

Batty
Buddies:
Basics

Ranger Izzy
Park Interpreter
Ray Roberts- Johnson
Branch



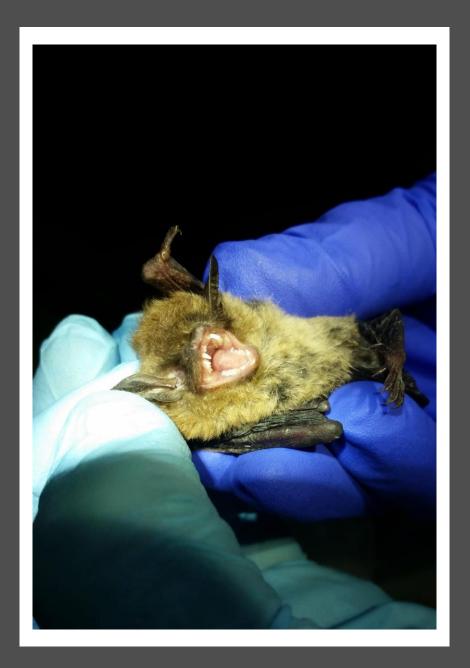
memecenter.com

#### **About me**

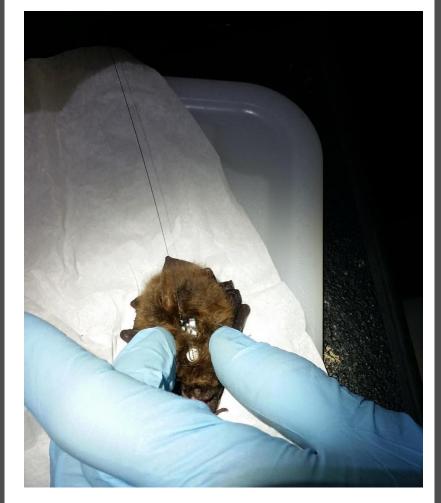
- Worked with bats since 2009
- Have handled 800+ bats
- 13 different species
- 4 States
- Windfarms, telemetry, whitenose syndrome, residential swimming pools







# Telemetry with Indiana Bats (Myotis sodalist)





Artificial trees to mitigate the loss of natural roosting sites

# Bats are important





Pollinators and seed dispersers

### Threats to bats

## Loss of habitat and degradation



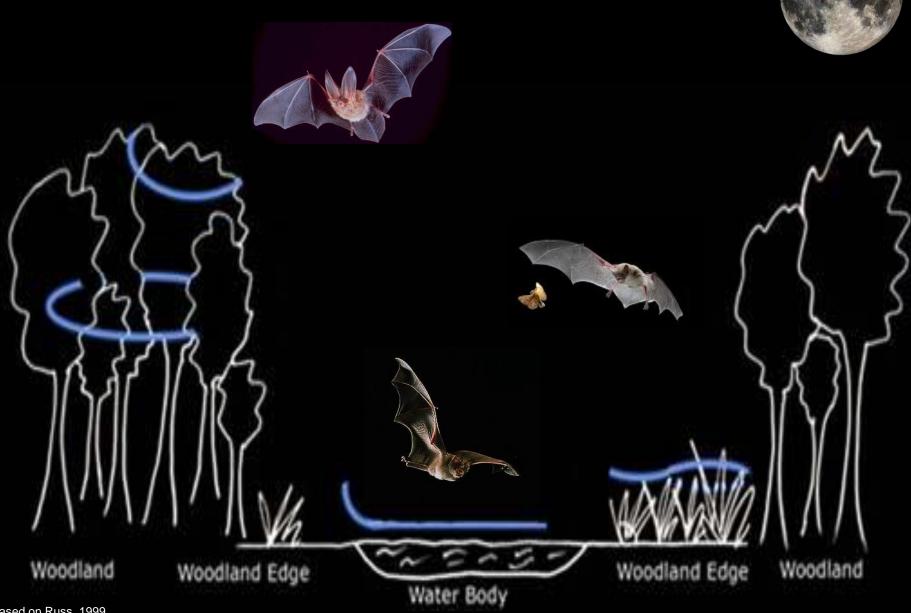
**Land-Use Change** 

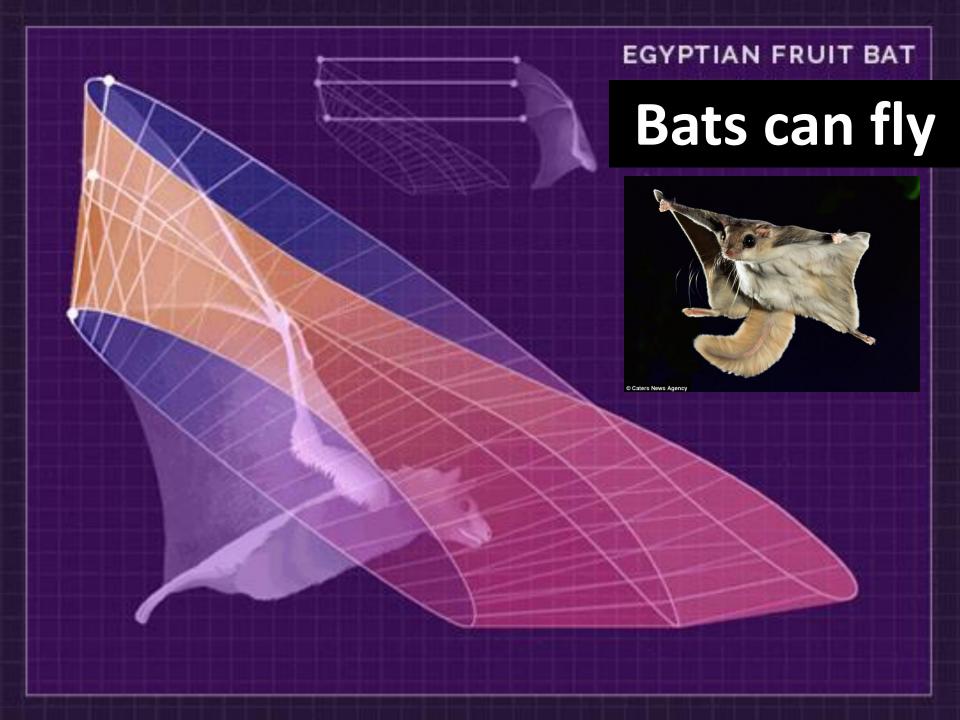


**Disease** 



## Are Bats Nocturnal?

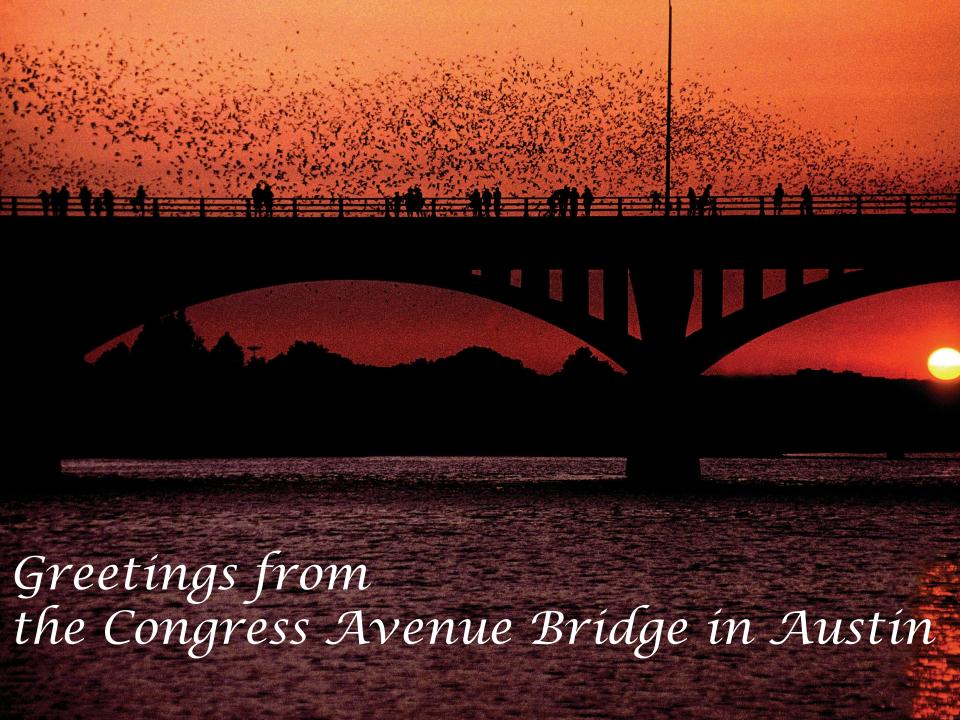






## 1,300+ Bats Worldwide

33 Species Found in Texas



#### The Usual Suspects



Hoary (Lasiurus cinereus)



Eastern red (Lasiurus borealis)



Tri-colored (Perimyotis subflavus)



Silver-haired (*Lasionycteris noctivagans*)



Mexican free-tailed (*Tadarida brasiliensis*)



Evening (Nycticeius humeralis)



# Big Brown Bat (Eptesicus fuscus)

# Discovery in 2016!

New to north-central Texas

Canyon Bat Parastrellus hesperus

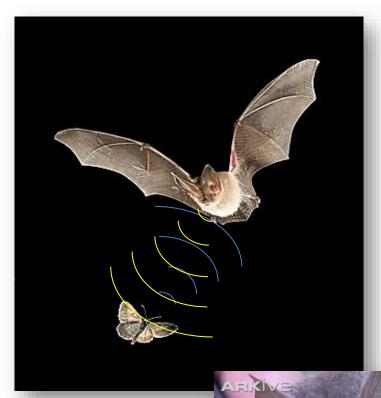




## **Bats echolocate**







#### Ultrasound & infrasound

Sound waves with a frequency too low for the human ear to hear are called infrasound.

too high for the human ear are called ultrasound

**INFRA SOUND** 

**ULTRA SOUND** 

Sound waves with a frequency

over 20,000 Hz

below 20 Hz

20 Hz to 20,000 Hz

© Dr Peter John Taylor

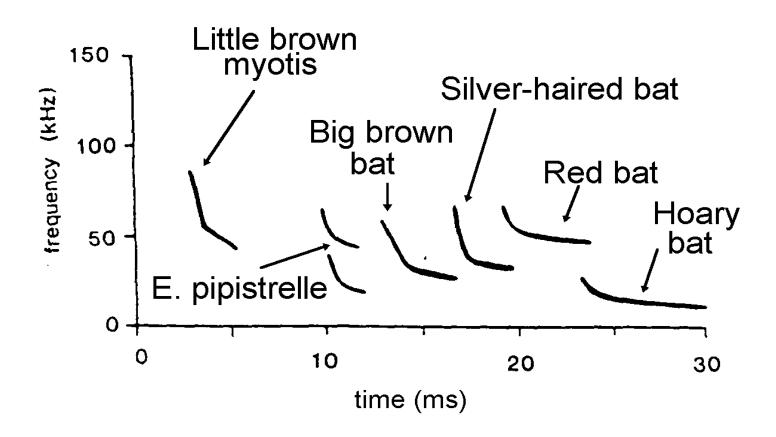


Animals such as whales, elephants and hippopotamus use infrasound to communicate over distances.

Animals such as dogs, bats, birds and insects can hear ultrasound.



## Identify species by their calls



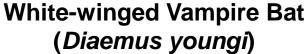
Fenton (1996, Some notes about the echolocation of bats)







Common Vampire Bat (Desmodus rotundus)





Hairy-legged Vampire Bat (Diphylla ecaudata)









### You Can Help Bats!

- What to do if you have a swimming pool!
  - Citizen Science Helps Uncover the Secrets to a Bat-Friendly Swimming Pool in an Urban Environment
- Add a Bat Box!
  - BCI Print Out Available
- Batty Basics Around the House
  - BCI Print Out Available







Questions?