Do Anolis Lizards Recognize Heterospecific Neighbors?

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Introduction

- Many species develop territories and spend energy defending them.
- One phenomena by which they limit the energy spent in defense is known as the Dear Enemy effect. [1]
- **We don't know if this can occur between interspecific competitions.**

Methods

- Pair lizards based on size.
- Assign score to aggressive behavior. [2]
- Observe lizards when exposed for fifteen minutes.
- Repeat for seven days.
- Change heterospecifc animal after seven days and record behavior.
- (For second set) place animals with conspecific on day eight.

Results

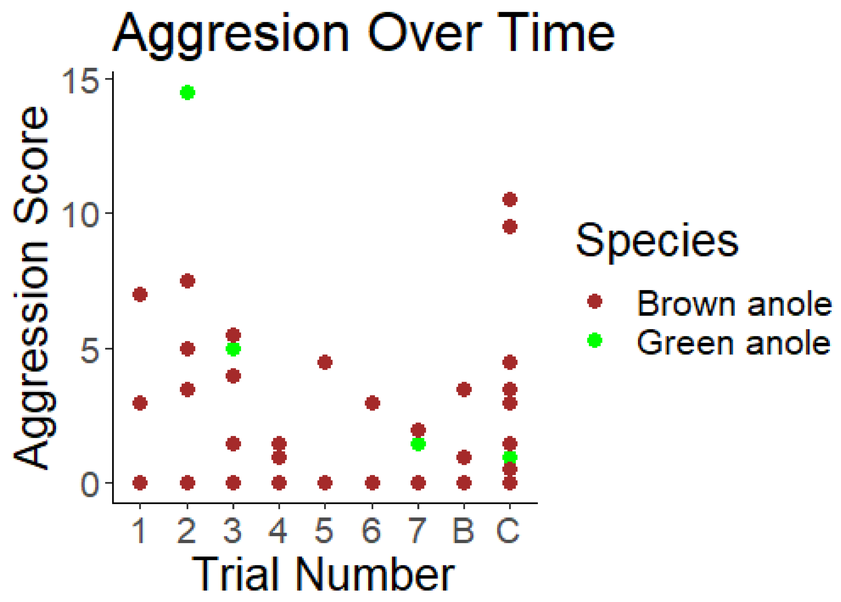

Figure One. We can see that there is a general trend in decreasing aggression, though this was not significant.

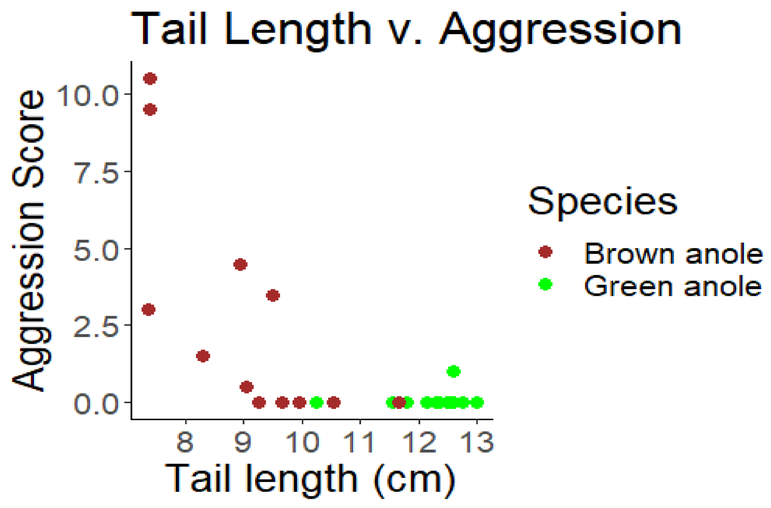

Figure Two. We can see that there does appear to be some relationship between tail length and aggression in brown anoles.

Conclusions

- Overall, the brown anoles, *Anolis sagrei*, tended to be more aggressive, which is a common observation.
- There did not seem to be a dear enemy effect present, though we did notice a gradual decrease in aggression overtime.
- We did notice that there may be a correlation between tail length and aggression, at least in brown anoles.

Acknowledgements and References

Acknowledgements:
We would like to thank the Wentz Foundation here at OSU for funding this project, as well as thanking members of the Reichert lab for their assistance and Dr. Lovern for his help in husbandry.

References:

[1] Temeles, E. 1994. The role of neighbors in territorial systems: when are they "dear enemies"? Animal Behaviour 47:339–350.
[2] Edwards, J. R., and S. P. Lailvaux. 2013. Do interspecific interactions between females drive shifts in habitat use? A test using the lizards *Anolis carolinensis* and *A . sagrei* : Habitat use in *Anolis* lizards. Biological Journal of the Linnean Society 110:843–851.