



Dear Editor,

April 18, 2016

Attached you will find a manuscript entitled: **“Divergent predation environment between two sister species of livebearing fishes predicts boldness, activity, and exploration behavior.”** written by Spencer Ingley, Jerry Johnson and me. In accordance with ethical requirements, this manuscript describes the results of original research, and is not being considered elsewhere for publication. The main body of the manuscript totals 3121 words, but we agree to pay any excess page fees if required.

We believe that *Revista de Biología Tropical* is an excellent outlet for our study for several reasons. First of all, our study provides further evidence that divergent selective environments – in this case predation environment – drive the evolution of behavioral strategies. Although several studies have evaluated behavioral evolution in different predation environments, there is still a lack of consensus regarding which behaviors are favored under different predation regimes. Our results provide further evidence that predation can favor increased boldness, activity, and exploration levels. Second, by comparing behavior *between sister-species* rather than *within species* we show that behavioral divergence is consistent post-speciation. Many studies evaluate behavioral divergence among young population pairs, which limits our understanding of how behavior evolves in later stages of evolution. Our work suggests that patterns of behavioral divergence present at early stages of speciation can persist even in late stages of evolution. Finally, by evaluating behavior in both sexes and in juveniles we show that some environments could select for behavioral consistency across ontogeny, while others might select for behavioral flexibility. We highlight the importance of considering behavior in both sexes and in juveniles when evaluating the evolution of behavior.

Due to the nature of our work we suggest the following at appropriate reviewers: Gabrielle Archard of Cardiff University, ArchardG@cardiff.ac.uk; Justa Heinen-Kay of North Carolina State University, justa.heinenkay@gmail.com; and Culum Brown of Macquarie University, culum.brown@mq.edu.au.

Thank you for your help in handling this manuscript. In case of any questions please do not hesitate to contact me anytime.

Kindly,

A handwritten signature in black ink, appearing to be "David Money".

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A handwritten signature in black ink, appearing to be "Spencer Ingley".

Spencer Ingley

A handwritten signature in black ink, appearing to be "Jerald Johnson".

Jerald Johnson