Bats are an essential part of every ecosystem on earth. They are the primary predator of nocturnal insects including mosquitoes, and contribute billions to the US and global economy by consuming agricultural pests and reducing the need for pesticides. Bats are important pollinators and seed dispersers of over 300 species of fruits including bananas, mangoes, and figs. No other mammals perform the services essential for humans that bats do on a nightly basis.

## Bats & Zoonotic Diseases

- Bats and humans have coexisted for thousands of years.
- Bats are essential to our health and wellbeing; they are not our enemy.
- There is currently no definitive evidence that bats are the natural reservoir for SARS-CoV-2 (responsible for Covid-19).
- In 2013, scientists in China found coronavirus RaTG13 in droppings of the Intermediate horseshoe bat (*Rhinolophus affinis*) which is 96.2% similar to SARS-CoV-2, but not really close from a genomic level.
- Similar viruses have been found in some Asian horseshoe bats.
- These species make up 0.3% of the 1,411 known bat species and are not found in the Americas.
- Current research suggests that SARS and similar coronaviruses may need an intermediate host such as civets or pangolins to spillover to humans.
- Bats and their viruses have co-evolved for millennia; the same is true for all animals.
- Many animals carry coronaviruses, including cats, dogs, pigs, cattle, horses, deer, birds, ferrets, seals, dolphins, whales, hedgehogs, humans (common cold), and many more.
- Spillover of pathogens from bats and other wildlife to humans is not the fault
  of animals, but rather is the direct result of human behavior. Activities such
  as wildlife trafficking, poaching, and habitat destruction underlie spillovers.
  These threats drive humans and animals closer together, in places such as
  wildlife markets where SARS-CoV2 is thought to originate.
- Wildlife markets are areas where different types of animals (bats, birds, pangolins, civets, dogs, primates, pigs, chickens, etc.) are kept in cramped cages, stacked on top of each other, and slaughtered on the spot. These markets are cruel, barbaric, and unsanitary, which can lead to viral spillover from wildlife to humans.
- Bats and other wildlife are regularly hunted, trapped, and taken to these markets to be sold for traditional medicine, food, or the pet trade.
- Bats and other wildlife left undisturbed pose little risk to human health.

## Lubee

- Lubee houses 13 species of bats Horseshoe bats are not among them.
- Most of the bats at Lubee were born at the facility or donated from zoos and other institutions. None came from or are native to China.
- Our bats have been viewed by thousands of people and help raise awareness for these gentle animals on a daily basis.
- Lubee provides guidance and assistance to EcoHealth Alliance, CDC, NIH, and other agencies, to gain a better understanding of bat health and immunology, which can help us understand our own immune systems.
- We love bats and hope that you do as well. Please continue to #loveourbats and see the beauty in each of them.

## <u>Truths</u>

- Degrading Natural Habitats = Degrading Human Health.
- Restoring Natural Habitats = Restoring Human Health.
- Protecting Wildlife = Protecting Humans.
- Nature is trying to tell us something, we should listen.