

Conservation, Rescue, Sanctuary



A Jamaican fruit bat, rescued from a zoo closure, enjoying a piece of cantaloupe. Photo by Rex Dominguez. 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.

The content in this publication was created by trained, vaccinated bat care professionals in possession of all appropriate licenses or permits. No statement or photo contained in this magazine should be construed as permission or recommendation to handle bats.

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Bat World is published annually by Bat World Sanctuary, a 501c3 nonprofit organization. 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.

To inquire about local rescue, make a donation, sponsor a bat, purchase merchandise or sign up for emails, please contact us at:

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2022 Year End Letter

Dear Bat Champions,

We feel incredibly lucky to be able to not only save one of the most invaluable species on earth, but to also have the financial means to carry out our rescue work because of your support. Our accomplishments have been many this year and we are grateful we were able to do so much, but we also know we had that ability because of you and the two dear friends and supporters we sadly lost this year, Patricia Barbosa and Julie Chervenak. So many things change in life, but you have been there for us every step of the way no matter what life brings. We never lose sight of that fact.

This annual report gives the highlights of 2022, however, there are a few things we did not have the room to include so I will mention them here. In February, we had our three-year inspection with the Global Federation of Animal Sanctuaries and passed with flying colors. As the only accredited bat sanctuary on earth it is critically imperative to us that we only maintain the highest of standards for the animals in our care. That not only includes the bats, but also the dogs and goats we have rescued. Speaking of goats, we welcomed another goat and three sheep to the sanctuary after they were rescued from terrible conditions by Animal Control. Thankfully, we have plenty of grass to mow and brush to clear, and the goats and sheep will do this job beautifully while we care for them to the best of our ability.

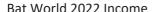
In the spring of 2022, we created garden spots on several areas of Bat World's property in order to help with the food bill. One of the areas is a large melon garden that, in time, should produce enough melons to last at least six months of the year for the fruit bats. We also have grapes, sweet potatoes, figs, and squash growing for the bats, along with three apple trees which should start producing apples in the next two years. In the summer, one of our rescue vehicles was causing issues and the repair made the vehicle not worth keeping. We were able to trade in that vehicle for a small truck which helps in picking up large loads of donated produce for the bats that we receive on occasion. In the fall, we began efforts to create a more user-friendly website which we hope will be available by the end of 2022.

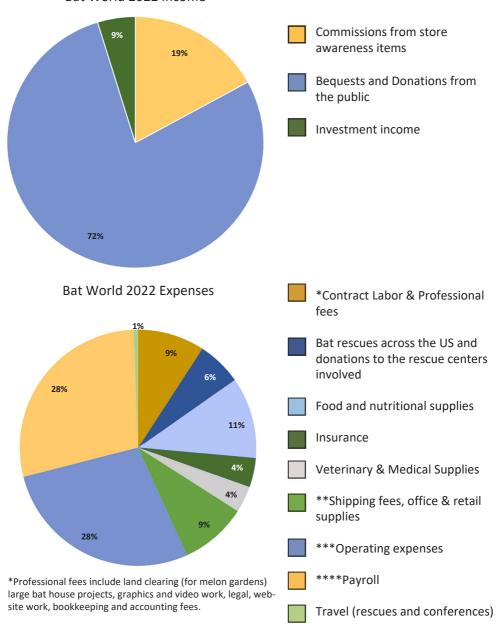
We are fortunate to have you on The Bat World Sanctuary team. Some of you have been with us for over 25 years and some of you are newer to our organization. Regardless of when you joined our cause in saving these precious souls, thank you—we could not do our job without you. So, from the bottom of those tiny bat toes to the skies above, THANK you so very much for another year of saving these precious lives. Like Lil' Drac, You Rock!

Amanda Lollar Founder and President

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2022 Financial Accounting





^{**}Shipping costs, supplies and equipment (also see page 5).

^{***}Utilities, maintenance, cleaning supplies, enrichment items, bank fees, printing /website services & installing a new water line after our well water went bad.

^{****}Our payroll is funded through investment income and commissions from our online store.

Breakdown of Income & Expenses

Income		Expenses	
Bequests and donations from the public	\$508,370.58	*Contract Labor & Professional fees	\$30,072.00
Commissions from store awareness items	\$110,540.57	Bat rescues from across the US and donations to rescue centers involved	\$18,227.54
		**Shipping, office and retail supplies	\$50,677.50
Investment income	\$30,894.35	Food & nutritional supplements	\$51,286.69
		Insurance	\$18,253.48
		Medical & Veterinary	\$6,639.63
		***Operating expenses	\$137,631.01
		****Payroll	\$130,352.52
		Printing & website services	\$12,164.02
		Travel expenses	\$3,561.67
Total income	\$649,805.50	Total expenses Net Revenue	\$458,866.06 \$190,939.44

SPECIAL NOTES: Generous Bequests from two wonderful supporters, Julie Chervenak and Patricia Barbosa, contributed greatly to our 2022 income. These monies were of special help in securing clean water to our facilities after a well on the property went bad. Funding for payroll was provided through investment income and our online store awareness items. In a typical year, we must raise a minimum of \$200,000 to fill the gap in funding for animal care, bat rescues, food, medicine, veterinary care, formula for orphans, fuel for transport and operating costs.

This accounting reflects 2022 through the third quarter; it does not reflect the entire year. Please see "Annual Reports" at batworld.org to view year-end IRS 990s.

^{**}USPS, Fed-Ex and UPS shipping fees, office supplies, items for resale, program expenses, t-shirts, book and literature printing, office equipment, and items needed to create our Adopt-a-Bat sponsorship packages.

2022 Rescues

Your contributions enabled us to save 842 orphaned, injured and displaced bats in the U.S. and internationally. Although some of these bats were not releasable, over 800 bats now fly free because your generosity paid for their food, medicine, and housing, 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.



Koda, a male hoary bat, was in need of assistance late one night after becoming grounded in a homeowner's backyard. While we are unsure of what caused him to originally fall, dehydration quickly set in and made things much worse for this beautiful boy. The homeowners stumbled upon Koda, and assuming he had simply fallen and needed a hand back up into a tree, attempted to relocate him. Unfortunately by this time, Koda was too dehydrated to fly off, and he eventually fell once more. The finders, realizing something was certainly wrong, immediately called us. We talked them through safely containing him, and soon little Koda was cozy in a cloth, with a shallow dish of fresh water nearby. Bat World staff members set out on a late night rescue mission to give Koda the help he needed. Thankfully, he was uninjured. Over the next two weeks Koda received the injectable fluids and the care he needed until his beautiful wings once again gave him free flight.

NATASHA

This gorgeous Mexican free-tailed bat was found grounded and dehydrated inside a recently renovated hotel. A caring hotel staff member noticed Natasha and contained the little bat. After making sure she was safely in a box, the hotel staff member called Bat World Sanctuary for help. On intake, it was noticed that she had a wounded and swollen elbow which made it



impossible for her to fly. She received warmed fluids, hydrolyzed protein, and antibiotics so that she could begin healing. Thankfully, Natasha made a full recovery. She was released back to the wild a month later so she could get back to snacking on flying ants, flying termites and crop-damaging moths and beetles.





Elmer, an evening bat, was in an awfully sticky situation when he accidentally ended up inside of a house, and couldn't find his way back out! Flying about and trying to locate the exit, he lost energy and landed on the floor. Elmer then crawled beneath a sofa seeking cover, but then came upon every small animal's worst nightmare -

a glue trap. Thankfully, the homeowners located Elmer after hearing his screams, and they called us for assistance. Elmer was rushed to us, where it was revealed that he had fractured his wing trying to pull himself off the glue trap. After administering pain medication, we began the tedious task of removing the glue from his gorgeous fur with cotton swabs and coconut oil. His wing has healed well, but the break permanently affected his flight ability. Elmer is now a forever resident at the sanctuary, acting as a welcoming face for new bats who come into care. Note: We highly recommend against using glue traps as small animals such as frogs, toads, birds and of course, bats, can become trapped and often die due to the stress and injuries they sustain. Please see page 53.

An unsuspecting homeowner was fulfilling his weekly chore of putting his trash bin out when he came upon the most beautiful little Mexican free-tail bat looking back up at him from the sidewalk. The man called his two daughters to take a look at this wondrous find, and then called us for help. It turns out that Emmy just needed a little bit of extra food and hydration to get back up to



speed after migrating from Mexico back to Texas. She is flying free once again and catching all the bugs she can eat.



Gideon, a young evening bat, was found grounded in a local family's garage. We provided containment instructions, making sure to include that bats are tiny escape artists—a bat Gideon's size can squeeze through a crack as narrow as 1/2"! The family contained Gideon under a basket, and, to be extra sure that Gideon did not sneak out, they secured the basket by placing a rock on top.

When our staff arrived and picked up Gideon from his well-crafted containment basket, we noticed that he was dehydrated and had missed several meals from being trapped in the garage, but thankfully, he was uninjured. Gideon remained with us for another week while he gained weight. He was later released back into the wild to protect our ecosystem by feasting on insect pests like gnats, flies and beetles.





Little Cookie, an evening bat, was brought to us after a family took down a bat house for repairs in January. They had no idea that a small bat was roosting inside as she should have been gone for the winter. Although we recommend against removing bat houses when bats may be taking shelter inside, this time it was lucky that

they did. Cookie was in distress when found and extremely thin. She would have died if she hadn't been discovered. Upon intake, we found that Cookie had trouble flying and would be unable to survive on her own in the wild. Instead, she was introduced into our non-releasable colony of insectivorous bats, where she now has a warm and cozy home with lifetime care and friends of her own kind to snuggle with.

Weston, a juvenile red bat, should have been with his mother. Instead, this voungster was found on the column of a bridge over a fast moving river! Weston either tried to fly much too early, or possibly fell from



wherever he and his mother were calling home. Thankfully, a very kind family spotted him and contacted us and a Bat World staff member rushed out to find him. While Weston may have been enjoying the view of the river, dangling above the water isn't a very safe place for a young bat. Aside from being orphaned, he was in good shape. Weston remained with us until he was old enough to return to the wild later in the summer.



Batley is a 13 year old Egyptian fruit bat who found a comfy retirement at Bat World Sanctuary after spending his younger years at the Boonshoft Museum of Discovery in Ohio, where he served as an education ambassador. The Museum President and CEO of the Dayton Museum of Natural History, Tracey Tomme,



personally drove Batley all the way from Ohio to Texas so she could watch Batley settle in.

The morning after arriving, Batley was snuggling with his new buddies. His golden years will be filled with hammocks, melon treats, and most importantly, lots of friends. We would like to thank Tracey for personally making the 16+ hour road trip to get sweet Batley to his new home with us.



Letty, an evening bat, was found grounded outside a homeowner's front door. During his examination we saw that Letty had sustained a pretty serious wound on his abdomen, perhaps due to a near miss with a predator such as a hawk or a crow. Despite his injury, Letty was full of attitude and chastised us incessantly, demanding to be let go immediately. After receiving pain medication, antibiotics and a little food, he managed to settle down so we were able to successfully clean and close the wound. Over the next few weeks Letty healed up wonderfully. He also gained quite a bit of weight so the food must have been fine, though his sassy attitude was permanent. When setting him free, we could still hear him reprimanding us while flying off into the night. Stay strong, little Letty (although we're sure he doesn't want our advice.)





STONEY

This little Mexican free-tail joined us after being found grounded at the drive thru of a local bank. "Stonev" had somehow sustained an injury to his wing, which became progressively worse due to the infection that had already begun when he was found. The family who spotted and rescued him noticed that Stoney was right in the path of oncoming cars so they safely contained him and brought him to us. Over the next few weeks. he received pain medication, antibiotics and supportive care. Stoney made a full recovery. A few weeks later, the family who saved him even came to watch his release.





Domino

Domino, another evening bat stopped by Old Chicago Pizza, hoping for a motharella deep dish pie with spotted cucumber beetles. Determined to have what she wanted, Domino

settled in to wait outside the front door and feasted on the insects the light was bringing to her. That put her in a precarious position, so the caring staff at Old Chicago contacted Bat World Mid-Cities. Thankfully, Domino was in perfect condition so she was able to go back to the wild "in 30 minutes or less."





This precious little Mexican free-tail was in a most unfortunate situation but she was lucky to have been spotted by strangers with hearts of gold.

Sometime during the night, while foraging for insects, Kiwi was badly injured. We speculate that she may have crashed

into a pole or a similar structure while trying to evade a predator. Her wing was badly fractured. This led to her becoming stranded as the morning sun rose and scorched the Texas pavement. With temperatures reaching over 105 degrees Fahrenheit that day, it's a miracle that Kiwi was able to survive for so long.

About 3pm that afternoon, we received a call from a kind couple who had seen little Kiwi trying to escape the heat by wedging herself under the doorway of a local business, dragging her broken wing in the process. After receiving the call, we immediately went to rescue Kiwi. Once at our clinic, Kiwi received fluids, pain medications and antibiotics. In order to save her life, her shattered wing had to be removed.

A few hours later Kiwi was fully alert, eating, and visibly calmer. Colonial bats do remarkably well without a wing in captivity, largely due to complex social nature. She will be given lifetime sanctuary with our nonreleasable colony of native bats, with lots of friends to keep her company. Friends who just like her, got the chance to start life anew.





Two Mexican free-tail bats accidentally found their way into a home that was being remodeled.

Free-tail populations are sometimes considered abundant. However, their preference in creating large colonies in few locations makes them vulnerable to habitat destruction in spite of their large numbers. Because their habitats are being destroyed, they are often found inside human structures, trying to find a safe roost.

We arrived at the home to collect the misplaced pair and brought them back to the sanctuary for a full checkup. After the boys received subcutaneous fluids and a quick clean-up, the two friends were cleared as healthy and releasable. They flew away safely that same night, helping us mere humans by eating corn-borer moths, crop damaging beetles, gnats, flies and mosquitoes.







Rebel, a Mexican free-tailed bat, was doing a bit of shopping at a local men's wear store last week. Unfortunately, he had a hard time finding the exit once he was finished browsing, and quickly tired himself out searching for it. He nestled himself very high up, behind some piping on a wall and hid there for at least two days before being spotted. After a ladder and a very, very long net were deployed, little Rebel was safely tucked into a bat hut and brought back to the sanctuary. Emergency fluids and hydrolyzed protein helped to perk him up, and he was back to being a healthy bat within a week. In the photo below, Rebel is sporting a fashionable green ear so that caregivers can easily identify him for twice daily feedings.



A small juvenile bat, curious and excited to be out in the big world, spread his beautiful wings for the first time on a warm summer night. Upon releasing his grip from the safety of his roost, little Penne took off in an exhilarating first flight. He was doing it! Flying



for the first time ever! His excitement did not last long, however. Just as quickly as this overly confident young bat began to glide, he came face to face with a sidewalk in front of an Italian restaurant. Penne was left grounded, alone, and likely with a heavily bruised ego. Luckily he was found the next morning by the restaurant staff. Without hesitation, they contained tiny Penne in a to-go box and called us for help. Thankfully, he did not suffer any injuries on his way to the ground, but he was evidently unable to fly well enough to be on his own yet. So began Penne's temporary stay in our large flight enclosure so that he could practice being a bat without the fear of the hard pavement (and feral cats). Penne practiced each night until he flew like a champ, and then was released back to the wild to rejoin his friends in the big world.



THE STICKY 12



In July, we received a call that a local business had found a Mexican free-tail bat grounded in front of their building. On arrival, we quickly realized something was very, very wrong. She was covered in a foreign, extremely sticky substance that left her unable to move without difficulty. Her hair was matted to her

body, and her wings glued shut. We immediately transported her to our facility and concentrated on removing the substance using coconut oil. Small scissors and tweezers were also used to remove more difficult areas. During the cleaning, we discovered that she was lactating which meant she had a helpless pup back in her roost, and she needed to get back to her baby as soon as possible. This sweet bat was incredibly patient with us, allowing us to clean her despite her fear. We firmly believe she knew we were helping. She received supportive care and much needed rest after a 2 hour long cleaning process left her exhausted. Thankfully, she recovered enough to be released later that evening to return to her baby.





Left and above: Three of the Sticky 12, covered in what we believe to be roofing caulk. Below: Two of the Sticky 12 cleaned up and ready to get back to their babies. The green color on their ears is temporary and will wear off.

After searching the area over the next few days, we would go on to find 11 more "sticky bats", all mothers with pups waiting for them back in their roost. With each bat we found the substance was drier, although the mothers were in worse shape physically because they were not immediately found like the first mother. After extensive cleaning these newly rescued moms were still too weak to fly.

On the third day of searching, we found no more bats, so then deemed it safe to release the remaining mothers who had now gained enough strength to fly. They had been away

from their babies for varying times and it was critical they return before more time passed. We also believed that the original substance had dried, or those responsible had corrected the issue. We were unable to discover where these bats were injured but are thankful we were able to save these 12 mothers. Use the QR code to watch the video or visit tinyurl.com/thesticky12.









Alfie, a Mexican free-tail was having trouble finding her way out of a large ware-house after going in to explore. Lost and hungry, she eventually became grounded. One of the managers at the facility saw her lying there, and instead of helping her he proceeded to kick her, sending her rolling her across the floor and toward an open door.

Thankfully, at the sight of this despicable abuse, one of the workers dropped everything to go help Alfie, who by then had been banged up so badly she was left with a large bruise on her mouth, a broken tail and possible internal injuries. The worker transported Alfie to our facility, where she received immediate emergency care. Upon first holding Alfie, her stomach was so distended, it appeared she may have been pregnant, but this was not so. Her inflated stomach was indeed caused by sustaining internal injuries. If the person who jumped to her rescue had not seen her in time, Alfie would not be with us today.

Alfie had a spirit of gold and was a true fighter. Throughout the next few weeks, Alfie was monitored closely as she recovered. She eventually became stable, the swelling in her abdomen subsided and her bruises faded. Unfortunately, Alfie is not willing to fly, perhaps from a spinal injury that causes her pain when she attempts to take flight. But that's okay, she can live out her life in peace and safety, with others of her same kind at Bat World Sanctuary.





Noodle, an Eastern red bat, went for an unplanned swim in a pool on a hot summer day, likely in an attempt to drink water while skimming the surface of the pool. Unfortunately, Noodles ended up in the water instead. Fortunately, the homeowner spotted Noodle adrift in the

pool and scooped him out. Noodle was transported by volunteers to Bat World MidCities. He had some minor damage to one wing and was a bit waterlogged, but he recovered nicely and was released after a week in care.

If you own a pool please consider getting a "Frog Log", which will assist in saving small, helpless animals who may accidentally fall in. See page 53 for details.

Thin Mint, a beautiful big brown bat, found herself inside a building in Colorado City, TX, where she became extremely thin and dehydrated. Just when things weren't looking so great, she was rescued by the kindest of people. She was first picked up by Colorado City animal control, who wanted to do everything in their power to help this little bat. They contacted Big Country Wildlife Rehabilitation Center and made arrangements to transfer Thin Mint to temporary care. Then their amazing wildlife rehabilitator, Jennifer, made the six-hour round trip drive



to bring Thin Mint to
Bat World Sanctuary.
Thin Mint made an
amazing recovery, and
quickly took to self
feeding within a day!
She was carefully monitored over the next few
weeks and was provided nightly flight exercise. When she was finally ready, we drove
Thin Mint back home so
she could rejoin her colony.



This tiny girl weighs just 4.5 grams, which, oddly enough, is how much a stick of gum weighs! Little Abby is a tri-colored bat, one of the smallest bats in the United States. Abby was brought to us after being found grounded and suffering from dehydration. Thankfully, she was uninjured and would just require fluids and a few meals to gain weight before being released. We suspect she was born this summer as we often see younger bats struggling with fall weather changes.



Boeing, a Mexican free-tailed bat, arrived at Dallas/Fort Worth International Airport and became lost inside the terminal. While trying to find a way out, a kind crew member spotted her, gathered her up, and took her to the Safety Office. Bat World MidCities was called, and within an hour Boeing was rescued. Thankfully, she was not injured, she was just stressed and slightly dehydrated. After hydration and a snack she was off to "fly the friendly skies".



During the coldest part of the winter, little Milton the evening bat, was in dire straits. Grounded, he found himself surrounded by cats. Fortunately, an animal lover noticed the cats circling him and came to the rescue, safely and swiftly gathering him up and calling Bat World Midcities for help. The large wound on the top of his head was obvious and needed immediate attention. He received an injec-

tion of warmed electrolytes, pain medication, antibiotics, then later calmed down enough to eat. Milton spent several weeks in care and made a full recovery. He was released in the spring when bugs were aplenty and, hopefully with a less alarming assortment of cats.

If you have feline friends, please consider constructing a "catio" for them, so they can enjoy the fresh air and sunshine without endangering themselves and our native wildlife. Catios can be made in all sorts of fun shapes and sizes for cats to enjoy the outdoors while keeping them safe. Google "Catio images" for ideas on what you can create.



ROADIE



Roadie, an Eastern red bat, was looking for her nightly insect meal when an unanticipated heavy rain shower caught her unprepared and knocked her to the ground, where she was initially mistaken for a leaf on the road. Quickly determining that Roadie was not in fact a leaf,

but rather a most splendid bat, the finder took action and secured Roadie in a box before contacting Bat World MidCities for help. Fortunately, Roadie sustained only minor bruising to her wings and after fluids, pain medication, food and rest, she healed nicely. She was released about a week later to help farmers (and all of us) by eating moths, beetles, plant-hoppers, leaf-hoppers, flies and spittlebugs.







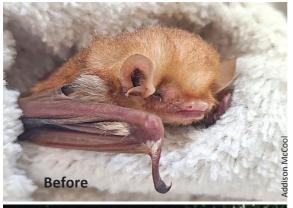
It's amazing what a difference a little care and time can make. These two photos are about 2 hours apart. Little Rupert, a Mexican free-tailed bat, accidentally found himself inside a bicycle store, oddly enough, called the Flying Tire. We aren't sure how long little Rupert was stuck inside but suspect it was several days based on his critical condition on arrival. Rupert received warmed emergency fluids, hydrolyzed protein and some gentle cleaning up. He also received a green ear for identification (using nontoxic paint). Rupert was a delightful patient and stayed with us several weeks so we could be sure that he regained all of his strength, and was then set free to rejoin his bat colony.

GABE

Gabe is a young Eastern red bat. He was found grounded and injured after the property owners quickly spotted their dog overly interested in something on the ground. On arrival at Bat World Sanctuary. Gabe's prognosis was uncertain. With severe wing tears and bruises, we were desperately hoping he had not sustained internal injuries. Fluids were given subcutaneously and pain medication and antibiotics were also given. Thankfully, he felt strong enough over the next hour to take a small meal.

Over the next few days Gabe was closely monitored. One day we discovered him hanging in the beautiful position we call "the butt blanket" (pictured left) and that's when we knew he would be okay. That position is used often by healthy foliage roosting bats, when they hang by one foot and let their fuzzy tail membrane drape down over their midsection, resembling a blanket.

Gabe is not releasable due to the extent of his wing injuries, but has settled in wonderfully! He will remain with us for life, and is often found snuggling in the middle of his new friends Big Mama (left) and Mable (right).









This little Mexican Free-tailed bat was out hunting insects when he was forced to seek refuge through the open door of a food pantry due to a sudden heavy rain storm. Days passed with Vito trapped inside and unable to find his way out. Thankfully, he was found in time to save his life by a staff member who contacted Bat World Sanctuary for help. We rescued little Vito, gave him emergency fluids to combat his critical dehydration and later, he received a hearty meal. After a week in care little Vito was in great condition and able to get back to his important job of catching insects.





In June, we received a call from an Ace Hardware store in a town 150 miles from us. The caller stated that he had found a tiny, pink bat with the umbilical cord still attached, which meant he had just been born. We rushed to find transport and later that day, thanks to transport volunteers, little "Ace" arrived safe and sound. He was hydrated and fed and settled in with the other orphans in our care, including Kevin, who quickly became his best friend.

Then, on the following day, we received another call from the Ace Hardware. This time they had found an adult bat on the floor. The bat was very weak and "not in good shape at all." We again rushed to find transport and later the same day, the bat arrived. We were hoping that it might be Ace's mother but the odds of that happening were actually very low. Still, we hoped. The adult bat was a female and she was extremely dehydrated and weak. She received emergency fluids via injection and a few drops of hydrolyzed protein, which helped her revive enough to finally receive food. Later, when she was examined, we discovered she had very recently given birth and she was lactating.

Fingers crossed, we introduced her to Ace and he appeared to recognize her immediately! He became excited and nuzzled her all over. His mother was still recovering and not quite strong enough to nurse little Ace so we fed him until she was well enough to take over. In the meantime, they continued to snuggle together constantly, with Kevin always close by as well. Use the QR code to watch a video of Ace and his mother

when they were reunited, or visit this link: tinyurl.com/AceandMom.





Left and above, best friends Ace and Kevin nursing from foam eye-shadow applicator tips that have been removed from the wand. Warm milk is dropped onto the tip as the babies nurse. Some pups drop their foam tip when they are full while others use them as a pacifier, holding them in their mouths while they fall asleep, then discarding the tip when they awaken.

CAYENNE

Cayenne, an Eastern red bat, had quite the experience while seeking shelter from the extreme heat in North Texas this past summer. She happened upon a building under construction which had apparently been created just for her, since the job site bore the name 'Cayenne'. Upon entering the building and settling in for a



nap in the rafters, she then discovered that a party was about to take place! She was so excited, she lost her grip on the beam and landed rather awkwardly on the ground some 20 feet below, making her presence known to the wonderful construction crew who were in the middle of an employee appreciation event. Bat World MidCities arrived to rescue little Cayenne, who was only slightly bruised from her fall. She received a well-deserved rest and was released when the temperatures cooled down a little, making her summer a lot easier to bear.







This summer, like we do every summer, we scouted the areas underneath large maternity roosts in abandoned buildings for starving orphaned free-tailed bats. Bats have it so very hard during the summer months. Mother bats in particular must eat enough insects to not only sustain themselves, but also a fast growing pup who will be as big as she is within six weeks. First time mothers often do not survive this feat.

In addition to this, the extreme heat in Texas this summer made flying insects less plentiful. These moms also have to avoid predators such as hawks and owls, and of course humans as well.

While a mother who has lost her pup may take on an orphaned pup whose mother has also been lost, these cases are extremely rare. Pups who are starving know they will not survive so they leave the roost to die alone, and that's why we search for them, to give them a second chance. The pups seen here were rescued, gained weight and were later released when they could fly well enough to survive on their own.









Hoping to escape the heat, Fern, an eastern red bat, went to Hurricane Harbor to cool off and unfortunately, fell into the water. Thinking she would fly away after being rescued, the staff fished her from the water with a net and then left her to dry on a sidewalk, out of public view. Unfortunately, she was very weak and although wet, she was very dehydrated and did not have the strength to fly away. She was rescued and

brought to our facility where she received fluids, a good meal and supportive care for the next week. Thankfully, she had no injures and a week later she was released back to the wild.

PLEASE NOTE: We are trained and vaccinated to handle bats so we sometimes use bare hands in our photos as it allows better tactile sensitivity and control. However, if you find a bat please remember to use gloves or a towel as the bat will be frightened and may bite in self-defense. Please contact us if you find a bat, we have rescuers around the world and will do our best to help.





This orphan season was the year of the evening bats. Typically, red bats and free -tailed pups top the number of babies we receive but this year we received close to 30 evening bat pups, twice the number we usually see of this species. They were rescued from various situations including falling to the ground under a roost, grounded in the middle of a parking lot and even surrounded by dogs.

Evening bats are extremely small when born, about the size of a nickel, but their feet are full sized, like hobbit feet size (pictured below). This is so they can cling



to their mothers fur as they are being born, which is always feet first. This ability helps prevent the baby from falling to the floor of the roost while being born. Like all insectivorous bats, evening bat babies grow very fast. Within a week they are about the size of a quarter and are full grown at about eight weeks.





When orphans arrive, they are quickly hydrated with subcutaneous fluids to combat any dehydration. Then, when fully hydrated, they receive a special milk formula created specifically for bats. Frequently, we receive orphaned pups who have been fed cows milk before they reach us because the well-meaning people who found the baby did not want the pup to go hungry. Unfortunately, cows milk can be fatal to insectivorous bats and it is often difficult to save these pups. Additionally, feeding the pup before he/she is fully hydrated can easily lead to organ failure.

The pups in our care are housed together in a warm incubator to mimic the warm temperatures of their maternity colony, and, depending on their age and condition, they are fed every two-to-six hours around the clock. After they are old enough, they are introduced to our flight enclosure to hone their flying skills before being released back into the wild.



Addison McCool



Fraidybat, an evening bat, was found on the ground at a pipe supply company after strong winds blew through the area. She had no injuries, so with guidance from Bat World staff an attempt was made by the finder to release her that night. However, Fraidybat could not summon the courage needed. She was then



transported to Bat World MidCities, where she further displayed her fear by using her wings to cover her eyes (pictured above), something bats often do when they are overwhelmed. Thankfully, with kind words and a good meal, she calmed considerably. After a few days of rest she finally had the courage to fly away into the night sky.



Fred the Red bat was found after being caught by a feral cat. Amazingly, he was found before too much damage could occur to his fragile little body. He ended up with only a torn wing, which was extremely lucky. Wing membrane heals over time, however, it does take weeks to months for the skin to regenerate. Fred the Red received supportive care for several weeks. He healed well and was released into the summer skies to eat pesky night-flying insects.





Pretty Gretchen, a young Mexican free-tailed bat, was found flying inside a local boutique. Unable to find her way out, she eventually ended up landing on a hanging wreath, where she patiently waited for rescue. Upon intake, we found Gretchen to be fairly dehydrated, as well as having an unknown substance sticking to the membrane of one wing. After an injection of warmed fluids and a bite to eat, we painstakingly worked the substance off her wing membrane with coconut oil. Thankfully, it didn't leave behind any lasting damage and after a few days of rest Gretchen flew safely off into the night.



HONEY

Honey, a beautiful northern yellow bat, suffered a catastrophic wing injury (likely from a bird attack) prior to falling into a swimming pool. The homeowner spotted Honey and fished her out right away, then contacted us for help. Under Bat World MidCities care, Honey began the road to recovery. The injury to her wing will prevent her from flying so she will receive lifetime sanctuary.

Northern yellow bats are among the largest of our US bat species, with adult females weighing close to an ounce. They have beautiful, thick golden-brown fur and amazingly expressive faces. They prefer to roost in small groups in the dried fronds of palm trees, where they blend in so well they often can't be seen.

EARL

Earl, a big brown bat, became tangled up in a barbed wire fence but was thankfully found by the landowner. Earl was carefully detangled from the wire and secured in a box with a small dish of water, then transported six hours



to Bat World MidCities for help. The extensive tear to his wing membrane took six months to heal. After healing, Earl received lots of flight exercise and was able to get back to the wild and his family.







Tyson the Mexican free-tailed bat, went several rounds with a cat. Fortunately, he was able to fly from the yard where he was spotted being attacked, and then landed in the yard of a veterinarian, who protected him. Tyson had been through the wringer...one of his eyes was swollen shut, the other eye was heavily bruised, his nose was bloody and his jaw was swollen. After a dose of pain medication and antibiotics, an injection of warmed electrolytes, and a drop of an iron/B-vitamin supplement, he rested comfortably and was monitored closely over the next two weeks for any signs of head trauma that would affect his ability to be released. While he was healing his ears were marked green with a nontoxic paint so he could be easily identified by caregivers. Thankfully, after several weeks, Tyson was given the go ahead to get back to the wild and knockout flying insects by the thousands .



Little Turk, a free-tailed bat, was spotted just in time to save his life when he was found grounded under an ambulance in February. He was in critical condition—so dehydrated when he arrived that he could not open his eyes because there was simply no moisture left. It took an entire 3mls of fluids to stabilize him. Turk was also emaciated, likely due to migrating back from Mexico to Texas. It takes tremendous effort and energy for these tiny bats to fly hundreds of miles during migration. Male Mexican free-tails migrate back into the US in mid-January and the females follow in March and April. Turk made a full recovery and was released in April, just in time to greet the ladies coming over.

Trooper is a juvenile Mexican freetail bat who had a rough start in life. He sustained a wing injury as a young pup, likely in the roost where he was born. The bones of a baby bat's wing are very soft. When a nursery colony is setup by bat mothers in an older building made of bricks or sandstone, the tiny fingers of a newborn bat pup can easily become caught in the



cracks of a hard surface such as stone, where they become injured. This was the case with Trooper, who lost the majority of his wing fingers after he was born.

As luck would have it, he had an excellent mom who fed and nurtured him until he was healed, but then it came time for him to leave the roost and fly. That's when he found himself in deep trouble. He fell to the ground and unsure of where else to go and unable to return to his family, Trooper began crawling across the pavement searching for a safe place to hide. He was eventually spotted outside of a local church, and the finders immediately called us. We aren't sure exactly how far little Trooper traveled, but we do know that the nearest bat colony was blocks away in a busy downtown area. Little Trooper managed to avoid traffic while crossing roads, and also avoid a large feral cat population in the area.

On arrival, we discovered that Trooper was suffering from dehydration and starvation, but thankfully had not further injured himself on his trek. After an injection of warmed fluids, Trooper was feeling well enough to eat and get cleaned up. He quickly took to the other bats in care, and cuddled up with fellow juvenile bats and learned to self-feed. Trooper will be a permanent resident due to his injury, but we are hopeful that one day he may be able to make use of the flight enclosure to some extent, even if we have to help him back up each time he tries to fly!





What a difference an hour can make! Little Fergus, a free-tailed bat, was found in a laundry room, dehydrated and hardly able to move. The staff at the laundry center safely contained Fergus, provided a shallow dish of water, and immediately called Bat World for help. At the sanctuary, Fergus received warm injectable fluids, a quick clean-up, and a protein rich liquid. If it hadn't been for the amazing people who found him, Fergus would have succumbed to dehydration and starvation within a day. Little Fergus made a complete recovery and was set free after a few weeks of care.

HENRY

Little Henry, a Mexican free-

tailed bat, was found hiding against a trash can at an apartment building. As the sun rose and the Texas heat scorched the pavement beneath him, Henry found himself unable to move to safety... but he continued to press himself against the trash can, trying desperately to hide. Fortunately, a kind family found him and jumped into action to help. With no bat rescuer in their area, the family made the nearly five hour road trip to Bat World Sanctuary to save Henry's life. Henry had large holes in his wings and was severely dehvdrated to boot. He was treated for dehydration and the holes in his wing membrane mended perfectly. After several weeks in care, that included flight exercise, he recovered and was driven all the way back home by a wonderful volunteer.





Rescuing in Other Areas

In 2022 we helped individuals and bat care professionals in 21 locations worldwide. Using photos and videos, we were able to identify species, share book chapters on bat care and rehabilitation published by Bat World Sanctuary, and offer medical advice to veterinarians, researchers, biologists and wildlife rehabilitators around the world.

This year we provided book chapters on how to treat injured bats and raise orphaned bats to bat rescuers in the following International locations:

Brazil, Bolivia, Bulgaria, Canada, Chili, Croatia, Germany, Greece, Indonesia, Iran, Italy, Japan, Malaysia, Mexico, Panama, Spain, Tunisia, United Arab Emirates, United Kingdom, Vietnam and Yemen.

In 2022 we also provided help and information to U.S. bat rescuers as well as assisting the public with downed bats and humane bat exclusions in 27 states.

For more details on our rescue work please see our **Rescue Log** at batworld.org where you can view our daily logs that include photographs and videos (when available).



One of the most difficult issues involving the rescue of bats is finding transport to get injured and orphaned bats to a bat rehabilitator. Oftentimes, bat rescuers are so busy caring for bats, especially during orphan season, that they do not have any

time to retrieve another bat in need, and doing so means that hungry pups or other bats in their care won't get fed, or their health will decline. In times like these, we rely on the public for help. Helping rescuers with transport means more lives can be saved.

To address this issue, we developed a "Be a #BatHero" call to action and have been able to get bats the help they need in several states across the US. Without the help of these transport angels, the bats needing to be saved would have perished. If you would like to be a transport volunteer for rescued bats in your area, please use the QR code seen or visit this link: tinyurl.com/beabathero



Education in 2022



Teacher Lacee Stone, from Millsap Elementary in Texas, was the first educator to receive a Bat Pack for her second grade students. The Bat Pack was hand delivered to the school by BWS Director of Education, Jessica Anderson.

Bat World Sanctuary has partnered with the World Sustainability Organization to create a new way for students to learn about bats! Together, we aim to help educate students on the importance of bats and bat conservation, and correct myths that have plagued bats for far too long. We believe that education is absolutely crucial in ensuring a bright future for both humans, as well as the keystone species we rely upon.

BAT LOVES THE NIGHT OF THE NIGH

Our Bat Pack is a full lesson plan suitable for ages 5 through 10. Each Bat Pack contains 10 activities, two accompanying PowerPoints, printable worksheets, a "Bat Stanley" and games for students to enjoy while learning (shown below, in part).

All of our future conservation efforts for bats will be found in children. Our hope is that this project helps to foster a great appreciation for bats in the next generation. Bat Packs will be shipped out to libraries and schools so educators can access them. In the future, we will be creating a donation based program for those who would

like to request a Bat Pack be sent to their town. To learn more, use the QR code or visit this link: batworld.org/bat-packs









TWO DIFFERENT EVENTS, TWO DIFFERENT COUNTRIES.

In the fall, Bat World Sanctuary staff and volunteers attended the Crazy Water Festival in Mineral Wells, Texas. Hundreds of people came by to talk about bats, and we had a blast connecting with the community! We were ecstatic to see how many bat lovers there were, and how many wanted to learn more. We left considerably lighter than we had arrived- having handed out stacks upon stacks of educational material. Meanwhile, over 6,000 miles away, Bat World Bulgaria was busy with an event of their own! They participated in a Charity Bazaar in Sofia, Bulgaria. With a table full of adorable batty merchandise and very knowledgeable staff on hand, the bats are bound to gain new appreciation.

Scout Troops!

Bat World Sanctuary has partnered with Girl Scouts of the Texas Oklahoma Plains to provide STEM programming that inspires helping native bats within their community and beyond. Zoom educational programs are accompanied by a call to action for community projects such as building bat houses, preserving wild habitats, and donating needed items to their local bat rescuers.



Bat Walks!

This year we kicked off our first guided Bat Walks in the historical town of Mineral Wells, TX, where Bat World Sanctuary began in 1994. Bat detectors were used to listen for bats hunting for insects under the street lights. Over 140 people attended our Bat Walks. Several people who were not fond of bats later stated that after the talk, they developed a profound appreciation of the species.



Bat Rehabilitation Workshops



This year, our Director of Special Projects and Director of Bat World MidCities, Kate Rugroden, expanded our professional development program to include a custom full-day virtual bat rehabilitation workshop, a program for staff development at a local animal control agency, and a partnership with a national organization for Animal Care and Control officers. Highlights of the year include presenting a custom course, 'Rabies Risk Assessment' at the Texas Animal Control Association and Texas Unites. This course is sponsored by the Texas Department of State Health Services for all Animal Control officers in the state.

Bats are routinely euthanized by Animal Control agencies across the US. As part of our commitment to providing quality continuing education for animal care professionals, Bat World MidCities is now also approved as a training partner by the National Animal Care and Control Association (NACA), enabling us to provide Continued Education (CE) hours for Animal Control officers throughout the US. As part of this arrangement, we will be a featured webinar presenter through the Justice Clearinghouse network in 2023. NACA is the largest professional organization for Animal Control officers in the U.S., and Justice Clearinghouse provides online training for over 100,000 law enforcement professionals including Animal Control officers and police. These strategic partnerships are critical to ensuring that bats can

be transferred to wildlife rehabilitators to receive professional care rather than simply being euthanized.

Additional U.S. based workshops, as seen above, include the course, 'Wildlife Care in Veterinary Practice' given to veterinary medicine students at Dallas College, Weatherford College, and Texas A&M College of Veterinary Medicine in Texas. We also developed a custom course called Wildlife Triage for Animal Shelters. This course is now offered to all Animal Control facilities across the U.S. Our two-day Bat Rehabilitation workshop was given to students from across the U.S. and one student from Switzerland.

Our international workshops include a full-day virtual bat rehabilitation course. Over 30 rehabilitators, biologists, and veterinarians in Bolivia attended our program that was funded by grants from Bat Conservation International and the Wildlife Conservation Society – Bolivia. A full-day virtual Bat Rehabilitation course was also given to 30 veterinarians, biologists, and researchers in Mexico as part of Bat Week (Murci-Semana Mexico 2022). All workshops, both U.S. and international, are instructed by Kate Ru-

groden. To learn more about our workshops please use the QR code or visit bwmidcities-batworld.org/course-schedule.



Activism in 2022



- Worked to save bat colonies and their young who were in jeopardy of being destroyed in Georgia, Indiana, Texas, Wyoming, Arkansas, Michigan, Oregon, Ohio, Oklahoma, Connecticut, New Jersey, Montana, Nebraska, Arizona, Alabama, Georgia, Louisiana, Mississippi, Maine, New York, Washington, Virginia, Utah, Idaho and Uganda, Africa. Pictured on the right is a local humane exclusion we assisted with where bats were roosting in the storage area of a grocery store.
- Protested the capture of a breeding colony of pallid bats to be used in a variety of
 research projects in New Mexico State University. The researcher reached out to us
 for care methods because she was unfamiliar with bats. We expressed our concerns
 to the IACUC Committee that the bats are highly unlikely to survive. A public records
 request was also initiated but has not yet been received.
- Assisted a landscape architecture student in Malaysia doing bat house designs.
- Assisted a research biologist at Ball State University in Indiana in obtaining odor samples from certain species of bats in order to train dogs in non-invasive conservation detection.
- Actively assisting veterinarians and wildlife rehabilitators at bat rehabilitation centers in La Paz, Bolivia; Moscow, Russia and Wolfsburg, Germany.
- A seven-year-old cancer patient at UCSF Children's Hospital in San Francisco who
 loves bats, reached out to us through his nurse. We created a special video just for
 him showing some of the sanctuary bats, their daily care and their rescue stories.
- Hosted interns who came to learn more on the rehab of insectivorous bats. They
 visited from Australia, Spain, Kentucky, Pennsylvania and Texas. Pictured
 below is Elyane Adusumilli (left) From the WIRES group in Australia and Alba
 Caballol (right) from Spain.





Activism, continued



- Collaborated with Apex
 Wildlife Solutions on humane
 exclusions by exchanging informational packages to give to the
 public needing assistance with
 bats in buildings.
- Assisted a biologist in Mexico regarding a trichinella outbreak in lesser long-nosed bats.
- Provided guidance to the San Diego Humane Society veterinarian on the proper dosage
- of antibiotics and pain management for insectivorous bats.
- Worked with a Species at Risk biologist in Nova Scotia, Canada on guidelines for the welfare and humane handling of bats.
- Created educational handouts about bats that were given at local premieres of Mobius, a Marvel vampire bat movie.
- Helped Tutela Pipistrelli, a bat rescue group in Italy, on the rehabilitation of Egyptian fruit bats rescued from the cruel, exotic pet trade.
- Halted a traveling bat exhibit that was scheduled for a 12 week stay in Texas. We
 have reached out to the exhibit owners in retiring the bats and are currently waiting
 to hear back.
- Assisted bat rehabilitators and veterinarians with guidance and supplies in Denmark, Germany, Italy, Canada, Maldives, Japan, Brazil, Mexico, Australia, Italy, Panama, United Kingdom, Spain. And in the U.S., Tennessee, California, Idaho, New Jersey, North Carolina, Louisiana, Florida, Texas, Nebraska, South Carolina, Oklahoma, Maine, Delaware, Missouri and Hawaii.
- Provided enrichment and diet ideas to various facilities that requested guidance, including the Vancouver Zoo and Aquarium, Family Zoo in Canada and Singapore University.
- Reached out to social media and arranged transport via caring volunteers so that injured and orphaned bats could get to rescuers across the US. Transport was arranged from El Dorado to Linwood, KS; Oswego to Binghamton, NY; Louisville to London, KY; Jacksonville to Jackson, FL; Paris, TX to Arlington, TX; Cleveland, TX to Houston, TX; Clifton, TX to Weatherford, TX; Hobart to Noble, OK; Lufkin, TX to Arlington, TX; New Bethlehem, PA to Mertztown, PA: Youngstown OH to Massillon, OH; Fort Smith, AR to Mountain View, AR.
- Contributed information to the ASM Animal Care and Use Committee regarding the
 use of bats in research for an updated Guide for the Care and Use of Laboratory Animals.
- Provided advice to biologists with the University of Veracruz in Mexico on caring for an infant bat that was found grounded during a field study. Shared the full e-book with them and they are sharing it with their students and other researchers for future rescue cases.

- Created a Bat Rap video for teachers and children as shown on the right. To watch the video use the QR code or visit /tinyurl.com/BatRapVideo.
- Sent 71 electronic copies of The Rehabilitation and Captive Care of Insectivorous Bats, free of charge, to bat rehabilitators in various countries around the world
- Provided an alternative to poison for a Brazilian resident dealing with fruit bats roosting on a guava tree on her property. Her husband wanted to kill the bats but a humane method exists where the tree can simply be netted with an appropriate sized mesh so the bats cannot access the fruit, nor can they become tangled in the netting. Using this method the bats simply give up and move to a different tree that is accessible.





- Virtual educational programs were given by Bat World MidCities and Bat World Bulgaria on International Bat Night.
- Bat World MidCities participated in a video series titled "Lets Go Wild". The video went on to win the Bronze Telly Award in the Social Video Series Category for Education & Discovery.
- Created a flier for downtown businesses in Mineral Wells, TX in order to help rescue displaced bats. The bats have been roosting in older buildings for years and are becoming displaced due to numerous renovation projects occurring throughout the downtown area. These fliers were then available at local festivals and handed out to downtown business owners, pictured below.





0-325-3404 | info@batworld.org









Shop at Amazon.com and Bat World Sanctuary gets a percentage donation directly from Amazon!

- 1. Go to smile.amazon.com
- 2. Select your charity

3. SHOP!



Please sign up and choose Bat World as your charity at smile.amazon.com! When you shop, we receive a donation from the site at no cost to you! The last check we received from Amazon Smile was over \$5,000, enough to buy almost six-weeks of fruit for the fruit bats!



AmazonSmile

Activism, continued

Bat World Sanctuary worked with the Louisiana Department of Wildlife and Fisheries on a guidance for a bat rehabilitators manual for statewide use. Our Founder Amanda Lollar, was also asked to write the preface, pictured below.



PRFFACE

In 1988, I found an injured bat on a hot sidewalk in Texas. At that time most people thought all bats were rabid and nothing but vermin. However, my heart went out to her and I could not leave her there to bake alive. I scooted her onto a newspaper with my shoe and took her home to "die in peace". But I was curious, and back then there was no internet, so I went to a library to get information. All of the books except one said that all bats should be killed. That one book saved "Sunshine's" life. So, I took Sunshine home and attempted to heal her injured wing and set her free, but her injuries were permanent. She lived with me for the next year and a half, and during that time I fell completely in love. Sunshine is the inspiration behind the many medical treatments that are now being used to save her kind the world over.

Fast forward to 2022, the bat rehabilitation world has changed drastically thanks to positive information being shared about bats on the internet and through wonderful manuals like this one, which will pave the way for a brighter future for bats. Thank you for being a champion for bats—here's to you finding your own Sunshine, who will inspire even greater things for bats in the future.

-Amanda Lollar, Bat World Sanctuary

Bat World Sanctuary Recommendation: Learn from the best!



Throughout this publication you will find invaluable information provided by Amanda Lollar, Founder and President of Bat World Sanctuary headquartered in Weatherford, Texas. Amanda has dedicated her life to understanding, caring for, and rehabilitating all species of bats. She has published both scientific and popular literature providing timely and accurate resources for both wildlife rehabilitators and the general public. Her tireless volunteer efforts in rehabilitation, care, and education for the bat species of the world are a shining example of what can be

accomplished to help wildlife species. We would like to thank Amanda for her dedication to bats.

WWW.WLF.LOUISIANA.GOV/PAGE/BATS

Bats in the Pet Trade

We have been fighting against bats entering the cruel, exotic pet trade for over 20 years. To help in this battle, we created a short documentary to expose this perverse practice and to tell the stories of bats we have rescued. We are asking the public to share this video in order to help us save more lives. Use the QR code or visit tinyurl.com/batsarenotpets.



Allow Bat Rehabilitation in the State of Michigan

Since 2011, the Michigan Department of Natural Resources (DNR) has upheld a total ban on the rescue and rehabilitation of both bats and skunks. Despite the agency claiming to be "on the leading edge of bat conservation and research..." the DNR continues to deny wildlife rehabilitators the right to save the lives of a species severely in decline. As of 2018, surveys of hibernacula in Michigan indicated an 83 percent decline in bats at those survey sites. Leading contributors to the diminishing populations include White Nose Syndrome (WNS), first confirmed in the state of Michigan in 2014, as well as habitat disruption and loss. Currently, five of Michigan's nine bat species are considered of special concern, threatened or endangered. With a keystone species at risk, the work of wildlife rehabilitators cannot be understated, both in saving lives as well as educating and protecting the public.

The current rehabilitation restrictions leave two (legal) options for Michigan citizens: turn the bat over to a wildlife rehabilitator, animal control officer, or a game warden for euthanasia, or leave the bat where it was found. As those who follow bat rehabilitation efforts are well aware, a grounded bat is a bat in need. Bats can be grounded for a variety of reasons, the most common being injury, dehydration, and young age. Bat pups are unable to fly

for quite some time, which leaves them particularly vulnerable. Disease is often the first thing presumed when a bat is found grounded, yet is realistically one of the least likely reasons wildlife rehabilitators see bats come into care. Despite this, caution must always be taken and disease, namely rabies, should always be a consideration when dealing with a rabies vector species (RVS). Across the United States, wildlife rehabilitators permitted to care for RVS are vaccinated and trained, and they play a vital role in removing RVS from the care of the well meaning public. In states like Michigan, the public is left without the valuable resource of wildlife rehabilitation for RVS. The Michigan DNR website has this recommendation for those who find a grounded bat: "For your safety, if you find a bat outside that appears to be sick, injured, or a baby, leave it alone and keep children and domestic animals away from it. The bat will likely leave on its own." michigan.gov

Not only is the entire DNR stance a question of ethics, parts of it are blatantly false. The statement "The bat will likely leave on its own" is wholly untrue, as a truly sick, injured, or young bat is incapable of flying away on its own. Predator activity is always possible, but more danger is posed when leaving a stranded RVS animal, particularly when in a public area that can be accessed by children and domestic pets.

Michigan, continued.

Along with this, the Michigan DNR has failed to account for human nature. Most people find themselves in a moral predicament when faced with the reality of leaving an animal to die. Unwilling to do so, they reach out to local wildlife rehabilitators, or organizations like ours, desperately seeking help. As a single wildlife organization amongst hundreds, we handle dozens of calls every year from Michigan residents seeking help. When the hands of MI rehabilitators are tied by the DNR and euthanasia is all they can legally offer, this does not sit well with most people, whose responses range from complete disbelief to outright anger. While this may be outside of a government agency's understanding, people form connections with the wildlife they save, and it's through these connections that wildlife rehabilitators are capable of educating the public to a more personal degree. When a member of the public hears that the animal they've saved is destined for death, it isn't uncommon for that person to refuse to hand the animal over, and instead attempt to care for the animal themselves. This poses an entirely new level of danger, where unvaccinated and untrained individuals are dealing with native wildlife that could instead be safely in the hands of trained RVS rescuers.

The data from which the DNR draws their conclusions to justify the outlawing of RVS rehabilitation is minimal and unfortunately fragmented. Each region is responsible for keeping track of Post Exposure Prophylaxis (the vaccine course administered after exposure to a RVS, otherwise known as PEP) statistics and this information is seldom shared between each region. In addition, no standards exist for reporting PEP data across the US. The majority of states are not required to report this data at all.

Considering the small amount of information available regarding positive rabies cases and PEP, it is worrisome that laws which affect public health are being put in place with such little data. With limited comparisons available, we cannot be certain if the rehabilitation ban is actually resulting in fewer rabies exposure cases, or possibly having the opposite effect as members of the public attempt to take RVS care into their own hands.

Ultimately, the entire argument can be condensed to this- The state does not trust Michigan wildlife rehabilitators to follow the protocol countless other RVS rescuers do across the United States. With the preexposure rabies vaccination becoming increasingly common, often being found at every day pharmacies like Walgreens, and the CDC having recently lowered the number of vaccinations required, the preexposure rabies series is easier than ever to obtain.

While the cost of the pre-exposure rabies vaccination is around \$850, that is something that wildlife rescuers fund themselves and should be of no concern to the state. RVS rehabilitators in several other states are required to have the pre-exposure vaccination, as well as additional permits; this is something that has been successful many times over. Thanks to the hard work of persistent resident wildlife rehabilitators, North Carolina is the most recent state to lift a similar RVS ban, having done so in 2020.

Please help us help the bats in Michigan by sending a letter to the Michigan DNR. We have a pre-written email available to send with a few clicks.

Use this QR code to send your letter or visit this link: tinyurl.com/SendLetterMI



Projects & Fundraisers!

North Texas Giving Day!

This past summer, we experienced over 1,000 wildfires in the state of Texas— with some dangerously close. To protect the exterior of the building, we began conducting fire drills using our Barricade System that was generously donated by Lynn Hochstetter. Our goal this year for North Texas Giving Day was to raise \$45,000 to install an Advanced Fire Alarm System

throughout the Bat World facility to protect the interior. Thanks to you, our generous donors, we raised \$45,442.25!This fire alarm system will not only alert us to smoke and a possible fire in the building, it will also let us know the exact location while also notifying our nearby fire station. As the only accredited bat sanctuary on earth, our primary goal is to protect the precious beings in our care to the utmost of our ability. The system will be installed in the coming months.

Upcoming Projects!

Many of you may remember a large bat condo being mounted beside our bat castle in order to attract more bats to safe habitat. Unfortunately, the interior of the house began to warp, making it unsafe for the bats. Rather than see this beautiful house go to waste, we contacted our local Mineral Wells High School Woodworking Shop. They are now in the process of rebuilding this large bat house as a school project. After the house has been rebuilt, it will find a new home just a mile from our location at the Vietnam War Museum. Why this location? One, because the area where the house will be mounted is clear of trees,

unlike our land, and two, because Major Luther S. Lollar, our founder's father, a Vietnam War Veteran himself, was instrumental in getting Bat World off the ground in 1994. He did two tours in Vietnam and received numerous awards during his military career. Stay tuned for updates on that project! In the meantime, we have mounted two back-to-back bat houses beside the bat castle and well above the tree line. The bat houses are equipped with a large pup

catcher that can be raised and lowered in the event a nursery colony occupies the bat houses. Visit tinyurl.com/bat-houses or use the QR code to watch the video.



Bat Houses



I just wanted to message to tell Jessica Anderson that last night my daughter walked in our hometown Salem, MA's Grand Parade dressed as her. The theme was heros and my 8 year old, Rose, has wanted to be a bat scientist who works in education since she was 4 and we always follow Jessica's posts

Young Rose is already doing a fantastic job educating her community by spreading the word on the ecological importance of bats and by teaching others how to handle a bat encounter by using Bat World's safety rules! When she grows up, her wish is to help solve problems such as White Nose Syndrome while providing public education to help others fall in love with bats. Thank you, Rose!

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.



Bats roosting in trees are often 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.



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.

(Note: The image on the left has been Photo shopped to serve as an example.)



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 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!



Bats of the World Word Search

Use your batty brain to find the words below that include bat behavior, bat species, bats at our sanctuary and the many beneficial things that bats bring to us and do for us.

Α	Т	В	Α	Υ	Т	I	L	I	В	Α	G	N	I	N	0	Н	K	L	D
P	D	Е	Α	Ν	Α	R	U	D	N	0	Н	Е	F	X	Q	S	D	I	Н
Т	R	Α	Т	Ν	R	N	R	Е	D	Е	U	М	О	W	В	K	L	Α	Α
Α	Α	I	Ν	Q	Α	٧	Υ	Е	U	F	R	F	Μ	I	Α	I	Ν	Т	L
Ι	Ν	В	Μ	Α	Α	N	S	Α	S	Q	G	Α	R	N	Т	L	0	Е	L
Υ	W	Υ	Υ	Μ	C	0	Α	W	D	N	I	М	R	G	W	L	R	Е	0
٧	Z	Е	Р	L	N	Q	O	S	I	U	В	N	O	S	О	N	Т	R	W
Χ	Z	I	G	F	0	R	Е	Υ	P	U	M	Е	U	P	R	0	Н	F	Е
S	R	D	Α	Α	D	0	L	R	М	R	Е	R	Α	Т	L	I	Α	N	Е
Е	Р	Е	W	Ν	L	F	W	В	I	Ν	I	I	Ε	Α	D	Т	Μ	Α	Ν
М	L	Е	O	O	N	F	Е	S	I	Р	N	N	W	В	S	Α	Е	C	Q
P	Α	S	C	Α	0	L	U	Н	Е	Т	M	I	Т	Υ	Α	C	R	I	V
C	Е	N	I	I	В	D	S	О	Е	K	N	Α	Μ	R	Ν	0	Ι	X	Ν
D	Α	D	G	Е	Α	N	L	D	М	Т	C	Α	V	Α	C	L	C	Е	D
Н	Ν	C	Е	О	U	L	В	Α	Е	Α	Μ	I	Т	0	Т	0	Α	М	Е
I	O	В	R	S	Е	Α	I	R	N	Μ	C	S	W	Н	U	Н	F	Н	Т
Q	Α	٧	K	О	Т	S	C	Z	Α	D	Α	Q	Ν	D	Α	C	L	Е	Т
Т	R	L	Ε	X	В	0	Μ	L	Е	F	S	0	Т	Α	R	Е	Υ	Τ	O
В	U	Α	O	R	Α	Α	0	Υ	0	D	Е	K	Т	U	Υ	Α	Α	U	P
C	Α	Ζ	Ν	Т	Α	Н	Т	L	Α	R	G	Ε	Ε	Α	R	S	Н	С	S

BUMBLEBEE BAT TINY MAMMAL SPOTTED LARGE EARS NORTH AMERICA INDIANFLYINGFOX MANGOES BANANAS LEAFNOSED WINGS
FLY
HOVER
ACROBAT
HOARY BAT
CANADA
BERMUDA
WINTER COAT
SWORD NOSED
ECHOLOCATION

HONING ABILITY
SKILL
PAINTED BAT
UNIQUE
CAMOUFLAGE
WOODLANDS
HALLOWEEN
VAMPIRE
SPRINT
SPECIALIZED

MEXICAN FREE TAIL
FAST
SUNSHINE
HARDWICKES
WOOLY BAT
HONDURAN
CUTE
BAT WORLD SANCTUARY



Loving Tributes

In Loving Memory of my daughter Justine Walthal, who's birthday is today, March 29th. She would have been 47. Justine is the one who sent me the link about bat rescue. She loved animals great and small. ~ Ellen Williams

In Memory of my Son, Christopher Jeffers Forzano ~ Barbara Zimmerman

In Memory of Justine Walthall and family. I think that it would be difficult to find someone who loved this project more ~ Jeff Walthall

In Loving Memory of Julie Chervenak and all the bats she will save through her generous bequest ~ Bat World Sanctuary

In Loving Memory of Pat Barbosa and all of the bats she will save through her generous bequest \sim Bat World Sanctuary

In Memory of Buzz and Ariel ~ The Johnson Family Gift Fund

In Memory of Joan (Nene) Culbertson Boaz ~ Shawna Lam

In Memory of Dorothy Tuma ~ Kurt Stephan

In Memory of Julie Schiavone ~ Robert Dowling

In Memory of KT Hicks, one of the kindest people I have ever known ~ David Barr

In Memory of one of my Internet Friends I never met in real life ~ Ellee Damore

In Memory of the "sleeping" New York bat on 42nd Street ~ The Clever Unicorn

In Memory of Peeps ~ Amanda Buracchi

In Memory of Ellie Mae and Mandy Sue ~ Leslie Gascoigne

In Honor of Ronald J. Faoro, DVM ~ Elizabeth Faoro

In Loving Memory of Statler and Betty White ~ Kathrynn Campbell

In Memory of Statler, such a beautiful, wonderful boy ~ Andrew Blumberg

In Honor of the little bat who refused to leave his deceased friend ~ Janet Lohmann

Dedicated to the bat I found today and couldn't save ~ Natalie Epstein

For Eliana ~ Justin Janco

For the Sticky 12 and those that come after ~ Jean Early

In Honor of Ushma Shah and Joe Bonk ~ Ryan Levenhagen and Sonia Rego

In appreciation of Bat World volunteer and rescuer, Jennifer Dantzler ~ David Roseberry

In Honor of Linda Berger's 80th birthday ~ Jeremy Hirsch

In Honor of Xan ~ Michael Dwelle

In Honor of my husband, Michael Crumbock ~ Judith Dartt

Letters

Sharing a few of the messages we received in 2021. Receiving notes like these means more to us than we can fully express! We hope you enjoy reading them as well.

I am the head bat keeper at Vancouver Aquarium and we use several of your rehab supplies, educational tools and books. I consider your organization to be the gold standard of bat care. All of our keepers follow your instagram religiously and get so much happiness from seeing what your bats are up to.

Dear Amanda, I can remember when you first started out. I knew then you were dedicated.

I applaud you and your staff for everything you do for these little creatures. just wanted to say THANK YOU again, and let you know that this little guy was delivered to the Wildlife Rehab today safely and was given attention and fluids. Turns out he was a BABY brown bat and likely wouldn't have survived if we hadn't helped him out.

If you've ever wondered about your accounts influence and reach, please know that my knowledge and respect for bats has increased exponentially because of your team and how you share what you do.

Kim Walton

I used to dislike bats though knew they were part of nature and a good pest control. Your page has shown me another side with personalities and they are individuals. Some I even find cute where that would have never happened before. Thank you

Linda

What a wonderful life you have given these beautiful Sweethearts. I have no words to tell you how very special you and your staff are. The biggest internet hugs I can possibly give to all of you.

Just wanted to tell you how much I enjoy your posts. Whoever is writing the descriptions is creative and hilarious while at the same time educational. Thanks and keep it up!

I adore you guys! All the time and love you show through your pics and videos melt my heart! (I love bat booty friday!) I often find myself drawn to animals that don't get the attention they deserve, & you all have definitely brought bats into the spot light of how utterly adorable & wonderful they truly are. Thank you for all you do! Bless all of you & all the little winged angels!

Sponsor a bat in need for \$35!





Your sponsorship package includes:

- An adoption certificate listing the person or group of your choice as the sponsor.
- The personal background of your sponsored bat.
- The natural history of the species.
- Educational cards and a bookmark.
- A matted photograph of your bat, suitable for framing.
- An online subscription to NIGHT FLIGHT NEWS (subscribe at batworld.org or email us at orders@batworld.org to be added).
- A personalized message for a gift Adopt-a-Bat. Our optional gift card message reads:
 "This Adopt-a-Bat sponsorship has been made in your name. Your sponsorship package includes our BAT WORLD magazine and an informational card on bat rescue.
 Enclosed you will find a 5" x 7" photo of your adopted bat, who thanks you from the bottom of its little bat toes for the food and medical supplies your gift has provided."







Phone: 940-325-3404—Address: 299 High Point Rd., Weatherford, TX 76088



BILLING	INFORMATION:	

Name:		Phone		Date		
SHIPPING ADDRESS:						
Name (if different tha	an above):					
Address		City	State	Zip		
		er to include \$8.00 sh	nipping):			
Check enclosed	Charge					
Credit Card Number:			Exp. Date: MO	YR		

NOTE: Virtual sponsorships are now available! Visit batworld.org/adopt-a-bat-now/ and have a sponsorship emailed to the person of your choice for \$20!



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 dependant 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 501c3 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, learn about bat rehabilitation, view our wish list and watch videos. 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.

