

# Fostering Youth Engagement and Comprehension in Entomology and Wildlife Education



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#### Situation

The importance of conducting a bug and wildlife camp for youth lies in its potential to inspire and educate the next generation. Engaging young students through university-based outreach activities, particularly entomology day camps, provides invaluable opportunities for them to interact with nature and develop an interest in environmental education and entomology. These programs extend beyond academic learning, aiding in the development of crucial life skills and fostering social bonds among participants, which can ease their transition to higher-grade levels and potentially lead them towards careers in science, such as entomology or horticulture.

## **Objectives**

Ensure that at least 90% of youth participating in the Wildlife & Invasive Species Education™ (WISE) Kids program significantly enhance their knowledge in a minimum of three specific areas of entomology. This will be assessed through a practical onsite evaluation method, which includes interactive activities and raising of hands to measure understanding and engagement. The hands-on activities will be designed to provide practical experience and reinforce learning, ensuring that participants can apply their knowledge effectively. The goal is to foster a deep understanding and appreciation of entomology, equipping youth with the skills and knowledge necessary for further exploration in the field.







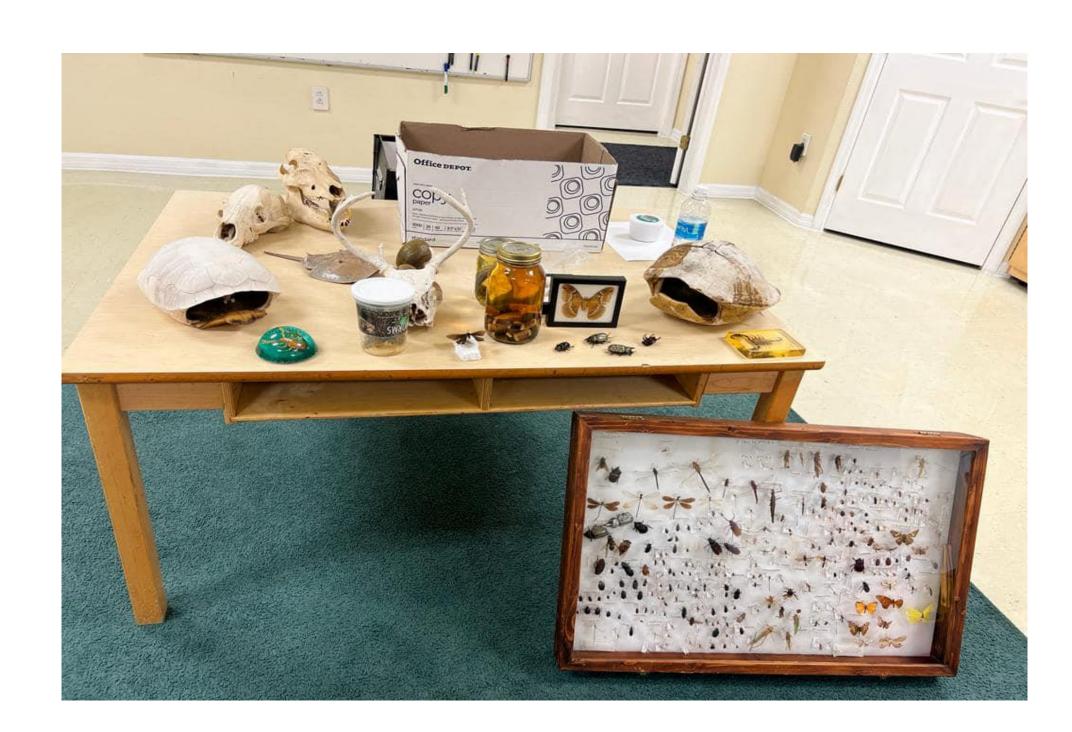




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### Methods

WISE Kids conducted a diverse array of outreach activities across various venues, including daycare centers and day camps. Through interactive sessions, participants delved into urban entomology, insect sampling techniques, disease-carrying arthropods, external anatomy, and native wildlife education. A cohort of 27 youth participants from one class underwent a thorough evaluation across three distinct events, incorporating engaging hands-on activities. Live and preserved native insects and arthropods were used to provide an immersive learning experience. Additionally, preserved specimens of invasive species such as the walking catfish (*Clarias batrachus*) and Cane Toad (*Rhinella marina*) were utilized to highlight the importance of understanding and managing invasive species. This comprehensive approach ensured a well-rounded educational experience, emphasizing the critical role of entomology and wildlife education.



#### Results

The results demonstrate a remarkable achievement, with 100% of the 27 youth participants exhibiting exceptional proficiency in three fundamental domains of entomology and wildlife education. All participants successfully identified bedbugs using a hands-on identification practical with a miniature bed and strategically placed bedbugs. They correctly differentiated between herbivores, carnivores, and omnivores through practical exercises using different animal skulls. Additionally, every participant accurately identified the three main body parts of an insect and distinguished insects from arachnids, as measured by a post-oral examination. These findings highlight the participants' skill in identifying urban pests, differentiating various dietary categories among animals, and recognizing key anatomical features of insects.