

University of Florida Entomology and Nematology Department's Education and Outreach Program: Bringing Children and Insects Together



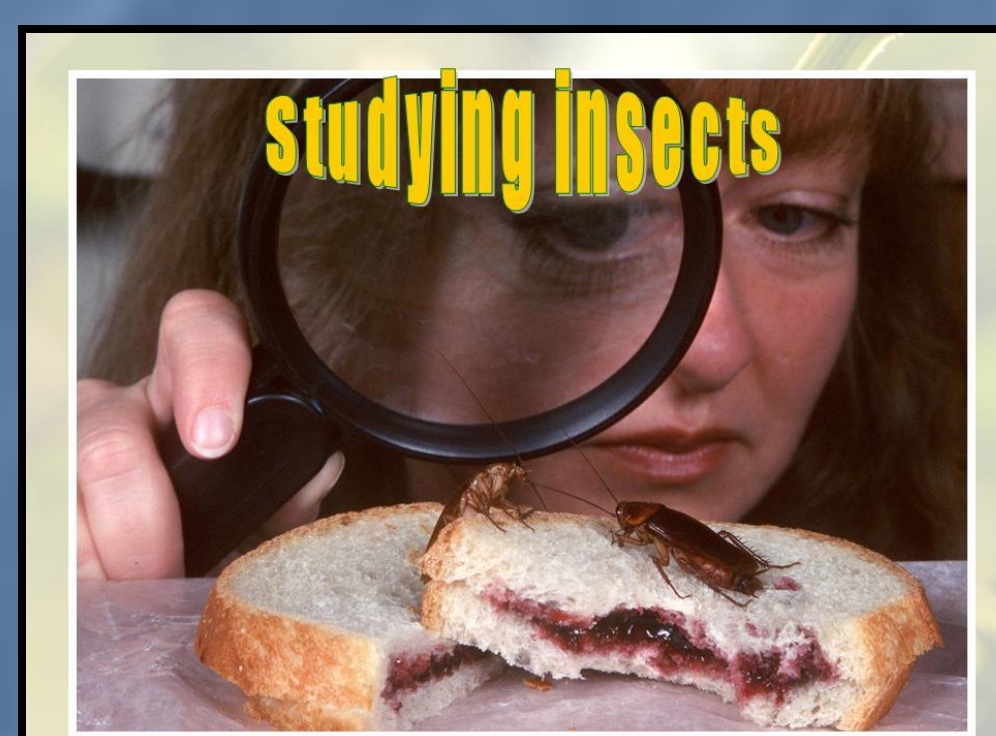
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Introduction

The outreach program at the University of Florida Entomology and Nematology department was created with the goal of making general entomology more accessible to children and adults of the community. Originally focused on elementary education, the outreach program has now broadened its educational boundaries to accommodate 4-H events, state wide fairs, boy and girl scout events and corporate safety seminars. Over just the past two years, the University of Florida Outreach Program has had the privilege of educating over 3,000 adults and children, administering more than 20 guided department tours, and has conducted over 60 educational presentations statewide.

Through continuous years of success, the outreach program's demand has finally begun to exceed its availability. In response, anew educational package has been developed that better facilitates the increasing demand in this area. This new outreach package consists of four main sections, each focusing on a different aspect of general entomology based education. The first section, The Presentation, consists of a 30-slide PowerPoint presentation along with an accompanying detailed six page script which offers a detailed explanation of each slide. The second section, Live Insect Rearing, is a 13 page EDIS publication outlining the capture and care of several different native Florida insects ideal for use in classroom settings. The third section of the package, Antlions!, is a tri-fold instructional take-home pamphlet, describing, step-by-step, how children can capture and care for antlion's at home. The fourth and final section of the package is the References section. This EDIS publication offers several outside resources for children and adults to learn more about topics surrounding entomology, including contacts for their local extension departments (<http://edis.ifas.ufl.edu/publications.html>).

Presentation



Introduction
This document is a general overview of insects, their importance, and their role in the ecosystem. It is designed as an educational tool for children and adults alike. It is intended to be used as a resource for teachers, parents, and other interested parties. It is not intended to be a substitute for professional entomological advice.

Body Parts
The body of an insect is divided into three main parts: the head, the thorax, and the abdomen. The head is the front part of the body and contains the brain, eyes, and mouthparts. The thorax is the middle part of the body and contains the heart, lungs, and legs. The abdomen is the back part of the body and contains the digestive system and reproductive organs.

The presentation consists of a 30-slide PowerPoint presentation as well as an accompanying six page script. The PowerPoint slideshow can be altered to fit any time frame, and can be easily modified to fulfill the educational requirements of multiple age groups ranging from preschool through high school classes. The accompanying script is designed to allow anyone, regardless of entomological background, the opportunity to give a fulfilling presentation on the topic of general entomology. This script gives a detailed walk-through of each slide, including suggestions of fun facts and trivia questions to supplement existing educational materials.

Live Insect Rearing!

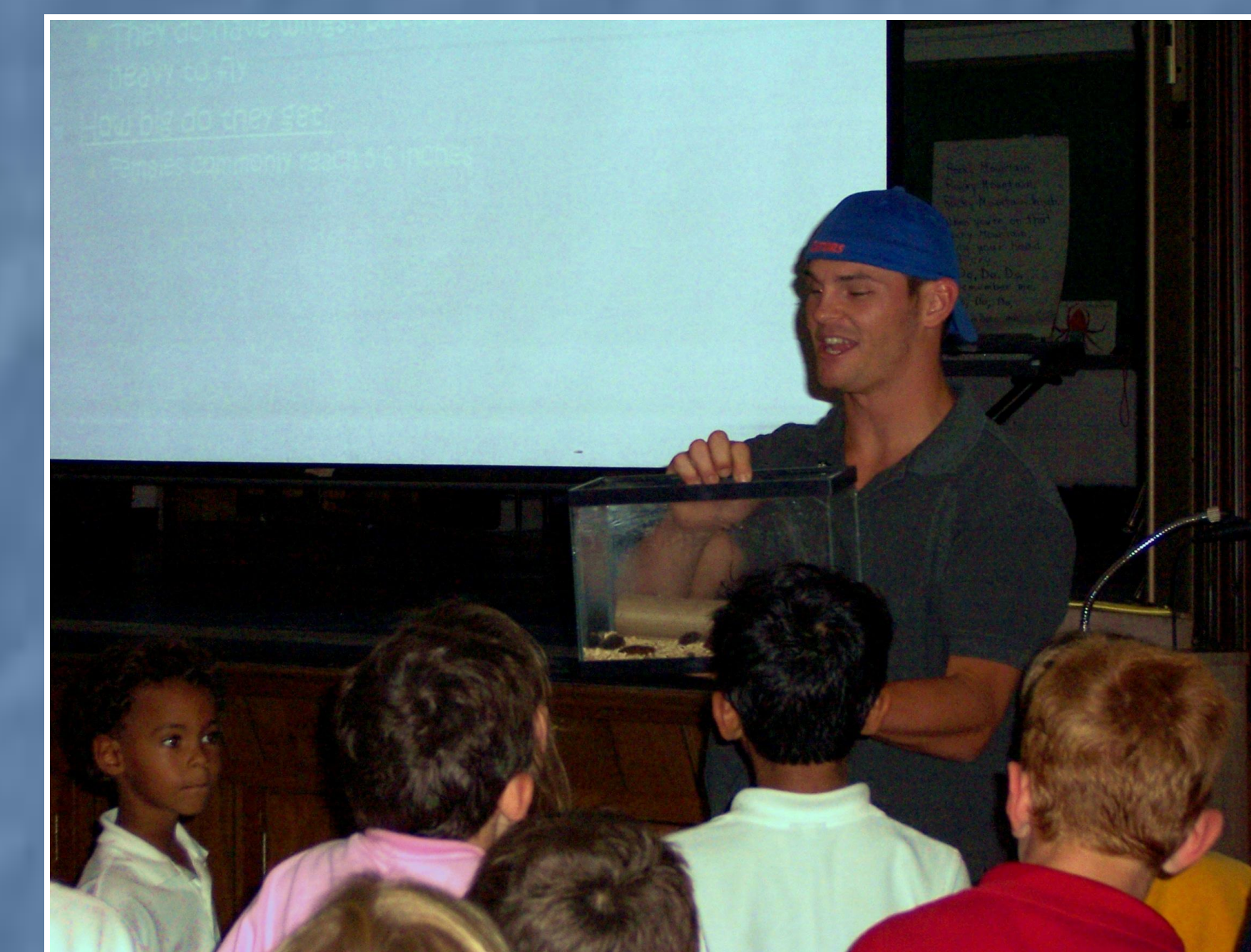
Guide to Collecting and Maintaining Live Arthropods for Classroom Display in Florida

Introduction
This guide is intended to provide information and techniques to assist in the collection and maintenance of live arthropods for classroom display. It is designed to be used as a resource for teachers, parents, and other interested parties. It is not intended to be a substitute for professional entomological advice.

Legal Considerations: Non-native arthropods
It is important to be aware of the legal restrictions on the collection and maintenance of non-native arthropods. In Florida, it is illegal to collect or maintain any non-native arthropod without a permit from the Florida Department of Agriculture and Consumer Services. This permit is only issued to those who are registered as pest control operators or who are members of the Florida Entomological Society.

General Care
Proper care of live arthropods is essential to their survival. This includes providing them with a suitable habitat, food, and water. It is also important to handle them carefully to avoid injury to both the insect and the handler.

Food and water
Arthropods have different dietary requirements. Some are herbivores, some are carnivores, and some are omnivores. It is important to provide them with the appropriate food and water for their species.



The live insect rearing publication is designed to provide presenters the opportunity to enrich their educational presentations with the addition of live insects as visual aids. This guide gives full descriptions of habitat preference, identification, capture techniques and care tips for several different insects native to Florida.

Antlions!



Oh, Antlion, Where Are You?
Antlions are easy to find in Florida. Look for the traps they make in the sand. The best places to look are in sandy soil under structures such as roof overhangs or around foundations.

The Capture
The best way to catch an antlion is to scoop up the whole pit-trap area, then, blow out the sand with a blower.

A Good Home
Keep your antlion in a container half filled with sand. Good containers include plastic or paper cups, waffle cones, inverted cups, or bowls. Make sure that the diameter across the container at the level of the sand is at least 4 inches. It is too small, the antlion will not be able to make a good trap. Also, antlions don't need any extra water because they get all the water from their prey.

Food
Antlions should be fed about every 2 days, but don't worry if you miss a feeding. They like to eat ants (of course), termites, and other small insects.

Experiments You Can Do
If you ever have questions about your antlion, try to do some tests and get the answer directly from the antlion. For example, what kinds of food does the antlion eat? Try feeding it different things to discover what it will or will not eat. Here's a list of some other questions you can ask the antlion:

How is the pit-trap constructed? Is it strong?
Will the antlion make a home in anything other than sand? Flour? Sugar?
What does the antlion look like? The adult?
Can you think of anything else?

Use a container like this to keep your antlion.



The antlion tri-fold EDIS publication was designed to give individuals an easy, inexpensive opportunity to rear their own insects at home. Antlions are easy to locate, durable and hearty eaters that make excellent learning tools. These insects provide the visual stimulation and education that all ages can enjoy while learning about the amazing lifecycle of holometabolistic insects.

Resources

The resources section is meant to offer additional sources of information for children and adults to learn more or to answer questions about topics surrounding entomology. The list of resources includes eight literature sources, eleven educational websites and one movie title. Information found within these resources includes general entomology facts and trivia, safety information and regulations concerning several dangerous insects, and contact information for local extension offices and entomological organizations.