



Summer Bat Walks

THE RESERVE
AT
RANCHO MISSION VIEJO

LEARN ABOUT BATS!

Every summer, bat biologist Stephanie Remington leads bat walks at *The Reserve*. Stephanie has been studying the 16 species of bats which frequent Orange County for many years.

Bats currently face a variety of survival challenges, the most important of which is habitat destruction. Stephanie welcomes this opportunity to share her knowledge about these fascinating, often misunderstood animals.

To locate *The Reserve's* bats, Stephanie will use "bat detectors," devices which translate ultrasonic echolocation sounds—used primarily by bats to hunt insects—into frequencies audible to humans.

To learn more, please join us on one of *The Reserve's* upcoming bat walks!

RESERVATIONS & ADMISSION

Reservations required for all *Reserve* events. Bat walk admission is \$15/ non-supporter, \$10/supporter. Pricing is the same for adults and children.

Children under the age of 8 are not admitted.

Upon reservation confirmation, you will receive directions to *The Reserve*.

Get a discount by becoming a supporter of *The Reserve* online at "www.theconservancy.org". Or join onsite by filling out an application and paying support dues of \$25/individual or \$45/family.

WHAT TO EXPECT

Please arrive promptly, as *The Reserve* is located on private land behind a locked gate. Latecomers will be unable to get in!

Upon arrival, you will sign in, pay an event fee—exact change or a check made out to "RMVLT" is appreciated—and park temporarily.

Every adult attendee must sign a **release waiver**. The 2-sided form contains space for 2 signatures for a two adult (same address) household, and names of 3 children under the age of 18.

Processing waivers on-site is time-consuming, so it is helpful if you **have paperwork & payment ready to hand us as you drive in**.

Download the waiver from:

<http://theconservancy.org/downloads/ReleaseWaiver.pdf>

When all patrons have arrived, staff will shut the gate, and everyone will drive their vehicles to the Bat Walk location.

The evening begins with a 20-30 minute introductory lecture, after which patrons take a short hike on uneven ground, looking and listening for bats.

When the hike is over, stay to ask Stephanie questions about local bats, after which we caravan back to the entrance gate with *Reserve* staff.

WHAT TO WEAR & BRING

- Wear **closed-toe shoes**—sneakers, light hiking boots, or walking shoes. **No sandals or flip-flops.**

- **Dress in layers** as temperatures drop when the sun sets.

- For protection against scratchy plants & small biting critters, wear **long-pants**; light colors are best.

- A **flashlight** may be needed at the conclusion of the bat hike.

- *The Reserve* has a porta-potty located a short distance from the walk introduction area.

- *The Reserve* does not provide food, water or trash receptacles.

The Reserve at Rancho Mission Viejo—a growing habitat reserve located on historic *Rancho Mission Viejo*—is managed by the non-profit ***Rancho Mission Viejo Land Trust***, a 501(c)(3) organization whose mission is "to preserve and enhance Reserve lands for ecological, educational, charitable, conservation, open space, scientific, and recreational uses." Through our public access and education programs, visitors can experience the natural beauty of South Orange County.

Visit "theconservancy.org", email [<staff@rmvreserve.org>](mailto:staff@rmvreserve.org) or call 949-489-9778 to learn more.

Bats of Orange County

Stephanie Remington, Bat Biologist

Sixteen species of bats occur in Orange County.

TYPES OF BATS

Mexican long-nosed bats are our only local nectar eating bat. These bats can hover while eating, have small ears and use their long nose (they belong to the leaf-nosed bat family) to project sound.

Mexican free-tailed bats have wings with a high aspect ratio, the relative proportion of length to wing area. Bats and birds with this type of wing are fast fliers. These bats can fly 60 mph (very speedy for a bat; their forte is maneuverability) and up to 10,000 ft to feed on moths. They eat 2x their body weight each night. Feeding colonies over Texas are so huge they can be seen on satellite imagery!

Western Mastiff bats have a tail and primarily eat moths. With a 6-inch long body, they are the largest bat in the U.S.

Red bats have white patches on their shoulders and roost in deciduous trees.

Yellow bats prefer palm trees with the shag untrimmed.

Hoary bats have frosty colored fur and a yellow ruff around the neck. They roost in evergreen trees and were more commonly encountered in late 1900s. We've lost a lot of trees since then.

Pallid bats have big ears and good vision which they use to locate and pounce on scorpions. They often forage in oak groves and roost in a variety of locations.

Townsend's big-eared bats roll up their ears to conserve heat! They are known as whispering bats due to the soft sounds they make. They roost in caves and cave analogs, and forage close to the vegetation.

Western Pipistrelle bats can be seen in the early evening. They are light-colored with a black face and ears. They are the smallest bat in the U.S., weighing slightly more than a penny, and have about a 5 1/2" wingspan.

Big Brown bats are widespread and are able to survive in urban areas better than most other bat species. They feed on a wide variety of insects and arthropods but beetles are a specialty.

Yuma Myotis bats eat a variety of small insects they catch over calm water surfaces. They have relatively broad roosting habits. The increase in residential lakes in Orange County has enabled the local population of Myotis bats to increase over the last decade.



BAT FACTS

- In temperate regions, bats may migrate, hibernate, or do both.
- Bats have four types of roosts: day (where they sleep), night (where they rest between foraging), maternity (where mothers raise babies) and hibernacula (where they hibernate in winter).
- Bats can be highly affected by pesticides. When they stock up on food to store fat for winter, they can absorb pesticides from their fat while hibernating. No one knows how many annual deaths occur from pesticides.
- Many nocturnal bats enter torpor (temporary hibernation involving decreased physiological activity) during the day.
- The heartbeat of an active bat can exceed 1,000 beats per minute when flying. During torpor, bat heartbeat can decrease to 2-60 beats per minute.
- Bats typically have one baby each year. However, **Red bats** have twins or triplets; tree roosting species often experience higher mortality.
- Any mammal can contract **Rabies**, a virus that affects the nervous system and can be spread through saliva. Rabies is rare in wild populations of bats.
- Bats are not just rabies carriers; they also die from the disease.
- If a bat is behaving abnormally (e.g. on the ground during the day, moving slowly enough for you to catch it) it is either sick or injured.
- Never handle a bat with bare hands. To contain a bat that can not fly, wear leather gloves and scoop the bat gently into a container that can accommodate a lid (poke air holes in the top).
- If you know or suspect that a someone has been bitten by a bat, you must call Animal Services to pick up the bat for rabies testing (if you were able to catch it). If the bat tests positive for rabies, victims can receive post-exposure treatment.
- If you know no such exposure has occurred, **contact Stephanie Remington** at [<stremington@earthlink.net>](mailto:stremington@earthlink.net) or (949) 233-0765 to pick up the bat to see if it can be rehabilitated for release.