

# **The Abundance of *Eleutherodactylus martinicensis* From**

## **A Water Source**

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### **Abstract**

In a three-week study of *Eleutherodactylus martinicensis* on the island of Dominica, the distance of this frog from a water source, the Checkhall River, was observed. Locations of *E. martinicensis* were marked and plotted from the river half way to the streamhouse. The location of *E. martinicensis* was not a direct result of the water source.

### **Introduction**

Several species of frogs are native to the island of Dominica. *E. martinicensis*, also known as the “tink frog”, is limited to Dominica, Martinique, and a few Lesser Antillean islands. Dominica is the most mountainous island in the Caribbean. It spans from twenty-nine km long to a mere sixteen km wide. It lies between the French islands of Martinique to the south and Guadeloupe to the north (Honeychurch). The tink frog is a nocturnal amphibian that makes an audible “tink, tink, tink” sound. These frogs are very small and range in size from two to five centimeters. They are brownish-tan in color and have a faint bar between their eyes. It was of my utmost interest to observe how far the tink frog was from a water source. On a three-week study abroad trip to Dominica, I observed the “tink frog” in its natural habitat and recorded where on the trail these frogs were located. This is an area made up of mostly secondary forest with a variety of plants including *Piper* and *Heliconia* where the “tink frogs” are found a majority of the time (Chandler).

### **Materials**

Headlamp

Tagging Ribbon

String

Stop Watch

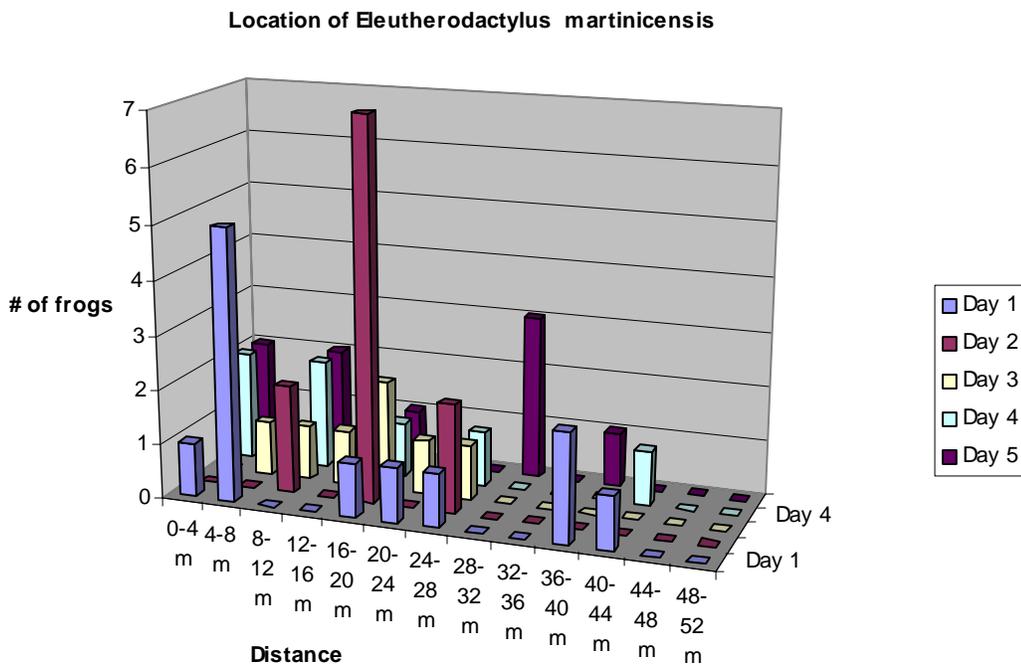
## Methods

Data were collected around the Check Hall River on five different occasions. Each night after dinner I would travel down to the river where I had set up 52 meter string starting at the water's edge leading straight up towards the stream house. I tagged every meter with a bright orange string so I could tell how far away I was from the river to record my data. I spent roughly two minutes every two meters and located "tink frogs" that were within eye range. After locating a frog with my headlamp I checked the area for more. I then recorded the location of the frog in my journal. Each night varied in numbers of frogs located.

## Results

The location of 45 frogs were observed and marked.

The null hypothesis was that *E. martinicensis* would be found a majority of the time around the riverbed. This was not true due to the data I collected. The data collected are as follows:



## **Discussion**

*E. martinicensis* was much more prevalent around the area of 8-28 meters, but this may be due to the abundance of plant species in this range. A study to establish the number and types of plants in the area would be necessary to make a conclusion on the location and preference to the riverbed.

The significance found in the distance of the frog from the river bed indicates that *E. martinicensis*'s location is not affected by water. However, the farther away I went from the riverbed, the more scarce the "tink frogs" became, until I found none starting at forty-four meters. This also may be due to the lack of *Piper* and *Heliconia* in the area.

## **Literature Cited**

Honeychurch, Lennox 1995. The Dominica Story: A History of the Island. Macmillan Education LTD, Hong Kong.

Chandler, Jennifer 2000. Perching Preferences of *Eleutherodactylus martinicensis*.