



NEWS



Summer 2022

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Our Mission

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

Join the Buzz!

Only 10 months until we open our doors! For more information about our exciting future, go to jointhebuzzmissoula.org or give us a call at 406-317-1211.

The Buzz Busy and Exciting Times!

By Jen Marangelo, Executive Director



Framework being installed for the tropical butterfly house roof.

Sing it out loud with me. "The roof, the roof, the roof is" ...ON! Well, almost.

As I write this, the framework for the glass roof for the tropical butterfly house is done. We're now waiting for the greenhouse glass to be delivered and installed. After that, the temperature and humidity control systems will be installed, the concrete walkways poured, the built-in "planters" for our tropical plants filled with a special mixture of soil, and more.

And that's just the butterfly house portion of our new facility. I'm happy to say that on all fronts (classroom, lab, offices, gift shop, etc.), the construction and planning of our future home is moving right along.

Behind the scenes we've been busy working on the design, layout, and fabrication of our new space and exhibits. In the classroom, and in the field, we've been on the go with summer camps and exploring a new model for community science field work and learning. And with the next school year getting ready to start, we're preparing for another busy year of education programs.

As you'll see on page three of this newsletter, we recently hired two new positions that mark the beginning of a significant growth spurt for our organization. We'll more than double the number of staff we started 2022 off with before opening our doors next spring.

Last, but certainly not least, we continue to get closer to the finish line in our capital campaign fundraising. At the time this newsletter headed to the printer, we only had about \$30,000 of our more than \$4.5 million goal remaining.

We've come a long way since those early days – setting up tables full of terrariums all over town and talking to anyone who was curious about our critters and our vision for the future. And while many things have changed as we've grown, our passion for our mission remains the same. If anything, it's become stronger.



Summer campers examine insects in the field.

We're almost there! Around our community (and around our office) you can feel the excitement. Thanks to our growing swarm of partners and supporters, we're only 10 months away from unveiling a destination unlike anything Missoula (or Montana, for that matter) has seen before.

Can't wait? Neither can I. Thank you for being a part of this dream! 🦋

Insect Abundance

by Kara Cromwell, PhD



Our Bug Wrangler, Brenna Shea, sets up a malaise trap.

Beginning in fall 2017 headlines reporting the decline of insects rolled out across popular news outlets, announcing the "insect apocalypse." The sudden media attention fanned the flames of a debate already simmering in the scientific community about insect conservation—how should we interpret reports of insect declines when the data are limited to just a few times and places?

To better understand what insects are at risk, in what places, and why, the Missoula Butterfly House and Insectarium has joined an interdisciplinary team of researchers, educators and citizen scientists to measure insect population patterns spanning North America. As a result of our efforts Missoula became one of 96 sites that together collected over 1,000 samples across the US and Canada over the last 2 years. MPG Ranch and Five Valleys Land Trust provided sites to deploy two traps, each a large tent-like structure designed to intercept insects in flight. Butterfly House staff removed insects from the traps at regular intervals through the summer and inspected them in the lab to identify, count, and weigh the insects.

These samples are now being used to compare population patterns among different sites, regions, or climate conditions, and also to help scientists learn how to make large-scale insect monitoring more efficient and strategic. A scientific article, with Butterfly House staff among the coauthors, is being prepared for publication later this year.

The collaborators on this project represent a mix of universities, agencies, and nonprofit organizations and their concern for insects comes from many different angles. That such a large and diverse team could coalesce around insects reflects their central role in natural processes—food webs, human food systems, and cycles of decomposition and regeneration would collapse in a world without them.

With an opportunity to engage students and learners of all ages in what we are learning as part of this study, this project is an important addition to our collective efforts to increase an appreciation and understanding of the insect world and the irreplaceable roles they play in our lives. 🐛



Following her lifelong connection to nature, Kara is an ecologist and science communicator working with nonprofits and schools. Through her writing, outreach, and curriculum development she strives to make ecology research accessible and meaningful to community stakeholders.

Construction & Fundraising Update

As indicated in our front page update, construction of our future home is moving right along. With a tentative move-in date of late March, we hope to open our doors sometime in June 2023. While that may seem like a long way off, that's only 10 months away! Trust us when we say, "We've got a few to do's to check off our list before we open."

One item on the short list is the fundraising effort that is making all of this possible. We're only \$30,000 away from our \$4,511,308 goal. And while we hope to achieve this milestone by the end of the year, we hope to have enough momentum to surpass our initial goal, providing a bit more of a buffer for increased expenses. We're almost there!

If you have any questions, would like more information, or would like to make a gift, please contact Glenn at 406-317-1211 / glenn@missoulabutterflyhouse.org or visit our website at www.missoulabutterflyhouse.org.

Insect Insight: The Deadly Assassin Squad

Jagged Ambush Bug
(Phymata americana)



Rynocoris ventralis
americanus



Spined Assassin Bug
(Sinea diadema)



With a name like "Assassin Bug," as you might imagine, plants are not on the menu. While generally .75 inches in length or smaller, assassin bugs are formidable predators of a variety of insects. Making up the family Reduviidae (assassin bugs, ambush bugs, and thread-legged bugs), there are more than 160 species in North America, with probably a dozen (or so) found in western Montana.

Unlike other hunters that employ speed to catch their prey, assassins are patient predators, employing more of a sit and wait approach. While some sport bright colors, most seem to have coloration best suited for their preferred hunting grounds, like the Jagged Ambush Bug (Phymata americana) pictured here. No, it's not the black beetle. Look harder.

Like all true bugs (order Hemiptera), assassin bugs have a piercing, sucking mouthpart called a proboscis or rostrum. While many true bugs use this "beak" to tap into and feed on plant sap, assassins prefer protein; stabbing their prey and injecting lethal toxins and digestive enzymes to liquify their meal before sucking it up.

A defining feature of assassin bugs is their three-segmented proboscis that fits into a ridged groove on the underside of the thorax. This unique attribute is not just for safely storing the proboscis while not in use, it can be used to produce sound by stridulation – rubbing their beak against the ridges to produce an audible squeak to deter potential predators.

With the ability to deliver a painful poke if handled roughly, these fascinating insects are better admired without touching. 🦋

Masked Hunter
(Reduvius personatus)



We're Growing!

While our staff will more than double by the time we open our doors, our plans called for the addition of two new positions nearly a year before cutting the ribbon.

Welcome Morgan!

If you typically read through every part of our newsletter, Morgan McNeill's name might sound familiar. As a long-time volunteer and board member, when the time came to add a Marketing Coordinator to our staff we had a pretty short search. A 6th generation Montanan from Plains, Morgan attended the University of Montana and received a B.A. in Elementary Education. With over 15 years of marketing and graphic design experience, she is a dedicated, driven professional who is passionate about education ...and even more passionate about insects and arthropods.

Welcome Lauren!

As we get closer and closer to opening day, many aspects of our operations are expanding and getting ready to change. Enter Lauren Snyder ... our new Museum Operations Manager. Lauren grew up in Montana and has called Missoula home for over 20 years. With a Bachelor's Degree in Business from the University of Montana and experience in starting five local restaurants (Five on Black) and a retail boutique (Velvet Bride), Lauren brings a deep understanding of management, marketing, and operations and will play a key role as we prepare for our upcoming growth spurt.

Follow Us



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MISSOULA BUTTERFLY HOUSE & INSECTARIUM STAFF

Jen Marangelo
Executive Director

Brenna Shea
Lead Animal Keeper

Lauren Snyder
Museum Operations

Carolyn Taber
Museum Educator

Glenn Marangelo
Development Director

Morgan McNeill
Marketing Coordinator

Karen Weaver
Interpretive Content Creator



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EXPLORING the little things that run the world.



Filling the House!

With construction well underway, a tentative opening day in 10 months, and only \$30,000 left to reach our capital campaign goal, it's time to "fill the house!" In the months ahead we'll be extremely busy designing and laying out our new exhibits. This includes securing the tropical plants for the butterfly house; purchasing terrariums, microscopes, and other equipment for our new exhibits; securing computers and creating workspace for our growing staff; and all the other "stuff" that comes with such a big organizational transformation. We're so close to the finish line!

If you have questions about our programs, making a general donation, or considering a gift to help us cross the finish line in our capital campaign, please contact Glenn at 406-317-1211 or glenn@missoulabutterflyhouse.org.



Leafy spurge caterpillars discovered during a summer camp.

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Jen Marangelo
Executive Director, Missoula Butterfly House and Insectarium

Glenn Marangelo
Development Director, Missoula Butterfly House and Insectarium

