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## ABSTRACT

Environmental Science Without Borders (ESWB) is a recently initiated collaboration between the Center for Diverse Leadership in Science at UCLA, Nelson Mandela University, and the Congo Basin Institute that supports peer mentoring and relationship building between geoscientists and environmental scientists at and between different international institutions through virtual platforms. ESWB was envisioned by Adeyemi Adebisi, an immigrant and postdoctoral researcher at UCLA, and was created by early career scientists, staff, and faculty.

Our goal is to foster dialogue about teaching, research, and career development, and to help support, nurture and encourage scientific leaders of the future, without borders. Regular discussions center on four main areas:

(1) mentorship, (2) education and outreach, (3) research and career development, and (4) networking. These occur through a series of bi-monthly video conferences and breakaway sessions, along with messaging and file-sharing via an application (Slack). Topics for our annual program include: research design, software development and coding in MatLab/Python/R, grant editing, time management strategies, development of teaching portfolios, and teaching/advising/relating to students.

## OVERVIEW OF THE PROGRAM

### GOALS:

- Mentorship & Career Development
- Education & Outreach
- Networking among students & professionals

### PROGRAM:

- 48 participants who are geoscientists and environmental scientists, with 11 from UCLA, 11 from Nelson Mandela Univ., and 26 from CBI.
- Began planning in 2017 and early 2018
- Initial survey to assess needs of participants and collect demographic information

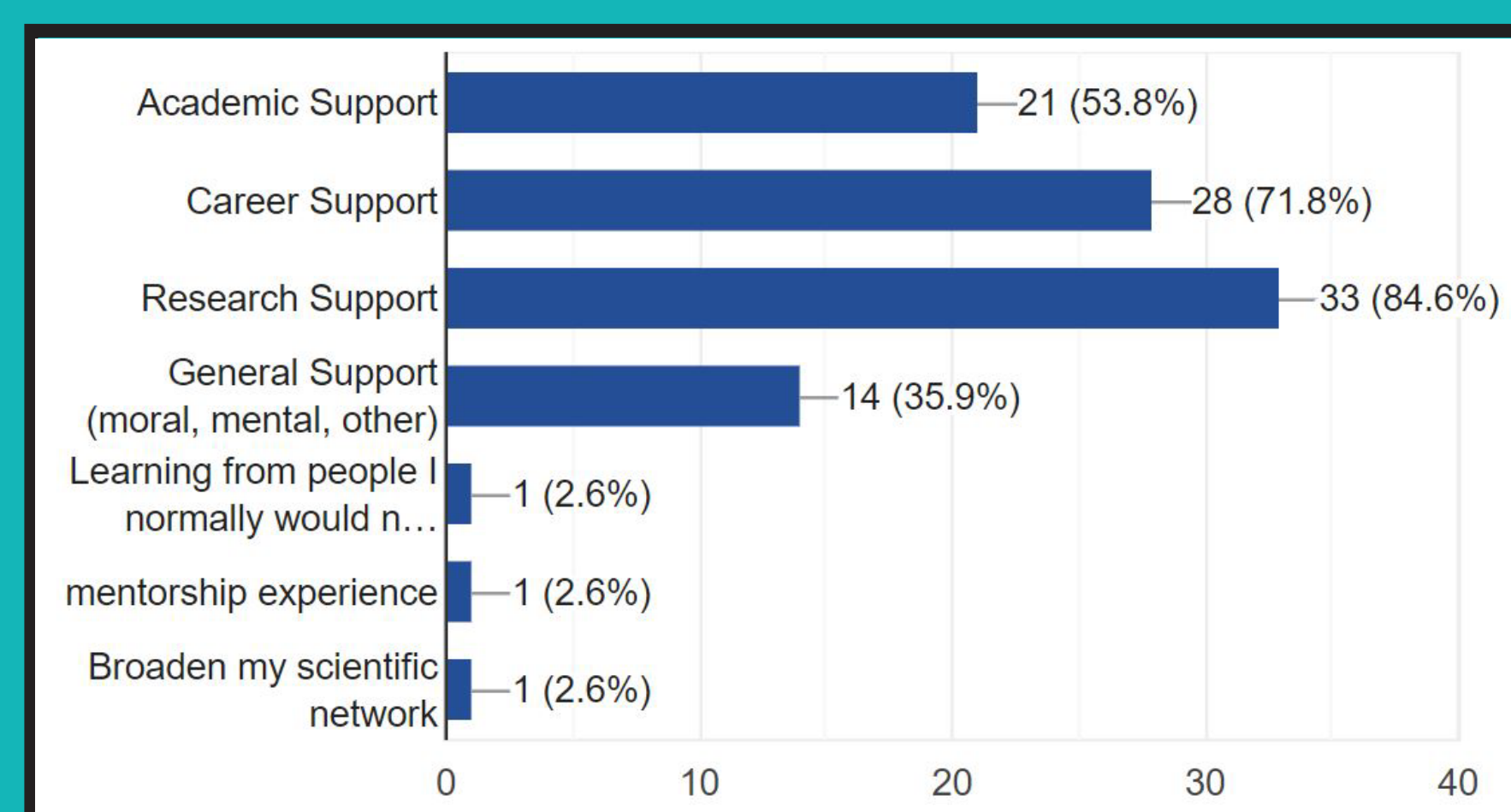
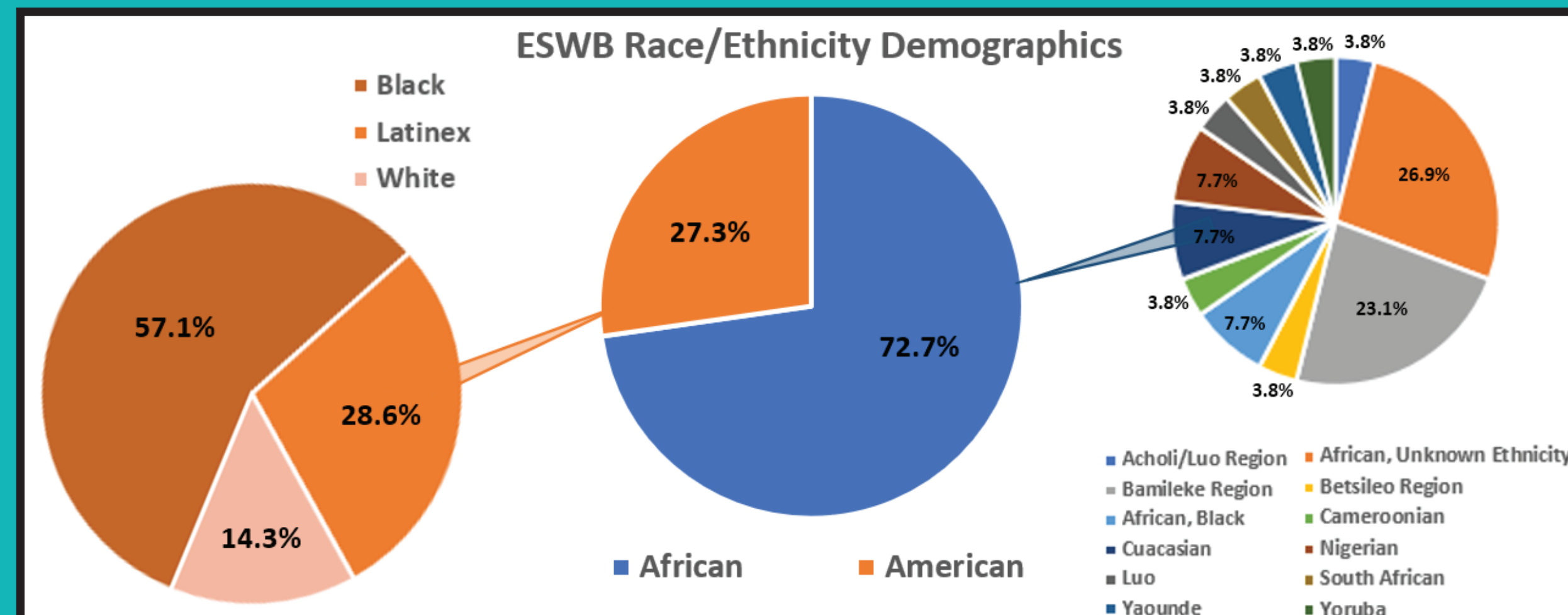
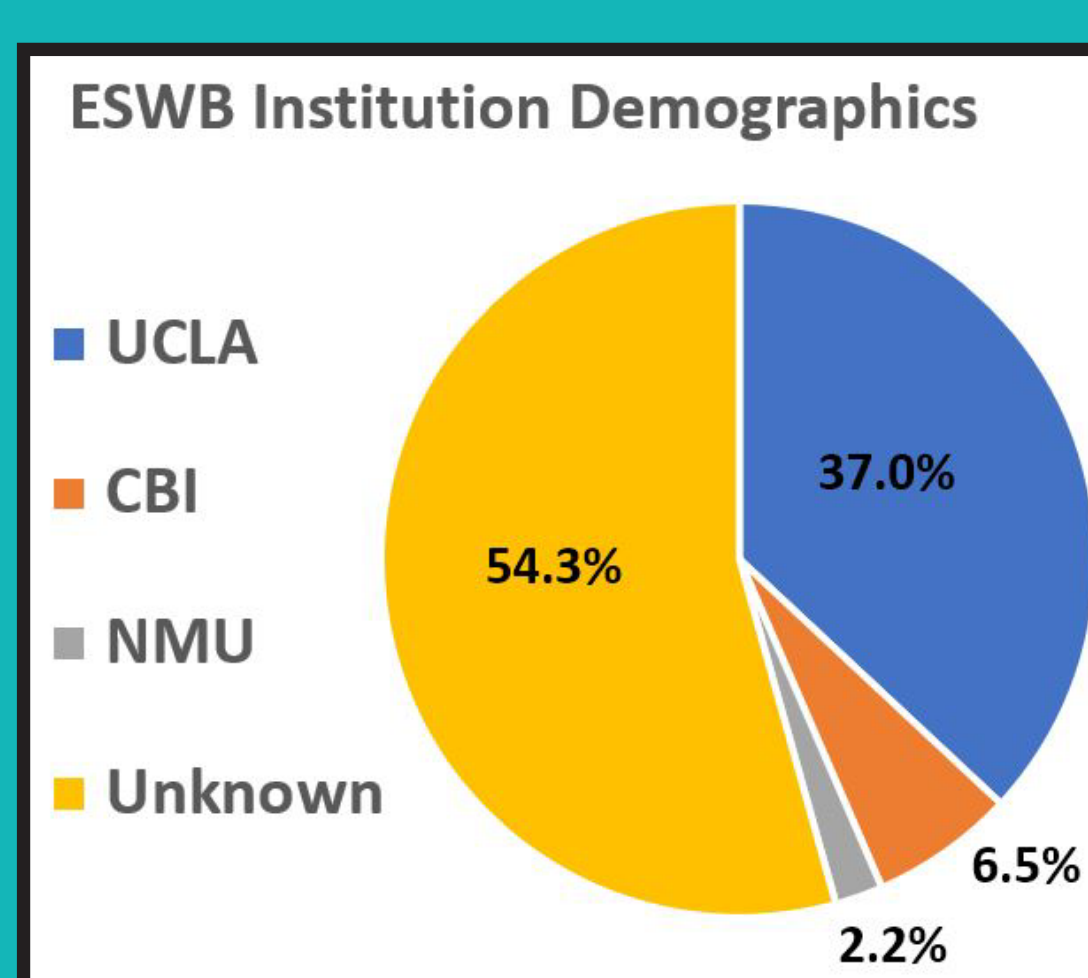
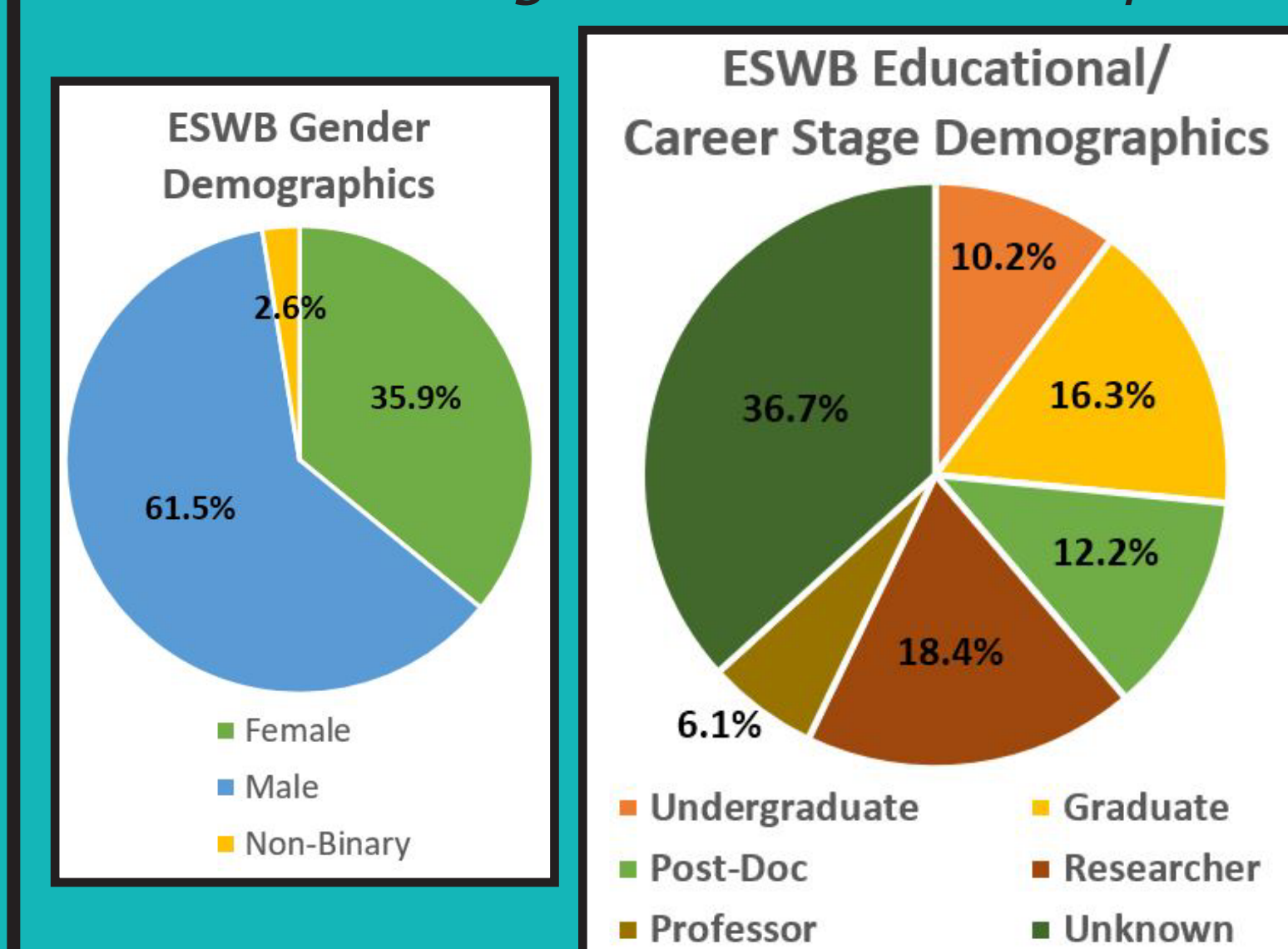


Figure 1. (above) 39 survey participants from UCLA, NMU, & CBI, including 5 undergraduates and 35 graduate professional researchers. Most seek research/career support or moral support.

Figure 2. Demographic Information of Organizers and Participants.



## STRUCTURE OF PEER MENTORING GROUPS:

- ESWB members are broken into two teams, each comprised of Organizers and Participants.

✖ Organizers are researchers, students, and faculty amongst:

- University of California, Los Angeles
- Nelson Mandela University
- Congo Basin Institute, Cameroon
- Université Grenoble Alpes
- Pacific Northwest National Laboratory
- UN Environment World Conservation Monitoring Centre
- Center for International Forestry Research
- California State University, Northridge

✖ There are two Student Ambassadors (Undergraduate and Graduate) to help facilitate communication between all Participants and Organizers

- Additionally, there are two Student Ambassadors (Graduate and Undergraduate) to help foster easier communication between all student participants and Organizers

✖ Participants are students from:

- University of California, Los Angeles
- Nelson Mandela University
- Congo Basin Institute, Cameroon

Ecology	Applied Geology	Physics	Geosciences
Tropical Forestry	Astrophysics	Conservation Biology	Plant Biotechnology
Environmental Sciences	Ecotourism Management	Environmental Management	Natural Resource Management
Environmental and Social Impact Assessment	Resource Conservation	Environmental Sciences	Microbiology and Zoology
Agroforestry	Chemistry	Physical Geography	Animal Biology
Applied Ecology and Wildlife management	Marine and Environmental Toxicology	Agriculture/Fisheries Management	Information and Communications Technology
GIS	Entomology		

Figure 3. Groups are based on disciplinary interests of participants and organizers.

## ACTIVITIES

- ESWB has two types of bi-monthly video conferencing sessions.

✖ All Participants Workshops

- A general topic is the focus of discussion, and each topic is identified from the initial survey results. Meetings take place monthly via zoom. Topics for workshops include:

Research Design	Development of Teaching Portfolio	Software Overview
Professional Development Opportunities	Teaching, Advising & Relating to Students	Time Management Strategies
CV Design	Grants/General Funding	Presentations

✖ Breakout Sessions

- Opportunities for disciplinary groups to meet via zoom
- More in depth discussion
- Questions and comments addressed
- Allows for discussion of the topic as relates to field of study

- Additional outcomes

✖ Career Development:

- Opportunities for individual mentorship and personalized feedback from peer mentors
- Scholarship/fellowship application feedback and support

✖ Education and Outreach:

- Circulate information about webinars, workshops, regional events
- Communication via social media platforms to facilitate peers answering questions

✖ Research and Development:

- Promote regional research groups
- Explore environmental challenges in different regions

✖ Networking:

- Identify speakers for conference and seminars
- Develop a global online database of students/professionals in geoscience and environmental science

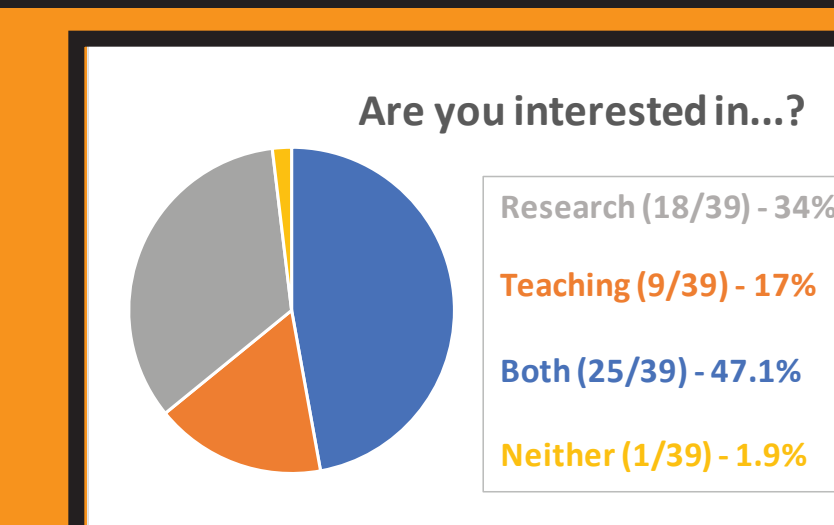


Figure 4. Slides from an "All-Participants Conference" presentation

(courtesy of Kevin Njabo, CBI), and survey feedback which prompted this particular topic for the workshop.

## ACKNOWLEDGEMENTS

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## REFLECTIONS

This is our inaugural year, and we are building this program from the ground up. We hope that one outcome from this year is to have created connections between peer-mentors within institutions and between research institutions. We also hope the networks created from the program will provide examples of role models, promote skill development, and retention.