

The impact of exotic species on island ecosystems in the Dutch Caribbean

This project provides an opportunity for a student to develop field research skills that are essential for ecology, biodiversity conservation, and environmental science.

Project Description

Humans are greatly transforming natural landscapes by spreading species far from their place of origin. These exotic species can impact natural biodiversity and ecosystem functioning, and island ecosystems are especially susceptible to the impacts of exotic species.

Our work focuses primarily on terrestrial herpetofaunal species (amphibians and reptiles) that are often transported passively from one island to another in cargo shipping containers. We will be conducting comprehensive field surveys and experiments in order to understand the distributions and impacts of exotic species across islands in the Dutch Caribbean. Specifically, our surveys and experiments will be designed to identify: exotic habitat use across the island, how exotics spread within the island, how natives and exotics interact, and how exotics affect ecosystem functioning.

The student will first conduct field surveys to identify the species compositions and habitat characteristics at sites across the island. Then, additional experimental and observational techniques will be used to determine how those species interact and affect ecosystem functioning. After the field season, the student will return to Amsterdam to analyze their data.

Please note: this project involves physically strenuous work in hot conditions (often well above 30°), and working many hours per day and possibly also at night. Students interested in an island holiday should not apply for this position.



Project Goals:

- Determine habitat use of exotic and native herpetofaunal species across an island.
- Identify species interactions between exotics and natives.
- Quantify impact of exotics on ecosystem functioning.

Student Responsibilities

- Learn appropriate field techniques to sample herpetofaunal species and their habitats.
- Use and learn basic methods in R statistical programming to analyze data.
- Work independently and part of a team in the field.



Location

VU-Amsterdam and Dutch Caribbean islands (Aruba, Bonaire, Curacao)

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