# BAT WORLD SANCTUARY



2023 ANNUAL REPORT

Printed on 20% recycled paper certified by the Sustainable Forestry Initiative, using 100% vegetable based ink. **NOTE:** The articles in this magazine are written by the same humans who also care for the bats. Although we try very hard, a few typos always seem to slip through. Please bear with us and overlook any mistakes.

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A few of the non-releasable Mexican free-tail bats in their miniature cave at Bat World Sanctuary. These bats are a crevice-dwelling species and like to snuggle in tight clusters for warmth and security. In fact, 200 free-tails will fit in one square foot on a cave wall!



Bat World is published annually by Bat World Sanctuary, a 501c3 non-profit, accredited sanctuary. Donations allow Bat World to continue its mission of rescue and conservation. To obtain more information about bats and how they make our world a better place please visit batworld.org.

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### **2023 Year End Letter**

Dear Supporters,

It's hard to believe that another year has already passed. This year went by in a whirlwind, starting with the rescue of over 350 fruit bats from Florida and Colorado. Then orphaned bats came rolling in early with dozens of calls coming in weekly for almost three months straight. Hundreds of bats were rescued over the summer months. Our staff worked seven days a week, oftentimes from dawn until midnight, helping with rescue calls across the U.S. as well as our own local rescues, in temperatures that reached 114 degrees F.

As our organization expands, so does our rescue work. When we started to have difficulty keeping up with the increased workload, we hired additional part-time staff to allow us to handle the overwhelming volume of rescues we were seeing (see page 46). We feel so lucky to have found these dedicated and compassionate team members just when we needed them most. Because of them, we were able to care for local rescues promptly, and also increase our rescue and conservation efforts for bats around the world.

In addition to the increased number of rescues this year, we dealt with several cruelty issues and saved entire colonies of bats from being destroyed in botched exclusions in 8 states. In the middle of all of this, we came in to feed orphaned bats one morning and walked into a flooded building due to a ruptured water pipe. Thanks to our staff and volunteers, who brought their personal shop vacs, buckets and mops, the flood was cleaned up within two hours. Thanks to generous donors, the damage that occurred to our floors was completely covered.

When we noticed other rescuers across the U.S. struggling with greater numbers of incoming bats, we provided supplies to help them through the summer. We also arranged transport in states through our volunteer transport network so starving orphans could get to rescuers who were unable to leave to retrieve them due to the number of bats already in their care.

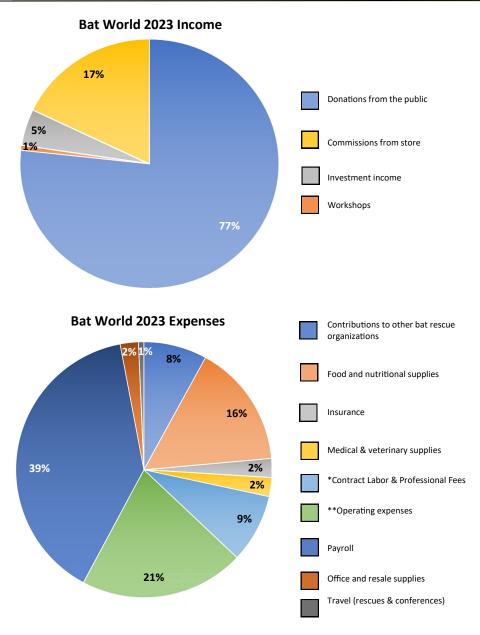
As summer came to a close, we were ecstatic to discover that bats were using our Bat Castle (page 40)! In September, we erected a large bat house at the National Vietnam War Museum, which is less than a mile from our Bat Castle (page 32). We also have security camera footage that illustrates that bats are already checking it out at night!

I am so excited to show you the progress we have made this past year. As you read this annual report, please remember that <u>you</u> made all of this possible. Without your support, the bats you see in the following pages would not have been saved. On behalf of these beautiful, deserving lives, thank you.

14.100

Amanda Lollar Founder and President

### **2023 Financial Accounting**



\*Professional fees include legal, bookkeeping and accounting fees.

\*\*Operational expenses include utilities, building maintenance, cleaning supplies, enrichment items.

### **Breakdown of Income & Expenses**

Income		Expenses	
Donations from the public	\$351,486.72	Contributions to other bat res- cue organizations	\$34,844.59
Store Commissions	\$81,840.90	Food and Nutritional Supplements	\$67,975.52
Investment Income	\$21,767.63	Insurance	\$10,515.29
Workshops	\$2,884.37	Medical & Veterinary Supplies	\$10,389.83
		*Contract Labor & Professional Fees	\$37,831.93
		Operating expenses	\$90,611.41
		Payroll	\$170,851.91
		**Office & Resale supplies	\$10,011.34
		Travel expenses	\$2,986.53
Total income	\$457,979.62	*Total expenses	\$436,018.35

\*Contract labor includes installing a fire alarm, an additional generator for electrical outages, repair of the fruit bat's flight enclosure ceiling and installing a new septic drain field for the facility.

\*\*Office & Retail expenses include shipping, office equipment, ink, printing and Adopt -a-Bat sponsorship supplies. Items for resale include books, t-shirts, rescue supplies and educational materials.

This accounting reflects 2023 through the third quarter; it does not reflect the entire year. Please see "Annual Reports" at batworld.org to view year-end IRS 990s.

# 2023 Rescues

Your contributions enabled us to save 2,074 orphaned, injured and displaced bats in the U.S., as well as Bulgaria, Italy, Austria, Japan, Africa, Thailand, Jordan, the UAE, the UK, Canada, Cambodia, Brazil and the Caribbean Islands. Although a few of these bats were not releasable, over 1,600 bats now fly free because you bought their food & medicine, and you provided resources critical to our rescue efforts. The bats featured in this section represent a few of the lives saved through your support. For a complete list please visit batworld.org/rescue-log.

#### **RESCUING HUNDREDS OF TINY FRUIT BATS**

Disclaimer: We are choosing not to name the zoo listed in the article. The Director who contacted us for help came on board at this zoo well after these problems existed, and he is doing his best to correct the issues.

In February, we were contacted by an AZA zoo that had a large surplus of shorttailed fruit bats (the same species as our own Lil Drac). Unfortunately, the former directors of the zoo were allowing the bats to breed uncontrollably to the point where there were now thousands of unwanted bats. Sadly, surplus animals often wind up in the barbaric pet trade, are then sold to the public and ultimately



A tiny, hummingbird-sized short-tailed fruit bat.

end up in a birdcage in someone's living room. When the new Director took over, he immediately realized that something had to be done. He began separating the males from the females as a first step to control the population. He then set out to find new homes for the females, which likely numbered 1,000 or more. Of course, many of these females were either already pregnant or were carrying young when they were separated. To make matters worse, short-tailed fruit bats are capable of delayed fertilization for up to one year.

The females were divided into several flight areas. The new Director reached out to other zoos, where some of these females were placed, but after one year of trying, he was unable to find homes for the remaining 600 bats. We agreed to take 325 of the bats, which is all we felt we had room for. We also tried to find homes for the their remaining bats. Short-tailed fruit bats are extremely small, and they are very delicate emotionally. After much discussion, we agreed to take approximately 325 of these bats and the zoo agreed to provide for their food for the next three years, which we very much appreciate as that gives us the time needed to raise the funds for their future care.

The bats coming to us were in a flight area for over one year without being exposed to a male. In this period of time, there should not have been any pregnancies. It is critically important that we do not allow the bats to reproduce at our sanctuary as we would soon run out of the room required to accept bats in need, like these tiny girls. Still, when the bats arrived, we intended to check each individual to be sure the bats were all females.

The bats arrived on March 20th. They were driven to us by two dedicated zoo employees. They had traveled throughout the night for the 13-hour road trip to Bat World Sanctuary. Upon arrival, when the back of the van was opened, we were shocked to see the crates in which the little bats had traveled. The bats themselves were inside metal mesh cages that were then placed inside wooden crates with the tops screwed shut. This meant there was no way to check on the bats in transit—no way to offer fresh food or water, and more importantly, no way to see if any of the bats were suffering from stress, or if they were injured, or otherwise in trouble.



The tiny bats were shipped inside these crates. According to the zoo, bats are always shipped via IATA regulations (International Air Transport Association). Note that these regulations were created for shipping dangerous goods.



The bats were inside metal cages within the wooden crates. Power tools were required to open the crates.

As the crates were moved into the building and opened with power tools, we were horrified to see the conditions inside the cages. There was no food or water, and many of the bats were, indeed, pregnant. Some of these mothers had aborted their babies during the trip, and about a dozen females were in the process of aborting their pups as they were removed from the crates. Tiny fetuses were lying in a substance on the floor that resembled wet sawdust, although we were told by the transporters that it was actually food/gruel that had been dampened with water so the bats could eat it on the trip. However, not only was this "gruel" covered in urine and feces, several adult bats were stuck inside the mixture. deceased.

We attempted to remove the downed bats first, but the active bats were starving and anxious to escape. Dozens and dozens were crowding the opening of the enclosure, making it difficult to remove the individuals in trouble. We placed dishes of fresh fruit on the floor of the crates in order to give them much needed food, while also distracting them from the opening of the cage. When a dish of food was placed into their crates, the starving bats swarmed over the food so frantically that we quickly decided to pour large amounts of fruit over the entire bottom of the cages to give them all a chance to eat. Thankfully, it allowed us the time needed to remove the downed bats more quickly.

We began a triage line in the sanctuary clinic. Seven staff and volunteers worked tirelessly over the next nine hours, giving extremely cold and critical bats the care they needed in the form of warmth, emergency fluids, oxygen, food and fruit juice to raise their blood sugar.



Bats crowded at the lid, desperately wanting out.



Staff giving care to injured bats.



A few of the 38 bats who were deceased on arrival. Of these, one was an albino. A baby can also be seen in the bottom center.

Several bats were injured due to the wire mesh in the cage; this included broken wing fingers and abraded toes and thumbs. All of these bats received antibiotics and pain medication until they were healed.

Sadly, 38 bats needlessly died during transport and 23 died over the next two days, with an additional 7 fetuses aborted. We believe the adults who died were the pregnant bats who aborted and then failed to pass the placenta, which can cause sepsis very quickly in an animal with such a high metabolism. The surviving 257 bats stabilized over the next few weeks. They are now roosting normally and are no longer landing on caregivers who enter the enclosure, frantically looking for food. They have gained weight and seem to realize that they will no longer have to fight each other for the basic food they need to survive. The bats who were pregnant were separated in a smaller flight enclosure until their babies were born. Thankfully, no males were born to the mothers and they soon joined their roostmates in the larger flight area.

Although the number of bats we received from the zoo seems large, we are fortunate in having the room to accommodate them due to their small size. Additionally, we are still working with the zoo to find homes for the remaining 300 bats and if needed, we are open to taking more of them after the appropriate amount of time has passed to allow the females who delayed fertilization, to birth their pups. The zoo has agreed to work with outside transporters so the bats can be safely and humanely transported to bonafide bat rescue centers in the future, via a bat care professional. One of these rescue centers, Pennsylvania Bat Rescue, has agreed to take 100 of these individuals. PA Bat Rescue has graciously offered to serve as a future rescue center to receive fruit bats rescued from the cruel. exotic pet trade in the Northeast. The larger fruit bats will be transferred to us on a case-by-case basis. On North Texas Giving Day, we raised \$25,000 to go toward a fruit bat enclosure at PA Bat Rescue that will be constructed to BWS specifications (see page 46).



A few of the 257 bats after being released into our large indoor-outdoor flight areas.

While this story is both heartbreaking and maddening, we are still grateful that the zoo retired these bats with us so they can have the life they have always deserved. Unfortunately, this zoo is the exception to the rule. For most zoos, these tiny bats are seen as a commodity—disposable beings who only matter in large numbers for public viewing. With us, they will be treated as individuals whose lives are as important to them as ours are to us.

The practice of allowing bats to breed uncontrollably is the norm at most zoos, solely so the public can see babies.

Zoos must stop the devastating practice of creating 'disposable', surplus lives. Males should be neutered to prevent these types of catastrophes going forward, and bats should always be transported humanely. We have been campaigning for decades on the issue regarding overpopulation of bats in zoos. We have contacted both the USDA as well as the AZA on numerous occasions with little to no results. We are now asking for your help.

Your voices are powerful and matter greatly. The following list of AZA and USDA officials can make the changes needed for bats. Please take a moment to write to the following individuals to voice your dismay at the way bats are often mistreated in zoos, and demand that drastic changes are made to benefit the lives of these intelligent animals.

#### Kris Vehrs, AZA CEO

kvehrs@aza.org 301-332-957

#### **Robert Gibbons, USDA**

Robert.M.Gibbens@usda.gov & animalcare@usda.gov



Just a few weeks after the rescue of the short-tailed fruit bats, staff member Natalie was cleaning the quarantine enclosure, where the expecting mothers were roosting, and came upon a sweet little abandoned pup curled up on the padded floor. Unfortunately, stress will sometimes cause mother bats to reluctantly abandon their young. "Rosie" was given emergency fluids and warmed milk formula, which she nursed with gusto. She was then placed into an incubator, complete with cozy padding and a "mommy roll", pictured below. Staff members gave her round the clock care, including feedings every 4 hours.

Rosie's personality grew just as fast as she did, and it became apparent very quickly that she was a little diva. During feedings she would often scoot herself out of her mommy roll, grabbing and clinging tightly to her caregiver's thumb. The little bat grew and grew until one evening, Natalie heard a flapping sound coming from the incubator. She was overjoyed to look over and see little Rosie flapping around, learning how to use her wings! She has now been reunited with her original colony in the fruit bat enclosure.





A balding male bat from Museum in Florida.

Last winter we received a call from a distraught caregiver at a Museum of Natural History located in Florida. Apparently, a colony of Egyptian fruit bats had been at this museum and on display since 2005. This new caregiver was extremely upset as the condition of the bats at the museum was very poor. The small cage they lived in was crawling with roaches and covered in mold.

According to the caregiver, these poor bats had lived in this condition for some time. Many had died over the years, only to be replaced by bats purchased from the pet trade so the dwindling colony could start all over again. It wasn't until the enclosure became unhealthy for humans to enter that the bats were finally rescued, and it was simply because this one caregiver cared enough to contact us.

Our first action was to get the bats out of that horrid environment as quickly as possible. We reached out to our good friends at Forest Animal Rescue (FAR), located a few hours away from the museum. FAR graciously agreed to immediately house these bats and care for them until we could arrange transport to Texas. Three days later the bats were in the care of FAR. We received regular updates on their condition, including the fact that they were all very thin and balding when they arrived. At FAR, the bats had an indoor-outdoor flight area for the first time in their lives.

While most could not fly well, they immediately took advantage of the outdoor flight area with their feeble wings, and then refused to go into the indoor area where their food was located. When taken inside to show them where their food could be found, they immediately flew back outside. Their food was delivered to them outside instead, and when the weather became a bit too cold and they still refused to come inside, FAR supplied heaters in the area where they were choosing to roost. They were at FAR for several weeks and not once did they want to venture inside the indoor enclosure. We feel that it was because they had been without fresh air, sunshine, and the ability to fly for so incredibly long that they could not bear to be without it.

Transport was arranged, and the bats arrived at Bat World Sanctuary safe and sound. The records that came with these bats were shockingly scant. They began in 2005, starting with a bulb that blew in the exhibit but "no bats were injured". A later entry states that a bat had "food or something white" on his wing membrane and their veterinarian advised isolation. Another entry states that a bat developed "something black on his head" and the veterinarian advised to "give it a week to see what happens".



One of the Florida 12 at Bat World Sanctuary, with her head marked in green, settling in with newly made friends.

Below are the only other records on bats who had been in care for 18 years:

- 11/08 A male bat found dead by the exhibit door.
- 3/10 Eight bats were necropsied to find the cause of death; no results were recorded.
- 2012 Five more Egyptian fruit bats were purchased from an exotic pet store.
- 4/15 Two bats died; suspected cause was cardiomyopathy, possibly related to nutrition.
- 11/15 Three bats are balding; one bat died from cardiovascular collapse possibly nutrition related.

- 11/17 Eleven bats now balding
- 5/20 Naked male bat found weak and pale on the exhibit floor after being neutered
- 11/20 Juvenile bat died while on exhibit
- 5/21 Female bat found weak with an infected mammary gland; baby died
- 4/27/21 Female bat spayed, became infected, died 5/27
- 5/5/21 Female bat spayed, died same day
- 5/19/21 Female spayed, died 5/24
- 5/21/21 Female bat spayed, died same day

We are so thankful that someone finally spoke up so the remaining bats could be saved.

These poor animals – and the others like them still stuck in hell – are suffering in these conditions for a fleeting glance by humans who won't even remember them.

The bats that we received were very lucky, but there are so many like them elsewhere who still need help. If you see bats in a captive setting that looks inappropriate, please speak out. Notify those in charge that the bats in their care deserve better, spread the word so others can also speak out, and contact your local humane societies and government officials when needed.

Although one of the female bats arrived here with an infant pup, an ultrasound proved that none of the other bats were pregnant. After the mom and pup were settled, we determined her baby was a girl. If her pup had been male, he would have been neutered when older as these bats are not native to the U.S. and can never be released. If we were to allow breeding here at the sanctuary we would soon run out of room for other bats in need. All of the bats were marked with a nontoxic, temporary green paste so we could keep an eye on them as they settled in.

Although the fur on the balding bats may never grow back, we are so pleased to report that their mental scars are already healing. They are now flying well and enjoying a clean, enriched environment, fresh air, nutritious food, expansive flight enclosures, and dozens of new friends who came from very similar conditions. They have nothing but happiness ahead of them for the rest of their lives.



Another of the Florida 12, with her head marked in green, cuddling with her new colony at Bat World Sanctuary.



Three of the Florida 12, anxiously waiting for their treat cups to be filled with melon cubes.

Little Rick was looking for a fun way to spend his afternoon when he stumbled upon a bowling alley in Mineral Wells, Texas. Although bowling looked like a ton of fun, he quickly realized he would have a hard time lifting the ball with his tiny hand-wings. So, Rick turned around and tried his best to locate the exit.



Luckily, the owner of this

establishment noticed Rick struggling to find his way out, and wasted no time in calling us for help. Bat World staff retrieved Rick just a few minutes later. Back at the sanctuary, Rick received warmed injectable electrolytes and a meal to replenish the energy he used while he was stuck inside the building. He was released into our Bat Castle (page 46) where he was free to leave at nightfall to rejoin his colony.



Over one weekend in July, with temperatures reaching as high as 114 degrees Fahrenheit outside, we learned of a colony of Mexican free-tailed bats in old, vacant apartments over a store. There was no electricity in the building and temperatures inside were close to 120 degrees.

Sadly, over 200 juvenile bats lost their lives after becoming trapped in bathtubs and sinks. Fortunately, 70 bats were still alive and rescued.

We worked in the heat to seal off areas where the bats were coming inside the apartments, while leaving access to their attic roost. Screens were used to prevent the young bats leaving the attic of the building to explore the interior where they were becoming trapped. After the areas were fixed, we checked the building every morning for the remainder of baby season to make sure we found and rescued any bats who may have been hiding. Throughout the week, we rescued anywhere from four to ten bats daily.



Top and Middle: Screening off areas that allowed bats to enter the apartments. Bottom: Juvenile bats trapped in a bathtub where they were unable to crawl up the slick sides. Many were still alive and rescued. Among those we rescued was an infant bat missing a foot, a bat with a broken wing (photo below), and two severely undersized juvenile bats. These four pups are receiving lifetime sanctuary with us. Amazingly, one bat was found inside a broken light fixture that was hidden inside a CLOSED kitchen cabinet (photo right). How he ended up in there is anyone's guess we are just thankful that he was found in time to save him.





Almost 100 bats were rescued and released into our Bat Castle where they are free to leave at will.

We were elated, however, that over a dozen of the rescued bats decided to stay and call the Bat Castle home. (See page 40)

Without the support of caring people like you, we could not save bats in trouble. We are so grateful to have the help of our supporters, especially during rough orphan seasons. This beautiful girl was found in a wood pile near Lipan, Texas, trying to escape the cold. She had nestled between the logs, nice and snug, ready to go into torpor (a form of semi-hibernation which allows bats to conserve energy when food supplies are low). The woodpile happened to be inside a screened-in porch so it wasn't long before Cannoli was noticed. The owners of the home were surprised to find



a bat inside their screened porch and wanted to make sure she was okay. A staff member made the hour-long trip to pick up tiny Cannoli, who was less than happy to be rescued from her wood pile. She was comfy where she was, after all, but alas this roost would not be safe for the little bat. She had no way out of the screened porch to hunt for tasty insects, and temperatures were close to freezing. Cannoli arrived at the sanctuary, where she will spend the remainder of the winter with new friends before being released once warm weather arrives.



Darren missed the migration bus last fall and ended up in a bit of trouble when he found himself all alone on the ground come wintertime. Thankfully, he was located by kind homeowners and was taken to Big Country Wildlife Rehabilitation Center in Abilene, Texas, where he received a full check-up. Aside from being thin and dehydrated, he appeared relatively healthy. Since Darren could not be re-

leased until spring, our transporter and volunteer extraordinaire Lis made the 260 mile trek to bring Darren to us! The little guy appeared very grateful for the effort, as he immediately settled in with our colony of over 40 non-releasable Mexican free-tails. Darren quickly learned to eat whole mealworms all by himself, and could often be found flying laps in our flight enclosure. He was given a clean bill of health and, once spring arrived, he was released with several other friends being overwintered with us.



Tabby was found grounded with a broken wing, likely from a bird attack. Both red bats and hoary bats roost in trees and are often attacked by birds. Thankfully, she was spotted by a good Samaritan, who called Bat World MidCities for help. Tabby healed well but, unfortunately, she will never fly again. Instead, she will receive lifetime sanctuary with others of her kind at Bat World MidCities.

Bean was rescued after being found orphaned. The first couple of weeks were relatively normal for little Bean. He was a ravenous eater and adored his frequent milk feedings, often falling asleep in the palm of a caregivers hand after his meals. However, it wasn't long before it became clear something was a bit different about Bean. Despite appearing to be a perfectly healthy pup, he wasn't

growing. He went on to develop normally but remained undersized. At 6 months old he has finally grown, although he will always be smaller than his roostmates. Thankfully, he appears to have no health problems, he's just a runt. His small size will likely cause issues for him in the wild so tiny Bean will receive lifetime care at Bat World Sanctuary.





When an arctic front passed through Texas around New Years Eve, over 1,600 bats were discovered after falling from their roosts beneath several bridges. Most of these bats were in the Houston, Texas area. Mary Warwick, Director of the Houston Humane Society, quickly went to work gathering the fallen bats from sidewalks and other areas below the bridges, and then contacted us for help.

We advised slowly warming the bats, and then doing a health check on each bat to see who could go back into torpor (a semi-hibernated state) until the weather warmed. A warm front was expected within days so the bats could be released then. Thankfully, Mary had an attic that would maintain the perfect temperature for the healthy bats to sleep until they could be released. We then sent a volunteer over to help Mary sort through the bats to determine who was healthy enough to be released and who needed long-term care. Then, a wonderful transport volunteer made a 12-hour round trip to bring the bats needing extra care to Bat World MidCities and Bat World Sanctuary.

When more bats began to fall from other bridges, our volunteers made additional trips to save as many as possible. Over 160 bats arrived at Bat World for care and after two to three weeks of injections of warmed electrolytes and good nutrition, they were fully recovered and ready to fly free.

A few weeks later, Kate Rugroden, our Director of Special Projects, made a special trip to Houston to teach a two-day class to Mary and her team of volunteers (see page 28). The bats who had needed temporary special care also traveled to Houston with Kate so they could be released back into their colonies.



Out of over 1,600 bats, less than a dozen suffered permanent injuries because they were rescued in time. One of those was Spinner, pictured here. Spinner suffered a head injury which left him with seizures that may last for life. The seizures are being controlled with medication and Spinner is living happily with our non-releasable free-tail bat colony. He will receive lifetime care at Bat World Sanctuary.

We're proud of how well our organizations worked together to save so many lives, and look forward to saving many more bats together!

This sweet evening bat thought he had scored the ultimate accommodations in a patio umbrella. He settled in to the folds for an afternoon snooze, only to have his nap interrupted when the umbrella was suddenly opened and he became entangled in the umbrella mechanism. Unfortunately, he sustained an injury to his left wing. Bumbershoot's injury is not severe, and no bones were broken, but he needs time to heal so he will most likely stay with Bat World MidCities until



spring when the weather warms. Note: evening bats are notorious for roosting in the folds of patio umbrellas. Some mothers even choose to raise their young in umbrella's during the summer months. Many homeowners have chosen to let the bats have the umbrella as a home while buying a second one for themselves!



This miniscule morsel of mayhem is a very tiny tricolored bat, measuring a scant 2 inches from tip of nose to tip of tail and weighing a whopping 2.5 grams (less than a nickel). These bats emerge in the early evening and are often mistaken for large moths in flight. Mischief was found outside a business in Longview, Texas. The finder dropped him off at a veterinary clinic, who promptly called us. On arrival, tiny Mischief was thin and dehydrated, but had no injuries. Once he gained a little weight and his overall condition improved, he was released back in his area to eat caddis flies, moths, beetles, wasps, flying ants and house flies.



Persimmon suffered a bad facial wound when she was viciously attacked by a blue jay, who drove her to the ground. Along with a facial injury, she sustained several broken wing fingers in the assault. Because of this, she is not releasable. She is now receiving lifetime care with others of her kind at Bat World MidCities.





This beautiful young bat was found abandoned, starving and dehydrated in a street in Sofia, Bulgaria. Likely just weaned, she apparently had a difficult time adjusting to a life without "Mom". She was rescued by Bat World Bulgaria where she was brought back to perfect health and given flight exercise to ensure she would survive before being released. Little Anya is now flying free after receiving a new start in life.



Beautiful Butter was a victim of the artic blast described on page 18. She was found starving with a broken wing and rescued by Bat World MidCities. She will no longer be capable of flight so will receive lifetime sanctuary with us.



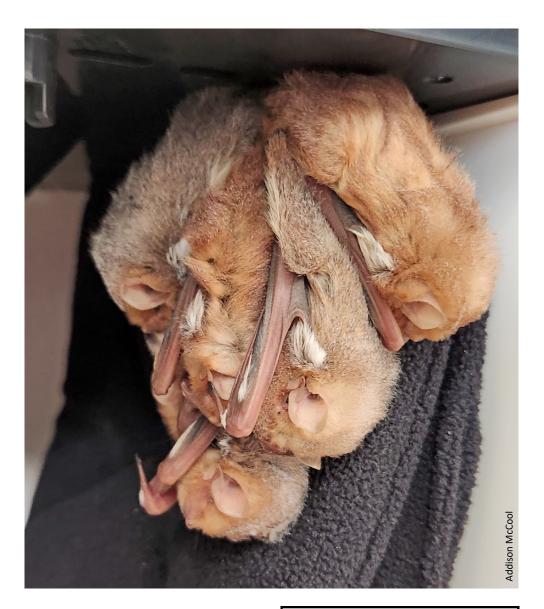
Poor Carrot was found grounded with a badly broken wing after a strong storm passed through Dallas, Texas. She was rescued by our volunteers and transferred to Bat World MidCities, where she was also found to be dehydrated and starving. On arrival, she was given an injection of warmed electrolytes, pain medication and antibiotics, and allowed to rest in comfortable quarters. Unfortunately, she will not be releasable, so she will be welcomed into our permanent colony.



It was a very busy summer rescuing orphaned Eastern red bats! In just one day, over 3 dozen bat pups arrived in need of help. They came from 10 different counties throughout Texas, and more than 15 different cities. Thanks to our incredible transport network, and the citizens who were willing to drive to Bat World MidCities and Bat World Sanctuary, everyone arrived safely.

Tree bats are among the few bat species that give birth to more than one live young. Red bats in particular typically have three to five pups every summer. They roost openly in trees using their "dried leaf" coloring as camouflage. Despite this natural ability to hide in plain sight, they are still sometimes spotted by birds such as blue jays and crows.

Mothers trying to escape bird attacks may drop their babies while flying away or they may end up on the ground due to the weight of their pups. Once these mothers are grounded, they often refuse to leave their babies even if it means sacrificing themselves.



Each of these orphans is fed a milk formula that is specifically for tree bats, four to five times per day, for six to eight weeks. After that they are trained to eat live mealworms.

When the pups are ready, which is usually between eight and ten weeks of age, they are allowed to fly in a large flight enclosure to hone their flight skills before being released to the wild.



Scan or find help at batworld.org



Bubs & Bruce were two of the orphaned red bats we rescued this past summer. Bruce (right) , was the first of the pair to arrive. Bubs (left) arrived the next day, and Bruce welcomed her with open wings. The pair became inseparable, and were always snuggled up close to each other.

Bubs & Bruce were hand raised with us until they were old enough to survive on their own in the wild. Unlike other bats, tree bats are always released during the day to allow them to orient themselves to their surroundings. These bats roost in trees, typically in a cluster of leaves. When they are released, we mark the spot where they were placed (photo below), then check early the following morning to make sure they safely flew away. If they do not fly away, they are taken back in and allowed more time before trying again. Little Bruce and Bubs flew away with no issues.





This summer we rescued over a dozen orphaned free-tails, and this tiny girl, named Lily, was the most emaciated we encountered. She was spotted clinging to the bricks underneath the mailbox of a local business. Thankfully, she was uninjured and after a few meals of nutritious species specific milk formula, developed at our request by Mark Finke, PhD Nutritional Scientist, she was on her way to complete recovery.

Free-tail pups are born without fur and early on, milk can be seen in their tiny tummies as they are being fed (pictured below). Additionally, this species cannot lap milk so they must nurse. We use foam eye-shadow applicator tips cut down to fit their miniscule mouths. They take the tip with them after being fed and it acts as a pacifier.

Little Lily was hand-raised to adulthood, which took about 12 weeks. After she was flying well enough to survive on her own, she was released to rejoin her wild colony.



### **Bat Rehabilitation Workshops**



A few weeks after an arctic front passed through Houston, Texas leaving 1,600 bats in need of rescue (described on page 18), Kate Rugroden, our Director of Special Projects, made a trip to Houston to teach a two-day class to the Houston Humane Society (photo above). The bats who needed temporary special care also traveled to Houston with Kate so they could be released back into their colonies. Workshops were also given in Fort Worth, Dallas and Weatherford, Texas, training 45 new bat rehabilitators for the state.

- A total of 25 veterinary medicine students participated in our lecture and lab on medical management of insectivorous bats at Texas A&M College of Veterinary Medicine.
- Bat World Sanctuary presented a full-day virtual workshop on bat rehabilitation for the third year in a row for veterinarians, biologists, and rehabilitators in Mexico as part of Bat Week with 35 participants, with bilingual audio delivery via Zoom.
- Presented a new course for Animal Control officers called "Why Can't We All Just Get Along: successful strategies for resolving human/wildlife conflicts". Participants learn how to identify the root cause of wildlife issues, conduct a neighborhood audit, educate citizens about the benefits of having urban bat populations, and provide solutions to address conflicts.
- We continue to expand our online professional development programs, with our most recent course drawing over 50 participants from the US, Brazil, Mexico, Canada, Ireland, France, Italy, Austria, Bulgaria, Croatia, Japan, Australia, New Zealand, and South Africa. These courses focus on providing the most current, accurate information about bat rehabilitation techniques, so bat rehabilitators worldwide can deliver the best care possible.

### **Education Outreach**

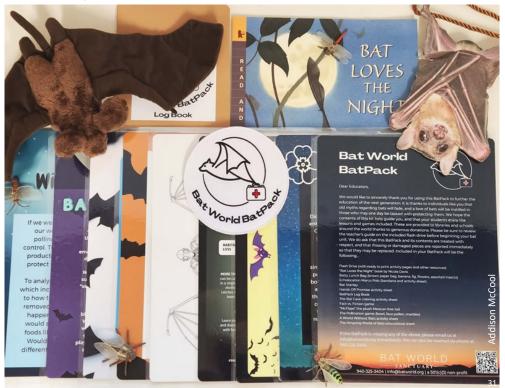


#### **BAT WORLD BATPACKS!**

Our Bat World BatPack's have been shipped to TX, OH, GA, NY, MA, NC, PA, NM, NH, NJ, CA, OK, OR, FL, VA, MI, ME, and The Seychelles Islands to educate children about the importance of bats in our world. As seen below, each bat pack contains a full lesson plan suitable for ages 5 through 10, including a variety of activities, a "Bat Stanley", printable worksheets, and games for students to enjoy while learning! Our Bat Packs are shipped out to libraries and schools for educators via a \$50 donation to

cover the cost of materials and shipping. If you are interested in donating a Bat Pack to your local school or library, visit batworld.org or scan the QR code.





#### **NEW INTERNATIONAL RESCUE CENTERS**



This year we welcomed three new international rescue centers! Along with our current Bat World Bulgaria, we now have Bat World Austria, Bat World Italy and Bat World Japan. Pictured above is Bat World Austria spreading the good word about bats at the Gartentag Kottingbrunn (Garden Day event in Kottingbrunn).

#### **BIG BAT HOUSE MOUNTED AT NATIONAL VIETNAM WAR MUSEUM**

We are so very proud to partner with the National Vietnam War Museum on a big bat house project! The bat house is being mounted in Memory of Major Luther S. Lollar, who served in Vietnam twice and was instrumental in getting Bat World Sanctuary off the ground in 1994. He helped our organization with numerous projects and donations until his passing in 2012.



The bat condo was built by instructor Jeff Williams (pictured right) and the students of the 2022-2023 Building Trades classes of Mineral Wells High School. Completion of the outside in blue and white (matching the museum colors) and mounting of the bat house was done by our favorite contractor, Benavidez Construction. A Skv Track was generously donated for the day by Clay Godwin of Mineral Wells Rent-All to mount the house over 20' high.

The big bat house is located less than a mile from our Bat Castle (page 40), and is in the perfect spot for migrating bats needing a safe spot to rest or a permanent home.

A huge thank you to Jim Messinger and the Board of the National Vietnam War Museum for allowing the bat house to be mounted at the absolute perfect location. The bats occupying the old buildings in downtown Mineral Wells, that are currently under renovation, will hopefully soon call this bat condo home. This has been a fantastic community project that will hopefully draw attention to the benefits of bats as well as the many Heroes of the Vietnam War.





#### BIG BAT HOUSE MOUNTED AT NATIONAL VIETNAM WAR MUSEUM, cont.



Above: Major Luther S. Lollar receiving the Bronze Star during his second tour of Vietnam. Right: Arturo Benavidez and Nelson Galvan, mounting the plaque pictured on the opposite page.

An educational sign on Mexican free-tailed bats will be added. Although there are already security cameras in place, as the bat house becomes full, a fence may be erected around the house to offer protection for the bats.



# This bat house was crected in Honor of MAJOR LUTHER S. LOLLAR

Major Luther Lollar first entered the US Marine Corp, serving in WWII. He later transferred to the Army and became a helicopter pilot. He was deployed ahead of what would later be the rush to Vietnam, where he began inventing the armament system for the Bell UH-1 Iroquois helicopter. His system began as 4x M60 machine guns and later evolved to include missiles and rocket pods, saving thousands of our troops throughout the entire war. Some of his awards include two insignia - Senior Aviator and Air Crew - as well as fifteen medals, including the Distinguished Flying Cross, the Air Medal with four oak leaf clusters, and the Bronze Star (pictured above). After two tours in Vietnam, Major Lollar retired from active duty. He then spent several years as a flight instructor at Fort Wolters Army Base, sharing his extensive knowledge with new pilots.

His Distinguished Flying Cross was earned after he and two other pilots were ordered to retrieve troops that had become trapped by enemy forces. When they arrived at the landing zone, they discovered that the site was hot with enemy troops. At the beginning of the war, helicopters were unarmed. After the other two pilots decided they were not going to risk a landing, Luther Lollar created a distraction to enable the two pilots to pick up the troops. Lollar entered the landing area, and using the spinning blades of his helicopter as a weapon, he chased enemy infantry, dispersing and confounding the enemy forces, sending them scrambling. The tactic was successful, and all of the US troops were retrieved. When he landed, his helicopter had numerous bullet holes - even the blades were whistling as they spun down. Remarkably, Major Lollar had stored a wrench inside a cigar box on a shelf, which was placed behind the seating area of the helicopter. That small wrench inside that cigar box had stopped a bullet from traveling into the aircraft's transmission, which would have brought him down and into enemy hands.

Major Lollar and his wife, Gladys, loved animals and wildlife. In 1994, Major Lollar was instrumental in getting Bat World Sanctuary, his daughter's organization, off of the ground. He generously built all of the flight and rehabilitation enclosures for Bat World, constructed educational displays, and built over 200 bat houses which were sold across the U.S., with 20 being mounted in the downtown area of Mineral Wells, Texas. He loved farming and gardening and devoted several acres of his land to planting melons and other fruits, which he harvested and cut into bite-sized pieces for the rescued fruit bats.

Over the years, many have spoken of Major Lollar's heroic actions and the lives he saved while risking his own. His never ending love for his family and wildlife lives on in Bat World, the largest bat sanctuary on earth. Thank you, Major Lollar, for your incredible sacrifice and your generous heart.

Please scan the QR code for additional information on the National Vietnam War Museum located in Weatherford, Texas.



### **EXTERNSHIPS**



John Wilber, visiting from Georgia, was with us for two weeks during the summer and was a great help with installing pup catchers for local businesses in Mineral Wells, Texas. Rachel Thorstenberg, is studying bat ecology in Kansas and was able to gain invaluable experience working alongside us during orphan baby bat season. For more information on our externships scan the QR code.



### **CREATING PUP CATCHERS FOR LOCAL BUSINESSES**



Over the summer, staff and volunteers were busy at work creating and installing pup catchers for local businesses, as seen above with bats roosting behind the sign of a local karate studio. Pup catchers allow pups who accidentally fall from

their colonies to crawl safely back up to the roost instead of falling to the ground below. Pup catchers save countless babies every year. Scan the QR code for more information about pups catchers, and how they save bats!



### CAMPAIGN SUCCESS—VICTORY FOR THE SEYCHELLES FLYING FOX!

Due to our letter writing campaign, 'bat curry' has been removed from four major tourist restaurant menus in the Seychelles Islands! Furthermore, our letters, as well as support letters from local and global conservation groups, have resulted in regulations providing a complete ban of bat dishes. This keystone species will be granted official protection under the new Wildlife Protection Act for the first time in history! Co -founder of Protect Paradise Sey-



chelles, Tamara Dreyer, is working closely with the Ministry of Environment to ensure effective framing of the new regulations. Among these, it will be illegal to commercially hunt these bats, serve them in bat dishes, or to keep them as pets.

### ADDITIONAL ACTIVISM

- We aided rehab centers with guidance and supplies, including the Wildlife Rescue Center, St. Louis MO; Shaw Wildlife, NJ; Humane Animal Rescue, PA: Houston Humane Society, TX; and individual bat rescuers in in AR, AZ, FL, GA, MI, NJ, NH OH, OK, PA, TX, TN, ME, MN and VA. Internationally, we helped rescue groups with either support or guidance, including Baby Bats and Buddies in Australia; Murciélagos Argentinos in Argentina; The Israeli Bat Sanctuary; Bat Rescue in Nuremberg, Germany; Poland Bat Rescue; Wildhaven in Manitoba, Canada; and Mars Wildlife Rescue, Vancouver Island BC, Canada.
- Assisted in updating the minimum care standards for bats in rehabilitation for the California Department of Fish and Wildlife.
- Worked with an Animal Control officer in Tucson AZ who was concerned about the inhumane way bats were being transported by her agency, and donated bat huts to implement changes in making transport and holding less stressful for bats.
- Working with Rescue Illinois Bats and Good Bat Neighbors in an effort to legalize bat rehabilitation in Illinois.
- Sent educational information for classrooms in SC, NY, TN, OK, MO and TX, as well as a Women's Shelter in Texas.

- Bat World Sanctuary's Director of Special Projects, Kate Rugroden, was selected by the National Academies of Sciences, Engineering, and Medicine to participate and share feedback for researchers working with wildlife. The information will be used for future updates or additions to *The Guide for the Care and Use of Laboratory Animals,* 8<sup>th</sup> edition (the Guide; 2011, NRC).
- Upon learning of erroneous and harmful information regarding the rehabilitation of insectivorous bats that was published in "Wild Mammal Babies", we contacted the authors of the book. They graciously agreed to remove the incorrect information on formulas, housing and care listed for insectivorous bats, and instead, refer readers to the Rehabilitation Guide on our website, which is frequently updated.
- Reported a pseudo-bat rescuer who was taking bats from the public without a permit, causing harm and fatalities to downed orphaned and injured bats. An investigation and subsequent shut-down was performed by the state wildlife agency.
- We stopped the extermination of a nursery colony of bats roosting in an apartment complex in Baton Rouge, LA and saved nursery colonies from being destroyed in TX, IL, WY, GA, OK, ME, NJ, OR, and WA by convincing property owners to wait until the first week of September, when bat babies can fly, to humanely exclude the bats.
- We arranged transport for downed bats to get to wildlife rehabilitators in UT, NE, AR, TX, PA, OK, GA, NJ, WA, KY, NC and CA via our volunteer transport list.
- Contacted The Wildlife Rehabilitation Society of Connecticut (WRSC) and encouraged them to change information on their website advising citizens to place downed bats into a tree. This action typically leads to the death of a bat as they are likely downed due to injury or orphan status. WRSC removed the information immediately and instead now directs citizens to our site so rescuers can be located.
- After the rescue of hundreds of tiny fruit bats, we contacted the Animal Welfare division of the USDA in order to implement changes in the way bats are treated and transported in zoos. After a lengthy conversation, Bat World Sanctuary was invited to be a speaker at an upcoming bat welfare symposium planned for the spring of 2024.
- Worked with researchers from Texas Tech University to provide tissue samples for the Bat 1K Reference Genome Project. Researchers do not want to trap bats from the wild to obtain a potentially fatal sample. When a gravely injured bat came into care at Bat World MidCities, he was humanely euthanized and tissue samples were then collected.
- This year our educational "Biggie Bat" kids cards as well as our "Cool Stuff to make you smarter" cards were translated for use in educational programs in Argentina, and our Biggie Bat children's video was translated in German.

- A documentary on Bat World Sanctuary was created by Veganography Films, whose focus is on animal and environmental protection, and inspiring positive change.
- Collaborated with biologists in Roanoke Rapids, NC regarding a large bat problem they have with hundreds of thousands of bats roosting in older homes in the area. We offered insight on building a Bat Castle (following our success), as well as planning and fundraising for construction costs.
- Teamed with a researcher at the Zoo and Conservation Science Program at Otterbein University in order to create a non-lethal method of testing bats for rabies by recording vocalization changes that occur with the disease.
- Began talks with Noble Research Institute LLC, an organization that promotes soil health principles in Agriculture (Regenerative Ranching). The company is isolating DNA on guano samples from local bat houses to show proof of the varieties of insects these bats are consuming and their benefit to ranchers. We will be providing guano samples from bat species that have been positively identified.
- Provided training and guidance, including nutrition, housing and enrichment, to a Cornell University researcher in order to implement the best care standards for the bats while in their care.
- Collaborated with Missouri State University to provide non-invasive wing tissue samples for genomic studies across a broad spectrum of species. By providing these samples from bats in permanent care, the research team did not have to trap bats in the wild. Information about specific individual bats involved was provided, and will be included in forthcoming research papers, highlighting the value of working with bat rehabilitators rather than the stressful trapping of bats in the field for data collection and sampling. These studies will help scientists understand and appreciate the unique biology of bats without needlessly trapping, harvesting or killing wild bats.
- Created a video on pup catchers showing that these life saving nets can be created under not only bat houses but in barns, outside homes, and also under large roosts in commercial areas. See batworld.org/how-to-create-nursery-colony-pup-catchers.
- After years of speaking out, via social media, about photos showing the inhumane handling methods of bats in the field, the U.S. Fish and Wildlife Service has followed our lead announcing a guide to bat photography titled "Effective Bat Imagery". The guide recommends against using the old-school, painful methods of handling bats by scruffing the skin of the back, pinning their wings behind their backs and holding bats by their delicate, outstretched wings in a crucifix position. The new recommendations are written as follows: "Always wear gloves to handle bats. Do not hold bats by their outstretched wingtips or by their thumbs as this can cause harm or discomfort. Instead, use your hands to support and secure the body

of the bat. When handling bats, minimize noise, activity, and light levels to create a calmer environment for more amicable bat expressions." For more information on our campaign to end the cruel handling of bats please scan the QR code.



### BAT CASTLE — MAKING HISTORY!

Our original conservation efforts began in 1992, when Founder and President Amanda Lollar purchased an old building in downtown Mineral Wells, Texas in order to save a colony of approximately 30,000 Mexican freetailed bats. The building was built in 1899 out of hand-hewn sandstone and bats had been roosting in the crawlspace for several decades. Every summer, the mother bats would form a nursery colony there. When Amanda learned that the building owner planned to destroy the bats in order to sell the building, she bought the property.

Over the next two decades many improvements were made to the building, including stabilizing the foundation, adding a new roof, and installing catwalks on the upper floors to reach and rescue orphaned bats. Before these improvements were made, over 6,000 pounds of guano was removed that had accumulated over the decades.

Through careful observation of the colony, Amanda made numerous discoveries about free-tailed bats, including "the song of the Mexican free-tail", their mating behavior and their unique language. She rescued thousands of bats over the next two decades, and treatments for injuries and ailments were discovered in the process, culminating in the book, *The Rehabilitation and Captive Care of Insectivorous Bats*.

In the 20 years that Amanda maintained the wild sanctuary, the colony size increased from 30,000 to 100,000, primarily due to humane exclusions that were provided by Amanda to business owners in the downtown area.

Every summer, as many as 100 to 250 orphans were rescued. Methods of care were created and streamlined for both the comfort of the bats and the convenience of the rehabilitator.

Sadly, the building ultimately became unsafe for the bats due to crumbling mortar and numerous other issues, which required continuous repairs. Additionally, the town, which had been in disrepair for years, was finally growing and nearby buildings were being renovated.

Knowing it was time to create a safer habitat, Bat World purchased 13 acres of land nearby and a "Bat Castle" was built for the bats in a private location. The Bat Castle design was inspired by the wild sanctuary, incorporating preferred roosting areas for the bats. The structure is capable of holding over 100,000 bats. Over the course of the next three years, the bats in the wild sanctuary were slowly and humanely excluded.

Bat World also worked with numerous local businesses who were renovating buildings that held bat colonies, and offered a safe release site for these bats who were losing their homes. While bats have not begun to use the Bat Castle full time, there is evidence of migrating bats using the Castle as a stop-over site.

In 2022, we mounted a large, double-sided bat house, complete with a pup catcher, beside the Bat Castle. This bat house sits above the tree-line where it can be more easily spotted by foraging bats. The pup catcher is designed to be easily lowered in the event orphaned bats need to be rescued.



In July, we rescued over 50 juvenile designed bats trapped inside old buildings. As Bat Castle we had been doing for nine years

Juvenile bats enjoy one of the nooks specifically designed for Mexican free-tailed bats inside the Bat Castle.

previously, after we hydrated and triaged bats who needed it, we released them into the Castle. Over the next week we continued to release bats who were trapped in the same buildings. Then, a three-day lull passed without any bats becoming trapped and being released. In checking the Castle on July 28th, we saw bats still inside the Castle, doing well. There was also guano on the predator guard surrounding the caste. Needing more proof that the Bat Castle was indeed

being occupied, we went at dawn on July 31st in high hopes of seeing bats returning to the Castle. Right before the sun came up, we saw a bat heading toward the Castle, then another, and another, and another. After 10 years of waiting, we were finally seeing what we have been dreaming about for so long. Now that bats are calling the Castle "home", more bats losing their habitat will likely start coming to the Bat Castle seeking shelter. With us, they will live in peace, they will never be evicted, and they will always be protected.



A screen grab of the video taken one morning as bats were returning to the Bat Castle. Scan the QR code to watch the video.



### JUSTICE FOR THE MALL OF ABILENE BATS

In August, we received word from Big Country Wildlife Rehabilitation Center that bats were roosting at the Mall of Abilene and were in danger of possibly being killed by the Operations Manager, Jason Moore. Note that these bats had been roosting at the Mall of Abilene for years without any issues. We called Mr. Moore right away to offer advice on how to humanely exclude the bats, and we also spoke with the Orkin office in Abilene about humane bat exclusions. The manager at Orkin was wonderful and wanted to do what was best for the bats. Mr. Moore also agreed to do a humane exclusion the following week. The following day, however, Mr. Moore instead decided to seal the roost with silicone. Some of the colony had left their roost before it was sealed, but dozens ended up trapped inside. Unable to leave their roost, they sought an escape route and ended up inside the mall (exactly what we explained to Mr. Moore would happen if the bats were sealed in rather than humanely excluded).

### TRAPPED BOTH INSIDE AND OUTSIDE

When we found out the bats were sealed in, we called Mr. Moore and offered to do an exclusion for him so the remaining bats trapped in the roost could escape. We received a photo of bats huddled at the entrance of their newly-sealed roost, trying to get back inside. They could hear the cries of their trapped roost mates inside the sealed roost as the hot sun seared down on them



Juvenile free-tail bats huddled outside their roost, which was sealed with silicone, locking bats both inside and outside the roost.

and the temperature rose to 110 degrees Fahrenheit. We were told that one of the bats was stuck in silicone. When we asked Mr. Moore what happened to that bat, he replied "Oh, he's still up there."



Staff members Carrie Hall and Addison McCool, gathering bats from outside the roost as well as removing silicone so the bats trapped inside could escape.

Big Country Wildlife Rehabilitation Center, Orkin of Abilene, and Bat World Sanctuary all tried to work with Mr. Moore, to no avail, before he sealed the bats in, stating he did not care if they all died.

Mr. Moore agreed to let us provide a humane exclusion (free of charge) as well as remove the bats huddled outside their roost. We convinced him that unsealing the roost would be in his best interest if he did not want more bats going into the mall stores in their attempts to find a way out. After driving two hours, we arrived at the mall. It took several hours working in extreme heat to fix the issue Mr. Moore had created. Two of our staff ended up with heat exhaustion after being on the lift in the hot sun for hours. Fortunately, the bat trapped in silicone managed to escape and fly away before we arrived. In total, 181 bats were saved. Nine were in critical condition and needed long-term care.

#### **CONFESSED TO KILLING BATS**

The following day, Mr. Moore collected two bats from inside of the mall, and instead of immediately calling the nearby Big Country Wildlife and Rehabilitation, he instead placed the bats into a box, then put the box in the bed of his truck in the blistering heat. Both bats died, due to the heat, before rescuers became aware of them. In texts to Big Country, Mr. Moore admitted that the bats had died.

Unfortunately, there is no protection for bats in Texas when they are in a building occupied by people. We are now actively working to change this.

# **Keeping Wild Bats Safe**

Baby season for our North American bats starts in May and ends in early September, depending on the species. Here are a few tips you can use to help save their lives.



THERE IS NO HUMANE WAY TO EXCLUDE A BAT COLONY DURING BABY SEASON. Most bats give birth to just one pup starting in late spring and summer. If you exclude a bat colony or trim down their palm frond home during the spring or summer, baby bats will be left behind to die. If you have an unwanted bat colony in your attic, ensure there's no way they can get into the home's interior, but wait until the end of summer before having the colony excluded. Visit batworld.org for humane ways to evict bats at the proper time of year.

Be careful when mowing!





Bats roosting in trees are frequently attacked by blue jays and crows, ending up grounded in yards where they are often found by people or pets, or worse, hit by lawn mowers. A mother bat will try to protect her babies by spreading her wings over them as seen in the photo on the left. Please check your yard for downed bats before mowing. If you find a bat in need please visit batworld.org to find a rescuer in your area.

At least 12 of our 47 US bat species use dried palm frond "skirts" as natural bat houses. To protect baby bats and birds, don't trim dried fronds in spring or summer. Try to leave some dried fronds year round so bats have a safe place to raise their pups in summer, or to hibernate in winter. In addition, cosmetic trimming of the fronds can make palm trees more susceptible to heat stress and drought, so leaving some fronds helps both the trees AND bats!

Ceiling fans can break tiny arm bones. Please turn any outdoor ceiling fans OFF at night to avoid tragic accidents with bats that may fly under your porch looking for a tasty insect treat.

Please give bats a break by NOT giving them a break! You'll save a little on your electric bill while also saving little lives.



## Use Froglogs in Pools!



#### **GLUE TRAPS ARE INHUMANE!**

This graphic may be hard to look at, but it is not near as difficult to see as the real thing. Fly and glue traps are horrendous objects of cruelty—they oftentimes catch other small animals such as birds, small reptiles and bats. Most of these trapped animals suffer for days and do not survive the stress, starvation and dehydration that occurs from being stuck on these traps. Glue traps should never be used for mice either, as there are humane alternatives available. If you must use fly strips or glue traps for insects, please cover them with chicken wire or another type of mesh that allows insects in while keeping small, innocent animals out of harms way.

A special thank you to Happy Valley Bats for commissioning this important work by graphic artist Joan Chen.

If you have an outdoor pool please add a "FrogLog" as well as a "critter skimmer". Both of these items can save countless lives every summer.

Froglogs are small and compact and simply hang from the pool edge, allowing mice, lizards, turtles, toads, frogs and bats to escape drowning.



# Install a pup catcher!



Every summer we receive dozens of reports of baby bats falling from bat houses. This occurs when pregnant moms move into a bat house, not understanding that the population inside the roost will double when their babies are born. The pups grow quickly so it doesn't take long before the bat house is over-crowded and overheated. Installing a pup catcher is very easy to construct and install, and costs very little. It is a simple net that catches fallen pups and allows them to climb back inside. Pup catchers can even be made to fit inside barns, under the eaves of homes and any other area where babies may be falling. If you have a bat house with bats, or have noticed pups falling from another type of roost, please install a pup catcher right away. See batworld.org for free instructions.

Special thanks to Cindy Myers for the use of her graphics and text!

# **Staff Appreciation!**



In October we held our first annual Bat Staff Appreciation Party for our wonderful team. These ladies bring so much compassion, fun and dedication to their work every single day. We would be lost without them! Everyone received a personalized envelope created by Assistant Director Natalie. Inside were hand-written statements from their coworkers on how much they were appreciated. Then came wonderful plant-based food and lastly, a raffle with batty gifts donated to our staff by a local contributor. For more information on our bat caregivers visit our staff page at batworld.org.

# **Fundraisers and Donations**

Every year, more and more fruit bats are needing rescue from laboratory research, irresponsible zoos that allow over-breeding, and the cruel exotic pet trade. Oftentimes, bats in the north must wait until the weather warms to be sent to our facility in Texas. Over time, we fear we may become oversaturated with fruit bat rescues. The best solution is to provide rescued fruit bats a sanctuary in the north, much like Bat World Sanctuary. Therefore, we partnered with the Pennsylvania Bat Rescue to build a



flight area for rescued fruit bats in the Northeast. Over the years, PA Bat Rescue has acted as a way-station for fruit bats while they prepare for their trip to us in Texas, like beautiful Sarah, pictured here. With the construction of a flight area specifically for rescued fruit bats, they will be capable of offering permanent sanctuary to non-native bats in need, following our guidelines. On North Texas Giving Day we raised \$25,000 toward this project. For updates on the construction please visit pabatrescue.org.

# **Batty Word Search**

### Use your batty brain to find the names of different bat species!

L	В	S	Ρ	R	К	В	L	S	W	т	Q	D	Н	S	R	0	М	т	Ι
н	Ι	Ρ	Ρ	Α	L	L	Ι	D	Α	Α	L	Е	Α	М	Е	Т	W	Ρ	Q
С	т	0	Е	L	V	0	G	D	М	В	М	D	М	Е	D	Т	D	Q	F
Α	Α	т	S	W	D	S	I	Е	V	т	н	Α	М	Х	В	Ν	Е	В	D
S	В	т	0	М	Е	S	R	R	М	Ι	0	Е	Е	Ι	Α	S	R	Е	Е
U	т	Е	Ν	F	С	0	0	0	0	U	R	Н	R	С	т	Е	Ι	U	Ρ
С	S	D	F	L	Α	М	L	L	U	R	S	Y	н	Α	Ν	Ν	Α	G	Ρ
K	0	к	Α	Y	F	В	0	0	S	F	Е	Е	Е	Ν	W	0	Н	Ν	Α
Е	н	С	Е	Ι	R	Α	С	С	Е	Ν	S	R	Α	F	0	Т	R	0	С
R	G	Α	L	Ν	Е	Т	Ι	W	т	Α	н	G	D	R	R	S	Е	т	Ν
F	М	В	Х	G	w	Е	R	Α	Α	С	0	Ν	Е	Е	В	G	V	G	Е
0	т	D	Α	F	0	R	т	R	Ι	Ι	Е	I	D	Е	G	Ν	L	Ν	D
0	Α	Е	В	0	L	В	Е	Т	L	Α	L	Ν	V	Т	Ι	I	Ι	0	L
Т	В	К	J	х	F	G	В	S	Е	М	F	Е	D	Α	В	۷	S	L	0
Е	Ν	Α	I	W	Υ	М	Ν	U	D	Α	н	۷	w	Ι	F	I	G	Т	G
D	W	Ν	Ρ	Ρ	н	0	Α	R	Y	J	М	Е	L	L	М	L	Υ	۷	D
т	А	В	Т	Ι	U	R	F	L	Ι	Α	т	т	R	0	Н	S	С	U	т
U	D	Ι	В	R	Y	Е	L	L	0	w	В	А	т	L	Α	۷	Е	S	R
R	Α	В	I	G	Е	Α	R	Е	D	D	Е	Т	т	Е	L	U	Α	Ρ	Е
Ν	Ι	Н	Т	U	В	Е	Ν	0	S	Е	В	Α	Т	F	J	F	С	Ζ	М

<b>BIG BROWN</b>	FLYING FOX	LEAF NOSE	SHORT TAIL FRUIT BAT
BIG EARED	GHOST BAT	LIVINGSTONE'S	SILVER HAIRED
BLOSSOM BAT	GOLDEN CAPPED	LONG TONGUE	SPOTTED
DAWN BAT	GREY HEADED	MEXICAN FREE TAIL	STRAW COLORED
EGYPTIAN	HAMMER HEADED	MOUSE TAILED	SUCKER FOOTED
EPAULETTED	HOARY	NAKED BACK	TRI COLOR
EVENING	HORSESHOE	PALLID	TUBE NOSE BAT
FLOWER FACED	JAMAICAN FRUIT BAT	RED BAT	YELLOW BAT



Loving Tributes

In Memory of my Late Wife Judy, who liked bats as much as I ~ Pops In Memory of Maddy McKensey ~ Patricia Budai In Memory of our sweet Willow, a Labrador Retriever ~ Leigh Scott In Loving Memory of Elizabeth Leblanc ~ Ann Davis In Loving Memory of Tessa Haug ~ Andrew Martin In Memory of Minh Van Tu ~ Tu Family Foundation In Memory of Bucko ~ Christina Lynn In Memory of Scarlett, Karat, Buddy, Horus, & Tabby Sue ~ Mandy Porter In Loving Memory of Statler, forever in my heart ~ Beverly Bower In Honor of: the caring human soul who alerted you to the plight of the Florida bats. May all living things experience the same peace someday! ~ Laura Christman In Honor of Julie Katzen ~ Lauren Nelson In Honor of my mother for her birthday ~ Rowdy Dogs Pet Resort In Honor of Luca Sage-Lauck ~ Barbara Cornell In Honor of Poe, my friend who adores bats ~ Audrey McQuade In Honor of Peekaboo, Poppy, Chessie, Statler, and all the other BWS bats who have brought us such joy throughout the years. ~ Stacy Warnick-Hesse In Honor of Andrew, my bat loving boy ~ Vicky Van Buren In Honor of Little E - bat! ~Laura Ebat Dedicated to My Wonderful Family ~ Theresa Mszar

In Honor of Noel ~ Judith Smith

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# Letters

Sharing a few of the messages we received in 2023. Receiving notes like these means more to us than we can fully express! We hope you enjoy reading them. as well.

Different subject, but I just learned of Statler & Chessie through that old Dodo video (I think it's making the internet rounds again), only to find out that they had both passed, in the same month no less. To hear their stories & that they found such a Wonderful place w human & animal friends alike, that their final years were finally filled w/ the love & care that had been previously stolen... I'm an emotional wreck! What you all do is so educational & kind; you all take rehabilitation to another level. You guys have created a true sanctuary for these deserving creatures in every sense of that word. Much thanks for your kind hearts & sharing these beautiful animals & their stories w/ the world

Thank you for your work. You do not just save bats, you actively and efficiently develop and document the best methodologies for bat rehabilitation. I truly wish more people got involved and more translations to other languages became available.

Last summer i save 46 baby bat and it was only because of your guide and first time it happens with success in Denmark!

#### Brian

They call back and handle everything with the most kind and caring way. Trained staff that know how to handle these sweet babies. I love bats, and I'm proud to be a part of one baby rescued by bat world sanctuary! Bubs is going to thrive and live a happy healthy flighty life because of you all. Trusted since I was 8 years old and visited on a field trip. Amanda Lollar is incredible.

#### Dear Addison,

OUR <u>Sincere</u> thanks for your wonderful generosity! We thun appreciate you sending us both Neonate and adult feeding tips for us to use in our windliffe rehaus center for our bat Pattents. I have been on a mission to improve our bat rehaus Autocois and the tips, as well as the Ebook have helped temendously! I have that, even across country, wildliffe rehabbers and caretakers can help one another in our common goal is

Thank you so much for your work saving these precious creatures and educating people about why they are so important!! One day everyone will appreciate how wonderful bats are and they don't deserve to be hated.

Boutans Joras

Dear Bat World, You are the main reason our bats in Australia are getting more help and love than ever before, that alone is priceless. You've always put the bats above everything else, like it should be, Thank you for always being there for the bats.

Bats are my favorite animals. What you do helps the world one life at a time.

You are the frontier scientists in bat rehabilitation. Thank you, and my greatest respect.

# Visit the Bat World Store!



### Help support the bats by shopping at batworldstore.org!

#### MAIN MENU

Store Home View all products Visit batworld.org

#### DONATIONS

Make a donation Sponsor a Bat in Need Sponsor a Bat Virtually

#### SHOP BY TYPE

Books Clearance Clothing Educational Materials Home Decor Jewelry Rescue Supplies Toys



Sponsor Sully \$35.00



Sponsor Benger \$35.00



Sponsor Cornelius \$35.00



Layered Copper Night Sky Necklace \$36.95

Lil Drac Hoodie

\$34.95



Plush Mildred \$15.95



Bats in the Pantry Cookbook \$18.95





Bat Silhouette Earrings \$13.95

#### To view the Bat World Store, please scan the QR code below.



All proceeds go towards buying food, medication, and enrichment for the rescued bats of Bat World Sanctuary, and orders are fulfilled on site by staff and volunteers. Each order comes with a copy of our annual report magazine, full of stories and photos of rescued bats that your purchase helps support.

# What to do if you find a bat

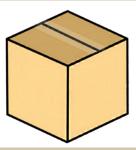


### **NO BARE HANDS!**

Please remember- never handle bats bare handed. Once the bat not moving, quietly approach the bat, and wearing thick gloves or using a thick towel, gather the bat up securely but not tightly. You may also use a piece of cardboard to gently scoop up the bat.

### PLACE THE BAT INTO A BOX

Line a box with an old t-shirt so the bat has something to hang upside-down on. Make sure the box is secured with no gaps (some bats can squeeze through cracks as small as 1/4"!). Secure the box with a lid.





#### **BRING THE BOX INDOORS**

Keep the box in a room where the bat won't get too hot or too cold and make sure the room is closed off from children and pets. Put some water in a shallow dish (such as a jar lid) in the box. Please do not provide any food.

### **CALL A RESCUER**

Contact a wildlife rehabilitator in your area. A state by state list of bat rescuers is located at batworld.org (click on Locate a Rescuer). If you are unable to access that list, please call Bat World Sanctuary at 940-325-3404 for help in locating a bat rescue center near you.



### For more information, please scan:



Video Instructions



Locate a Rescuer





### WHY SAVE BATS?

Roughly one of every four mammals on earth is a bat. Consider this: if your day includes soap, toothpaste, cosmetics, coffee, margarine, chewing gum, candles, paper, ink, wood, fuel, rope, twine, rubber, spices, vegetables, fruits, chocolate, margaritas, air fresheners or even life-saving medicines, you are not only involved with bats, you are likely dependent upon bats. Bats are among the most beautiful and beneficial animals on earth. They are clean, gentle and intelligent. Bats

are vital for healthy ecosystems and enhance our lives in many ways. Fruit and nectar bats bring us approximately 450 commercial products and 80 different medicines through seed dispersal and pollination. Up to 98% of all rainforest re-growth comes from seeds that have been spread by fruit bats. Insect-eating bats are literal vacuum cleaners of the night skies, eating millions upon millions of harmful bugs. They protect us by eating insects that destroy crops as well as insects that cause human disease.

Yet for all they do, bats are continually killed due to myths, superstition and fear. The life expectancy of a single bat may exceed 20 years, but slow birth rates limit their population growth. When just 5 bats are needlessly killed, a potential 100 years of animal life is destroyed. Worldwide, almost 60% of bats are either endangered or official candidates for listing, and they desperately need your help.

#### HOW YOU CAN HELP

In a world where so many look away, Bat World Sanctuary is on the front line to end the abuse and destruction of bats. We have been recognized as the world leader in bat rehabilitation for nearly two decades. Each year we rescue thousands of bats that might otherwise die. Lifetime sanctuary is given to non-releasable bats, including those that are orphaned, injured, confiscated from the illegal pet trade and retired from zoos and research facilities. You can help us save bats by educating others about their plight, and by donating to Bat World Sanctuary.

Bat World Sanctuary was founded in 1994 and is a 501(c)3 non-profit, accredited organization. Donations allow us to continue our rescue efforts for bats.

Bats are now in their 11th hour. We can save them, but we cannot do it without your help. Bat World Sanctuary is not state or federally funded, our funds come from caring people like you. Please join us in our efforts to save bats by making a donation and becoming a member of Bat World today.

**BATWORLD.ORG** offers free educational materials, videos, kid's games and rescue information. You can even sponsor a bat in need through our Adopt-a-Bat program. Sponsors receive educational materials and *BAT WORLD*, our conservation magazine that includes beautiful photos of rescued bats. You can also receive an online membership to *Night Flight News*, our e-newsletter, by simply making a donation of any size through batworld.org.

