Plan Overview

A Data Management Plan created using DMPTool

DMP ID: https://doi.org/10.48321/D17308be50

Title: Fish Biodiversity Survey

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Funder: Tetiaroa Society

Template: Tetiaroa Field Station

Project abstract:

This survey addresses the marine biodiversity present off the coast of the Onetahi motu in Tetiaroa, French Polynesia. Researchers conducted transects observing present fish species and their interactions in order to analyze the structure of the ecosystem's food web and overarching species richness. Biodiversity analysis is an integral contribution to the knowledge and subsequent preservation of marine environments, and research in small-scale ecosystems like Tetiaroa is representative of the larger environmental conservation movement.

Start date: 01-28-2024

End date: 02-02-2024

Last modified: 03-11-2024

Copyright information:

Fish Biodiversity Survey

Survey Site Selection

1From north shore of the Onetahi Motu, aligned with ferry departure port, swim outwards towards the reef crest until reef substrate becomes primarily coral (as opposed to sand)

Belt Transect Survey

2Split into teams of 2 (with additional team member(s) to assist with securing the transect tape)

3Mark out a 30m transect section using transect tape Secure one end of the tape using a rock/coral or assign an additional team member to secure the tape Assign one team member to swim out with the other end of the tape to mark the full 30m length - head in a fixed direction either with use of compass or by heading toward a fixed landmark visible at horizon level

4For member of team performing the swimming survey task Swim forward at a slow constant speed along the tape Estimate a transect width of 2m on either side of the tape Within the transect, use camera to document what is required (refer to step 5 and 6) Avoid splashing and move slowly to avoid scaring fish away Pause and wait if necessary along transect to allow fish to acclimatize to your presence

Species Identification

5Photograph individuals of each unique species of fish sighted

6Export photos from camera to laptop

7Identify fish species Compare each photo of fish obtained with the fish in guide book or https://www.tetiaroasociety.org/island/fish

8Record the Genus and Species name for each species of fish identified into a spreadsheet

Species Interaction

9Photograph distinct interactions between individuals of different species

10Export photos from camera to laptop

11Identify the species involved, and record description of these interactions in a spreadsheet marking them as trophic or non-trophic

12Analyze relationships between species, record connections and hypothesized behavior behind interactions

Species Function

13Photograph individuals performing functions for each unique species of fish sighted

- No
- Yes
- No

N.A.

N.A.

N.A.

Fish Database

Food Web and Interactions Visual Graphic

Photographs

Public Copyright License, Creative Commons

N.A.

- No

N.A.

Secure Encrypted Cloud Storage with 2FA (Google Drive)

Records of passcodes. 2FA. Bodyguard

ISP 2024

Methodology and Results for future ISP classes

Zenodo

Planned Research Outputs

Dataset - "Fish Database"

Excel Spreadsheet

https://docs.google.com/spreadsheets/d/1E3DMovmYe9Mi2MIebrRwkW9aOCNj4AyONMfElqymUXg/edit?usp=sharing

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Planned research output details

Title	Type	Anticipated release date	Initial access level	Intended repository(ies)	Anticipated file size	License	Metadata standard(s)	May contain sensitive data?	May contain PII?
Fish Database	Dataset	2024-03-11	Open	None specified		Creative Commons Attribution 4.0 International	None specified	No	No