

The authors use ketanserin as a mode to block serotonin receptors in a client fish species to see how that species responds to cleaning events by a cleaner reef fish species. Their overall methods and experimentation closely match another study with the caveat that they use another species. The authors do a decent job explaining the purpose of repeating the study with a second species but could expand on this more in the discussion. The manuscript could use some tidying up in terms of conciseness and clearness of sentences. The authors have many floating “it” statements that can be eliminated with careful rewording of sentences.

Introduction

Line 45: giving a specific behavior aside from “helping” would be more descriptive here

Line 48: floating “it” statement

Line 50: the transition in this opening paragraph from talking about social behaviors to focusing on the endocrine system is rough, another sentence or two within this paragraph would set up why the endocrine system is the system of focus.

Line 52: floating “it” statement

Lines 52-54: Need to rework this sentence to have parallel structure, reads very clunky as is.

Line 66: floating “it” statement

Line 67: floating “it” statement

Line 71: floating “it” statement

Lines 78-79: need citations after the opening sentence.

Line 109: What is “this” referring to?

Line 129: An additional sentence at the end as to why finding similar outcomes between species would be beneficial would be helpful here.

Methods

When talking about the models ran in the data analysis section, the text could be made more concise by stating that the cleaning interactions were standardized, and log transformed only once. All models also have client-cleaner pair and reef fish ID as a random factor which could just be stated once.

Line 144: floating “it” statement

Lines 163-165: The reader shouldn’t have to refer to Triki et al. 2017 to replicate this experiment. More explanation is needed on why 10 ug/g for the dosage and how the fish were handled without anesthesia and injected with ketanserin.

Lines 178 and 180: should spell out minutes.

Line 180: Why was video interaction only done between the fishes for 15 minutes?

Line 187-188: Sentence reads awkwardly, I think you need an “us” between allows and to

Line 208: What is “this” referring to?

Results

If you are going to include individual behaviors on the figures, then they should be noted in the results section. Could these be sex differences? Size differences? Reef differences (I know you used reef ID as a random effect, but visualizing the different reefs on the graph might show interesting trends). Need to expand on what the reader might be interested in looking at in Table 1 instead of just saying that further statistical outcomes are available.

Discussion

Overall, the discussion talks about the results considering previous research. I think the authors could expand some discussion on how the results relate to the ecological role the species play within the environment. Why do we want to study these mutualistic interactions? What can they tell us about the biodiversity of the system or how the system functions? I was again looking for some discussion of the variation between individuals. There could be interesting trends within your data that are not being explored.

There is some discussion about how cleaner fish in the experimental setup tended to cooperate and rarely bit their clients. Could this interaction be because the pairings were not switched up within the experiment? The introduction talked about cleaner fish not biting so the client sticks around, if there is only one client is the cleaner fish likely to “behave” more than a fish in a natural setting with multiple clients?

I was looking for a paragraph that talked about the limitations of the data because the experiments were as natural as possible but with some caveats. How many fish do the cleaner fish typically interact with on a given day? Does feeding the cleaner fish have an impact on how many “bites” are taken from the mucus layer? There was a lot of individual variation within these treatments, could a training period have been used to collect cleaner fish that show more biting tendencies to get at the research question?

The conclusion paragraph is underwhelming, how does this research help us understand biotic relationships of the mutualisms between cleaners and their clients. There is talk about the logistics of using wild animals, so is there another option that could be used instead? I feel like the conclusion paragraph ends on a sour note instead of a “the research showed us X” note.

Line 261: floating “it” statement

Line 278: three floating “it” statements

Line 282: floating “it” statement

Line 290: floating “it” statement

Line 291: floating “it” statement

Line 292: do not need sentence "Examples from the literature support this point."

Line 305: floating "it" statement

Line 319: floating "it" statement

Line 328: floating "it" statement

Line 329: floating "it" statement

Line 337: what is "this" referring to?