

## TIPS FOR LEADING A DISCUSSION IN BDG.

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If the goal of BDG is to explore topics related to Biodiversity, then a good discussion should explore the principles of biodiversity, their influence on patterns and process, and the state of the field in general. These big questions should be themes in each discussion.

1. **Introduce the topic and set the stage for discussion:** At the beginning of BDG, the discussion leader(s) could provide the context and focus for the discussion in a 5-minute introduction. This introduction could provide a brief overview of the paper, identifying the authors intended take-home message, and perhaps what the main contribution of the paper is. The Introduction should also define the scope of the BDG discussion. Is there a controversy we want to explore? What are the main questions we'd like to discuss? Should we try to reach an answer to our main question by the end of the hour?
2. Some formats or tools for structuring a discussion:
  - a. **Set up a debate.** Ask people to consider one of two sides of a particular issue. You could have two leaders, each arguing a point. For example, is macroecology relevant to local ecological studies? Is open science good for researchers? Is neutral theory applicable to understanding patterns of diversity?
  - b. **Answer a question.** The discussion leader could pose a question and then push the group to answer it by the end of the hour. For example, what is most important and testable research question that emerges from the paper we're reading? Should we keep doing local experiments? Should ecologists learn new statistical methods? Is biodiversity a meaningful concept for scientists?
  - c. **Identify a new question.** Steer the discussion so that at the end, people can answer a question about what they have learned through the discussion, and what they now want to know.
  - d. **Move from opinions to consensus on the strengths of a paper.** Begin with a lightning round in which everyone states what they think is the strength of the paper. In this round, everyone contributes a thought, and no one responds directly to those thoughts. Then, after that, begin a discussion of which strengths are strongest, and why. See if we can converge on 1-2 strengths of the work. Then, repeat for weaknesses. In this context, the discussion should focus on pin pointing the take home message of the paper, and where it might contribute or fail in a broader context.
3. **Make sure the participants are prepared.** Encourage the group to consider some questions in advance, so they will contribute to the discussion. And, as a participant, be prepared!

General tips for a good discussion, based on a list of points at <http://www.wikihow.com/Lead-a-Discussion>.

1. **Articulate the topic of discussion.** The broad topic - something like 'dispersal' - is too broad for good discussion. A more focused topic may be a particular question about or implication of dispersal. To foster a good discussion, identify a topic that will support discussion on a scientific problem or subject. So, 'this paper' is not a great topic. A more interesting topic would be thing like: Does this paper make a meaningful contribution to the question of X, and why?
2. **Pick a starting question.** Good starting questions are not too broad, and not too specific. Avoid 'Yes/No' questions, and really broad questions like 'what did you think of this paper?' Really broad questions will lead to people who like to talk sharing their opinions, and others not talking. A good starting question might be something that allows us to review the paper a bit: What is the premise of this paper? What conceptual problems does the paper address?
3. **Be prepared.** As the discussion leader, be prepared with 1-3 good questions that will stimulate discussion. Maybe also be prepared with a bit of background on the issue (5 minutes or so).
4. **Make arguments.** One successful approach here is to find a friend and each take an opposing view of the main question. Ask the group to join in, and consider their own opinion. *But, don't just share your feelings or opinions without backing them up (!)*. If someone makes an assertion, ask why they say that, and then consider evidence that may support or contradict certain claims. As the leader, you can offer an argument, and then ask the group to consider evidence for or against the point. For example, you could suggest that 'despite experiments like this one, it's not clear that diversity affects ecosystem function. These effect sizes are small, and can't be biologically important compared to other drivers of function. Do people find this experiment convincing of the underlying hypothesis that diversity affects function?'
5. **Move from the known to the unknown.** If the group seems to be settling onto topics or opinions they are comfortable with, ask the group to move to an aspect of the topic they don't understand. Challenge them to identify the next critical questions that need to be asked to advance (or destroy) this field or line of inquiry, or to consider an approach for doing it. Consider how the finding of the paper or the present discussion might inform other fields or questions. That may inspire someone with an idea for an experiment!
6. **Facilitate discussion from everyone.** If one topic or subset of people is dominating, pause the discussion and encourage others to speak, or to change the topic.
7. **Tie it all together:** in the last couple of minutes, summarize the main events and points of the discussion.