

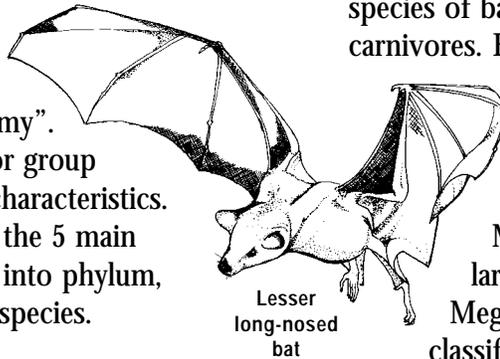


WILD Kids



Classify a Chiropteran

To keep track of the millions of different plants and animals on our planet, scientists use a grouping system called "taxonomy". In taxonomy, scientists *classify*, or group together, animals with similar characteristics. All living things fall into one of the 5 main kingdoms, which further divide into phylum, class, order, family, genus, and species.



species of bats eat meat, but bats as a group are not carnivores. Bats are so unique, they have their *own* order – Chiroptera. "Chiro" means hand and "ptera" means wing. Circle Chiroptera.

Bats are further divided into 2 **suborders**, Megachiroptera and Microchiroptera. The large fruit-eating bats belong to the suborder Megachiroptera. All bats in the U.S. are classified as microbats; they belong to the suborder Microchiroptera. If you circled Microchiroptera, you're absolutely right! There is only 1 family of Megachiroptera and 17 families of Microchiroptera. (Note: We have listed only the 4 families of bats that occur in Arizona.)

Look at the chart below as we classify an Arizona bat called the lesser long-nosed bat. (You'll need your pencil to do this.) First, decide which **kingdom** bats belong to. Bats are definitely animals, so circle the kingdom Animalia. Next, which **phylum** do bats belong to? All vertebrates – animals with a backbone, are chordates. Bats are vertebrates. If you circled Chordata, you're right!

Now, let's try **class**. Here's a hint: bats have fur, control their body temperature, and produce milk for their young. Yes, Mammalia is correct! Proceed to **order**. This is where it gets interesting. You, apes, monkeys, and lemurs are primates. Bats are not. A few

The lesser long-nosed bat has a leaf-like flap of skin at the base of its long nose. This is characteristic of the **family** Phyllostomidae – the leaf-nosed bats. Circle the family Phyllostomidae. The lesser long-nosed bat belongs to the **genus** *Leptonycteris* (circle *Leptonycteris*) and its **species** name is *curasoae*. Now, put together the genus and species names. Congratulations, you have successfully classified *Leptonycteris curasoae*!

Kingdom	Monera	Protoctista	Fungi	Plantae	Animalia
Phylum	Arthropoda		Chordata	Mollusca	
Class	Aves	Mammalia	Amphibia		Reptilia
Order	Chiroptera		Primates	Carnivora	
Suborder	Megachiroptera			Microchiroptera	
Family	Moormoopidae	Vespertilionidae	Phyllostomidae		Molossidae
Genus	<i>Moormoops</i>	<i>Euderma</i>	<i>Leptonycteris</i>	<i>Choeronycteris</i>	<i>Antrozous</i>
Species	<i>megalophylla</i>	<i>maculatum</i>	<i>curasoae</i>	<i>mexicana</i>	<i>pallidus</i>

Other Bat Families

The 28 species of bats that live in Arizona are divided among four families. We have talked about the family Phyllostomidae, or leaf-nosed bats. (There are three species of leaf-nosed bats in Arizona.) The other three families of bats in Arizona are:

Vespertilionidae – also called "evening bats". Most are small, relatively plain-looking bats with small to medium-size ears, but some are medium-size with large ears. Some have colorful fur. All species in Arizona are insectivores.

Moormoopidae – called the "mustached" or "ghost-faced bats". They have large lips with folds and bumps, and eat insects. The only member of this family in Arizona is the ghost-faced bat, and only two individuals have ever been found in Arizona.

Molossidae – these are the free-tailed bats. The end of the tail extends beyond the tail membrane. All five species in Arizona are insectivores.

Guide to Scientific Names

The scientific names (genus + species) for animals are *italicized* and often come from Latin or Greek words. The scientific name for the Occult little brown bat is *Myotis lucifugus occultus*. *Myotis* means "mouse-eared", *lucifugus* means "flees the light", and *occultus* means "secretive". Some other words associated with bats:

nycteris = bat

antrozous = a cave animal

Vespertilionidae = evening bat

Choero = young pig

maculatum = spotted

euderma = good skin

tadarida = dried up toad

pallidus = pale in color

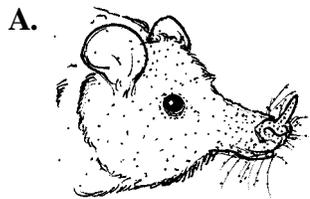
In some cases, the scientific name refers to where the bat occurs (e.g., *Tadarida brasiliensis*, is found in Brazil.)

Fun Bat Facts

The largest bat in Arizona and the U.S. is the Greater Western mastiff bat. It can weigh up to 2 ounces and has a wingspan of almost 2 feet. The smallest bat in Arizona and the U.S. is the Western pipistrelle. It weighs only .2 ounces and has a wingspan of about 8 inches.

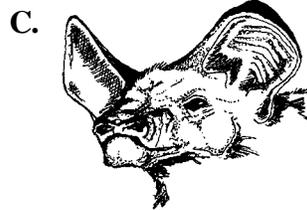
Try This!

I. Read the descriptions of the following Arizona bats. Classify each bat. Start with kingdom and end with family. Use the "Guide to Scientific Names" above, to translate the scientific name for each bat.



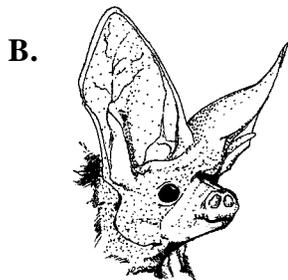
Mexican long-tongued bat
Choeronycteris mexicana

Has a leaf-like flap on its long nose. This bat feeds on nectar and pollen.



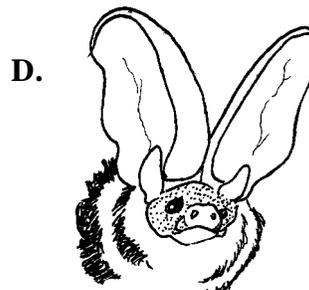
Mexican free-tailed bat
Tadarida brasiliensis

Its tail extends beyond the tail membrane. This bat can fly 65 miles per hour.



Pallid bat
Antrozous pallidus

A medium-size bat with large ears. Light yellow on the back and cream-colored on the underside.



Spotted bat
Euderma maculatum

This colorful bat has the largest ears of any American bat. It is one of the rarest bats in Arizona.

II. Now that you are an expert in taxonomy, try classifying your *shoes* among those of your classmates. You could start with your shoes belonging to the "kingdom" of all shoes. Then decide which "phylum" they belong to: the phylum of canvas shoes, leather shoes, or other fabric. Got the idea? Keep going until you decide on a scientific name for your shoes (genus + species). Note: Family names end in "idae".