

# Mexican Free-tailed Bats at the Yolo Bypass Wildlife Area

by Corky Quirk, Education Associate and Founder of NorCal Bats

With approximately 250,000 Mexican free-tailed bats living under the causeway, the Yolo Bypass Wildlife Area has become a popular place to view these amazing animals. The Mexican free-tailed bat (*Tadarida brasiliensis*) is a medium sized bat with a 3.5 inch body, 12 inch wing span and a weight of 12 grams. It is grey to brown in color with a tail that is longer than the skin between the legs. It has large mouse shaped ears and wrinkled lips.

Referred to as the “extreme bat,” these mammals live in extremely large colonies including the largest colony of any single mammal in the world – 20 million Mexican free-tailed bats in Bracken Cave, Texas. They fly extremely high, and have been tracked by Doppler weather radar at two miles high consuming migrating cotton boll worm moths (a.k.a. corn ear-worm moth), army cut-worm moths, and other costly agricultural pests. They are also the jet planes of bat species, averaging 25-45 mph but have been clocked at 60 mph with a tail wind. They are well adapted for fast flight with short fur, a tail membrane that can be retracted to reduce drag, ears that form air foils for lift, and long, narrow wings.

Bats in the United States eat insects and are the largest natural control of pests in agricultural crops. Fruit bats, vampire bats, and meat eating bats are not found in the U.S. There are a few species that drink nectar and pollinate plants in far southern desert areas. A bat eats approximately half its weight in insects each night. Pregnant and nursing females consume about the equivalent of their own weight in insects. Doing the math, this means the Wildlife Area bats eat at least 500 pounds of insects nightly.

Some free-tails stay in the Sacramento Valley all year but most migrate for the winter. They begin returning in large numbers in March and April, with colony sizes stabilizing in May. They give birth to live young from the last week of June to the first week of July, each mother birthing and nursing one pup at most per year. Approximately 25-50% of these young will live through the first year. The pup will begin to fly and learn to hunt

at about five weeks of age. Mom will continue to supplement the hunt with milk for another couple of weeks. If the pup can live through one full year, hunting, migrating, and avoiding predation, the animal may live 20 years.

By mid-fall the Sacramento/Central Valley bats begin their movements to wintering locations. The colonies in Northern and Central Mexico increase substantially in size as the U.S. populations decrease, but there is thought that the free-tail bats of California may not make the long distance migrations,



Bat viewing at the Wildlife Area

but may regionally relocate. They may enter torpor during inclement winter weather, but they do not hibernate.

These bats have adapted to live in structures built by humans, and the Yolo Causeway is a good example. With 16 parallel expansion joints of one-inch width and 12-20 inch depth, this three-mile bridge provides a home to one of the largest colonies of bats in California. There are several locations where the bats leave the roost, with the most spectacular being on the east side, about .25 miles from West Sacramento.

## Special Bat Tours for Members

- 2012 Members-only dates are June 28th, July 27th and August 9th.
- As a Member, you can bring two extra guests.
- To sign up, please contact Corky Quirk ([cquirk@yolobasin.org](mailto:cquirk@yolobasin.org)).

### Not a Member?

Visit our website to join! Memberships start at \$35.

In addition to the free Bat Trips, there are other membership benefits throughout the year.

The Yolo Basin Foundation sponsors several tours throughout the summer to watch this nightly event. Each begins with a presentation about bats, followed by viewing of live, non-releasable native bats. After a short break, a caravan is formed to travel through the Wildlife Area to the best viewing spot, which is in the rice fields and not accessible except on

tours. Tours are offered for the general public, YBF members and private groups. The summer schedule is available at [www.yolobasin.org](http://www.yolobasin.org). We ask for a \$10 donation for adults.

The public can also view a smaller colony on the west side of the causeway by entering the bike trail on top of the west levee, north of the causeway. The bats begin to exit as much as 15 minutes before sunset, and flights vary due to weather and time in the birthing cycle. 