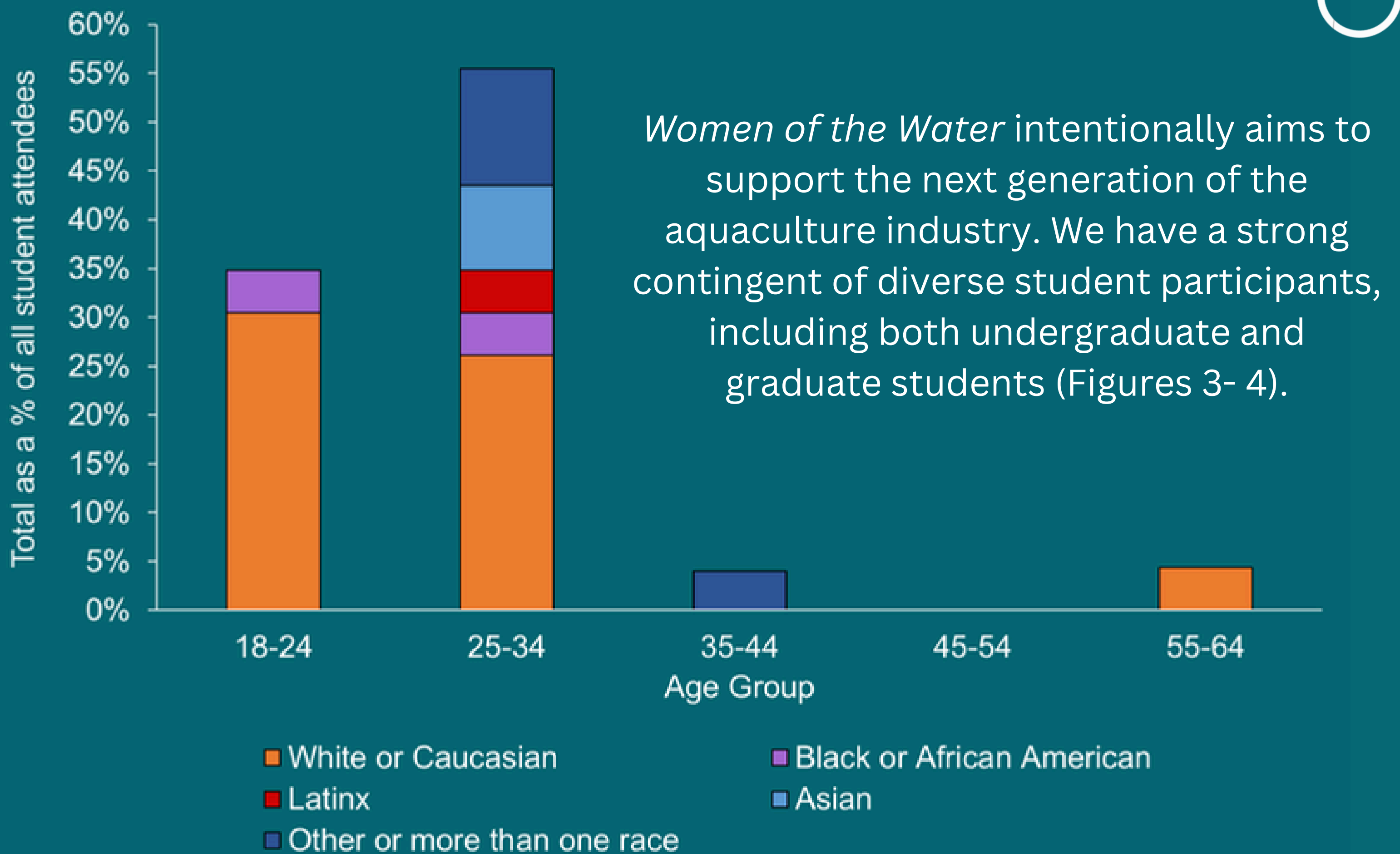


Figure 3. Self-reported demographics of student attendees by age and race (n=23)

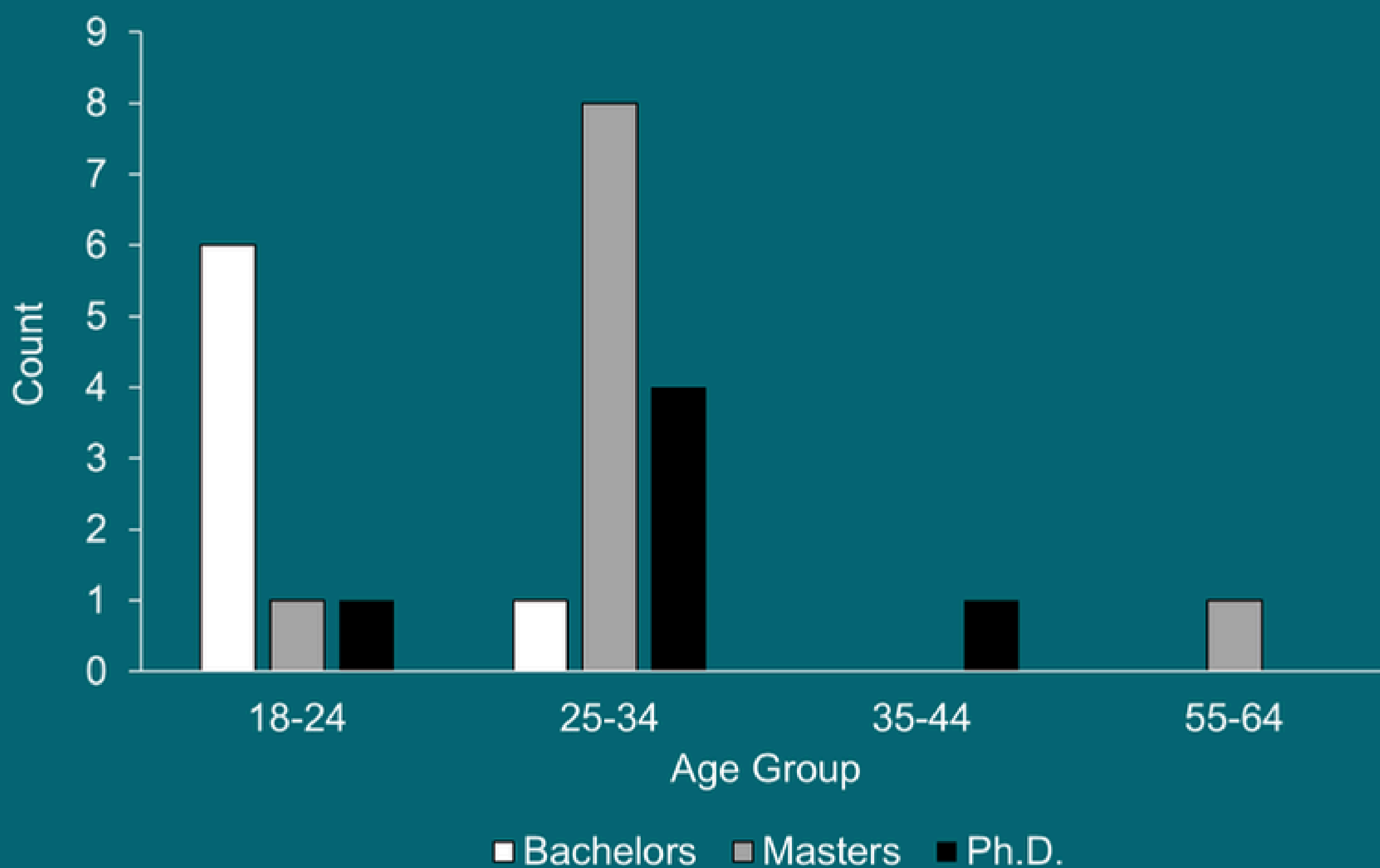


Figure 4. Count of degrees being pursued by student attendees

# Roundtable Discussions

## What was the goal?

Roundtable discussions were designed to spark ideas and conversation, and to understand the experiences and perspectives of folks from different parts of the industry. We have compiled data on similarities in perspectives among stakeholder groups based on a prioritization exercise across all roundtable discussion questions. We hope that this information can be useful in identifying future collaborations, funding opportunities, project goals, and cross-industry partnerships.

## How did conference attendees give us their feedback?

Participants were given 5 stickers to prioritize their support for different responses in each of two discussions. Participants self-identified with one stakeholder group for each prioritization exercise, regardless of how many groups they identified with overall. Participants were also instructed to distribute their support in whatever way they wanted, so individual responses could receive more than one sticker per individual. In some cases, participants chose to represent themselves in the student group.

## How did we analyze the data?

For data analysis, all responses were grouped by topical similarity and then each group was assigned a *combined priority* reflecting their unifying topic. In some instances, these combined priorities were further grouped into a higher level theme. This grouping schema allowed us to analyze responses in conceptually broader and more comprehensive terms than had we compared across all individual responses. This also provided us with a more constructive and nuanced understanding of how each stakeholder group prioritized perceived challenges and opportunities for action. Responses for each discussion session were analyzed separately, since the questions were framed slightly differently, and therefore might change how participants interpreted, answered, and prioritized items. The data set started with 103 total responses from both discussion questions, 4 responses were removed from further analysis, and there were a final total of 16 combined priorities and 7 themes captured by the remaining 99 responses.

Some of the responses were more difficult to group and categorize, particularly those that were less concrete or tangible (e.g., those that focus on lived experience, community building, and gendered patriarchal social norms). While the responses are categorized here for thematic analysis and presentation, these ideas are complex and nuanced, leading to many potential data interpretations and analyses. Responses may span more than one theme; they should therefore not be considered mutually exclusive.





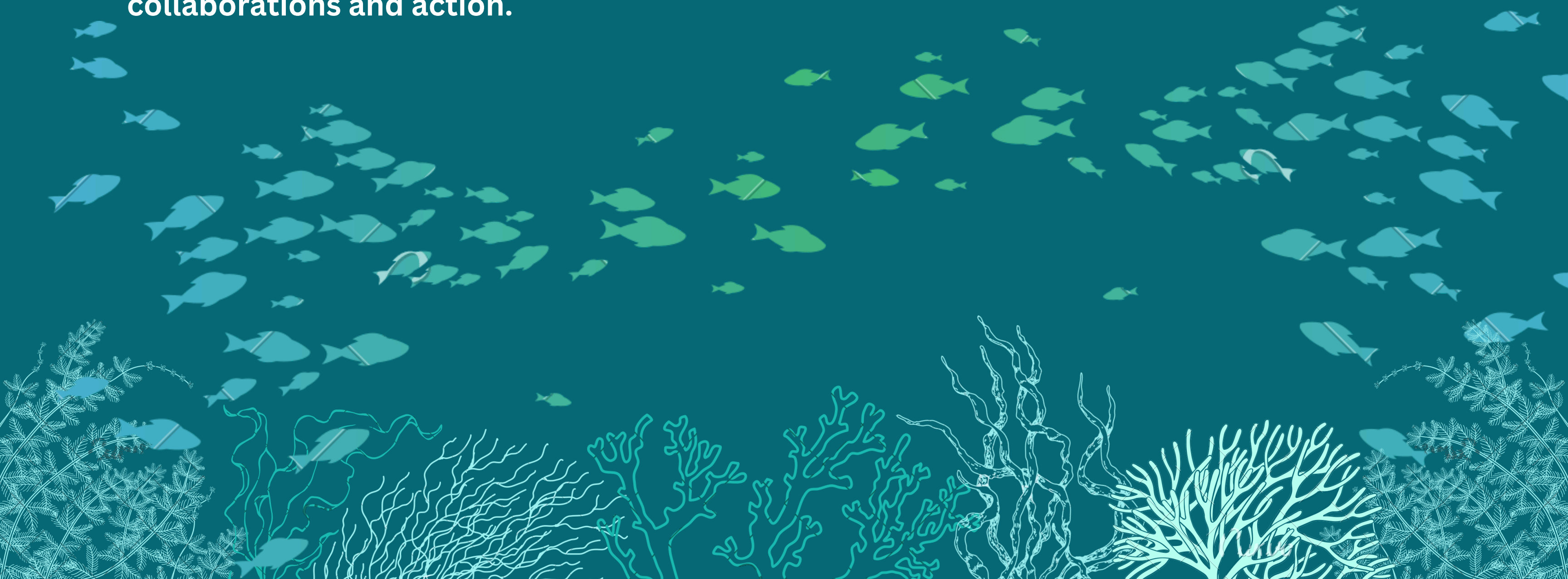
# How to Read the Data

## How to read the results

The data are presented here in two different ways. They are presented first as the percentage of support from each stakeholder group for each *combined priority* in a given discussion (i.e., the number of stickers received; Tables 1 and 2). These values were not calculated based on the number of individual participants at the conference or completing the exercise; some conference attendees did not participate in the exercise, or did not participate in the exercise for both discussions. Second, using the Jaccard Index, the similarity in responses between each stakeholder group were calculated (Tables 3 and 4). The top 5 responses from each discussion question were used for the Jaccard calculations. Jaccard Index comparisons were made across two stakeholder groups at a time such that the total number of responses in both groups were divided by the number of responses in either group. The data presented here were analyzed at the level of combined priority in order to balance brevity and clarity with data granularity.

## What does it all mean?

A seemingly low amount of support for a particular combined priority should not be interpreted as low or no support for that priority from the stakeholder group in general. Our conference attendees are a very small subset of the aquaculture industry and their respective self-identified stakeholder groups. Further, some participants identified with multiple stakeholder groups but were required to identify with just one for the purposes of this exercise. Exercise participants were also limited in the number of items they could support (i.e., only 5 stickers to prioritize items per discussion question). Given more stickers, it is likely that several of the items would have received stronger support. That being said, these data represent some of the first quantitative analyses and empirical data available on perceptions of challenges and opportunities for women and underrepresented identities in aquaculture in the United States. **Priorities with the greatest shared support among stakeholders highlight areas for productive future collaborations and action.**



# Stakeholder Group Definitions

Workshop attendees self-selected their primary stakeholder group for purposes of tabulating data from the discussions. It is important to note that many of our attendees identified with more than one group, but chose the singular group they thought most embodied their role in the aquaculture industry for the prioritization exercise. Additional context to the stakeholder groups is included below:

The **Industry** stakeholder group includes current and retired industry members, including farmers, processors, wholesalers, and distributors.

The **Academic** stakeholder group includes professors and researchers operating out of university and college-level academic institutions.

The **Communications** (Comms) stakeholder group includes filmmakers, members of the media, marketing professionals, and communications professionals for various institutions.

The **Education/Extension** stakeholder group includes extension agents, environmental educators, and teachers (including K-12) that are not considered part of the academic group.

The **Government/Policy** stakeholder group includes regulators, resource managers, and staff in state or federal agencies.

The **Students** stakeholder group includes undergraduates as well as graduate students (Masters and Ph.D. level).

The **Other** stakeholder group includes science policy fellows, representatives from non-governmental organizations and non-profits, and interdisciplinary professionals not otherwise captured in the categories above.

# Discussion #1: What challenges do women and people from marginalized communities face? How should we address these challenges?

**Table 1.** Percentage of stakeholders from each of six groups that prioritized responses (grouped as combined priorities) in Discussion #1.

Combined priority	Academic	Education/ Extension	Industry	Government/ Policy	Comms/ Other	Students
Toxic or Unproductive Workplace	<b>18.29%</b>	17.28%	<b>29.63%</b>	13.64%	0.00%	15.63%
Unequal and limited access to financial support	14.63%	9.88%	0.00%	<b>25.00%</b>	<b>23.08%</b>	<b>18.75%</b>
Tools/actions that can address workplace challenges	14.63%	<b>19.75%</b>	11.11%	<b>22.73%</b>	0.00%	15.63%
Workplace protections, Employee resources	10.98%	12.35%	18.52%	2.27%	15.38%	15.63%
Increased representation and diversity of perspectives	14.63%	9.88%	7.41%	9.09%	<b>23.08%</b>	3.13%
Direct Obstacles to Professional Advancement	4.88%	11.11%	14.81%	11.36%	15.38%	6.25%
Build community and support	8.54%	11.11%	3.70%	6.82%	15.38%	12.50%
Mentorship	9.76%	4.94%	3.70%	4.55%	0.00%	9.38%
Social Acceptability	1.22%	2.47%	0.00%	4.55%	7.69%	0.00%
Inclusive engagement and partnerships	0.00%	0.00%	11.11%	0.00%	0.00%	3.13%
Governance and Policy	2.44%	1.23%	0.00%	0.00%	0.00%	0.00%
Production and Resources	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

**How to read this table:** Percentages represent the percentage of responses *within a stakeholder group* that supported the combined priority over all other possible responses for roundtable discussion #1. Items are listed in descending order from most to least total support across all groups. Green shading represents higher (darker) or lower (lighter) support within a stakeholder group. The highest percentage of support for a combined priority within a stakeholder group is also bolded.

# Discussion #2: What does the future of aquaculture look like?

## How can we make it more inclusive?

**Table 2.** Percentage of stakeholders from each of six groups that prioritized responses (grouped as combined priorities) in Discussion #2 .

Combined priority	Academic	Education/ Extension	Industry	Government/ Policy	Comms/ Other	Students
Youth education and community-based projects	<b>27.27%</b>	<b>26.51%</b>	14.29%	22.86%	16.67%	<b>27.03%</b>
Research and Production	23.38%	22.89%	17.14%	<b>31.43%</b>	8.33%	21.62%
Inclusive engagement and partnerships	6.49%	7.23%	8.57%	8.57%	<b>25.00%</b>	13.51%
Need for (new and additional) training opportunities	9.09%	10.84%	<b>28.57%</b>	8.57%	0.00%	0.00%
Sustainability	5.19%	9.64%	8.57%	2.86%	<b>25.00%</b>	2.70%
Social Acceptability	6.49%	7.23%	2.86%	11.43%	8.33%	16.22%
Production and Resources	7.79%	6.02%	14.29%	0.00%	8.33%	8.11%
Governance and Policy	5.19%	4.82%	5.71%	5.71%	8.33%	0.00%
Unequal and limited access to financial support	5.19%	4.82%	0.00%	5.71%	0.00%	5.41%
Increased representation and diversity of perspectives	2.60%	0.00%	0.00%	2.86%	0.00%	5.41%
Build community and support	1.30%	0.00%	0.00%	0.00%	0.00%	0.00%

**How to read this table:** Percentages represent the percentage of responses *within a stakeholder group* that supported the combined priority over all possible responses for roundtable discussion #2. Items are listed in descending order from most to least total support across all groups. Green shading represents higher (darker) or lower (lighter) support within a stakeholder group. The highest largest percentage of support for a combined priority within a stakeholder group is also bolded.

# Stakeholder Similarities

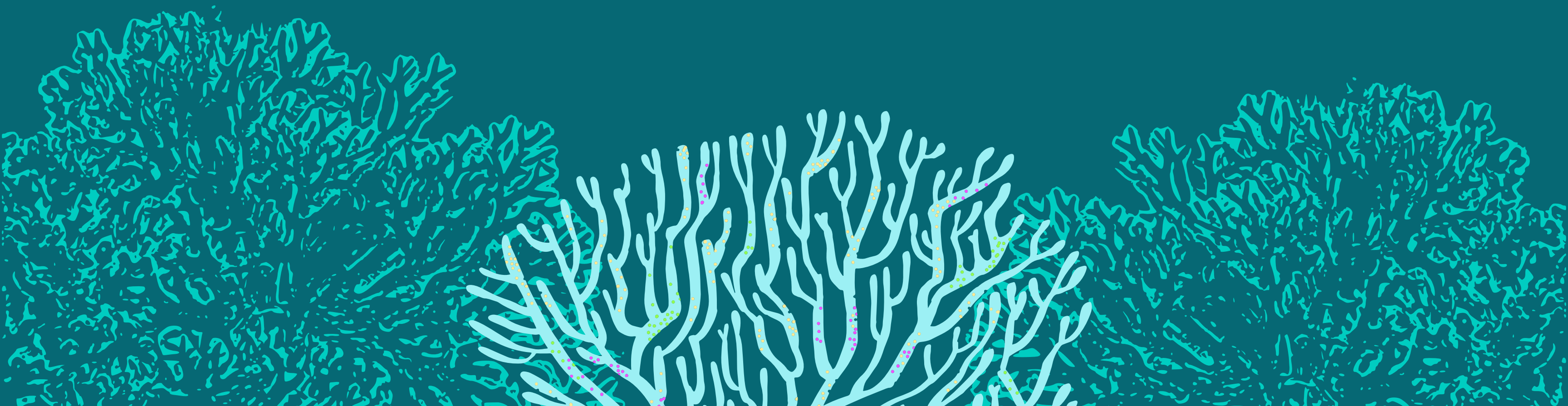
**Table 3.** Jaccard Index values for the top 5 responses to Discussion #1 (“What challenges do women and people from marginalized communities face? What are potential solutions and opportunities to tackle these challenges?”).

	Academia	Education/ Extension	Industry	Government/ Policy	Communications/ Other	Students
Academia	1.00					
Education/Extension	0.30	1.00				
Industry	0.30	0.40	1.00			
Government/Policy	0.40	0.30	0.30	1.00		
Communications/Other	0.30	0.30	0.20	0.30	1.00	
Students	0.40	0.40	0.30	0.30	0.30	1.00

**Table 4.** Jaccard Index values for the top 5 responses to Discussion #2 (“What does the future of aquaculture look like? How can we make it more inclusive?”).

	Academia	Education/ Extension	Industry	Government/ Policy	Communications/ Other	Students
Academia	1.00					
Education/Extension	0.42	1.00				
Industry	0.42	0.42	1.00			
Government/Policy	0.45	0.45	0.36	1.00		
Communications/Other	0.38	0.38	0.38	0.33	1.00	
Students	0.45	0.36	0.36	0.40	0.42	1.00

**How to read these tables:** Each box represents the similarity index between the two groups; compare each column title with each row title. Values range from 0 (more yellow) to 1 (more green), with increasing values corresponding to increased similarity between the corresponding stakeholder groups. For example, the similarity index between “Academia” and “Education/Extension” in Table 3 is 0.30, which means that these two groups had more similar prioritization responses than “Industry” and “Communications/Other” (0.20) for this same discussion question.



# Learn More

For more information about the 2023 conference, please visit our [webpage](#) and browse our [conference program](#).

Check out our article in [Oceanography](#), where we detail the *Women of the Water* community and how we approach DEIA work in aquaculture and ocean sciences.

Join us on the [Aquaculture Information Exchange](#) to stay up to date on events, and engage with our community.

Details about *Women of the Water* 2025 will be coming soon! Make sure you're on our mailing list and spread the word with folks you think might be interested in joining our network!

Drop us a line at:  
[womenofthewater.conference@gmail.com](mailto:womenofthewater.conference@gmail.com)