

Virtual Creature Fest: Bat Boxes

In this series of bat articles, you will have the opportunity to explore the 9 native bats of New Jersey and why they are essential to the ecosystem, why they are beneficial to humans, and why we must work harder to protect them.

Have you ever seen bats flying around at dusk or late at night in your neighborhood or yard? Maybe you were not sure if it was a bat or a bird. Here are some ways to identify a bat vs. a bird:

- Bats fly more erratically than birds, making sharp movements in their flying patterns.
- Bats can fly even better than birds. Their fingers are spaced out on their wings, allowing them more control when flying, even though it might not look like it (view figure 1 and 2 below).
- Bats are nocturnal, so they fly after the sun goes down when most birds are not as active.

Watch [this video](#) to see what a bat looks like when its flying.

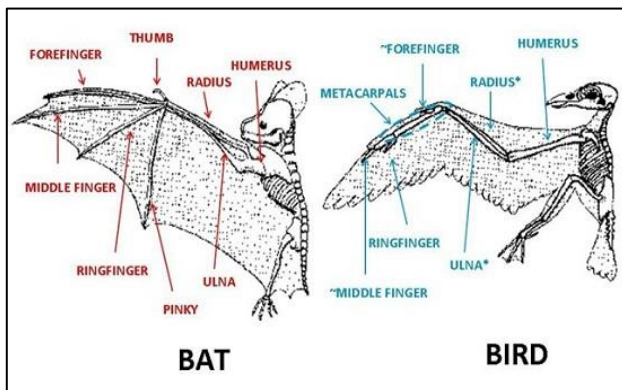


Figure 1: Bat vs. bird wing anatomy. [Source](#).

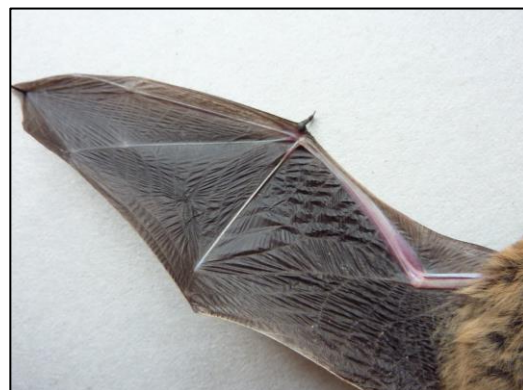


Figure 2: A bat's wing and fingers up close.

If you have bats in your area already then you might be interested in installing a bat box in your yard! If you don't notice many bats in your area that might be an indication that they don't have enough suitable habitat; adding a bat box may help them find their way to you! Bat boxes or bat houses are a great way to provide shelter for native bats. Bat boxes typically have anywhere from 1 to 5 chambers and some larger boxes can house hundreds of bats! You can make your own DIY bat box from scratch, purchase a kit to assemble yourself, or buy an already assembled bat house. The boxes come in many different designs, sizes, and colors but it is important to install bat houses that are up to the current standards. Information on these guidelines can be found [here](#). It is also good to know that bat boxes should not be made from pressure treated wood because the chemicals used are toxic and harmful to bats.



Figure 3: A bat box installed on a tree.
[Source.](#)



Figure 4: Many bats utilizing the chambers in a bat box. [Source.](#)

Some people might be thrown off by the idea of adding habitat for bats in their yard because of some common misconceptions and misinformation about bats. **Some common *misconceptions* are...**

1. Bats drink human blood.
False! Vampire bats only make up 0.25% of the population. They mainly feed on cattle and will not attack humans for food. Vampire bats are not present in the USA.
2. Bats are just flying rats.
False! While bats are mammals, they are not rodents. They are more closely related to dogs and cats than rats.
3. Most bats are rabid and will infect us.
False! Bats contract rabies less often than other mammals. If bats do become rabid, it restricts their ability to fly.
4. Bats will swoop down from the sky and get tangled in my hair.
False! Bats aren't aiming for you! Bugs tend to gather at the top of our heads, so they are just trying to eat. They won't attack you.
5. Bats are pests.
False! Bats act as pest control because they feed on things like mosquitos, beetles, and moths.

Bats are a beneficial organism to have in your yard. They act as a natural form of pest control and if you can attract more bats to the area then you are creating a more biodiverse ecosystem right in your backyard or neighborhood!



DIY Activity - Building a Bat Box

Use one of the plans provided by Rutgers or Batcon below

- [Single-chamber bat house \(wall mounted\)](#)
- [Four-chambered nursery home](#)
- View plans for single bat house on buildings (horizontal rail), bat house on buildings (vertical rail), and single bat house on buildings (French cleats) [here](#).

****Important information on building bat boxes from Batcon****

- The structure should be at least 24" high x 16" wide. Smaller sizes do not offer thermal stability.
- Do *not* use fabric/mesh. Roosting boards and landing pads should consist of roughened wood.
- Do *not* use pressure treated wood as this material is toxic to bats.
- Be sure to carefully seal all the seams. Bat houses work best when they effectively trap warm air. It makes the temperatures more stable. They should *not* leak or let in water.
- Be sure to roughen the roosting boards and landing pads.
- Avoid using oil-based paints and stains.

****Important information on installing bat boxes from Batcon****

- The bottom of bat houses should be located 10 feet off the ground. 12- 20 feet off the ground is even better.
- Bat houses should have 10-14 feet of clear space above any vegetation below the bat house.
- Bat houses should be mounted 20-30 feet from the nearest trees.
- Bat houses should not be placed above any doors, windows, or places where it is inconvenient for guano (bat poop) to accumulate.

For more important information on bat boxes, please check out [this link](#).

For more important information on installing bat boxes, please check out the first page of [this link](#).