

Presentations

Presenting author(s) are indicated with an asterisk (*).

2020

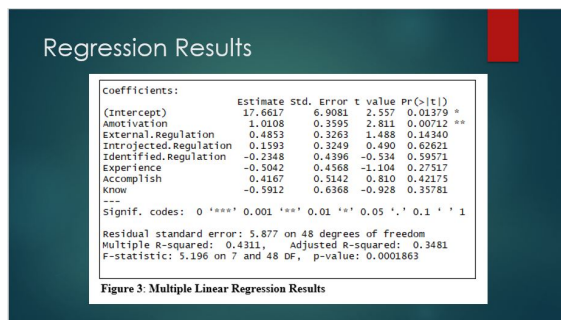
B. Gochanour*, S. Chen., L. Beebe. and D. Haziza. 2020. A Nonparametric Multiply Robust Multiple Imputation Method for Causal Inference. Joint Statistical Meetings (Contributed Poster Session). Virtual Conference.

A. Contina*, **B. Gochanour**, J.L. Alcantara, and M.B. Wunder. 2020. Stable Isotopes in Conservation Biology: Case Studies in Migratory Birds. The North American Congress for Conservation Biology (NACCB), Denver, Colorado.

B. Gochanour*, S. Chen., L. Beebe. and D. Haziza. 2020. A Nonparametric Multiply Robust Multiple Imputation Method for Causal Inference. Scheduled for poster presentation at the 2020 Graduate Research Education and Technology (GREAT) symposium, canceled due to COVID-19 pandemic.

2019

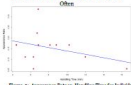
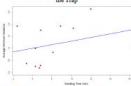


B. Gochanour*. 2019. Investigating Math Motivation and Math Anxiety in Undergraduate Students. University of Oklahoma, Research in Undergraduate Math Education Seminar. Norman, Oklahoma. Download Slides or Download Full Honors Thesis



2018

B. Gochanour*, L. Wiseman, A.M. Nguyen, P. Cimprich, M. Pandit, A. Contina, J.F. Kelly. 2018. The Effect of Handling Time on Boldness in Dark-eyed Juncos. First Year Research Experience Presentation Session. Norman, Oklahoma. Download Poster PDF



Motivation and Hypothesis	Results	Discussion
<p>The dark-eyed Junco (<i>L. hyemalis</i>) is a common species found across the U.S. and Canada.</p> <p>Several experiments have studied juncos' aggression (for example, see Hargrave et al., 2001). In these cases, the measure of boldness (i.e., willingness to engage in aggressive behavior) was typically measured by the number of times a bird attacked or was attacked.</p> <p>Experimenters assume that handling birds causes them stress, however the effect of this stress on their behavior has been less well documented.</p> <p>Hypotheses that an inverse relationship will exist between the length of time a juncos is handled and future juncos' boldness.</p>	<p>As anticipated, there is a negative linear relationship between handling time and responsiveness rate among juncos.</p> <p>However, the relationship is weak, and not statistically significant (p-values > 0.05) and is dependent on the sample size.</p> <p>Although juncos were originally banded, the aging study has no data points because capture juncos were never to be banded, and others didn't have handling time recorded.</p> <p>Juncos Handled Longer Are Not-Righted Late</p>  <p>Juncos Handled Longer Don't Approach as Close to the Trap</p> 	<p>Our results provide only weak, non-significant support for the hypothesis that handling time is inversely related with the boldness of dark-eyed juncos.</p> <p>For better results, a follow-up study could randomly assign juncos to two groups: one group would be handled and the other group would not be handled. This would allow for a more controlled experiment and thus it would allow for confidence in the results about causation.</p> <p>Results could be further improved if the different groups did more handling.</p> <p>Although juncos were banded, many couldn't be captured because they were too shy. This could be improved by using a different type of trap or by using a different type of bait.</p> <p>The effect of handling time on juncos' behavior is a complex one. It is not clear if the effect is due to the stress of handling or if it is due to the juncos' natural behavior. Further research is needed to clarify this relationship.</p> <p>When analyzing the data, we discovered a statistically significant relationship between handling time and responsiveness rate. However, this relationship is weak and not statistically significant. This may be due to the small sample size or to the way the data was analyzed.</p> 
Methods		
<p>Part I: Banding</p> <p>At this point, juncos were captured and banded. The juncos were captured using mist nets and were then banded at the Oklahoma Biological Survey (OBS) in the University of Oklahoma Research Campus.</p> <p>Each juncos was banded with a Radio Frequency Identification (RFID) band, a U.S. Geological Survey (USGS) band, and color bands.</p> <p>Age and sex were determined by the field, and blood was taken for genetic testing.</p> <p>The bird was then released.</p> <p>Juncos were banded on sites that were between 100 and 200 m from the trap. The birds banded at or near the trap were banded at the trap.</p> <p>Part II: Observational Trials</p> <p>At thirty minutes to one hour after the banding, the trap was placed in the same location as before, but now with the door left open.</p> <p>Observers used a spotting scope and a video recorder to record observations of juncos' behavior at the trap (Figure 6).</p>  <p>Figure 6: Observational Trial Setup</p>		