

MARS 4910: Feb 4 / 6

Plan for Today:

- Start research plan presentations
- Research Planning Discussion
- More R: Testing for Normality

Assignments for Next Week:

- Research Plan: Due Feb 9 - One Per Team
(email to: khyrenba@gmail.com)
(subject: "MARS4910 Research Plan")
- Research Proposal Intro & Methods (Due Feb 16)

The Research Plan

Presentations (5 - 10 minutes per team):

- Hypotheses:

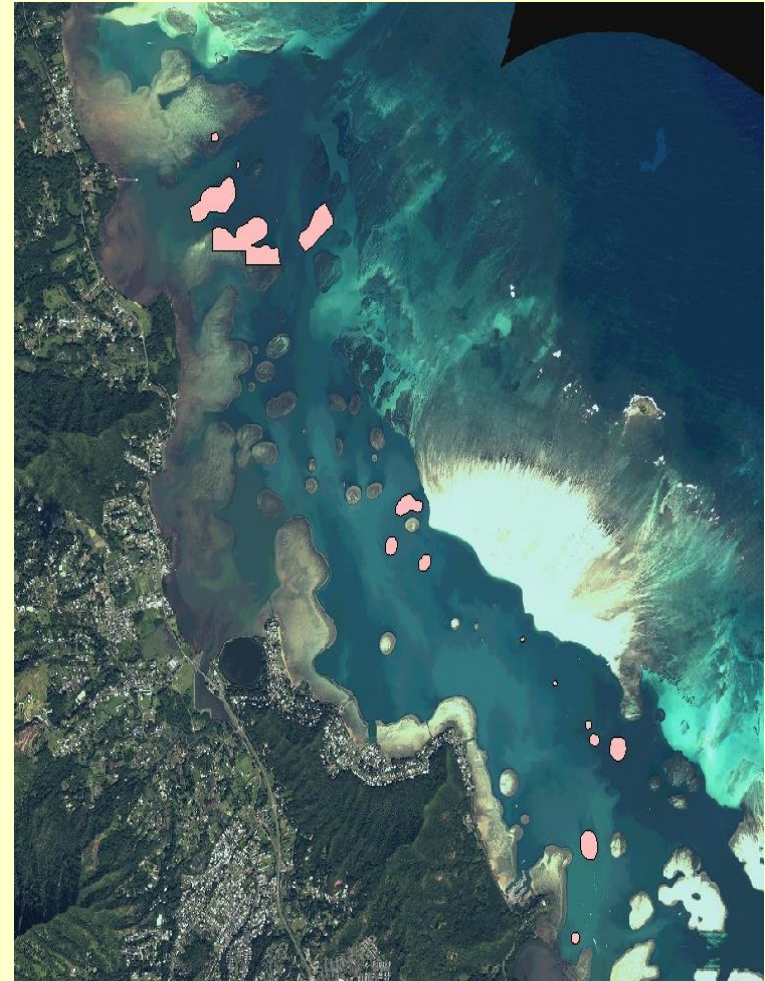
- Scientific Hypothesis (Working Hypothesis)
- Statistical Hypothesis (Variables & Predictions)
- Null / Alternative Hypothesis (Specific Tests)

- Methods:

- What / How ?
- Number / Locations of Sites
- Number / Type of Samples
- Assumptions
- Controls
- Hazards

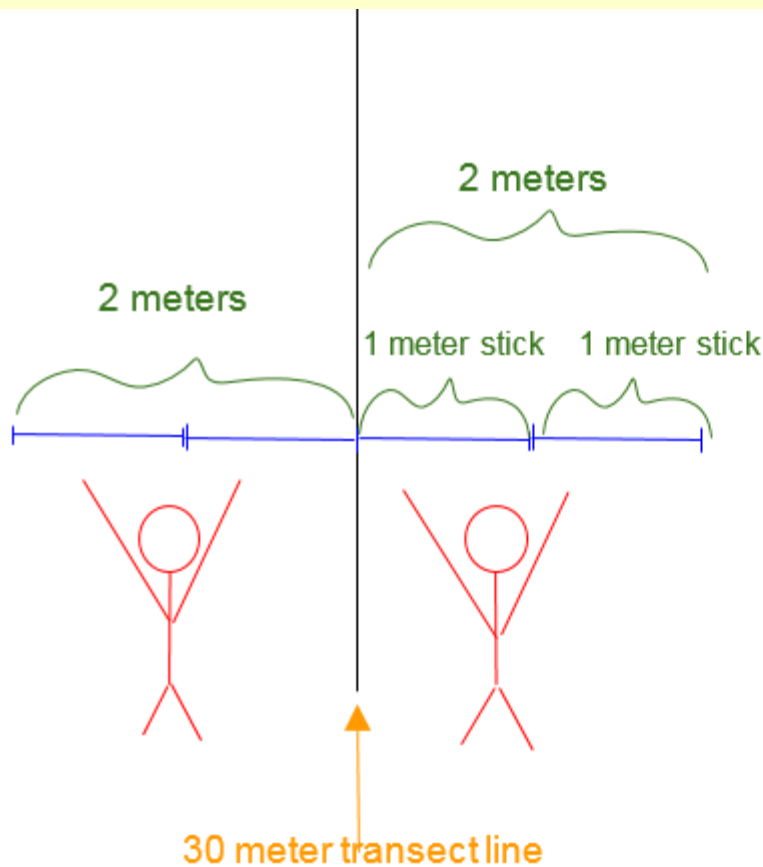
Other Feedback

➤ **Maps:** What makes a good map?



Other Feedback

- **Sampling:** A picture is worth 1000 words



Move
along
transect
line path
until you
reach 30
meter
mark.

Fig 5. Diagram of using 2 one-meter sticks to find urchins along a 30 meter transect line on a patch reef

Other Feedback

➤ **References:** How to use references?

Vermeij, M. J., Dailer, M. L., Walsh, S. M., Donovan, M. K., & Smith, C. M. (2010). The effects of trophic interactions and spatial competition on algal community composition on Hawaiian coral reefs. *Marine Ecology*, 31(2), 291-299.

doi:10.1111/j.1439-0485.2009.00343.x

https://s3.amazonaws.com/academia.edu.documents/45089452/The_effects_of_trophic_interactions_and_20160425-22453-1y020xs.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1517022900&Signature=PM34LVDFZiQYYxEcx7EoAu5P33I%3D&response-content-disposition=inline%3B%20filename%3DThe_effects_of_trophic_interactions_and.pdf

Other Feedback

- **References:** Guides from M.E.P.S.
(<http://www.int-res.com/journals/guidelines-for-authors/manuscript-formatting-requirements-and-preparation-tips/>)

All references cited in text must be listed in Literature Cited section, and all listed literature must appear in text.

a. Within the text

2 authors: use '&' between last names

3 or more authors: use the first author's last name followed by 'et al.'

b. Literature Cited section

Format required for citing literature (examples):

MARS 4910: Feb 11 / 13

Plan for Today:

- Continue research plan presentations
- Research Planning Discussion
- More R: Data Transformations

Assignments for Today:

- Work on Proposal Intro & Methods

Assignments for Next Week:

- Research Proposal (Due Feb 16)