

MISSOULA
BUTTERFLY HOUSE
 AND INSECTARIUM



Our Mission

The Missoula Butterfly House and Insectarium inspires an appreciation and understanding of insects and their relatives through educational programs and innovative science exhibits featuring live invertebrates.

Support the Missoula Insectarium Today!

There is still a lot of work to do before we can welcome you to the Missoula Insectarium, and we can't do it without you!

Please consider making a donation today.
www.missoulabutterflyhouse.org
 406.317.1211
 PO Box 8885
 Missoula, MT 59807

The Buzz

In our last newsletter, I unveiled our plans to open the Missoula Insectarium in 2014. I'm excited to announce that we recently signed a lease for an ideal location! Our future home will be in the Maya Building, 218 E. Front Street in downtown Missoula.

If that address sounds familiar, it may be because the University of Montana's spectrUM Discovery Center is in the same building. And after several conversations with our friends at spectrUM, I can tell you they are equally excited about the myriad partnership opportunities that exist. We're thrilled to add to the educational opportunities that already exist in the building -- making it Missoula's science destination.

Signing the lease sets many important pieces into motion and we have a lot of work ahead of us. Renovations are currently underway for our classroom and exhibit space, paying particular attention to details that will enable the Missoula Insectarium to be a USDA "containment" facility.

This will allow us to secure the necessary permits to obtain and house an incredible variety of invertebrate species. As suggested in this architectural rendition, we're also working on planning and designing our exhibits, focused on bringing visitors an informative, interactive, and entertaining experience. As we draw closer to our anticipated opening later this year, we'll be hiring additional staff. And we're working to secure the remaining funds needed to make all of this happen.

Getting to this incredibly exciting point has taken lots of hard work, time, and dedication. It's taken support from inspired members, donors, and partners who share our vision. Thanks to you, we're now in the home stretch.

Keep your eyes open for information regarding admission benefits for our members and supporters as well as opportunities to get a sneak-peek of our developing facility in the months ahead. I look forward to welcoming you to the Missoula Insectarium!



University Interns Dig up the Dirt on Arthropods

The Missoula Butterfly House and Insectarium was fortunate to have three enthusiastic university interns this spring semester. The interns conducted background research for exhibit topics for the Missoula Insectarium. The manuscripts they prepared will be used for program development, interpretive signage, and training for staff and volunteers.

Here are just a few facts they have unearthed:

- Spider silk is so strong that researchers at the University of Singapore have suggested that one strand of pencil-thick spider silk could stop a Boeing 747 while in flight.
- When female caddisflies dive underwater to lay their eggs, they use their body hairs to form an air bubble around their body, which keeps them dry and allows them to “breathe” underwater for up to 30 minutes.
- The paper wasp makes its nest waterproof by using an oral secretion combined with masticated plant matter. This idea could be applied to manufacturing non-toxic building materials for homes.

In exchange for their hard work, our interns received university credits, fulfilled their service learning requirement, and gained work experience beyond the classroom environment.

Here they are, our 2014 Spring Interns!



Peter Breigenzer grew up on a farm in Glasgow, Montana. Peter just finished his sophomore year at the University of Montana and is double-majoring in Organismal Biology and Environmental Studies. He is interested in pursuing field-based conservation and environmental education. In spring of 2013, he studied social and environmental justice in Nicaragua and in the summer did field work at the Wild Rockies Field Institute. In his free time, Peter does anything he can to get outdoors, including hiking, camping, and snowboarding.

and human influences on our ecosystem. She finds the study of ‘biomimicry’ fascinating because it gives us insight into the many ways we can learn from the behaviors and physiologies of other organisms. She hopes to get some traveling in before she starts thinking about graduate school. This summer she plans to float the Grand Canyon and harvest wild rice with her family in northern Minnesota. When she isn’t studying for school or working, you will find her either on the slopes, cooking, or walking with her Border Collie and German Shepherd.



Richard “Ric” Ramirez is majoring in biology at the U of M. He grew up in northern Idaho and after graduating high school served 4 years in the Army as a medic. While he loves biology, he sincerely enjoys any form of science. He loves to ski and do just about anything else in the outdoors. He also loves animals, including invertebrates, and he keeps and breeds tarantulas. Initially, he was skeptical of keeping a tarantula, but after learning about their unique biology he became hooked.



Madeleine Hull graduated this spring from UM with a dual major in Environmental Studies and Biology. Her academic interests include anything relating to nature



Goliath Birdeater. Photo is licensed under the Creative Commons.

Insect Insight: Goliath Birdeater Tarantula

If you are an arachnophobe, the goliath birdeater tarantula (*Theraphosa blondi*) might be your worst nightmare. These behemoths of the spider family can grow to the size of a dinner plate (nearly 12 inches). Native to the upland rain forests of northern South America, the birdeater received its name from Victorian era explorers who reportedly witnessed one eating a hummingbird. While birds can potentially be on the menu, this species typically preys on insects, but will also consume small vertebrates such as rodents, frogs, lizards, and snakes.

Despite having fangs over an inch long, the venomous bite of a goliath poses little threat to humans. As with most New World tarantulas (from North and South America), this spider's main defense is its

urticating hairs – tiny, almost invisible hairs that the spider kicks off of its abdomen, directing them toward potential attackers. Floating through the air, these barbed hairs can be extremely irritating, especially if they get into delicate mucous membranes around the eyes and mouth.

Like most tarantulas, the goliath birdeater is a burrowing, solitary species, only associating with other birdeaters to mate or guard young. Females have an average lifespan of 15 to 25 years. Males typically live only 3 to 6 years, possibly because nearly half of the males are killed or maimed while trying to mate.

Want to see one for yourself? Help us make the Missoula Insectarium a reality! A goliath birdeater exhibit is one goal for our new facility!



Follow us on Facebook!

Learn about a host of insects (local and exotic) as well as keep on top of the latest Butterfly House news. Share our page with your friends to help us get our message out!

Incredible Invertebrates: Insects in Art

SUMMER CAMP

The Missoula Butterfly House and Insectarium and Missoula Art Museum will be collaborating this summer in an art class for children. Join instructors Lisa Hendricks (MBHI), Jennifer Ogden (MAM) and the Insects of the Missoula Butterfly House and Insectarium for stories, science and art. Prepare to get up close and personal with our LIVE Bug Ambassadors and explore the amazing diversity of invertebrate life through various art media. Artists will also work together to create one large installation. The class is for 3rd-6th graders and runs August 11th-15th from 9am to noon. For more information and to enroll, please visit www.missoulaartmuseum.org.

Thank you Merrill!

Thank you to Merrill Bradshaw Carpentry for donating a beautifully crafted table to raffle in support of the Missoula Insectarium. The design for this one-of-a-kind table was inspired by a mythical insect called *Jocko vallis*, a butterfly and praying mantis hybrid. To see Merrill's work, go to merrillbradshaw.com. Thanks to everyone who bought a raffle ticket. John Mills was the lucky winner!

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Tell a Friend

Help spread the word about the Missoula Insectarium and introduce your friends to the amazing world of invertebrates by sharing this newsletter, suggesting they “Like” our informative Facebook page, or encouraging them to become a member. Please contact us at 406-317-1211 or info@missoulabutterflyhouse.org for more information.

Upcoming Events

The Invertebrate Ambassadors will be out and about this summer!

July 26 - Join us for the Carousel’s Fairy Tale and Super Hero Festival. By the Carousel in Caras Park, 10:00 - noon.

July 31 - Stop by and see us at Downtown ToNight. Caras Park, 5:30 - 8:30.

Help Us Take Flight!

BECOME A MEMBER!

For a donation of \$35 or more, you can become a member of the Missoula Butterfly House and Insectarium, helping support our efforts to open the Missoula Insectarium. If you’d like to become a member or make a donation specifically for the facility, send your tax-deductible donation to: Missoula Butterfly House and Insectarium, PO Box 8885, Missoula, MT 59807. You can also donate on-line from our website at www.missoulabutterflyhouse.org.

WEBSITE

We’re online at www.missoulabutterflyhouse.org! Our website has all kinds of useful information, including current activities, gardening tips, and copies of our newsletters. You can even join the Butterfly House and keep the buzz going with PayPal.

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