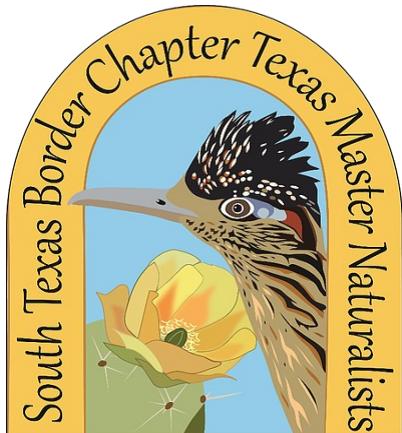


STBC Newsletter



September 2017



Life's better outside.®



TEXAS
MASTER NATURALIST™
18th Annual Meeting
OCTOBER 20-22, 2017
OMNI CORPUS CHRISTI HOTEL

Those of you who can attend, please, do so. The transportation cost for this meeting is minimal and our chapter, being fairly new, should be represented by as many as can go. There have been several communications via listserve with information for registry. There are several very interesting events at this meeting. It would be a shame to miss them.

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"You'll eat what I regurgitate and like it!"



A Hot Time on the Rio

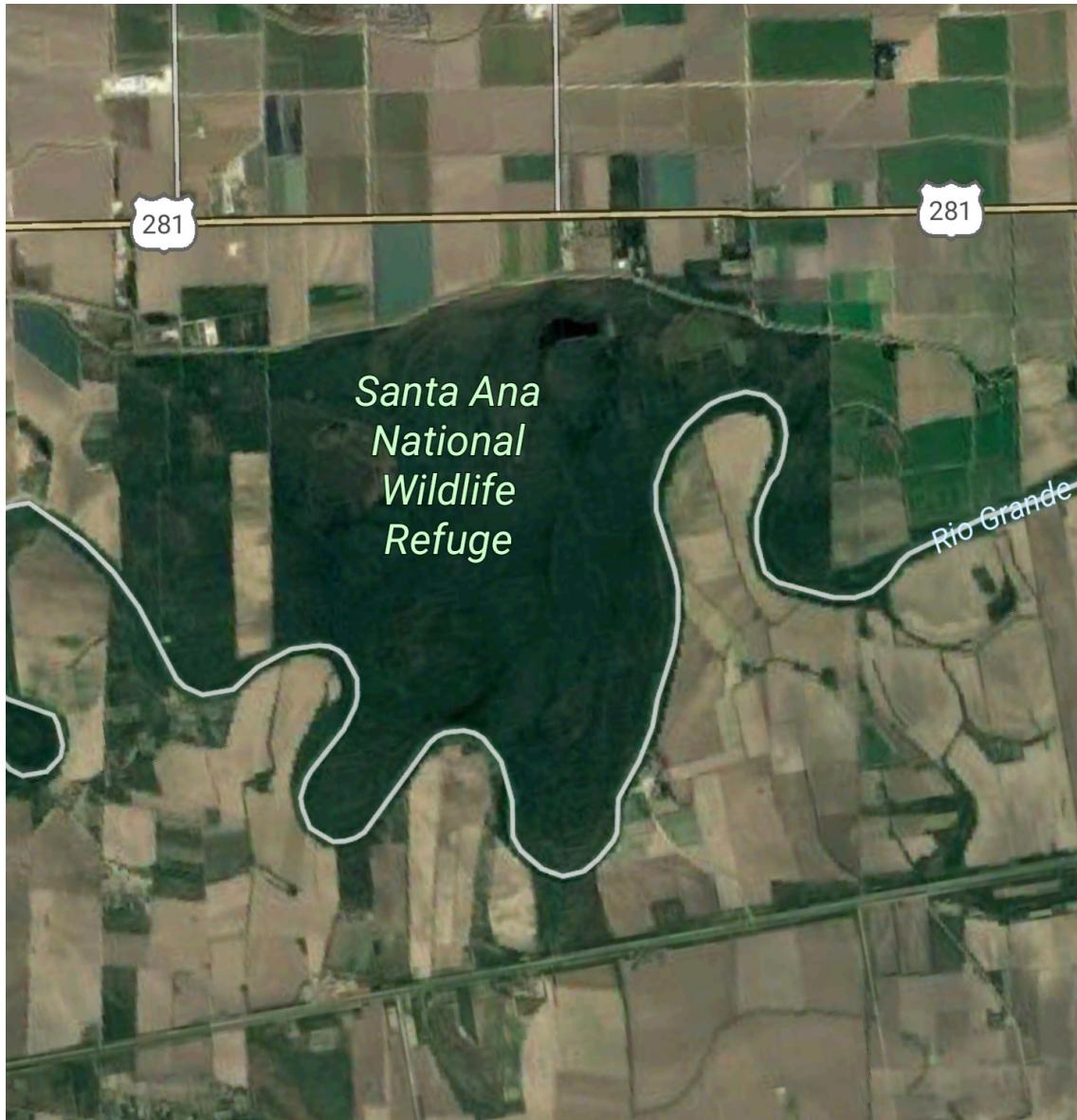
Summer is normally hot here in the Lower Rio Grande Valley. It just seems that it is a little hotter each summer than the summer before. Anyway, nature observation gets harder in August. Wildlife tries to get out, get a bite to eat, and get something to drink. With their errands run they hurry back to their cool spot and wait for the sun to go away. We hide from the heat, similarly. We dash out of our airconditioned homes to our airconditioned cars and go through the drive-up window at some fast food place. We can stay in the airconditioned car that way. When we get home , we eat our fast food and slam down a supersized drink so that we won't desiccate in the seventy two degree low humidity atmosphere of our homes.

This summer it started warming up politically, as well.



A Hot Time on the Rio Cont.

The U. S. Department of Homeland Security announced that it would build a section of the border wall through Santa Ana National Wildlife Refuge on the levy. The department spokesman plainly stated that it would be legally simpler to build it on land owned by the U. S. government. There is a certain budgetary and timeline logic in that.



However, some people have argued that a wall of that nature would impede the comings and goings of wildlife and cause many problems, including inbreeding in an insular population. This writer would invite someone qualified to write a factual, logical, non-politicized explanation of this viewpoint. From photographic evidence alone, it would appear that even with no wall built, northern expansion is not much of an option for wildlife now. East and West would seem to be the only avenues open.

A Hot Time on the Rio Cont

This writer was at Santa Ana on the day of the first protest. The writer had seen protests up close in the 20th Century, but never in the 21st Century. A bunch of people who looked like South Texans out for a summer Sunday activity crowded up behind their sign. They chanted their slogan for the media for a few minutes and then quit. It was getting close to noon and hot, really hot. The media left and the protesters stood around for a short while talking, then left as well. It was all very relaxed and not hostile, at all. The writer must admit that he wished that someone would have begun to play "This land is your land" or "where have all the flowers gone". But that was just a nostalgia thing. The next Santa Ana protest was announced for the thirteenth of August. We will hope for a peaceful time on that date.

The National Butterfly Center had their brush with wall politics, too. It seems that a contractor of the DHS arrived at the Center ready to lay waste to vegetation on land that belonged to the Center on both sides of a road belonging to the Center. The cutting crew left without accomplishing their mission. This writer is not aware of any real resolution to this situation.

This writer was present at the "No Border Wall" protest at Santa Ana , as were other members of our chapter. The protest occurred with no hassle and no disturbance. I would like to thank the protesters, the organizers of the protest, the U.S. Government employees, and Texas State employees for their part in keeping this activity peaceful and civil. It made this writer proud to be a Valley resident.

STBC Members in the Field



Cactus Flower Pins for Donors

These finely crafted pins are available to members as an acknowledgement of and gratitude for donations above the \$15.00 annual dues paid to the South Texas Border Chapter.



The Supporting Member pin and Certificate of Recognition is available to members who donate \$25.00.



The Sponsoring Member pin and Certificate of Recognition is available to members who donate \$50.00.



The Sustaining Member pin and Certificate of Recognition is available to members who donate \$100.00.



This Life Member pin and Certificate of Recognition is available to members who donate \$1000.00. This donation pledge may be made in installments of \$250.00 per year for 4 years. If the full donation is not completed, the donor will receive a certificate for the actual amount of the donation and may choose from any of the three lower level pins.

This pin is available to non-member donors

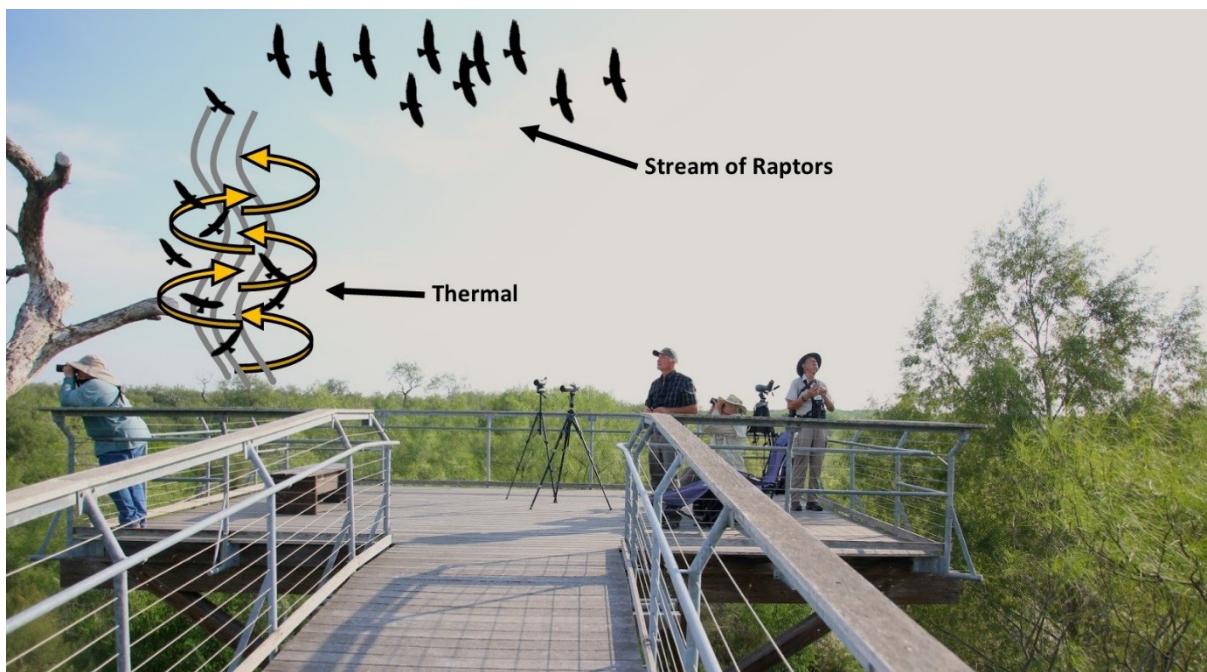


This Friend of STBCTMN pin is available to non-members accompanied by a Certificate of Recognition for the actual amount of \$25.00 and above donation. There are other awards available for the higher tier non-member donors.

Raptor Migration- Javier De Leon

You may have seen them before – dozens, hundreds, thousands of hawks swirling in the sky every spring and fall over the Rio Grande Valley. What are they doing? Where are they going? Here is a quick primer on raptor migration and where you can help count these amazing raptors.

Raptors, birds of prey such as hawks, ospreys, falcons, and vultures, migrate south for the winter and north for the spring every year, as do many other species of birds. Raptors, however, migrate differently than other birds in several respects. While most raptors live mostly solitary lives, they gather in large numbers as they migrate. Raptors try to use as little energy as possible during migration so they soar for many hours a day and use the wind, updrafts of air from hills and mountains, and columns of hot air rising from the ground known as thermals. Because of their reliance on thermals, most raptors migrate during the day and stay away from large bodies of water such as the Gulf of Mexico. A typical day for a migrating raptor usually starts by waking up around dawn and perching for a few hours as the sun heats the ground. One raptor may begin to soar over an area to find a thermal (or thermal updraft). As it finds an thermal, other raptors join this first hawk. Depending on how many raptors are migrating through that area, this group of hawks can be a handful or number in the thousands. The raptors circle within the thermal without flapping their wings to conserve energy and are pushed higher and higher in the sky. Unlike most birds, raptors do not circle in the same direction and are referred to as a kettle because they may look like water boiling or like steam rising from a kettle.



Caption – Typical sighting of migrating raptors during hawk watch at Bentsen State Park Hawk Tower.

Once the raptors have reached their desired altitude, they begin to fly in the direction they want to go. Soon the large group of a thousand hawks can all be seen flying in the same direction high in the sky where they will glide for several hours and travel several hundred miles in one day. Raptors flying in the same direction this way are referred to as a stream of hawks. Vera Cruz in Mexico and Corpus Christi, Texas are known for their rivers of raptors. It is not unusual for 300,000 raptors to fly over hawk watch sights in one day.

There are three species of raptors that are known to congregate in large numbers as they migrate - Swainson's Hawks from the western US, Mississippi Kites from the Gulf Coast states, and Broad-winged Hawks from the northeastern US. Each of these species migrates at slightly different times, so one week you may see a group of 2,000 Mississippi Kites and the next week, you may see a group of 3,000 Swainson's Hawks flying alongside a group of 10,000 Broad-winged Hawks. Vultures can also be seen in large numbers at times. Kestrels, ospreys, red-tailed hawks, peregrine falcons, red-shouldered hawks and other species are seen in small numbers throughout the migration season. Raptors typically do not hunt as they migrate, but may eat opportunistically during their migration.



Caption – River of Raptors seen from Vera Cruz.

Many dedicated people volunteer as hawk counters at organized hawk watch sites. Hawk watch sites gather data for the Hawk Migration Association of North America. Data collected in the past several decades has proven very important for monitoring the number of hawks in the Americas and can capture population trends for a number of species. Bentsen – Rio Grande Valley State Park and Santa Ana National Wildlife Refuge are two places that have held hawk watch activities for many years. Be on the lookout for volunteer trainings for these sites. Hawk watchers always need volunteers - even if you know very little about hawk ID!



Swainson's Hawk



Broad-winged Hawk

STBC Members in the Field



Items Available for Purchase From STBC



Coffee Mugs \$10.00

T-Shirts \$8.50

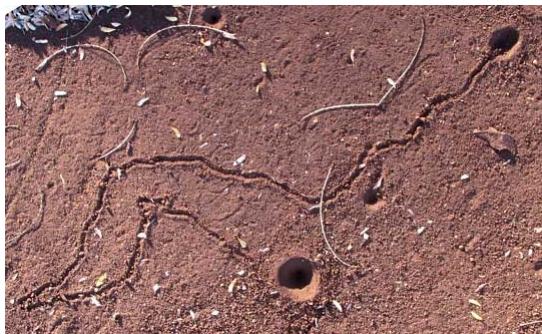
Flash Drives \$7.00



Doodlebugs

Neil Cassady

In the dark ages of the early 1950s, when the cutting edge of electronic home entertainments were radio and the new record players upon which one could stack three or four 78 RPM records, American Southern little redneck boys sought entertainment in the outdoors, every summer day. They interacted with other little redneck boys (rarely with little redneck girls) and the man-made and natural world around them. One of their interactions with the natural world was “messin” with Doodlebugs. The little proto-Elvis fans knew that the Doodlebugs made crazy looping and wandering trails in the fine sand and dust that looked like someone had been doodling with a stick (an extinct childhood pastime).



Doodlebug Track

Doodlebugs made these trails because they had great big “ole” bellies and little bitty legs. The little rednecks knew that Doodlebugs lived at the bottom of conical holes in that same fine sand and dust. The cones were insect versions of tiger pits, except they trapped bugs; ants mostly.



There were two dominant forms of “messin” with Doodlebugs. The less helpful (for the Doodlebug) form was the gentle stroking of the walls of the pit with a blade of grass. The little rednecks chanted their local form of Doodlebug charm. “Doodlebug, Doodlebug come out of your hole. Your house is on fire and your children will burn.” There were more gruesome charms chanted in other locales

The Doodlebug would arise from the center of the nadir of the cone, jaws spread wide to grab the unlucky victim struggling in his sandy pit. It looked to the little rednecks as though the Hollywood people had created it, along with the other atomic mutants so popular in movies of that day.



into the sand and the redneck boys would watch it disappear into the sand like a quicksand victim in a movie.

When the little redneck boys got older, they learned in school that the Doodlebug is an Antlion; the nymph form of a Mayfly-looking creature called an Antlion Lacewing, belonging to the family Myrmeleontidae. They learned that not all Antlions dug pits. Some species hide under woodland debris and ambush prey from cover. Some species hide in cracks of wood or rocks and attack from a re-doubt. This was all very interesting to the boys, but more was to come. Antlions can take years to complete their life cycle, often going for months without food. Another weird thing, the Antlion nymph has no anus. All waste material generated by digestion is saved and most of that waste is later converted to silk for making a cocoon.



© alamy stock photo

Some of the cocoons include dirt and lie in the dirt until the adult form emerges. In their young lives, the boys must have accidentally destroyed many such cocoons while building roads and digging holes in dirt. The cocoon would have appeared to be just another little dirt clod.

Some species of Antlion attach their cocoons to rocks or trees, or even human dwellings. This would seem the safer method, but in nature's arms race every defensive strategy provokes the enemy's attack strategies.



In the end though, enough of these Antlion Lacewings emerge from the cocoons made by their former selves to breed, lay eggs and continue the cycle.



Sixty years later one of those little redneck boys was sitting on a picnic bench at a local nature center. He discovered in the dirt at his feet “doodlings” and conical holes in the dirt. He had to suppress the urge to get a piece of grass to tease the edges of a pit and chant the Doodlebug charm.

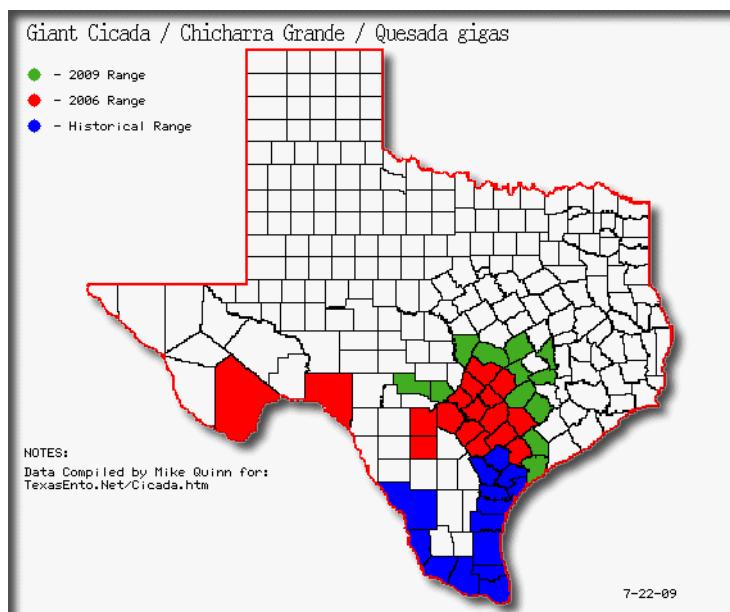
What is That Noise?

The Giant Cicada Invasion -Mirtala Rodriguez

In researching cicadas there seems to be different information about how many species we have. Wikipedia states that there are about 1300, whereas the National Geographic and Smithsonian Natural Museum of History state that there are 3000 plus species in the world.

They live in every continent except Antarctica. What the researchers do agree on is that there are probably more that haven't been discovered, being that they spend most of their lives underground as nymphs (1 to 17 plus years). Once they emerge as adults they live for about four weeks, depending on the species. In North America there are about 150 to 190 species, according to various sources. Texas has about 48 species. (Texas Entomology Compiled by Mike Quin).

Cicadas have been around between 40 and 200 million years. It's no wonder that they have been featured in music, art, literature, folklore, and mythology. They have also been used in folk medicines, and as religious and monetary symbols. In some countries, they are a symbol of rebirth, while in others like China, Congo in Africa, and Latin America, to name a few, they make a great snack!



I will focus on the cicada that resides in our region. The Giant Cicada, *Quesada gigas* (Olivier 1790) with common names of Cigarrilla Grande, Coyoyo, Chicharra Grande; is about 2.3 inches in length. It was discovered by Guillaume-Antoine Olivier in 1790, hence the name.

(Plus Austin Co. - Troy Gosney)

Blue counties are the species' **historical range**, most (if not all) of south Texas brushlands

Red counties indicate expanded range and increased abundance for *Q. gigas* for **2006**

Green counties indicate expanded range and increased abundance for *Q. gigas* for **2009**



A few weeks ago, my grandson and I were outside in the backyard when he heard a cicada singing. He asked what that noise was and where it was coming from. What a great opportunity to teach him about the cicadas, with sprinklings of some my childhood memories

Growing up as a young child I remember the high-pitched song of the cicada or “Chicharra”, as I have always known them. Of course, to me they were not songs being sung by the male cicadas to attract the females, but an annoying loud screeching noise that filled the air. There were times that the noise was almost unbearable. Their singing is one of the loudest noises on earth for an insect. The male cicadas sing by flexing their tymbals, which are drum-like organs located in their abdomens. Their whole purpose for singing is to find a female for mating. The male will die shortly afterwards. Once the mating occurs, the female will lay from 400 to 600 eggs in 40 to 50 different nests, and the life cycle begins all over again.

In South Texas, the giant cicada sings from April to October, but the height of the season is from June to July (texasento.net/cicada . They tend to sing primarily at dusk or dawn but in our region, you can even hear them singing during the day. I have been hearing them outside my bedroom for a while. Just yesterday they began singing about 6:30 in the morning, and I, also, heard them during the hottest part of the day.

Last month we were outside at mid-morning at the World Birding Center participating in a workshop, and there was a cicada singing in the tree behind us. If we would have had a ladder, we might have been able to catch it. They are fast flyers, but you can catch them if you’re lucky.

I remembered that as a child I enjoyed two things about these insects. First, was the time I held one between my fingers watching its legs moving, but not doing much else, then having its three pairs of legs rest on my finger. Ouch! They grab on hard with their sharp claws, but I knew it wouldn’t bite or sting me. Second, was going around looking at tree trunks, the sides of the house, poles, etc. and collecting the skeletal remains (nymph exoskeleton or “exuvia”) which I found fascinating. These skeletons were the final stage from nymph to adult or imagoes. The cicada emerges from the back, splitting its exoskeleton into two halves and leaving the exoskeleton behind.

Little did I know that the young giant cicada nymphs hatch from their eggs, and burrow into the ground for about 4 years. The nymphs feed by sucking the sap of plant roots using piercing sucking mouthparts. They have a preference for the Huisache tree and other members of the legume family, but they are not picky eaters, for they feed on a huge range of plants, trees, and grasses.





As a child, whenever I heard them singing, I would begin looking for the cicadas. Sometimes finding them was not as easy as I thought. They would blend into the bark of the tree, but if the cicada was located just right I could catch a glimpse of their popped-out, large compound eyes, which were brownish to green. They also have three small simple eyes (ocelli) arranged in a triangle located on the top of the head between their large eyes.

I remember being fascinated by their transparent veined wings which seem to be so delicate but were rather stiff as I touched them. Their wings are super hydrophobic which is even better than water repellent. This aids them in keeping their wings nice and clean.

The cicadas all looked alike to me. They weren't really that pretty. Their coloration was mostly a combination of black, brown and greens. Some cicadas were bigger than others. Now I know that they distinguish themselves by sound and not so much by their appearance.

The giant cicada is the second largest species in North America. How appropriate that it resides in Texas. It's also the widest ranging species in the Western Hemisphere. Besides the urban areas they reside in our south Texas brushlands and as far south as Brazil and Argentina.

As annoying as they may seem, they do offer food for birds, snakes, lizards and smaller mammals. Unfortunately, they don't really have much of a defense mechanism to protect themselves. They do have some tactics that will help them with predators. One tactic is their loud singing. It's hard to pin point and it might just be a bit loud for some animals. Many of us can relate hot summer days with the singing of the Cicada. Most of its predators are not inclined to hunt during the heat of the day allowing the Cicada to sing in the hopes of finding a mate and not being eaten. Also, cicadas tend to hide by moving around to the back side of whatever they are clinging to. If they see a predator coming, sometimes they will stop singing making it harder for the predator to find them.

When cicadas die, they decompose and become part of the soil, I guess it's safe to say the cicadas become natural fertilizer. In spite of their short lives above ground, they certainly make sure we notice their arrival. No matter what you think of these insects they are quite amazing and harmless. Who knows how many more species will be discovered?

