

Management of Terrestrial Arthropod Exhibits
Terrestrial Invertebrate Taxon Advisory Group
Leslie Saul, Program Committee Co-Chair and
TITAG Steering Committee Member
May 19, 1996 • 8:00-4:00

8:00-8:10AM Welcome to the Butterfly Pavilion & Insect Center:
Michael Weissmann

8:10-8:20 Why a training workshop: Leslie Saul-Gershenz
Goals of Invertebrate Exhibits, Responsibilities & Diversity of solutions
Introduction of nonindigenous arthropods into the United States

Governmental Regulations and Guidelines for Live Arthropod Exhibits

8:20-9:00 Fish & Wildlife Service, Terry Gross, Regional Director
1. Significant points of the Lacey Act that impact the importation of terrestrial invertebrates
2. Importation documents: Form 3177-B, Country of Origin permits
3. CITES I & II
4. Transfer of Cites I & II specimens both within and outside the U. S
5. Shipping protocol
Question & Answer

9:00-9:05 State & other Local Regulations
Department of Public Health-regulations regarding the keeping of venomous animals

9:00-10:30 USDA Permits, Regulations & Guidelines
Bob Flanders, Deborah Knott, Dr. Bhisham Singh
1. Federal Plant Pest Act
2. New Permit applications: What should information should be included to ensure smooth processing
New Format-Separation of U. S. species and Exotic Species
Attachments
Reference/Bibliography list
Blueprints
3. New Facilities being planned: what steps should they take to ensure facility meets current USDA requirements
4. Reporting requirements
5. Interstate movement between facilities that hold current permits
6. Goal and Content of Standard Operation Procedures & Emergency Procedures
7. Basic containment guideline
8. Inspection procedures-Certification process
9. Role of the State agencies, local USDA representatives

10:30-10:45 Break

10:45-12:45 Butterflies: Husbandry, Handling & Exhibitory
Frank Elia, Nancy Greig, Michael Weissman
1. Minimal containment design
2. Feeding: Natural Nectar & artificial feeding
3. Diseases & parasites, including identification and control
4. Suppliers & shipping
5. Top 20 display butterflies
6. Chrysalis identification & handling
7. Methods for hanging chrysalids & Chrysalis emergence
8. Biological Control of conservatory pests

9. Record Keeping

12:45-1:45 **Box Lunch by Options Catering/Free time in the Butterfly Pavilion and Insect Center**

1:45-3:45 **Terrestrial Arthropods: Husbandry, Handling & Exhibitory**
Leslie Saul, Nate Erwin, Ray Mendez

GOALS- SPECIES SELECTION CRITERIA – Leslie Saul

1. Choosing species that convey your facilities' educational message
2. Choosing species that can be contained & maintained safely and responsibly
 - Educational message
 - Containment considerations: mobility, life history, size, etc.
 - Taxonomic relationships and history of species relative to agriculture
 - Personnel and facility resources-time, food, exhibit design, staff safety, public safety--venomous species (i.e. Centruoides)
 - Sustainability -Long lived, seasonal, breedable, genetic vulnerability
 - Well being of species, & specimens
 - Conservation considerations: impact of wild populations, education potential relative to conservation goals
 - Availability and source considerations

GOALS- SHIPPING & PACKAGING GUIDELINES- Leslie Saul

1. to ensure the animals arrives alive
2. to ensure the animals arrive healthy and are not stressed during the shipping process
3. to ensure the animals are securely inside the container during the entire shipment process until they have arrived inside the containment facility
 - Types of holding containers for use within the shipping box
 - flexible plastic (clear vs. translucent or opaque)
 - Lid type (screw cap lids vs. snap-on lids)
 - Security tape
 - Insulation (cooling or heat protection) battery operated
 - Boxes-Styrofoam, cardboard, double boxing
 - Labeling

4. Record Keeping

GOALS **Husbandry and Handling techniques- Leslie Saul**

1. Handling :How to catch a tiger beetle by the tail
 - CO2, Ether, Sleeve Cages, Sticky traps, UV light traps, nets
2. Pathogens, parasites and their control, Incinerators, autoclaves, and other forms of sterilization, hypochlorate
3. To Breed or not to breed-, Maintaining humidity and temperature, Environmental chambers

Ants, Ray Mendez
Aquatics: Leslie
Arachnids-Nate

Exhibitory techniques
Security
Visibility
Aesthetics

3:45-3:50 **Wrap up**
3:50-4:00 **Evaluation**
4:00-5:00 **Wine & Cheese**