



Trouble in Paradise? Quantifying the factors that influence Red-billed Tropicbird survival on small Caribbean islands

PhD total period

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Motivation

This study contributes to overall knowledge on seabirds, whose populations are declining worldwide and at risk of extinction - especially those breeding on small, isolated islands. This project disentangles the various aspects of Red-billed Tropicbird ecology and the threats faced by the species nesting on Caribbean islands.

Aims and Objectives

The long-term viability of Red-billed Tropicbirds depends on chick survival, sufficient food resources and gene flow between island populations. Globally significant breeding colonies may suffer from genetic isolation, even when populations are within sight of each other. Currently, only basic information exists on Red-billed Tropicbird ecology from a limited number of locations. Genetic studies on Red-billed Tropicbirds in the Caribbean are lacking entirely.

Method

This research will determine which factor(s) influence the daily survival rates of Red-billed Tropicbird eggs and chicks on St. Eustatius. The influence of breeding success, breeding failure, clutch type and season on nest mate and cavity fidelity of Red-billed Tropicbirds on St. Eustatius (and Saba) will be quantified. Diet and GPS tracking data will be used to reveal information about the foraging preferences of Red-billed Tropicbirds in relation to oceanographic variables. DNA analysis using feathers will determine the genetic structure of Red-billed Tropicbirds on St. Eustatius, Anguilla, Little Tobago, St. Helena and Saba (Atlantic Ocean), and the Gulf of Mexico (Pacific Ocean).



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