Clark Biology 430 - Animal Physiology Spring 2019

# TOTAL: /50 pts.

### Title (2 pts)

- Lists independent and dependent variables
- Describes purpose of experiment
- Clear and concise
- Study organism(s) listed with scientific name(s)

### Abstract (NA)

- Every section of the paper summarized in a few sentences each
- Sentences transition smoothly
- No citations
- Length limit of ~200 words or less

### **Introduction (4 pts)**

- Context for study ("Big Picture") that leads reader to broad question being asked
- Relevant background on question with citations
- Background on study organism or methodology and why appropriate for studying question
- Hypothesis and predictions clearly stated
- Rationale given for expectations

## Methods (4 pts)

- Description of study system
- Experimental protocol and data analysis described with justification for steps
- No unnecessary detail
- Written in past tense

## Results (15 pts) Written Results

- Describes major trends, not just a reconstruction of the graphs
- Statements supported with reference to tables and figures (+ correct citation format)
- No interpretations
- Written results come before tables and figures
- Written in past tense

#### Tables/Figures

- Only includes tables/figures referenced in the text
- Legends/captions complete and accurate

- Axes correctly labeled (proper variables with units)
- Only summary data presented
- No repetition of data
- Tables and figures are at end of text

#### Discussion (15 pts)

- Overview and interpretation of results in relation to stated hypotheses
- Conclusions or implications of study clearly stated
- Results placed in context of previous studies
- Describe biological factors that unknowingly led to unexpected results
- Future directions suggested (how to extend the study)
- Differentiation between fact and speculation

## Acknowledgements (2 pts)

• Credit given where credit is due

## References (4 pts)

- Correct citation format used
- Only references used are cited

## **Clarity and Communication (4 pts)**

- Citations used to support statements
- Text double-spaced
- Pages and lines numbered
- Grammar, punctuation
- Proper order of sections and headings given
- Writing demonstrates understanding of material
- Flow of ideas logical (paragraphs transition well from one to the next)
- Page limitation adhered to