MAR 18, 2023

DOI:
dx.doi.org/10.17504/protocols.io.261ge314yl47/v1

Protocol Citation: Sage Moloney, Kenechi Elvis Obiorah, Erica Garibay, Allea Eimers 2023. Tetiaroa Vegetation Sampling. **protocols.io** https://dx.doi.org/10.17504/protocols.io.261ge314yl47/v1

Protocol status: Working
We use this protocol and it's working

Created: Mar 17, 2023

Last Modified: Mar 18, 2023

PROTOCOL integer ID: 79006

Tetiaroa Vegetation Sampling

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ABSTRACT

Measurement of seedling recruitment for four native woody species, the shade cover of four herbaceous plant species, and coconuts on the Motu Ahuroa in Tetiaroa were conducted by students with the UC Berkeley Island Sustainability Program. The four woody species we observed were Pisonia, Pandanus, Guettarda, and Ipomoea. For the herbaceous species, we observed Asplenium, Boerhavia, Microsorum, and Portulaca. Once we completed our data collection in each transect, we compiled our data to see the effect of rat eradication programs on plant growth.

GUIDELINES

Have picture identification of the woody and herbaceous plant species (especially the seedling stages as these may look different from adult plants)
Wear closed-toe shoes, long sleeves, and pants
Brush shoes off before arrival on the motu to prevent the introduction of invasive species
^ Do NOT bring fruits
Stay hydrated, put on bug spray
Be cautious about where you step so you don't kill seedlings

MATERIALS

Field tape measure
3 1-meter sticks
Observation documentation materials

SAFETY WARNINGS

Dense vegetation, wear light long sleeves and pants and closed-toe shoes to protect against pandanus spines and mosquitoes
Coconut trees were full of fruit, watch for falling coconuts
Sunburn

ETHICS STATEMENT

No animals or persons were harmed in the process; unfortunately, seedlings were harmed.

BEFORE START INSTRUCTIONS

Thoroughly clean shoes and clothes to avoid transferring seeds to Ahuroa motu.
Arrive at pre-existing transects.
Understand what plant species are being studied and how to identify them.

1 Find the marked transects using a GPS and/or flag markers.

2 Use the measuring tape to lay out a 25 m transect from the first marker to its respective end marker.

3 Beginning with left or right side of the transect, measure a 1mx1m plot.

4 Within this 1m^2 plot:

4.1 For woody seedlings: identify and count seedlings in the given area, recording how many are present.

4.2 For herbaceous species: Estimate—using a visual assessment—plant coverage over the given area as a percentage.

4.3 For coconuts: Record number of fallen coconuts and whether a fallen coconut is dead or sprouting. If sprouting, record the amount of leaves sprouting from the coconut.

5 Continue to next 1mx1m quadrant along the transect until you reach the end; total quadrants should equal 24.

6 Repeat steps 3-5 for the opposite side of the transect.