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ONETAHI PLANT DISCOVERY PROTOCOL

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Island Sustainability Pro...

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

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Disclaimer

Don't forget to wear sun protective clothing/gear, apply sunscreen, bring ample water, and wear sturdy walking shoes. Be sure to also bring a recording utensil, your waterproof field notebook, cameral and/or a phone with iNaturalist downloaded to help you identify plants as you go. See the materials page for a full list of what to bring.

Abstract

Invasive Plant Identification On Onetahi Motu, Tetiaroa Within French Polynesia
This protocol describes a means of sampling plant species on Tetiaroa's Onetahi Motu in order to identify and address harmful invasive species impacting their environment. By dividing the island into five sections, invasive plant species can be identified using iNaturalist and cross-checking with expert Dr. Jean-Yves Meyer, an esteemed terrestrial botanist specializing in Polynesian flora.

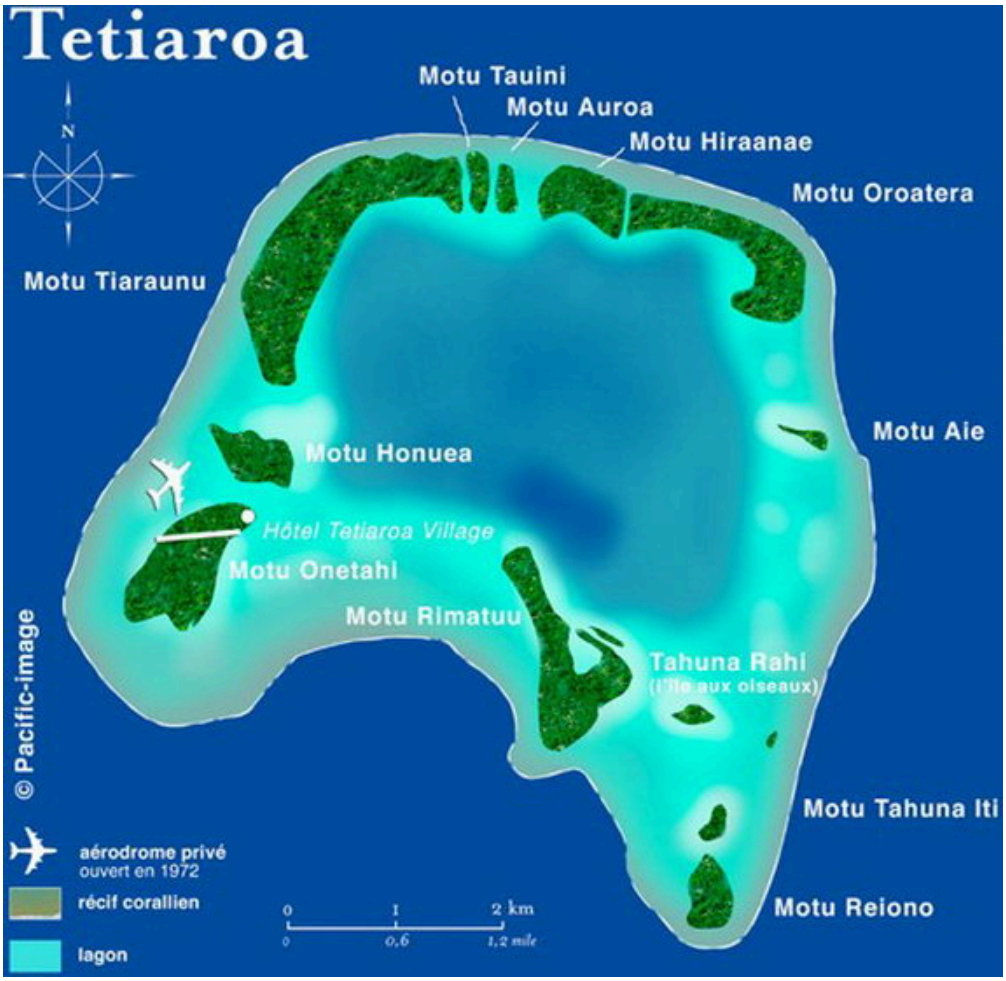
Attachments

PNG

Screenshot 2024-03-1...

2.2MB

Image Attribution



Materials

- Waterproof field notebook
- Writing utensil
- Plant guide book
- Camera (or phone with iNaturalist downloaded)
- Hat
- Polarized sunglasses
- UV protective clothing
- Close toed shoes
- Deodorant
- Sunscreen
- 2+ liters of water

Troubleshooting

Safety warnings

Do not trample plants or sprouts in the case that they are native/protected species.

Before start

Ensure that you have all of your materials, charged and loaded.

Protocol

1 Divide Onetahi (the motu with the greatest traffic) into five even sections (ex: Brando, Middle Earth, Landing Strip, Beach, Urban Jungle). Assign groups of 4 people to each of these sections.

2 Give the groups an hour to gather as much data on the flora of their section as possible. Teams can take more time as necessary depending on their area being covered.

3 Make sure to take pictures of each different plant species and well as explore the entirety of their section.

4 With each of the plant species, note whether it is cultivated or naturalized.

5 Using the data collected from your region, identify the entirety of the distribution of plant species rooting on Onetahi using all means possible (guidebooks, iNaturalist, local knowledge, etc.)

6 Analyze the data to see which plants are native or nonnative to Tetiaroa. If there's a need for clarification, utilize the help of local experts such as Dr. Jean-Yves Meyer.

7 Distinguish which plants are most invasive, overcrowding the rest, and even potentially harmful.

8 Formulate a sustainably sound plan for the swift eradication of the most determinedly harmful plants as well as the plants with most potential for harm.

9 Determine which native species are the most threatened by these invasive species. Create an action plan to further protect such native plants species, avoiding the use of pesticides in order to protect the water and the diversity therein.

10 Follow-Up: Continue monitoring to ensure that eradicated species do not grow back as well as monitor for the wellbeing of native species and their recovery.

Expected Results

11 We expect the areas near the Brando to have higher counts of invasive species due to the planting of aesthetic, "pretty" plants there to please the guests. We also expect the areas farther away from the hotel or any other housing areas to feature less invasive species, but more native plants instead.

Follow-Up

12 Continue regular (likely monthly) monitoring to ensure that eradicated species do not grow back.

13 Monitor for the wellbeing of native species and their recovery, noting their reaction to our protocol and whether there's any positive growth thereafter.