

# Tyler Funnell

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## **Education:**

**M.S. in Fisheries and Wildlife** (GPA: 4.0), May 2020-Present  
Michigan State University, East Lansing, MI  
Advisors: Dr. Chris Vandergoot and Dr. Travis Brenden

**B.S. in Biology** (Summa Cum Laude; GPA: 3.9), Sep. 2016-Dec. 2019  
Central Michigan University, Mount Pleasant, MI  
GRE: Verbal – 154, Quantitative – 160, Writing – 4.0

## **Publications:**

**Funnell, T.R.**, R.J. Fialkowski, P.D. Dijkstra. 2022. Social dominance does not increase oxidative stress in a female dominance hierarchy of an African cichlid fish. *Ethology*. 128: 15-25. DOI: 10.1111/eth.13232

Border, S.E., T.J. Piefke, **T.R. Funnell**, R.J. Fialkowski, J. Sawecki, P.D. Dijkstra. 2021. Social instability influences rank-specific patterns of oxidative stress in a cichlid fish. *Journal of Experimental Biology*. 224(19). DOI: 10.1242/jeb.237172

Border, S.E., T.J. Piefke, R.J. Fialkowski, M.R. Tryc, **T.R. Funnell**, G.M. DeOliveira, P.D. Dijkstra. 2019. Color change and pigmentation in a color polymorphic cichlid fish. *Hydrobiologia*. 832: 175-191. DOI: 10.1007/s10750-018-3755-0

## **Manuscripts in prep:**

Fialkowski, R.J.\*, **T.R. Funnell\***, T.J. Piefke, P.M. Aufdenberge, P.D. Dijkstra. *In prep*. Sexual selection favours phenotypic plasticity in male coloration in an African cichlid fish. Target journal: *Nature*.

\* Authors contributed equally

## **Presentations:**

**Funnell, T.R.**, R.J. Fialkowski, P. Aufdenberge, P.D. Dijkstra. 2019, April. Does oxidative stress and the cost of social dominance differ in males and females? Poster presentation: Student Research and Creative Endeavors Exhibition, Mt. Pleasant, MI.

**Funnell, T.R.**, T.J. Piefke, P.D. Dijkstra. 2019, March. Social stability alters color phenotype in a color polymorphic cichlid fish. Poster presentation: Animal Behavior Conference, Bloomington, IN.

## **Honors/Awards:**

Summa Cum Laude, *Central Michigan University*: 2019

Best Poster Presentation Award, *Biology Undergraduate Research Symposium, Central Michigan University*: 2019

George R. Wheeler Scholarship, *Central Michigan University*: 2017-2019

Incoming Freshman Scholarship, *Central Michigan University*: 2016-2019

Academic Prestige Award, *Central Michigan University*: 2016-2019

President's List, *Central Michigan University*: Fall 2019, Spring 2019, Fall 2017

Dean's List, *Central Michigan University*: Fall 2018, Spring 2018, Spring 2017, Fall 2016

Summer Scholar Award, *Central Michigan University*: 2018

## **Research Experience:**

### **Graduate Research Assistant, May 2020-Current**

*Quantitative Fisheries Center, Department of Fisheries and Wildlife, Michigan State University*

- Utilized R programming to analyze and visualize acoustic telemetry data.
- Described and prepared a very large acoustic telemetry dataset (>10 million data points) for further analysis using R programming through manipulation and cleaning.
- Performed statistical analyses including linear models and linear mixed models.
- Designed research objectives, questions, and hypotheses based on input and collaboration from various management agencies.
- Wrote and edited publications, progress reports, and project proposals.

### **Research Assistant, January 2017-May 2020**

*Dr. Peter Dijkstra Research Lab, Department of Biology, Central Michigan University*

- Analyzed datasets using R programming and Microsoft Excel.
- Designed research plans and hypotheses individually and with my peers and advisor.
- Wrote and edited peer-reviewed publications on novel studies performed.
- Performed oxidative stress and oxidative damage assays on fish plasma and tissues.
- Mentored undergraduate students in research techniques such as reading and writing scientific papers, project design, behavioral analysis, and using R programming.
- Drew blood and obtained fish tissue samples through dissections with precision.

### **Seasonal Fisheries Technician, May 2019-August 2019**

*Little River Band of Ottawa Indians, Manistee, MI*

- Sampled fish populations in lakes using fyke nets, minnow traps, and boat electrofishing surveys and in streams and rivers using backpack electrofishing surveys.
- Collected larval and juvenile lake sturgeon using passive drift net and active visual dip net surveys to be raised in a streamside rearing facility.
- Fed and cared for juvenile lake sturgeon housed in a streamside rearing facility.
- Recorded water quality data using Hydrolabs, FlowTrackers, and pebble count surveys in lakes, rivers, and streams.

## **Other Professional Experience:**

### **Biology and Chemistry Tutor, January 2017-April 2018**

*Central Michigan University*

- Consulted with students one-on-one in the subject areas of chemistry and biology.
- Guided students through difficult subject areas to help them learn to teach themselves and become better students.
- Advised students on study methods and techniques to help improve their learning and understanding.

## **Skills:**

- Proficient in R, Excel, and SPSS.
- Experience with numerous fisheries sampling techniques.
- Experience identifying and handling many Michigan fish and mollusk species.
- Experience training and teaching students on a variety of skills.
- Experience dissecting and drawing blood from various fish species.
- Experience performing various oxidative stress assays.
- Experience maintaining water pumps and filters in streamside and recirculation systems.
- Michigan Boaters Safety Education