



Survey of Undergraduate Students in the Garden and Apiary at the University of North Carolina at Pembroke on Knowledge of Bees and Pollinator Conservation with Comparison to a Similar Survey by Louisiana State University, University of Kentucky, Ohio State University

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Abstract

Honey bee conservation has been a hot topic on a global scale, especially when discussing pollinators. Butterflies, moths, beetles, and other bee species are insects that help pollinate as well. Recent reports show declines in pollinators throughout North American and could have a huge impact on society (Smith et al. 2016). Governmental agencies such as the Obama Administration's National Strategy to Promote the Health of Honey Bees and Other Pollinators established in 2015, and non-profit support organizations, such as Xerces Society's "Bring Back the Pollinators" Campaign, offer aid and support in multiple ways to help combat declines in pollinators. As a result, 8 undergraduate students' knowledge of pollinators, pollinator conservation, and conservation practices, were assessed using a survey instrument and the bee/no bee quiz. These students were involved in the UNCP Campus Garden and Apiary program. The data was quantified in percentages and compared to other undergraduate students in other states involved in a similar pollinator conservation programs at their Universities. From the results, it is clear that involvement in a pollinator program can influence students' knowledge and beliefs about pollinators. It is recommended that more pollinator conservation programs and initiatives be implemented on University campuses in order to support pollinators and combat worldwide pollinator declines.

Images of Pollinators



<https://fillyourplate.org/blog/wp-content/uploads/2015/09/bigstock-A-Bee-covered-in-pollen-94951085.jpg>



<https://pulpbits.net/wp-content/uploads/2013/11/the-carpet-beetles-1024x1096.jpg>



http://mediad.publicbroadcasting.net/p/vpr/files/styles/x_large/public/201801/monarch-butterfly-istock-JillLang-20180202.png



https://www.sundaypost.com/wp-content/uploads/sites/13/2016/09/iStock_86838595_LARGE.jpg



https://www.norfolkmoths.co.uk/photos/active/20140.Peter_Tilley.1306447071.jpg



https://blogs.biomedcentral.com/on-bioology/wp-content/uploads/sites/5/2017/02/Common_green_bottle_fly_14912610521-Copy.jpg

Bee/No Bee Quiz



Eight students were asked to select which of the sixteen images above were bees (2,3,5, 13, 14, and 16 respectively) and which image was a honey-bee (5). All participants correctly identified image 3 as a bee. 87.5% correctly identified image 5 as a bee but only 50% correctly identified image 5 as the honeybee.

Knowledge of Honey Bee Survey to LSU, UK, OSU

UNCP 50%, LSU 55.7%, UK 45.7%, OSU 44.1%

Knowledge and Thoughts on Pollinator Conservation

1. Do you know what pollinator conservation is? 37% said yes.
2. Would you be in favor of having initiatives or programs for pollinator conservation at UNCP? 87% said yes compared to 95.8% total from LSU, UK, and OSU.

Implementations



<https://happilyhomegrown.com/wp-content/uploads/2016/02/3-Pollinator-Garden.jpg>



<https://i.pinimg.com/736x/af/73/2d/af732dcaeb89576590ab40fbcf996cd.jpg>

Programs

Pollinator Health Task Force, The Conservation Reserve Program, Pollinator Habitat Initiative

References

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- Campbell, K.U. and Hagevik, R. (2019). Breaking Down Barriers to Pollinator Conservation: Getting to Know the Bees. *Bravery- College of Arts and Sciences Digital Journal*.

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