

Octopus

Octopuses, or octopi, have eight arms with suction cups on them. They have no skeleton or outer shells, so they can fit through very narrow openings to escape predators. The only hard part of their bodies is their beak.

Octopuses can squirt out an inky substance that blocks the predator's sense of smell and may make it attack the ink instead of the octopus. Octopuses can also hide through camouflage, swim very quickly, and perform **deimatic behavior**. This means they act in sudden or threatening ways to startle or scare off predators. One example is *O. macropus*, which turns bright brownish red with white spots in order to look threatening. Some other octopuses spread their arms out wide and get dark rings around their eyes while making their skin pale. These changes are a surprise to the predators, and can either scare them away or give the octopus time to get away. All octopuses are also venomous, though not harmful enough to hurt humans. Some octopuses can also take off an arm, called **arm autotomy**, just like some lizards will do with their tails. The nerves in their arms can jump around without a brain, which distracts the predator.

Octopuses have very short life spans. Some only live six months, some up to five years. They have three

hearts, one for each of their two gills and one for the rest of their bodies. Octopuses are very smart. They have been known to solve mazes, store memories, and tell the difference between shapes and patterns. Octopuses can climb out of and into aquariums or onto fishing boats and open boxes to get food. They have also been seen playing with toys by putting them in circular currents in their aquariums and then catching the toys when they float back down. Some have even been seen using coconut shells as tools and using them as shelters.

Octopuses have very good eyesight. They also have a strong sense of touch that allows taste through chemoreceptors on their suction cups. To move around, octopuses crawl, swim, or use **jet propulsion** by pulling in water and shooting it out behind them. They eat crabs, worms, fish, prawns, and clams. Some large octopuses even catch and eat sharks. The largest known octopus was a giant Pacific octopus that weighed 156.5 pounds. There are some records not widely accepted of another species of octopus that weighed 600 pounds.

People eat octopus. It is used often in Hawaii and in Mediterranean and Portuguese dishes. Some people keep them as pets, but they are able to escape tanks and don't live very long.

1. **New terms:** See how these three terms are used in the text, and write a definition next to each one.

deimatic behavior

arm autotomy

jet propulsion

2. Name three things octopuses do for protection. _____

3. Octopuses live to be about 100 years old.

True or False?

4. Octopuses can taste through their suction cups.

True or False?

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deimatic behavior acting in sudden or threatening ways to scare off predators

arm autotomy taking off a limb that can still move as a form of defense

jet propulsion propelling something behind you to move you forward

2. Name three things octopuses do for protection. they squirt ink, hide through camouflage or through small openings, swim quickly, and perform deimatic behavior

3. Octopuses live to be about 100 years old.

True or False?

4. Octopuses can taste through their suction cups.

True or False?