

### Context



- Biological field stations, defined by the Organization of Biological Field Stations, are "living libraries and outdoor laboratories for students, researchers, and the general public interested in the environment."
- Many stations entrench conservation and education in natural environments into their mandates.



- Over the past decade, I have been involved with the Caño Palma Biological Field Station. I return annually to Costa Rica while serving as its Vice Chair on the COTERCs Board of Directors in Canada.
- Over this period, I developed a critical realism ontology, questioning field stations' motives, principles, and practices, specifically in the number of North American-owned and operated field stations that have saturated the small country of Costa Rica and their impact on the local communities.

### Background

- The Canadian Organization for Tropical Education and Rainforest Conservation (COTERC) is a registered Canadian not-for-profit charity formed in 1991. COTERC owns and operates Caño Palma Biological Field Station. The field station is located north of Tortuguero in the Limon Province on the northeast Caribbean coast and south of Barra del Colorado National Park of Costa Rica.



### Research Objectives

- The objective of this research is to investigate the role and impact of Western research stations on the regions in which they are situated through a case study at Caño Palma, Costa Rica biological field station and the San Francisco de Tortuguero, Costa Rica, community.
- The research problem involves who should have control and say over Costa Rican's resources, which may include land use and protection, knowledge production and heritage biodiversity. Are the voices of the local and Indigenous people being heard and part of policy and decision-making?
- It is not the 'saving or conservation' of biodiversity to be considered; instead, protecting "the integrity of biological, intellectual heritage" (Shiva, 2000) is at stake. Biodiversity conservation research is, therefore, no longer for natural science but a social research endeavor.



### Research Rational

- A literature review reveals the importance and significance of tropical biological field stations. Therefore, it is not the stations themselves but rather who owns the station, who occupies the land, whose knowledge production and whose practices that raise further questions. Should not field stations be owned and operated, supporting local academia, economics, and communities by Costa Ricans?
- There is a need for literature that provides representation from local Costa Rican communities of how North American field stations have impacted them and how they view North American field stations.
- Could the conspicuous presence and increase of North American field stations and their research practices of science represent the underpinnings of colonialism coupled with the political and economic expansion of the North into Costa Rica?



### Research Questions

Possible research questions my study may pursue are:

1. How does the objective of Western biodiversity conservation affect the integrity of the biological and intellectual heritage of Costa Rica?
2. How do locals view Western field stations? What are the advantages/disadvantages of Western field stations? To whom?
3. How is knowledge, its production and use viewed by Western science and locals? Does knowledge hold power?
4. How would locals view having their knowledge and Costa Rican Indigenous people part of field station teachings?
5. How do locals view the difference between Ecotourism versus Field Stations, which is more of a threat or are they?

### Methodology and Methods

Methodology -- a Case Study:

- An intrinsic single-case study with the San Francisco de Tortuguero, Costa Rica, community.
- Case study research allows the exploration and understanding of complex issues.
- A robust research tool in the social sciences for a holistic, in-depth investigation in community-based endeavours.
- Data collected will be analyzed in Nvivo and reconstructed to demonstrate the findings relating to the research using a descriptive, iterative and detailed narrative.
- Outlining the nature of the investigation and relevant social issues. It will describe the setting and how the study was conducted, concluding with the findings and recommendations.
- A Theory of Change framework will be used.
- Ethical considerations will be executed.
- A transdisciplinary approach will also be part of this study.

Methods:

- Participation Observation
- Interviews
- Surveys
- Photovoice
- Context Analysis

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