MISSOULA
BUTTERFLY HOUSE & INSECTARIUM
NEWS

SUMMER 2025

INSIDE

Our Mission

The Missoula Butterfly House and Insectarium inspires an appreciation and understanding of insects and their relatives.

Visit us!
1075 South Ave. W., Suite 2,
Missoula, MT 59801
missoulabutterflyhouse.org/visit-us

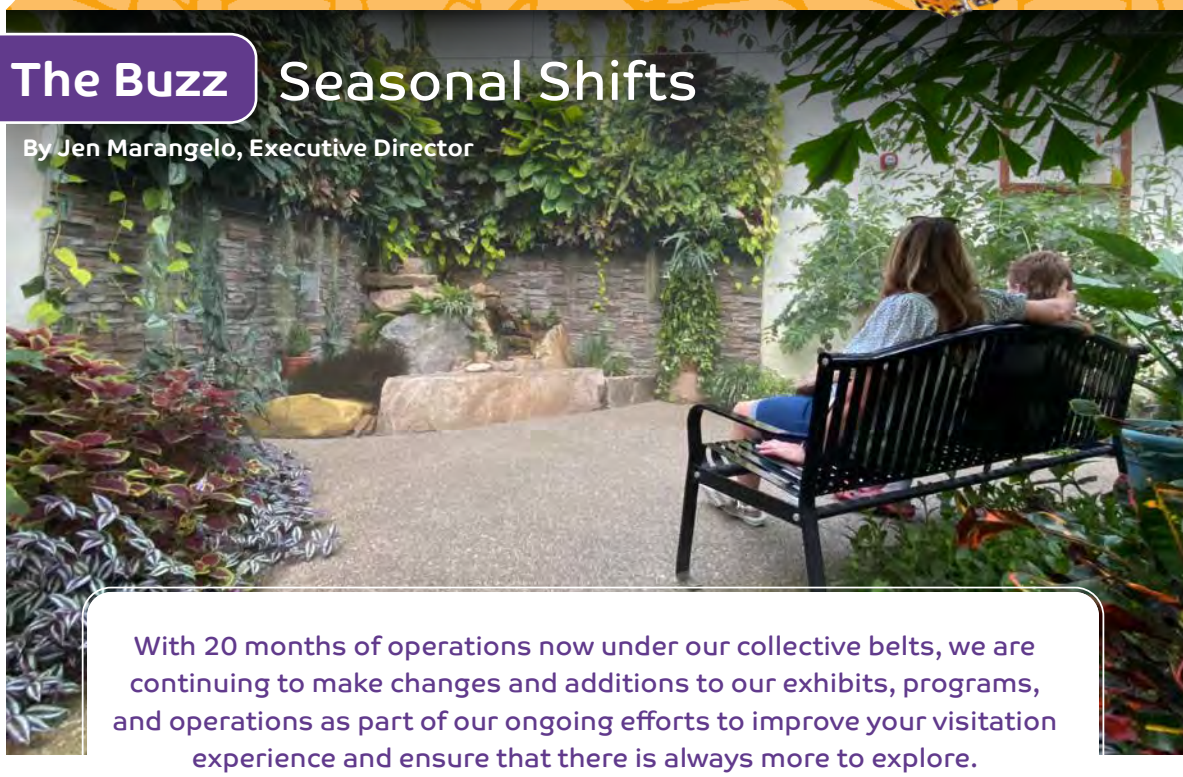
Scan the QR code to learn more!

Hours
Tuesday-Saturday: 10AM-5PM
Sunday: Noon to 4PM
Monday: CLOSED

The Buzz

Seasonal Shifts

By Jen Marangelo, Executive Director



With 20 months of operations now under our collective belts, we are continuing to make changes and additions to our exhibits, programs, and operations as part of our ongoing efforts to improve your visitation experience and ensure that there is always more to explore.

Since we're open year-round and have gone through (or are about to go through) our second round of seasonal changes, the many transitions we experience when spring gives way to summer are now underway.

After wrapping up the busy school field trip season, we had just enough time to take a few deep breaths before welcoming the first of our nine week-long summer day camps. Combined with a surge in self-guided field trips from other summer camp programs throughout Missoula, we're in the middle of a busy summer.

> "...we've been thrilled to see so many new and bug-enthused faces."

But that's not the only change the end of the school year ushered in. The increase in out of town visitors became noticeable right after schools let out for the summer. Whether it's members bringing visiting friends and family to the Butterfly House or tourists enjoying all that Missoula has to offer, we've been thrilled to see so many new and bug-enthused faces.

But as we all know, summer seems to pass in the blink of an eye, giving way to the shorter, cooler days of autumn and bringing forth another of our noticeable seasonal shifts.

As we experienced when we ran the Missoula Insectarium from 2015 to 2019 – with teachers not quite ready to bring their classes on field trips, the peak tourism season slowing down, and fellow Montanans in a state of denial that summer is really over – mid-September and October are our quietest months. That's why we've decided to close to public visitation from 9/22 to 9/26 to take care of some touch-up painting, deep cleaning, and a host of other to dos.

But until then, be sure to squeeze all you can out of our summer. And I hope that includes a visit or two to the Missoula Butterfly House and Insectarium.

Have a wonderful rest of the summer!

FLYING TEDDY BEARS

Since opening our doors, we've had a number of new exhibit ideas on the back burner. However, in late May, we were thrilled to see one come to fruition. Introducing our Bumblebee Exhibit!

After consulting with our Executive Director, staff members Dr. Scott Debnam and Hallee Olsen worked together to design this new and unique exhibit. Since bumblebees typically nest underground, the exhibit was designed with an "underground chamber" where the colony resides. The upper portion of the exhibit (where their source of nectar is located) is accessed by a tube that you can watch the bees navigate as they go back and forth from home to their food.

> **"Aside from being the cute "flying teddy bears" of the bee world, they are important and efficient pollinators."**

With the plans for this new exhibit finalized, Scott and Hallee enlisted the skills of Merrill Bradshaw (a "retired" furniture maker). Having made our observation honeybee hive exhibit in the past, Merrill was excited to be part of the team bringing this new exhibit to life. And while we're still finalizing the interpretive information for installation, the new exhibit has already been a hit with visitors.

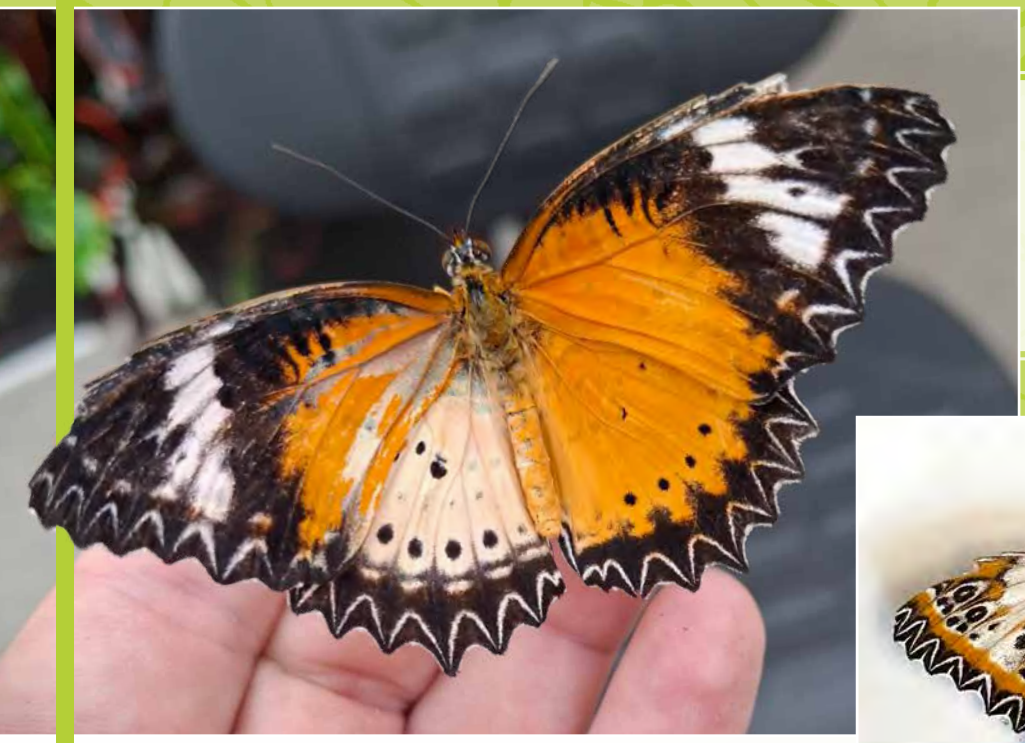
We're grateful to be partnering with Koppert Biological Systems, who've agreed to donate all of our bumblebee colonies (the Common Eastern Bumble Bee, *Bombus impatiens*) for the exhibit. Yes, that's colonies with an "s" because we'll need to install a new colony 4 or 5 times each year. Differing from honeybees, where the queen and colony can live for several years, bumblebee colonies are annual, meaning that they live for only one season. After successfully overwintering, a single queen starts her colony from scratch, slowly increasing her swarm of workers in a few weeks. As the colony approaches the end of the season, the focus turns to the production of new, potential queens and males. Only fertilized, new queens will survive the winter to start their own colonies next season.

Why bumblebees? Aside from being the cute "flying teddy bears" of the bee world, they are important and efficient pollinators. The colonies we receive are primarily being raised to go to work in pollinating crops grown in commercial greenhouses. So the next time you take a bite of an early season strawberry, tomato, pepper, or melon that's grown in the United States, you can likely thank a hard-working bumblebee.

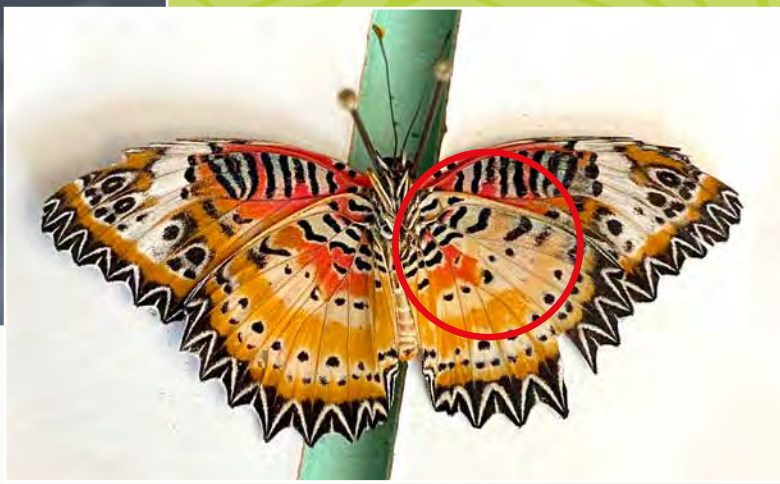
Top: Scott and Hallee show off the fruits of their collaborative designing efforts.

Bottom: Bumblebee colonies are much smaller than honeybee colonies (only a few hundred bees at max). Instead of producing and storing honey for the future, bumblebees only create enough food to meet the colony's immediate needs.

OUR CELEBRITY:
A ONE IN 100,000 BUTTERFLY!



The bottom two photos show the topside coloration and patterning of a typical male **(bottom left)** and female **(bottom right)** Leopard Lacewing. The top two photos showcase both the topside and underside of our celebrity butterfly!



Every week, all year long, we release 250+ butterflies into our tropical greenhouse. And while we have a number of species that are almost always flying in the Butterfly House, we often get some unique species in our weekly shipments. You never know what mix of butterflies you'll encounter when you visit.

But in mid-June, we had an incredibly unusual butterfly emerge. An individual you only have a one in 100,000 opportunity to see!

No. It was not a rare species. It was a mosaic gynandromorph.

Gynandromorphism is when an individual organism has body tissues that present both male and female characteristics. This results from an error in cell division (mitosis) where the sex chromosomes don't separate properly. In some insects, it results in bilateral gynandromorphism, where there is a neat division down the middle of an animal – one half displaying female traits and the other half appearing male.

> "Since opening our doors, we've released about 24,000 butterflies and this is the first time we've seen this."

As you can see in the photos, in mosaic gynandromorphism (which is more common in butterflies and moths), the individual displays a mix of both male and female characteristics, but as more of a patchwork of features rather than a 50/50 division.

In our case, our mosaic gynandromorph butterfly was a Leopard Lacewing (*Cethosia cyane*). The dorsal (top) side of the wings of males is bright orange with a row of small back dots on the hindwing. Females have a similar overall pattern but are pale-orange in color with much larger black spots in the hindwings.

Notice the left hindwing of our celebrity butterfly. Two thirds of the dorsal side of the wings has the appearance of a male with the other one third clearly showing female coloration and patterning. While the differences between male and female on the underside of the wings is not as pronounced, you can still notice a difference as females have less red coloration in their hindwings.

Since opening our doors, we've released about 24,000 butterflies and this is the first time we've seen this. We've beaten the one in 100,000 odds. Perhaps it's time to buy a lottery ticket!

California Tortoiseshell Irruption!

Over the past weeks we've received numerous calls, emails, and messages from individuals reporting LOTS of California Tortoiseshells *(Nymphalis californica)*. Our first caller works with Montana Fish Wildlife & Parks and reported seeing "hundreds of thousands of butterflies moving toward the east" in the Mission Mountains above Polson. While we're not seeing anything unusual here in Missoula, we've also received reports of massive numbers of butterflies from Libby, Thompson Falls, and Seeley Lake.

We're in the midst of a California Tortoiseshell "irruption," a spectacle that happens when a number of environmental conditions that impact their lifecycle peak at the same time. These conditions have probably built up over the past year or two, culminating in a "perfect storm" of the right amount of rain, favorable temperatures, abundant hosts plants for their caterpillars (species of *Ceanothus*), etc. Irruptions can happen in consecutive years, but the availability of their host plants will eventually crash, causing their numbers to plummet.

These amazing butterflies overwinter in the adult stage and are among the first butterflies we see flying in late winter. In Montana, their migration is regional ...emerging at lower elevations and moving to higher elevations where they find locations to rest in the cooler temperatures. In late summer, they return to lower elevations to overwinter under loose bark, in tree hollows, under leaf litter, etc.

Photo by Sarah Bates

We're So Cool!

Thanks to consistent exposure to the sun, the temperatures in the tropical regions of the world generally range from the upper 70s to low 80s throughout the year. That's hot for us Montanans in the winter, but surprisingly much cooler than our dog days of summer.

If you visited the Butterfly House last summer, you already know that our original climate control system fell short in handling the heat. But thanks to the installation of a rooftop air conditioning system last October, this summer is a completely different story. We're now able to maintain the Butterfly House at a temperature that is more comfortable for our butterflies as well as our visitors!

So while it might not be the place you initially think of to try and beat the summer heat, stop by to experience the beauty of our butterflies and plants in the relative cool of the Butterfly House's tropical environment.

Celebrate in a Place That Feels Magical

Wanting to share the magic of the Butterfly House with friends, family, or colleagues? Looking for a unique, intimate setting to hold a small wedding? Or are you looking for a lush, green location (available year-round) for portrait photos, wedding photos, videos, and more?

We're happy to make the Missoula Butterfly House and Insectarium available for a variety of gatherings and special occasions. (Availability is limited to specific days and times, since we need to hold event rentals outside of normal visitation hours - contact us for details.)

For more information about holding your event with us, go to our website under "Visit."

And yes—we host unforgettable kids' birthday parties too!

Join the Flight Crew!

Amazing! As stated in our "Our Celebrity" story, we've released more than 24,000 butterflies since our Grand Opening. While that sounds like a lot, with an average life-span of only one to two weeks, our weekly shipments of 250+ butterflies are what's needed in order to maintain such a magical experience.

As you might imagine, that adds up. Second to staffing costs, butterflies are our most expensive line item in our annual budget. But what's a "butterfly house" without butterflies?!

Starting at just $10 a month (about the cost of two drive-thru coffee drinks) you can help keep our butterflies flying all year long by becoming part of our Flight Crew – a monthly giving club focused specifically on securing our butterflies. **Simply scan this QR code** or visit this link: **weblink.donorperfect.com/FlightCrew.**

As a token of our appreciation, you'll receive a Missoula Butterfly House and Insectarium Flight Crew stainless steel thermal tumbler.* Whether you use it at work or at home, we hope it will serve as a reminder of the impact your support has each month.

**Butterfly not included.*

MBHI STAFF LIST

Stacy Carr-Poole, Operations Director
Scott Debnam, Live Collections Assistant
Shelby Fisher, Administrative Coordinator
Madeline Kleeman, Museum Interpreter and Naturalist
Kate Likvan, Gift Shop Manager
Glenn Marangelo, Development Director
Jen Marangelo, Executive Director
Misty Nelson, Marketing & Events Coordinator
Hallee Olsen, Museum Assistant
Nick Pineschi, Lead Animal Keeper
Kathryn Read, Camp Educator
Ashley Sinclair, Visitor Relations Coordinator
Carolyn Taber, Education Coordinator
Rob Taylor, Lead Horticulturalist
Savannah Thompson, Museum Assistant

Follow Us @missoulabutterflyhouse @missoulabutterflyhouse

MISSOULA
BUTTERFLY HOUSE
& INSECTARIUM

1075 South Ave. W., Suite 2
Missoula, MT 59801

NON-PROFIT ORG.
U.S. POSTAGE
PAID
MISSOULA, MT 59801
PERMIT NO. 569

EXPLORING **the little things that run the world.**

Volunteer Spotlight!

Betsy Grimley and Wayne Chamberlain

Animal care in our lab. Helping prepare our newly arrived butterfly chrysalids. Showing off some of our animals at our encounter area. Helping answer all sorts of questions in the Butterfly House. Between Betsy and Wayne, there's nothing this dynamic duo does not help with!

Wayne and Besty have been volunteering pretty much since we opened our doors. They both have a special way of engaging with visitors, enthusiastically sharing all they've been learning about the multitude of species that are part of our live collections. Organized, responsible, and with a great sense of humor, our staff love them too! Thanks for sharing so much of your time and yourselves.

If you're interested in volunteering, please visit our website at missoulabutterflyhouse.org/get-involved/volunteer/ to get the ball rolling.