

## Proposal for Senior Honors Thesis

**HONS 497 Senior Honors Thesis** Credits 2 (2 minimum required)

Directions: Please return signed proposal to the Honors Office **at least one week prior to your scheduled meeting with the Honors Council**. This proposal must be accepted by Honors Council the semester before presentation.

Student's Name: Janelle An

Primary Advisor: Dr. Benjamin Navia

Secondary Advisor:

Thesis Title: Evaluation of Phonotactic Behavior in Male-exposed Female *Acheta Domesticus*

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Expected date of Graduation: May 2021

I. Provide goals and brief description of your project or research.

The goal of my research is to determine whether direct contact (mating) with male *Acheta domesticus* is required to elicit a decrease in the selectivity of young virgin female *A. domesticus* to male calling songs.

Phonotaxis can be defined as the movement of organisms in response to an auditory stimulus. As such, it plays an important role in helping organisms find a potential mate, and thus it is worthwhile to understand what factors may influence phonotaxis. Stout *et al.* (2010) first described phonotaxis in hundreds of virgin females as either selective or unselective depending on whether females were able to discriminate phonotactically between less than five or more than five synthetic calls which intended to mimic that of the males'.

Previous studies involving female cricket *A. domesticus* found that internal factors such as Juvenile Hormone III (JHIII) and external factors such as temperature influenced phonotactic behavior in these females (Atkins *et al.*





IV. Include a substantiv

females responded with higher levels of decrement to a wider range of calling songs than those of virgin (non-

\* Foundations of Biology I & II (BIOL 165 & 166) – Fall 2017/Spring 2018

**Department Chair Approval**

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A handwritten signature in black ink, written on a set of horizontal lines. The signature is cursive and appears to read "Robert J. ...".