

# Bat wings are batty, and scientists want to know why

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A vampire bat is caught in a net in Aracy, in the northeastern Amazon state of Para, Brazil. Bat wings are a weird genetic adaptation that don't exist in other mammals. Scientists are trying to understand how a bat's wings grow so differently from its hind limbs. AP/Mario Quadros

How did bats get their amazing wings? A new study tries to explain how.

Think about how unusual bats look when they fly.

Then try this: Stick your arms out to the side. Your hands face forward, your thumbs pointing up. Now imagine your fingers are long. They hang down toward the floor like long, dirty fingernails. But they are still made of bone. They are strong and spread apart. Picture the sides of your body connecting to your hand. Finally, imagine flapping those giant hands.

## **Genes Help Explain Bat Wings**

Scientists did not understand how bats got those long wings. They look like wings on a bird. So they studied the genes used for bat wings. Genes are a kind of building block. They help shape what people and animals will look like. Some parts of DNA turn genes on and off when we grow. They work like switches. The switches help build an animal's body plan. The scientists found the switches that turn genes on and off when bats grow wings.

Bats are mammals. Mammals are warm-blooded animals that have backbones. Bats are the only mammals that can fly on their own power.

## **Studying Bat Wings Might Help People**

Scientists also looked at how a bat's wings grew to become so different from their back legs. Other mammals do not have big, webbed wings like bats. But the back legs of bats are much like other animals.

Scientists will continue to study bat wings. Learning more about bat wings can help people. Some people can have badly formed fingers. They might be unusually long or there might be webbing between them.

Scientists can now better understand why some people's fingers are not the right shape.