

## Fact or Fiction?

### **Black widow spiders attack humans with deadly intent. FALSE!**

Spiders are not always the most welcome guests in your house, even though most are harmless and actually eat flies and other pest insects. Some spiders are not so harmless. Found in woodpiles, garden sheds and outhouses in the southwestern U.S., the black widow actually strikes terror into their human observers because of their known poisonous bite. How dangerous is the bite of a black widow? In truth, the toxin of a black widow bite is considered about 15 times more venomous than that of a rattlesnake. It sends a painful neurotoxin throughout the body. It is meant to immobilize prey. Its prey are insects, small reptiles and even occasionally small mammals, but it does not attack humans. Humans are bitten by black widows by being in the wrong place at the wrong time. Though they are not aggressive spiders, black widows have a powerful instinct to bite if disturbed. If you touch a black widow, she will bite you. Usually, they can be found hanging harmlessly in their webs. Only the female's bite is poisonous. Even male black widows become her prey as the females always eat the male after mating.



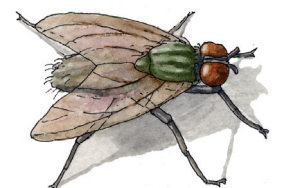
### **Camels hold water in their humps. FALSE!**

This myth is supported by the fact that after a long, dry journey, a camel's hump may hang over on its side, emptied of its contents. In truth, a camel's hump is all fat, which gets burned up on a long journey. The fat does actually hold a lot of water and is broken down and used by the body. Camels also have a very long intestine that squeezes every drop of water from the food they eat. When a camel finally reaches water, it can drink up to 50 gallons in a very short time. All members of the camel family, including llamas have water saving adaptations for their arid environments.



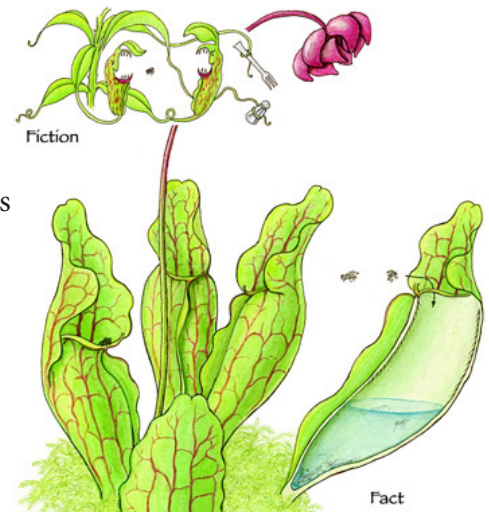
### **Flies taste with their feet. TRUE!**

This is true! The common housefly is a noisy insect that buzzes around in search of a meal. They eat any kind of food matter, garbage or even manure. They don't just eat the food they find but they are looking for a place to lay their eggs. Their eggs hatch into maggots, which feast on the rotten matter in which they were laid. Because of their habits, which are considered disgusting by humans, with the potential that they can transport bacteria from one place to another, spreading disease, houseflies are quickly killed on sight. They have survived by moving quickly from place to place, sampling foods as they go. Houseflies have taste buds on their feet. This allows them to land, take a quick taste of potential food, then escape the danger of being eaten by birds or spiders -- or swatted by you!



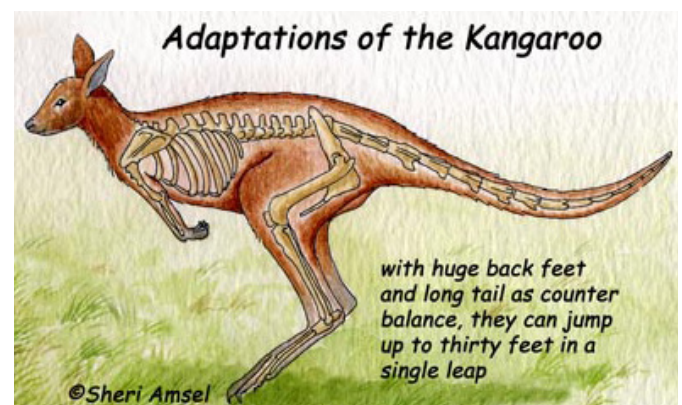
**Insectivorous plants snatch insects out of the air and eat them. FALSE!**

Insectivorous plants passively eat insects. Their adaptations trap insects that happen to land on them. It takes no thought on the part of the plant. But why do these plants need to eat insects? They are green plants that can photosynthesize their own foods. The answer to this is simple. Insectivorous plants grow in mineral poor soil or very wet areas where all the nutrients are washed from the soil regularly. Without these minerals that the plants can pull from the soil, they struggle to survive. So insectivorous plants supplement their meager food making skills by trapping insects and dissolving them to absorb their essential minerals -- like nitrogen.



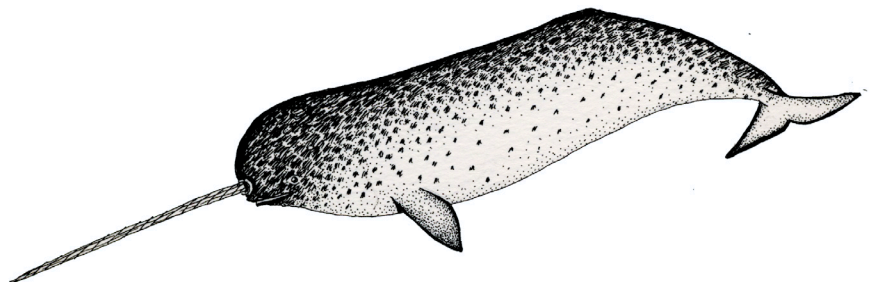
**Is it true that Kangaroos can't walk backward? TRUE!**

Kangaroos live out in open country. They have a mode of travel that is perfectly adapted for this open habitat. They jump! This is called saltatory locomotion and it's how kangaroos move. With huge back feet and a long tail as counter balance, they can jump up to thirty feet in a single leap. They are built to jump. They can also move quickly from side to side with amazing agility, but they cannot jump backward because of their thick, muscular tail. Their long feet and heavy tail also make walking impossible, forward or backward. Luckily, living on the open Australian outback they have room to move and are well adapted with their jumping gait.



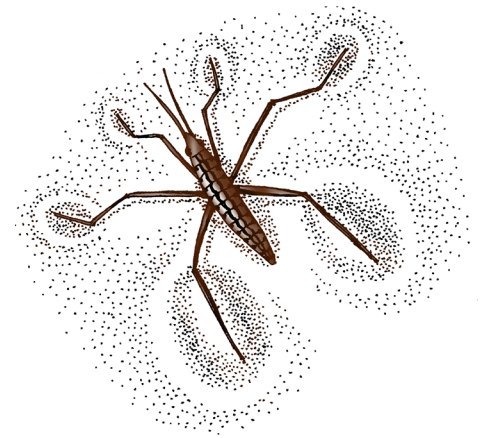
**Narwhals use their long horn to fight other males. FALSE!**

Narwhals live in some of the coldest waters of the world around the Arctic Circle. They travel in groups hunting fish, shrimp, and squid deep in the ocean. They use a kind of radar, called echolocation, to find their prey in the dark waters. The male's single, long horn has always made them a whale of interest. Historically, the horn was sold as that of a unicorn, keeping up the legend of the mythical beast. But whale experts have wondered what the function of the horn, which is really a modified tooth, could be. Recently, a researcher at Harvard School of Dental Medicine studying the horn made an interesting discovery. It contains millions of tiny nerve endings that act as sensors and are capable of sensing the temperature, density, and saltiness (salinity), among other things of the arctic waters in which they live. This ability may well have helped them survive their harsh environment. (<http://www.wisegeek.com/what-is-the-function-of-narwhals-tooth.htm>)



### **Water striders can walk on water. TRUE!**

Water striders live on ponds and the calm edges of streams. They seem to skate across the water without getting wet. They stay above the water using water tension. Their legs never actually break the surface of the water but literally do skate along on its surface. Like all insects, they have six legs, but they only skate around on their back four. Their front two legs are used to grab prey. They are predators and will snatch an injured dragonfly off the water using its front pair of legs. They only set them down on the water when resting. They don't sit still for long though or they become prey themselves to hungry fish.



### **We are overdue for a killer asteroid to hit earth. TRUE!**

Asteroids are big rocks out in the solar system which orbit the sun. Most asteroids are found in a ring called an asteroid belt between Mars and Jupiter. There are thousands and thousands of asteroids of all shapes and sizes found there. We've learned a lot about asteroids by looking at pieces that fall to earth. Many asteroids reach earth's atmosphere where they heat up and burn. We can see them streak across the night sky. They are called meteors. If a meteor reaches the earth's surface it's called a meteorite. Many, many meteoroids come into the earth's atmosphere every day. Most of them burn up as meteors and never reach the earth. Very few become meteorites. A famous meteorite crater in the United States is the Barringer Crater in Arizona. Scientists believe that a 150-foot wide meteorite hit the earth there about 50,000 years ago. It left a 3,600-foot wide crater that is 600 feet deep! 65 million years ago, a colossal meteorite — 6 miles wide, hit the earth. It left a crater 110 miles wide on the Yucatan Peninsula in Mexico. Scientists believe that meteorites changed the Earth's climate and began the extinction of the dinosaurs. Some asteroids are considered to be near-earth asteroids (NEAs). This means the asteroid's orbit will bring it closer than 121 million miles of our sun. This may not seem too close to people, but in space, that's right nearby. It also means it could someday hit the Earth. So far we know of about 250 NEAs. It is thought that for an NEA to hit Earth and do major damage, it would have to be more than a half mile wide. NASA astronomers are watching for NEAs that might hit Earth in the next 100 years. They have invented a computerized watching system called the Sentry System to watch space for dangerous asteroids heading our way. If the computer finds one that may come near Earth, it lists it on a risk page so scientists can study it and see how close it will come. Though this may sound scary, the truth is the chances of any asteroid hitting the Earth are very small. From what we now know, it looks like there have only been three really big meteorite impacts on Earth in the last 65 million years! But it is still good to watch for them — just in case.

