Zoom Room 1: NSF White Paper (Courses/Funding/Future)

Goals:

- Outline the White Paper (NSF Deliverable) with respect to:
  - Online course ideas
  - Additional (virtual?) workshops
  - Targeted funding
    - Online courses / workshops
    - Culturing / taxonomy
    - Marker development / other?

Zoom Room 2: Population-level Assessment Continued

GOAL: Generating Guidance for Population-level Assessment of Symbiodiniaceae

SSR ⟹ Data Generation ⟹ Analytical Pipeline ⟹ Data Interpretation

Assign writing tasks within this section to interested participants

Discuss Data Analysis Issues

How we suggest you analyze these sorts of data

Things to keep in mind (or constraints) as you interpret these sorts of data

Zoom Room 3: Community-level assessment continued

Sample collection ⟹ **Marker Choice** ⟹ **Data Generation** ⟹ **Analytical Pipeline** ⟹ **Interpretation, Presentation**

CHALLENGE; Intragenomic variation (IGV) → bioinformatic pipeline output interpretation for community level analyses

- Potential interpretations and reporting based on two different bioinformatic pipeline outputs (Dada2+LULU, SymPortal) for the same (real) dataset
- Goal: Identify consensus and generalizations across pipelines

CHALLENGE: Copy number variation and impact on relative abundance interpretation

- Given copy number variation between symbionts in different genera, it can be challenging to estimate relative abundance in some host samples.
- Goal: Identify consensus re: what we can say about relative abundance for a real dataset (and how do we approach this generally)?

Additional consensus pain points that we will note but likely not have time to discuss:

- Need for glossary to define terms in manuscript
- Need to avoid overinterpretation (in either direction) of low abundance symbionts when physiology is not measured.

Zoom Room 4 - Future Technologies

Goals:

- Describe technologies that help the processing and analysis of ITS2 data.
- Describe how to improve current resources and technology to bolster ITS2 data.
- Describe how to integrate various technologies to answer more questions regarding Symbiodiniaceae diversity and function.

Zoom Room 5: Genotype → Phenotype Continued

Main writing goals:

1. **Introduction section:** Articulate why it's important we study algal genetic & phenotypic diversity

1. **Phenotype → genotype section:** Main ways to move us forward in genotype to phenotype links, and main caveats/limitations

1. **Box on avoiding over-interpretation of genotype into phenotype**

Zoom Room 6: Ensuring an Inclusive Community

A. Building capacity for minoritized groups in STEM/Symbiodiniaceae

A. Limiting parachute science

A. Review and editorial practices

Zoom Room 1: NSF White Paper

Zoom Room 2: Population-level Assessment Continued

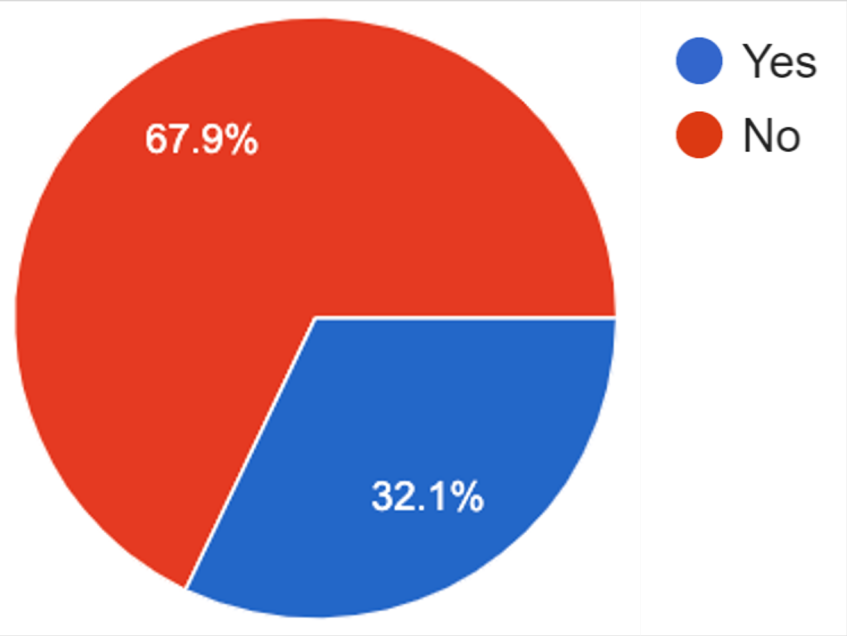
Zoom Room 3: Community-level Assessment Continued

Zoom Room 4: Future Technologies

Zoom Room 5: Phenotype + Genotype Continued

Zoom Room 6: Ensuring an Inclusive Community

Approx. ⅓ of respondents are concerned about being “cancelled” or excluded from scientific discourse



Some negative interactions have been deeply impactful for members of our community

What causes these issues?