

## 2023 IBBA Butterfly Professionals Convention

### Presentations and Presenters

#### **Presentations:**

##### **Lab Rearing and Production Systems**-Jachus Sundby

Jachus will discuss creating specific lab environments, choosing the right rearing equipment for each species, and implementing the best standard operating procedures to make lab rearing the most efficient and predictable.

Jachus is a lepidoptera researcher, butterfly breeder, owner of Designed for Discovery, and current president of the IBBA.

##### **Larval Host Plant-Crowdsourcing Wisdom**-Ryan Malone

A plant-centered discussion regarding the various common and uncommon larval host plants and their unique uses and benefits in garden design and commercial rearing. In this discussion, we will crowdsource information about host plant species and growing methods we have trialed, with both failure and success. For example, some unique larval hosts do well in the botanical garden setting, but do not have the qualities needed for commercial rearing. Certain species may better withstand environmental stressors (pest pressure, drought, indoor grow room conditions, etc) better than others. Explore which plant species do better than others. Which plant species do better in pots, and which do better then cut? Come ready to share, discuss, and absorb botanical wisdom developed through years of experimentation.

Ryan is the owner of The Hatchery Butterfly Farm and is Vice President of the IBBA.

##### **The Three Ps of Rearing Painted ladies (*Vanessa cardui*): PPE, Protocol, and Prevention**-Corrienne Brons, Aura Torres-Magana, Gloria Swanson

Join us at our Canadian caterpillar lab for a virtual tour of our indoor rearing facility. We'll demonstrate a variety of practical sanitation and husbandry techniques you can use to improve the health and safety of your livestock, and prevent introduction or spread of pathogens. A live Q&A with our team will follow.

**Corrienne Brons** – General Operations Director, Corrienne grew up in the butterfly field and has dedicated 8 years to the development of a year-round, self-sustainable indoor breeding and research facility for *Vanessa cardui*, as well as developing programs and content for wildlife conservation and education.

**Aura Torres-Magana** – our Acting Lab Manager and sanitation specialist, Aura has 2 years of cumulative experience in the caterpillar lab and holds a degree in Laboratory Research and Biotechnology with an emphasis on techniques and practical application of molecular and microbiology, biochemistry, and immunology.

**Gloria Swanson** – with a driving devotion to childhood education and a passion for misunderstood wildlife, Gloria founded Butterfly Wings N' Wishes in 2000 and is a long term member and former president of the IBBA. Though semi-retired now, Gloria will be in attendance at conference for follow up questions and comments.

##### **Special Guest Rick Mickula**

##### **From Pre-K to Prison-What a Long Strange Trip It's Been**

After 43 years in the butterfly biz, Rick sure has his share of stories to tell. He was a founding member of the IBBA and has written several books and has countless TV and radio shows to his credit. From pre-k to prisons, he seems to have done it all. Known for his quirky sense of humor, Rick will share some of his butterfly tales that will surely make you laugh, cry, and become part of you. One thing is for sure, you never know what he will say next!

### **Special Guest Monarch Butterfly Scientist Dr. Orley “Chip” Taylor**

Chip Taylor will join us virtually and will speak on the following topics with plenty of time for discussion, questions and answers:

- 1) The pending listing for monarch butterflies**
- 2) Monarch biology and demography**
- 3) Lepidoptera reproductive biology**

Dr Taylor is founder and (retired) director of Monarch Watch [www.monarchwatch.org](http://www.monarchwatch.org) , Emeritus Professor-Ecology and Evolutionary Biology University of Kansas. Trained as an insect ecologist, Chip Taylor has published papers on species assemblages, hybridization, reproductive biology, population dynamics and plant demographics and pollination. In 1992, Dr. Taylor founded Monarch Watch, an outreach program focused on education, research and conservation of monarch butterflies.

### **Butterfly Diseases-Dr.Roberto M. Pereira**

During the lecture, Dr Pereira will shed light on a diverse range of diseases that afflict butterflies. For butterfly farmers, the health and well-being the butterflies are of utmost importance. The lecture will also explore the crucial role of environmental factors in butterfly health, emphasizing the significance of maintaining a healthy habitat for optimal farming success. Learn about the interplay between butterfly diseases and farming practices, and discover sustainable approaches to prevent disease outbreaks and promote a thriving butterfly population.

Dr. Pereira specializes in urban entomology, conducting research and extension on different aspects of the biology and control of insects that live in and around humans. He is also focused on insect pathology and microbial control.

### **Update from the USDA-Dr. Ben Slager**

Update from the USDA. Dr. Slager will discuss updates hold a question and answer session related to regulations, requirements, transporting, and permitting of the butterfly industry.

Dr. Slager is Senior Entomologist USDA Plant Pests, Plant Pathogens, and Biocontrol Permits  
Plant Protection and Quarantine  
Animal and Plant Health Inspection Service  
United States Department of Agriculture

### **Finding Gravid Females in the Wild-Todd Stout**

This presentation will cover raising butterflies by locating females in the wild and setting them up to lay in captivity. Since males tend to be far more overt in nature as they seek females in the wild, this presentation will cover how to separate males from females on wing both by wing markings and by

behavior. Techniques on setting up females to lay eggs differ by species group and preparation; which will also be covered in detail.

Todd is owner of Raising Butterflies. He has over 30 years' experience studying and raising butterflies. He is a University of Florida Research Associate and described a new subspecies of the Julia orangetip in Western Colorado. He is senior author of a paper (in preparation) of worldwide Anthocharis. He provides butterfly education and field trips through Utah Butterfly Field Trips on Facebook.

#### **Ratty Genes are not a Fashion Statement**-Connie Hodsdon

Keeping a genetically viable colony is essential to the long-term viability of the farm itself. This presentation will cover methods for keeping a thriving butterfly colony. A broad genetic base helps a butterfly farm maintain healthy populations.

Connie is owner of Flutterby Gardens of Manatee, is the Executive Director of the IBBA, and is known for her highly successful methods for raising healthy monarch butterflies at her commercial butterfly farm.

#### **WingsRising, Inc.**-Patrick Adair

The formation and current development of a 501(c)(3) non-profit public charity to advance projects in science, education, restoration, and permanent preservation of pollinator habitats and populations; and the establishment of an endowment fund to provide longevity and stability for these efforts.

#### **Monarchs and the "E" Word: What's the Latest?**-Steve McCurdy

A brief look at the history of the monarch's US Fish and Wildlife listing petition and its status; also just who is IUCN? We'll try to sort some of this out.

Steve is designated by Monarch Watch as a Conservation Specialist and is an active member and volunteer of the Butterfly Society of Virginia

### **Round Table Topics and Leaders:**

#### **Exhibit Enhancements**-Lauren Tafoya

Let's talk about what makes the experience of visiting a butterfly exhibit more than just an encounter with butterflies. What signage and displays can teach, how docent interpretation and use of host and nectar plants add to the learning experience. Please feel free to bring samples of signage you use and pictures of your exhibit to share your ideas with the group. We would love to see how you present and hope you will leave with a few new ideas.

Lauren has managed the Virginia Native Butterfly House since 2010 which has over 150,000 visitors each season, is the Chairperson for the annual Butterfly Festival, and conducts the annual Monarch Tagging event at the Norfolk Botanical Gardens. She currently serves on the IBBA Board of Directors.

#### **Monarch Butterfly Nursery: Taking Care of the Babies**-Connie Hodsdon

Raising caterpillars properly involves maintaining a clean and healthy environment which helps prevent the spread of diseases among caterpillars and adult butterflies and reduces the risk of potential disease outbreaks. This discussion will cover successful rearing practices of the early life stages from egg to caterpillar. Connie will discuss her egg roll and egg wash procedures and will also show her set up for

raising healthy caterpillars that uses clean procedures, prevents overcrowding, and provides fresh, healthy food in order to raise big, healthy butterflies.

Connie is owner of Flutterby Gardens of Manatee, is the Executive Director of the IBBA, and is known for her highly successful methods for raising healthy monarch butterflies at her commercial butterfly farm.

### **Shipping All Butterfly Life Stages**-Roberta Vigil

Delivering butterflies in good condition is a matter of ethical responsibility but is also important for customer satisfaction and is crucial for a business's reputation, cost-efficiency, and long-term success. The proper packaging and handling of butterflies for shipping demonstrates a commitment to the responsible treatment of the butterflies. Making sure they arrive in good condition and alive is essential for quality and customer service, which is important for thriving in today's competitive market. Roberta is owner of A Butterfly Tale and is currently serves on the IBBA Board of Directors.

### **Lab Rearing**-Jachus Sundby

Follow up after Jachus's presentation for a more in-depth discussion and Q&A session.

### **Host Plants**-Ryan Malone

Follow up after Ryan's presentation, Larval Host Plant-Crowdsourcing Wisdom, for a more in-depth discussion and Q&A session.

### **Open Forum/Group Discussion:**

#### **Show and Tell; Show Us What You Do**-Group

Join us as we meet some butterfly industry members and take a quick tour of their facilities/businesses. We will feature *Show and Tell* on Meet and Greet night.

#### **What NOT to Do**-Group

Welcome to our lively and insightful open discussion on the fascinating world of butterfly farming! In this exchange, we'll be exploring what *not* to do while operating a butterfly farm. What are some mistakes you made along the way? Have you found a better way? Is there a shortcut you have found? Any disasters you could help someone else avoid? As we embark on this journey, let's maintain an inquisitive and sharing spirit, encouraging everyone to share their experiences and knowledge so we can all learn from each other's mistakes.

#### **Oe-Signs, Symptoms, and Identification**-Discovery Table

Oe (*Ophryocystis elektroscirrha*) is a protozoan parasite that infects monarch butterflies, causing wing and body deformities, reduced lifespan, and decreased reproductive success. If left unmanaged, it can spread rapidly within a butterfly operation and lead to significant losses in a commercial farm. To address Oe infections, commercial butterfly farms should implement regular monitoring and screening programs for signs of the disease. Learn signs and symptoms of Oe and how to use a microscope to test monarchs for Oe.

## **Other:**

**Seed Swap**-Bring your excess seeds for trade with others. Be sure to seal them and label them.

## **Butterfly Farm Tours**

We will visit two working butterfly farms. Gain valuable insights into the art of farming butterflies. See how the farms are organized for the various stages of the life cycle; breeding, laying eggs, collecting and transferring eggs, caterpillar stages, pupae and adult. Check out standard operating procedures essential for successful butterfly farming including maintaining cleanliness, feeding protocols, monitoring caterpillar health, and sanitizing enclosures to ensure healthy butterflies. See how environments are controlled for optimal output. Also see best practices for sanitation and pest management. And finally, shipping procedures for the end product to the customer.

There are various methods of plant growing and propagation to see including shade houses, hydroponics, aquaponics, in-ground, and using pots. See how the farms grow and manage the large quantities of plant material needed for raising butterflies commercially.

In addition, there are examples for generating additional income. Opportunities such as guided tours, educational programs, plant sales, exhibits, etc.

Overall, the farm tours are the best way to see the daily routines of butterfly farming. Touring the farms with others in the business also opens up valuable opportunities for networking with others, discussions, and learning from other attendees. Join us for an enriching experience and take home ideas to implement in your journey into the world of butterfly farming.