

Opossum



Opossums make up the largest order of marsupials in the Western Hemisphere, including 103 or more species in 19 genera. They are also commonly called *possums*, though that term technically refers to Australian fauna. Virginia opossum was the first animal to be named an *opossum*. The word *opossum* comes from the Proto-Algonquian *aposoum*, meaning "white dog" or "white beast/animal". Opossums probably diverged from the basic South American marsupials in the late Cretaceous or early Paleocene. Their unspecialized biology, flexible diet and reproductive strategy make them successful colonizers and survivors in diverse locations and conditions.

Didelphimorphs are small to medium-sized marsupials, with the largest just exceeding the size of a large house cat, and the smallest the size of a small mouse. They tend to be semi-arboreal omnivores, although there are many exceptions. Most members of this taxon have long snouts, a narrow braincase, and a prominent sagittal crest.

Didelphimorphs have a plantigrade stance (feet flat on the ground) and the hind feet have an opposable digit with no claw. Like some New World monkeys, opossums have prehensile tails. Like all marsupials, the fur consists of awn hair only, and the females have a pouch. The tail and parts of the feet bear scutes. The stomach is simple, with a small cecum. Opossums have a remarkably robust immune system, and show partial or total immunity to the venom of rattlesnakes, cottonmouths, and other pit vipers. Opossums are about eight times less likely to carry rabies than wild dogs, and about one in eight hundred opossums are infected with this virus.

As a marsupial, the opossum has a reproductive system including a divided uterus and marsupium, which is the pouch. Opossums do possess a placenta, but it is short-lived, simple in structure, and, unlike that of placental mammals, is not fully functional. The young are therefore born at a very early stage, although the gestation period is similar to many other small marsupials, at only 12 to 14 days. Once born, the offspring must find their way into the marsupium to hold onto and nurse from a teat. The species are moderately sexually dimorphic with males usually being slightly larger, much heavier, and having larger canines than females.

The largest difference between the opossum and other mammals is the bifurcated penis of the male and bifurcated vagina of the female (the source of the Latin "didelphis," meaning double-wombed). Opossum spermatozoa exhibit sperm-pairing, forming conjugate pairs in the epididymis. This may ensure that flagella movement can be accurately coordinated for maximal motility. Conjugate pairs dissociate into separate spermatozoa before fertilization.

Female opossums often give birth to very large numbers of young, most of which fail to attach to a teat, although as many as thirteen young can attach, and therefore survive, depending on species. The young are weaned between 70 and 125 days, when they detach from the teat and leave the pouch. The opossum lifespan is unusually short for a mammal of its size, usually only two to four years. Senescence is rapid.