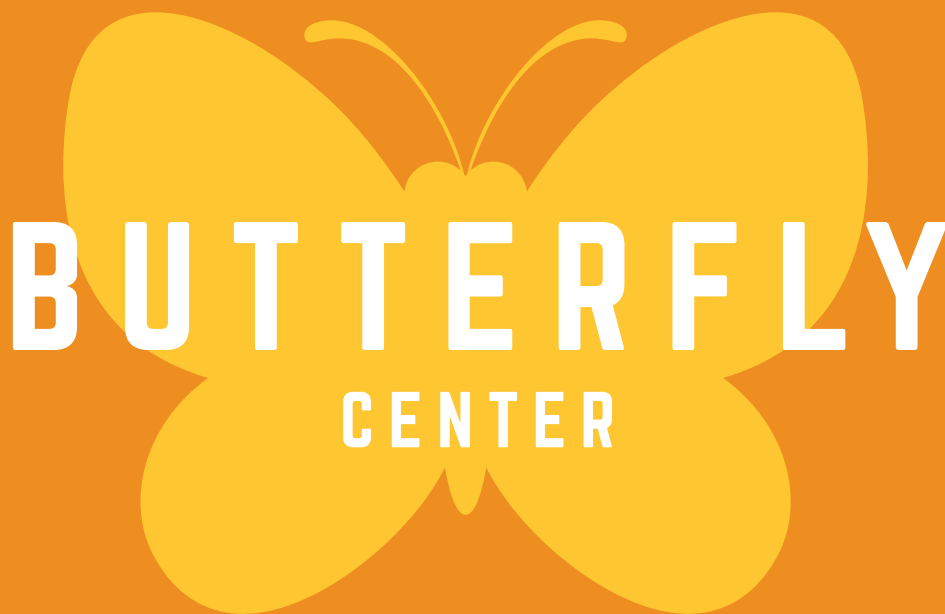


HOUSTON'S COCKRELL



“Butterflies are self-propelled flowers.”

— Robert A. Heinlein

**ONE OF
THE MANY GREAT
THINGS** about living in Texas,
especially out of the big cities, is being able to
get close to the beauty of nature at her best.

And one of nature's most beautiful creations is the butterfly. To be able to morph from a creepy-crawly, leaf-munching caterpillar into a colorful, self-propelled flower in a matter of just a couple weeks is truly astonishing. As Texans, even in the country, we see occasional butterflies, maybe a half-dozen or so at a time. But there is a place in Houston where visitors can see hundreds of butterflies all at once, comprising scores of different varieties: The Cockrell Butterfly Center at Houston's Museum of Natural Science.

The Director of the Butterfly Center since its opening in 1994 is Dr. Nancy Greig, a butterfly expert with over three decades studying the insects. But she actually started out, after getting her Ph.D. in biology from The University of Texas, as a tropical plant specialist.

"For my doctoral research, I spent almost three years studying tropical plants in Costa Rica," Dr. Greig said. "My boyfriend at the time wrote a book called 'The Butterflies of Costa Rica' and it really got me interested in that end of things."

After her time in Costa Rica ended, she was in the job market and actually thought she was going to end up as a university professor. In late 1993, she went back to Austin to visit an old professor who told her that Houston's Museum was desperately looking for someone to direct the new butterfly center they were building.

"He said I should give them a call, so I did," Greig said. "After talking to them, they asked how fast I could get there, and could I start in two weeks. The rest is history."

When she arrived in Houston two weeks later, there was no structure beyond the metal framework—just a big hole in the ground.

"We had to wear hard hats and it was really exciting to see the whole thing beginning to come to life," Greig explained. Much like the butterfly, the hole in the ground morphed into what is now a beautiful facility.

One of the first things Dr. Greig had to do when she got to Houston was to find out where to get the butterflies. The Federal Government's Department of Agriculture (USDA) has very strict permitting regulations on butterflies, and since Cockrell was going to be only the third dedicated butterfly center in the U.S., there was a lot of unfamiliar red tape and paperwork.

She eventually learned who some of the best suppliers were from contacts at the other two venues and elsewhere, and then set up contracts with them to ship the chrysalids.

The chrysalis is the pupal stage of butterflies. Literally translated from the original Greek, it means "gold," because of the metallic gold color found in the pupae of many butterflies.

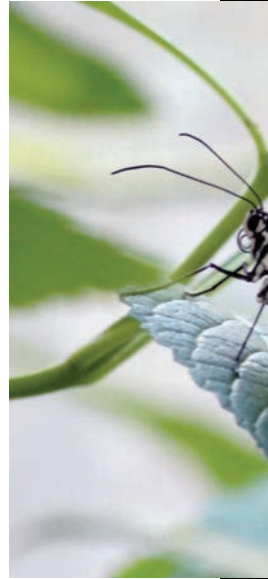
Because butterflies have such a short lifespan, often just two weeks to a month, the Center faces what Dr. Greig likes to call "planned obsolescence," and they have to reorder every month.



**Dr. Nancy Greig, Director of the
Cockrell Butterfly Center.**



**The Owl Butterfly, named so because of its “eye wings,”
perches on a branch behind a smaller species.**



“We used to import about 4,000 chrysalises per month at about \$2.50 each,” Dr. Greig said. “Because we have gotten better at breeding our own here, that figure has gone down to 3,000 per month. But in order to keep a large variety of butterflies we will always have to import most of them.”

The Center imports most of the butterfly chrysalises from Costa Rica, the Philippines, Malaysia, Ecuador and Surinam. They have about eight different suppliers, and just like international travelers, the butterflies have to go through Customs when they get to the airport. According to Dr. Greig, it needs to be a pretty streamlined process since the pupae must be received before hatching, but occasionally Customs agents will find a species that’s not supposed to be in the shipment and they’ll pull the order.

The Center has about 200 different species of butterflies on their import list.

“We have around 125 species that we get on a regular basis, but because we don’t get all of them all the time, most people will only see about 75 species during their visit. But especially on bright sunny days, they will see hundreds of individuals,” she said.

The most unusual butterfly the Center has ever had was the Clearwing (or Glasswing) butterfly, a species native to Central America with clear wings. Visitors

are amazed by the delicate beauty of that almost completely transparent butterfly.

One of the things that children and adults alike enjoy about walking through the Center is the fact that at any moment, a butterfly might land on your arm, shoulder, head or even your outstretched finger. But you don’t have to worry about caterpillars crawling on you. They are in a different location.

“We don’t have any caterpillars inside the exhibit itself because the government won’t allow it,” Dr. Greig said. “They feel that caterpillars have a greater escape risk than butterflies. We’re also not allowed to keep any plants inside that a caterpillar would be attracted to, so we do the breeding in a separate facility to keep them apart.”

The caterpillar/chrysalis/butterfly life-cycle process has always been fascinating to the public. The caterpillar hatches from the eggs laid by a female butterfly. As it grows, the caterpillar eats the leaves of its food plant. It takes about 10 days to three weeks to go from the egg stage to pupation, and then another two weeks or so in the chrysalis from which it will finally emerge as a butterfly, who then (if female) lays eggs to begin the process all over again. The length of the life cycle varies depending on the species; some take longer or shorter times. Then for the most part, the butterfly will live anywhere

from two weeks to two months, again depending on the species.

“Moths go through this same life cycle, but they’re not always as pretty,” Dr. Greig said. “John Tvent, a former nature writer for the Houston Chronicle once said ‘Moths are just butterflies with a bad press agent.’”

Dr. Greig said the most common question they get in the Butterfly Center involves how long a butterfly lives. Most people, she believes, are familiar with the common Monarch butterfly they see in Texas. When she tells them that on average a butterfly lives about two weeks, that almost always draws a follow-up question asking how the Monarchs make it all the way down to Mexico where they congregate in massive numbers, if they only live two weeks.

The answer is that the generation of Monarchs that migrates to Mexico is called a Methuselah butterfly, and actually has a life span of about nine months.

“The summer Monarch is just like a normal butterfly, they emerge from the chrysalis, go out and mate and lay eggs, and then live for two weeks to a month,” Dr. Greig said. “But in the fall, the Methuselah Monarch emerges from the chrysalis, looks around and knows that winter is coming, so they start migrating south. During the southward migration

The leaves of the plants inside the exhibit provide food for the butterflies.



Orchids, such as this dendrobium, provide a colorful landing area for the butterflies.



they do not mate or lay eggs but go into what is called a “reproductive diapause.”

Methuselahs may start as far north as Wisconsin or southern Canada and fly all the way to central Mexico. It takes a couple months. In Mexico they spend the winter, mostly hibernating, until February or March, when they finally mate. Then they head back north, many of them only making it as far as Texas. After laying their eggs on the milkweed plants they find along the way, these Methuselah butterflies finally die. Their children and grandchildren continue the migration north.”

Anyone who has ever been to central Mexico in winter will tell you it’s a magnificent sight to see them in hibernation. Trees are covered with millions of butterflies. For the most part they just hang from the trees, but in the warmer weather they move around a little bit.

“I think it’s sad that we can’t actually show the butterfly life cycle process here, all in one place, because people really enjoy seeing it,” Dr. Greig continued. “People are so confused about the process, a lot of people see caterpillars on their plants at home and kill them because they don’t realize that some of those caterpillars turn into Monarchs or Gulf Fritillaries or some other beautiful butterfly that they would welcome in their gardens.”

As the weather warms up, more and more visitors flock to the Cockrell Butterfly Center. March through mid-August are the busiest months. But individuals, school groups, garden clubs and foreign visitors keep the Center with a steady stream of guests year-round.

“The first year we were open, we had over one million visitors,” Dr. Greig said. “Now we’ve pretty much stabilized at about a quarter million visitors per year. We are now the second most attended venue at the museum, right behind the museum exhibits itself. We surpassed IMAX (now called the Giant Screen Theater) a few years ago, primarily because IMAX theaters are almost everywhere now.”

And of course, when warmer weather begins, that means hurricane season is right around the corner, begging the question: How does one protect hundreds of butterflies under glass in the event of a hurricane?

“The glass panes on the exhibit are double-paned, but they are only rated for 90 mph winds,” Dr. Greig said. “So when a hurricane is approaching, I get a call from the Department of Agriculture telling us to evacuate all the butterflies. That has only happened two times, once during Hurricane Ike, which actually did hit Houston, and the second time was when Hurricane Rita was approaching Houston but actually never hit the city directly. We

put the butterflies into tents downstairs where they were safe. In actuality, it’s not good for the butterflies. We lost about one-third of our butterflies each time we had to evacuate them.”

For cold weather, thunderstorms, and other weather anomalies, the Center’s glass panes are insulated. And in case of power failure, they have backup generators.

The venue also makes a great place for some people to show off their softer side.

“We’ve had several marriage proposals here because it’s a very romantic place,” Dr. Greig said. “We’ve also had a couple weddings inside the butterfly exhibit. Not too many because of the humidity. Brides tend not to like their hair falling down.”

The Cockrell Butterfly Center is located inside the Houston Museum of Natural Science, 5555 Hermann Park Drive in Houston’s Museum District. Admission is \$9 for adults, and \$8 for children, college students, and seniors 62 and older. Hours are 7 days a week, 9 a.m. until 5 p.m., with the last entry at 4 p.m. Group rates are available for schools and other large groups, and museum members receive a discount on the ticket price. For more information, call (713) 639-4629 or visit the website at www.hmns.org.

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