

# AERIAL PREDATOR AVOIDANCE IN *ALOUATTA PALLIATA*, MANTLED HOWLER MONKEYS

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## INTRODUCTION:

- Social animals must balance the need to find food and mates, while avoiding capture by predators<sup>1</sup>
- Minute-to-minute behavior reflects these competing selection pressures.<sup>1</sup>
- One failure to avoid a predator is catastrophic to lifetime fitness.<sup>1</sup>
- Primates' predator avoidance behaviors include freezing, fleeing, vigilance, alarm calls.<sup>2</sup>
- The safest predator avoidance strategy for some species will be flight and for others it may be confrontation.<sup>1</sup>
- Alarm calls are a widespread form of antipredator behavior, in which one or more group members act as sentinels for the rest of the group.<sup>1</sup>
- Predation on arboreal primates has been described anecdotally in several species.
- Little research has been done on, aerial predator avoidance in mantled howler monkey, in Costa Rica.
- I hypothesize that *A. palliata* in La Selva Research Station will exhibit predator avoidance in response to aerial predators.



## METHODS:

### Site description

- Research will be conducted at La Selva Research Station, in May 2022.
- La Selva Research Station
  - Heredia Province Costa Rica
  - Protected reserve of 1,536 hectares

### Species description

- *A. palliata* weigh 11-15lbs.
- *A. palliata* aerial predators include harpy eagles (*Harpia harpyja*) crested eagles (*Morphus guianensis*), black hawk eagle, (*Spizaetus ornatus*), ornate hawk eagles, (*Spizaetus ornatus*).

### Data collection methods

- 10-minute continuous-focal sampling followed by an instantaneous scan sample.
- Recording ecological variables (height resting/sleeping sites, and presence of vines at rest/sleeping sites).
- Recording number of subjects and their sex,
  - presence or absence of predators,
  - (behaviors including vocalization, freezing, vigilance, fleeing, feeding, and resting).

I will compare these behaviors when predators are and aren't present.

### References:

1. Stanford, C. (2000). Avoiding Predators: Expectations and Evidence in Primate Antipredator Behavior. <https://slcc.instructure.com/courses/702135/files/127716965?wrap=1>
2. Asensio, N., & Gomez- Marin, F. (2002). Interspecific Interaction and Predator Avoidance Behavior in Response to Tayra (*Eira barbara*) by Mantled Howler Monkeys (*Alouatta palliata*) [https://slcc.instructure.com/files/127716996/download?download\\_frd=1&verifier=0L0Wj1AOp2PAErRf36cV AZWCl3a4eggKUIVNEG](https://slcc.instructure.com/files/127716996/download?download_frd=1&verifier=0L0Wj1AOp2PAErRf36cV AZWCl3a4eggKUIVNEG)
3. Treves, A., & Drescher, A., & Ingrisano, N. (2001). Vigilance and aggregation in black howler monkeys (*Alouatta pigra*). <https://slcc.instructure.com/courses/702135/files/127717061?wrap=1>
4. "Mono Aullador / Mantled howler monkey / *Alouatta palliata*" by vic\_206 is marked with [CC BY-NC-ND 2.0](#).
5. "Ornate Hawk-Eagle - *Spizaetus ornatus*" by eutoxeres is marked with [CC BY-NC-ND 2.0](#).
6. "Harpy Eagle II" by jitze is marked with [CC BY 2.0](#).