

Bugs on Wheels: Continuing the Success in 2015 and Beyond!

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Introduction:

In 2012, we introduced you to the Cockrell Butterfly Center's outreach program, Bugs on Wheels, also known as BOW. BOW consists of presentations covering several different topics involving arthropods and their interactions with plants. The program started in 2006 and was to be modeled after the museum's popular animal program, Wildlife on Wheels. It began as one type of presentation, given only a handful of times in a year. My then counterpart, Laurie Pierrel, and I would take a selection of live, exotic arthropods to a school and present facts and information about each of them. We would then allow each child to see them close up and even "pet" them. The program was well received by schools that we visited. Not only did these schools want us back the next year, they started to spread the word and BOW began to steadily gain popularity in the community.

With only two of us to handle an increasing number of presentations, as well as our regular duties, we began to feel slightly overwhelmed. We decided to add more presentation topics, to be given by other CBC staff members such as our horticulturists and even our director, Nancy Greig. The original program would here on out be known as "Amazing Arthropods" and would be joined by 3 other topics (Full descriptions and details can be found in the paper "Wow your kids with BOW", from the 2012 IECC Conference):

"All About Butterflies" – After all, we are the Cockrell Butterfly Center, so we needed a presentation on butterflies! This topic covers the anatomy and lifecycle of butterflies, as well as comparing and contrasting them with moths. Whenever possible, live larvae, pupae, and butterflies are used for the children to see up close and touch.

"Monarchs – Metamorphosis, Migration, and Mimicry" – This program, developed by Nancy Greig, presents information on the lifecycle, biology, and migration of the monarch butterfly. The bulk of the presentation is given through PowerPoint, with some show and tell items at the end, such as real monarch larvae, pupae, and adults.

"Plants and Pollinators" – This presentation teaches children, not only about the basic parts of a plant and their function, but all about the process of pollination, difference between fruits and vegetables, and how pollination is carried out (e.g. by insects, other animals, wind, etc.). Visual aids such as pictures and real fruits and vegetables are used to illustrate important points.

All presentations are given in 3 (half day) or 5 (full day) hour time blocks and can be divided according to the school's wishes (e.g. 6, 30 minute presentations). "Amazing Arthropods" and "All about Butterflies" can be adjusted to suit any age, but the other two are more appropriate for older children. Over the years, our numbers and revenue steadily rose, then fell in 2010- 2011

due to many limiting factors, including major budget cuts in the Texas public school system. In 2012, the museum started to implement many changes that have made HMNS outreach, especially BOW, more successful than we ever thought possible!

More Staff Dedicated to Outreach

There were many limiting factors preventing us from being able to keep up with the demand from schools. The main problem was that we did not have enough staff members and we had too many other responsibilities. We were not hired to be outreach presenters, we were hired to curate the exhibit, which takes up a lot of time! We were also in charge of scheduling and booking our own programs. If we felt we were too busy during a particular time to deliver one, let alone many outreach programs, we had the luxury of turning them down. In 2012, HMNS added an Outreach Coordinator, Greta Brannan Rimpo. Greta's responsibilities include: booking programs, coordinating presenter schedules, collecting feedback, and promoting the programs to customers. This allows outreach staff to concentrate on doing the actual programs and dramatically increases the efficiency of the entire process of delivering outreach to a school. A curriculum writer was also hired to develop materials and resources to offer to the school along with the presentation, enhancing the experience. We started to get more pressure from above to deliver the programs no matter what. To help with this, the CBC hired Celeste Poorte. Not only does she present Amazing Arthropods, she raises butterflies to release in our conservatory and sell to other institutions. In 2014, Sahil Patel was hired to assist Greta in marketing and scheduling programs. He was also trained to do every outreach program offered by the museum, quite a feat! Finally, in 2015, the CBC had a rare chance to hire Ryan Pool. He is part time, but he is able to focus solely on presenting BOW topics, which leaves our entomologists and horticulturists free to focus more on regular responsibilities. When outreach is slow, Ryan helps with everything from watering in the conservatory to releasing butterflies and feeding insects.

New Presentation Topics

Now that we were well equipped to handle a high volume of presentations, it was time to look at adding even more topics to our already robust selection. We wanted to address hot topics in science, which might be more relevant to the current science curriculum in schools. We also wanted to reach out to audiences that we might be missing with the other topics. Most of all, the presenters of Amazing Arthropods (by far the most popular topic) were started to get burnt out on constantly giving the same presentation! So, in 2014 we rolled out "The Buzz about Bees", developed by our director, Nancy Greig. In it she explains the biology of bees, the inner workings of a hive, and how they raise their young. She then shows and describes common tools used in beekeeping and the products that bees can provide. Honeybees are often in the news, and of concern to the general public for several reasons, so we felt this program could be valuable. For 2015, we've added two more topics, "Awesome Arachnids" and "Clean-up Crew". Both were developed and are presented by myself. Awesome arachnids came about because, well, we love talking about arachnids! We saw that our tarantulas were often the most popular members of our arthropod line-up and we wanted to be able to talk more in depth about them and their often-misunderstood relatives. This presentation is similar in format to "Amazing Arthropods" and features tarantulas, scorpions, vinegaroons, and other species of spiders such as black

widows and wolf spiders. “Clean-up Crew” was meant to address a very hot topic in science classes, decomposition. This program uses a PowerPoint and some live critters to teach kids about the process of decomposition, why it is important, and what insects and other arthropods are crucial to it. Cockroaches, blowflies, dung beetles, and millipedes are a few of the animals featured. This topic has gotten a lot of interest and looks like it will be highly sought after in the 2016 school year.

More Improvements

The outreach team has been working closely with HMNS’s Youth Education Sales department to find new ways to promote our programs and reach out to other audiences besides schools and daycares. Over the past few years, we have participated in events such as girl and Boy Scout conferences, young professionals events, and even movie showings at local theatres. We hope to bring our programs to YMCA’s, senior centers, art and photography clubs, and many other audiences to fill in the gaps during slow times, like the beginning of the school year and the holidays. We have already made many improvements to the web page, including a “meet the presenters” page to introduce potential customers to the professionals and experts that would actually be visiting them. We hope in the future to create a series of short promotional videos for each program to give them a sneak peak.

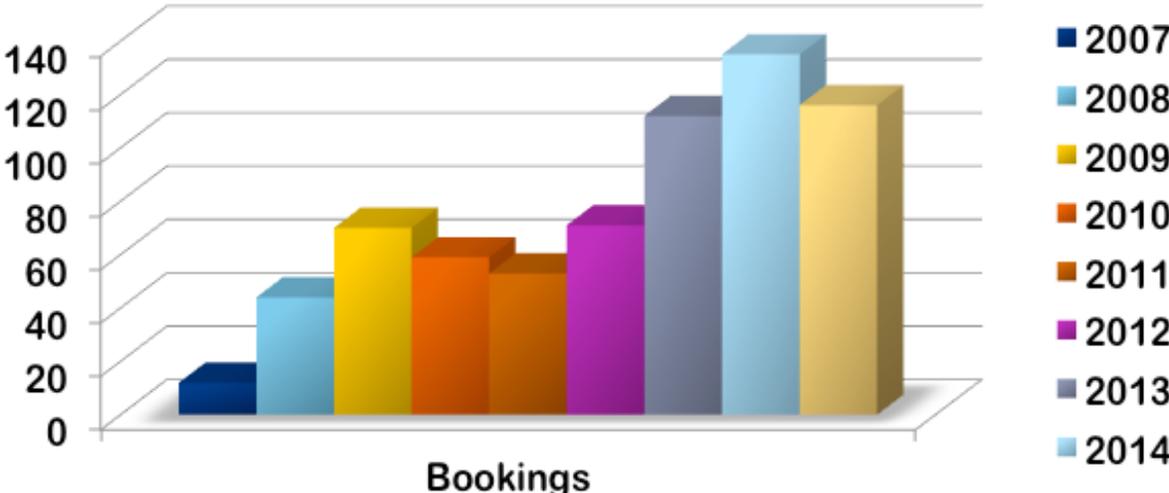
Results

All of the improvements and extra effort have paid off. Our numbers have been steadily climbing since the beginning, but the most significant increase happened between 2012 and 2013, when our numbers nearly doubled. Our number of bookings jumped from 71 to 112, sending our revenue skyrocketing from \$26,700 to \$49,700! Since 2007, we’ve brought BOW to 79,500 children in and near Houston. 2015 is not over yet and we’re projected to hit 150 programs, by far the most to date and the most of any outreach program offered by HMNS. Go Bugs!!

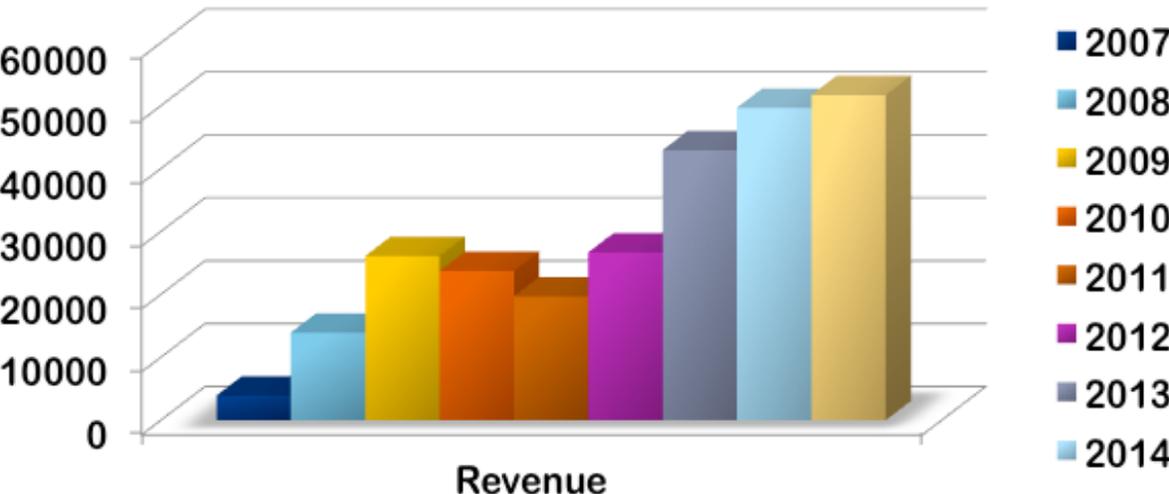
BOW has been bringing insects and their relatives into the classroom for nearly a decade and has come a long way since Laurie and I set foot into our first classroom. We hope to continue the success and find even more ways to turn children of all ages on to the exciting world of bugs!

Figures

1.



2.



3. Range of HMNS Outreach

