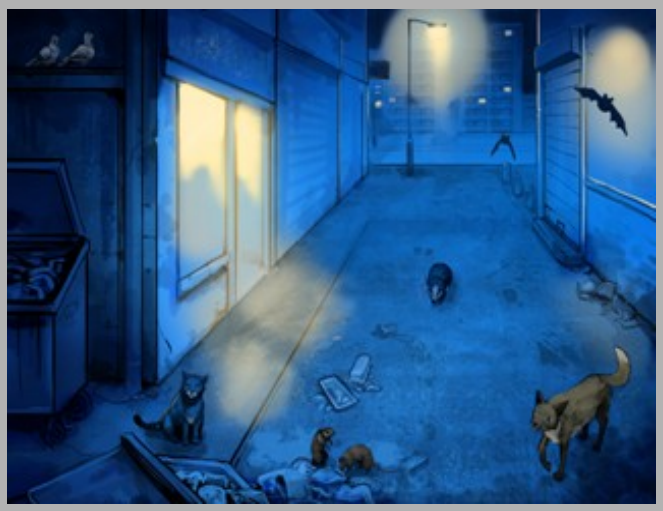
Things That Go Bump in the Night:

Our Nocturnal Neighbors



As days shorten and thoughts turn to Halloween, nocturnal creatures often become the subject of great interest; however, many people have limited contact with this portion of the animal world and, unfortunately, our own fears about the darkness can sometimes lead to misunderstandings about them. To help dispel the myths and “shed some light” on the specialized senses and fascinating behaviors of these amazingly adaptive animals, we would like to share a little about some of San Diego’s own nocturnal inhabitants…

Opossums

Opossums are well equipped for life in the dark. Although their eyesight is generally poor, their eyes have a giant iris (giving them their black appearance) to take in any available light, and a special adaptation called, *reflective tapetum lucidum*, that acts as a light reflective surface at the back of the eye (making their eyes appear to glow in the dark). In addition, large vibrissae (whiskers) on their cheeks and snout help them to sense their surroundings, and their sharp sense of smell is excellent for locating food sources - of which they have many; opossums are like nature’s garbage disposals, consuming almost everything from insects, to fallen fruit, to carrion, and are particularly great at rodent control.

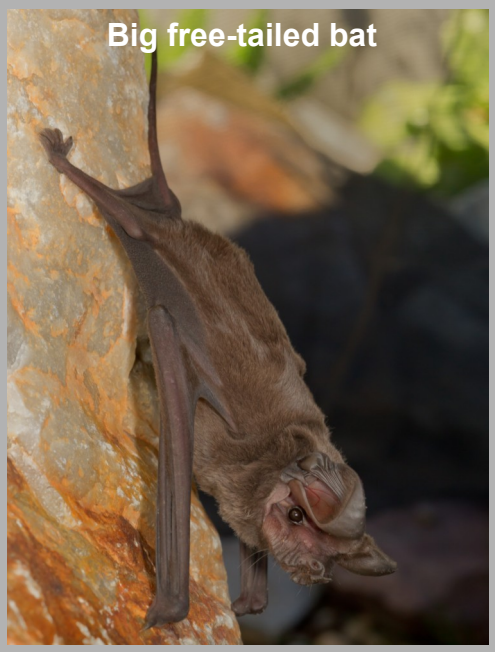
Former Project Wildlife patients

Opossums use strong claws and prehensile tail to climb

Darkness provides cover from some predators, but these slow moving creatures can also climb (using a strong prehensile tail) and swim well. When escape is not possible, they are known to sometimes fall over and release a foul odor (“playing ‘possum”) – thereby warding off potential predators that would want to avoid eating spoiled meat.

Bats

Here in San Diego County, we are lucky enough to have 23 different species of bats, and every one of them is nocturnal (like all bats). Although these animals often get a bad wrap, they are actually extremely beneficial to our environment. In fact, almost every bat found in this area eats insects, a huge value to our thriving agricultural industry. To hunt their prey in the dark (when it's safer from predators and flying insects abound), bats rely not on eyesight - contrary to popular belief, they are not blind – but echolocation. Through this process, bats send out a series of beeps that bounce off objects, and the sounds waves returning to their ears produce a kind of visual image in the bat's brain, allowing them to virtually "see" in the dark. Although we do have the largest species of bat in the US (the Western Mastiff), the bats found here are much smaller than the huge tropical fruit bats often seen in movies, and so must find dark, safe places to hide in the daylight hours (such as tucked up under palm fronds) to avoid becoming prey themselves.

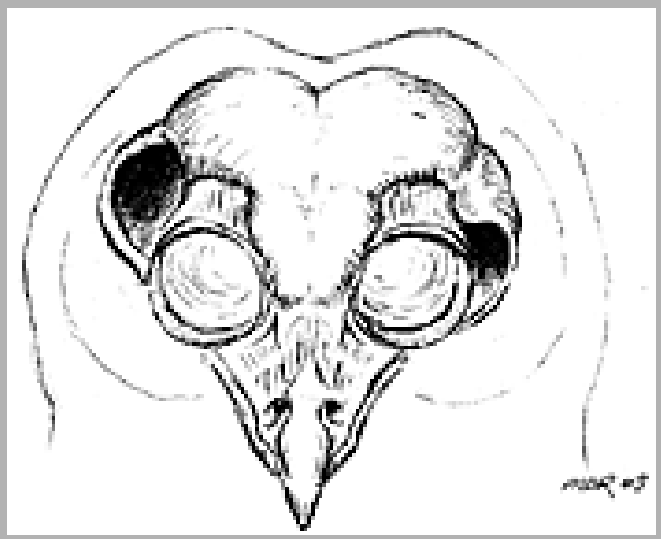


Big free-tailed bat

Owls

These creatures are master predators of the night. Their huge eyes are positioned on the front of their face and shaped in such a way as to act like binoculars, giving them excellent depth perception. They cannot move their eyes in the socket, but extra neck bones more than make up for this, allowing owls to turn their heads 270 degrees!

Spotted owl, a rare visitor to San Diego



Despite all these amazing adaptations, owls primarily rely on their acute hearing to hunt. Their faces are shaped like satellite dishes, helping funnel sound to their ears, which are located on the sides of their face. In some species, like the barn owl (found here in San Diego), the ears are actually offset from each other, further helping to triangulate the exact location of a sound. This incredible hunting prowess makes owls some of farmers and gardeners' best friends, and many organic growers are now encouraging these natural predators by putting up owl boxes.