## Butterflies and Moths emerge again at Carlton

## By Paige Raymond Kovach

The orange, chestnut and white polka-dotted wings of a Red Admiral Butterfly will be the first to greet you at Carleton's 13th annual Butterfly Show.

Taken by Jim Des Rivières at his cottage at Lac Bonin, Quebec, the huge Red Admiral represents the thousands of her species who come each spring to our gardens and greenspaces from over the border.

Jim's photos feature a fitting display of local talent before you step into the greenhouses to see the some 1,300 exotic butterflies and moths.

In 1999, Ed Bruggink, Carleton's resident horticulturist, thought bringing butterflies and moths to Ottawa would be a great community event while promoting the biology department. His colleague Dr. Jayne Yack agreed, helping Ed with pinning the pupae the first year. Now her students volunteer to carry on that work.

Ed received the first shipment of butterfly and moth pupae Fed-Exed from England on September 19, ten days before the opening of the exhibit.

"It's something to see them emerge in the morning before the sun comes up. The chrysalis opens, almost like a zipper opening a sleeping bag hanging upside down, then they move to pump fluid in their wings."

He gives them an hour to allow their wings to dry properly and ensure they can fly safely before opening the doors to the public. "We like to have lots flying on day one," Ed said. He receives three more shipments before the exhibit opens, and one during the show.

"Butterflies are cold-blooded, so I turn up the temperature in the greenhouses from 23C to 27C to keep them happy, keep them moving and make sure they eat," said Ed.

The moths prefer the denser tropical tree canopy in the smaller greenhouse, while the butterflies cavort in the larger, sunnier greenhouse.

He has many nectar-producing flowers available for the winged insects, such as hibiscus and lantana. "Bring along some sliced oranges too to feed them," suggests Ed. Also wear colourful clothing -- pink, orange, and yellow work best.

Ed's eldest son will also be among the many volunteers who put on the show this year. He was an one-yearold when his father began opening up the greenhouses to butterflies and moths each year, and now he's part of the team to present them to the public.

The event is organized by volunteers, from Ed Bruggink the founder of the show, to Jim Des Rivières who donates his artwork, to a biology PhD candidate pinning the pupaes, and a team of about 30 Carleton and Ottawa university student volunteer educators who take over 1,500 school children on tours.

"We started doing school tours about seven years ago, but we do tours for every age group imaginable. While most of our tours are grade school aged (K-6), we do have some middle and high school groups come through as well," said Jen Skanes, Let's Talk Science volunteer coordinator for the last three years.

"For the past number of years we've also done tours for adult groups such as ESL classes from the adult high school, graphic arts students from University of Ottawa, and several local seniors residences."

"For the younger kids (K-5) we generally do butterfly morphology (body parts, what it means to be an insect), life cycle, butterfly senses (as compared to the five human senses), and some adaptations (camouflage, mimicry). With older kids we also include more detailed information on life cycle (differences between male and female, mating, pheromones), and the differences between moths and butterflies (both physical characteristics and genetic/ biological)," said Jen whose mom is the librarian at Hopewell Avenue Public School.

"Butterflies are incredibly fragile creatures, yet the instinct for just about everybody who comes in to the show is to reach out to them," added Jen.

"This started our school group end-of-lesson quiz. When I would bring a class into the room for their lesson I would tell them the 'Number One rule in the greenhouse - Don't touch the butterflies.' At the end of the lesson, when I came to get them, we would have a test. If the kids got it wrong they wouldn't be allowed in

the greenhouses. The first question – 'What's the proper name for a butterfly's tongue, and can you spell it?' After a second or two of panicked looking faces (it took me a while to learn to spell proboscis correctly, and I just graduated the equivalent of grade 22...) we offer a different question – 'What's the number one rule in the greenhouse?'"

The Butterfly Show starts September 29, 2012 and runs until Thanksgiving Day in the Nesbitt Building greenhouses on campus. Doors open at 9 a.m. and close until 4 p.m. Organizers suggest folks come early as sometimes on weekends they have to close the door early if the estimated wait time exceeds how long the show is open.

Donations offset all costs of putting the show on, so please donate in the large plexiglass cubes you see at the entrances of the greenhouses and help offset the costs of bringing the exotic flyers to our town. For more event details, please visit http://wwwl.carleton.ca/biology/annual-biology-butterfly-show/.

Also opening on September 29, a show of Jim Des Rivières's 30 large format prints of Ottawa Valley moths at New York City's American Museum of Natural History. His show runs until next September 2013, details http://www.amnh.org/calendar/winged-tapestries-moths-at-large.

School groups (or any weekday group of more than 10 people or so) MUST book a tour through events. letstalkscience@gmail.com.