

## **Symbiodiniaceae Workshop - Draft Manuscript Outline**

### **Introduction**

*Coral-algal symbiosis, climate change*

*Algal genetic diversity is important*

*Assessments of diversity derived from commonly used loci are problematic*

*Together, as a community, we have reached consensus regarding some current best practices for analyzing Symbiodiniaceae data and for how to handle certain specific challenges, in order to improve our scientific results, and to make our field more welcoming and collaborative.*

### **Overarching Consensus**

*Table/Figure/Box guide to which markers to use (based on question/level of resolution, cost, genus, with links to key papers)*

*Table/Figure/Box guide for how to assess diversity on a budget (for certain types of questions)*

### **Assessments of Species level diversity**

- *Markers and tools we suggest for assessing species level genetic diversity*
- *How we suggest you analyze these sorts of data*
- *Things to keep in mind (or constraints) as you interpret these sorts of data*
- *Things we recommend that you include in manuscripts and proposals related to these types of data/questions*
- *Caveats and issues that need to be addressed in order to move the field forward*

*Table/Figure/Box guide on current taxonomic methods*

### **Assessments of Population level diversity**

- *What we suggest for assessing population level genetic diversity*
- *How we suggest you analyze these sorts of data*
- *Things to keep in mind (or constraints) as you interpret these sorts of data*
- *Things we recommend that you include in manuscripts and proposals related to these types of data/questions*
- *Caveats and issues that need to be addressed to move the field forward*

*Table/Figure/Box guide on current population genetic methods*

### **Assessments of Community level diversity**

- *What we suggest for assessing community level genetic diversity*
- *How we suggest you analyze these sorts of data*
- *Things to keep in mind (or constraints) as you interpret these sorts of data*
- *Things we recommend that you include in manuscripts and proposals related to these types of data/questions*
- *Caveats and issues that need to be addressed to move the field forward*

*Table/Figure/Box guide on current community level methods*

*Table/Figure/Box on challenges and opportunities with Symbiodiniaceae ITS2*

*-When/how/why should we keep using it?*

*-Why we need to be careful in our interpretations--especially when it's the only marker*

***Ensuring Inclusion, Collaboration and Productive Scientific Debate in Symbiodiniaceae Research***

*Summary of the past challenges/conflict and how we as a community plan to move past them*

*Table/Figure/Box guidelines for how authors (of manuscripts/proposals), reviewers, and editors can function given the controversy and how things are rapidly changing as we get new data*

***Future research***

*Where should we go from here?*

*What questions are research priorities?*

*What emerging technologies should we leverage?*

*How can we encourage participation in understudied areas*

*Table/Figure/Box guide for future research questions/hypotheses/methodologies that would help the field move forward*

***Conclusions***