## Marvelous Mammals: Class and Order

Taxonomy is the science dealing with the description, identification, naming, and classification of organisms. The acronym Dear King Philip Came Over For Good Spaghetti, stands for the classifications Domain, Kingdom, Phylum, Class, Order, Family, Genus and Species. All mammals are in the domain Eukarya (includes eukaryotic organisms, organisms that have a nucleus and membrane bound organelles,) the kingdom Animalia (all animals,) the phylum Chordata (animals that have a back bone) and the class Mammalia (animals primarily distinguished by nourishing their young with milk.) From this point in the taxonomical tree, mammals are divided depending on shared characteristics.

For this exercise divide the following mammals into their taxonomical Order. There are 19 orders of mammals; they are listed on the following pages for reference. Please write the order of each mammal under their image.


Salt Marsh Harvest Mouse


Broad-footed Mole


Bobcat

Order: $\qquad$ Order: $\qquad$ Order: $\qquad$


Long-Tailed Weasel


Mule Deer (Fawn)


Jackrabbit (Hare)

Order: $\qquad$ Order: $\qquad$ Order: $\qquad$


Virginia Opossum


Dusky-footed Wood Rat

Order: $\qquad$ Order: $\qquad$
Order: $\qquad$


Harbor Seal


Striped Skunk Order: $\qquad$ Order: $\qquad$


River Otter

Order: $\qquad$


Beaver


Black Bear

Order: $\qquad$ Order: $\qquad$ Order: $\qquad$

## Order Artiodactyla (even-toed hoofed animals) of infra-order Ungulata

- Hoofed animals with an even number of toes include those that ruminate, or digest their food in four-chamber stomachs and chew cuds, and those that do not ruminate. Those that ruminate are the families Girrafidae (giraffes). Cervidae (deer, moose, reindeer, elk). Antilocapridae (pronghorn antelope), and Bovidae (cattle, bison, yaks, waterbucks, wildebeest, gazelles, springboks, sheep, musk oxen, goats). Nonruminators include the families Suidae (pigs), Tayassuidae (peccaries), Hippopotamidae (hippopotamuses), and Camelidae (camels, llamas).


## Order Carnivora (meat-eaters)

- There are two suborders of these toe-footed creatures. They include the Canidae (wolves, dogs, jackals, foxes), Ursidae (bears, giant pandas), Procyonidae (coatis, raccoons, lesser pandas), and Mustelidae (martens, weasels, skunks, otters), all part of one superfamily that is characterized by long snouts and unretractable claws; and Felidae (cats, lions, cheetahs, leopards) Hyaenidae (hyenas), and Viverridae (mongooses, civets), all of which have retractable claws. There are between 240-270 recognized species in this order, depending on the source. Some of these species have so little information on them that they are discarded by some sources. The carnivores consist of between 7-12 living families (based on source) in two superfamilies, Canoidea (or Arctoidea), the doglike carnivores, and Feloidea (or Aeluroidea), the cat-like carnivores.


## Order Cetacea (whales and purpoises)

- Two suborders of Order Cetacea are the toothed whales, which have regular conical teeth, and the baleen, or whalebone, whales, which have irregular whalebone surfaces instead of teeth. Toothed whales include the families Physeteridae (sperm whales), Monodontidae (narwhals, belugas), Phocoenidae (porpoises), and Delphinidae (dolphins, killer whales). Baleens are in the family Eschrichtiidae (gray whales), Balaenidae (right whales), or Balaenoptridae (fin-backed whales, hump-backed whales).


## Order Chiroptera (bats)

- There are two suborders of bats, the only mammals that can fly. Suborder Megachiroptera contains one family, the Pteropodidae (flying foxes, Old Worm fruit bats). Suborder Microchiroptera contains 17 families, including: Rhinopomatidae (mouse-tailed bats), Emballonuridae (sheath tailed bats), Craseonycteridae (hog-nosed or butterfly bats), Noctilionidae (bulldog or fisherman bats), Nycteridae (slit-faced bats), Megadermatidae (false vampire bats), and Rhinolophidae (horseshoe bats). I9 families, 178 genera, 926 species (the second largest mammalian order)


## Order Dermoptera (colugos or flying lemurs)

- These gliding tree mammals from Asia do not fly and are not lemurs, but they are known as flying lemurs, or Family Cynocephalidae.


## Order Edentata (toothless mammals)

- Three families of mammals get by without teeth: Dasypodidae (armadillos), Bradypodidae (sloths), and Myrmecophagidae (hairy anteaters).

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## Order Hyracoidae (hyraxes, dassies)

- Order Hyracoidae is one of three orders that has only one modern family remaining. Procaviacapensis (the African rock hyrax) is one of nine living species in the Family Procaviidae.


## Order Insectivora (insect-eaters)

- The three members are the families Talpidae (moles), Soricidae (shrews), and Erinaceidae (hedgehogs).


## Order Lagomorpha (pikas, hares, and rabbits)

- Two families make up this order: Ochotonidae (pikas) and Leporidae (hares and rabbits of all sorts).


## Order Marsupialia (pouched animals)

- Included among these are the families Caenolestidae (rat opossums), Diddeelphidae (true opossums), Dasyuridae (native cats, native mice), Notoryctidae (marsupial moles), Myrmecobiidae (numbats), Peramelidae (bandicoots), Phalangeridae (koalas), Vombatidae (wombats), and Macropodidae (kangaroos and wallabies).


## Order Monotremata (egg-laying mammals)

- These more primitive mammals make up the families Tachyglossidae (echidnas, also called spiny anteaters) and Ornithorhynchidae (platypuses).


## Order Perissodactyla (odd-toed hoofed animals) of infra-order Ungulata

- The two suborders, Hippomorpha and Ceratomorpha, include creatures that have an odd number of toes. Families in this order are the Equidae (horses, donkeys, zebras), the Tapiridae (tapirs), and the Rhinocerotidae (rhinoceroses).


## Order Pholidata

- Family Manidae (pangolins) is the sole family in this order.


## Order Pinnipedia (seals and walruses)

- In the fin-footed order there are Otariidae (eared seals, sea lions), Odobenidae (walruses), and Phocidae (earless seals).


## Order Primates (primates)

- The order to which people belong is divided into two suborders: The Prosimii, who have longer snouts than their relatives, and the Anthropoidae. The first group includes the families Tupalidae (tree shrew), Lemuridae (lemurs), Daubentonlidae (aye-ayes), Lorisidae (lorises, pottos), and Tarsiidae (tarsiers). The anthropoids include the families Callitrichidae (marmosets), Cebidae (New World monkeys), Cercopithecidae (baboons, Old World monkeys), Hylobatidae (gibbons), Pongidae (gorillas, chimpanzees, orangutans), and Hominidae (human beings).


## Order Proboscidea (elephants)

- Large enough to have an order all to itself is Family Elephantidae.


## Order Rodentia (gnawing mammals)

- The most prolific mammals, Order Rodentia includes three suborders. It takes in the families Aplodontidae (mountain beavers), Sciuridae (chipmunks, squirrels, marmots), Cricetidae (fieldmice, lemmings, muskrats, hamsters, gerbils), Muridae (Old World mice, rats), Heteromyidae (New World mice), Geomyidae (gophers), and Dipodidae (jerboas). I700 Species


## Order Sirenia (dugongs and manatees)

- The families Trichechidae (manatees) and Dugongidae (dugongs and other sea cows) make up the Order Sirenia.


## Order Tubulidentata (aardvarks)

- Another mammal in an order by itself is Family Orycteropodidae.

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## ANSWERS

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Bobcat

Order

$\qquad$

Long-Tailed Weasel正

Mule Deer (Fawn)



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## Order:

$\qquad$ Order: $\qquad$ Rodentia Order: $\qquad$ Lagomorpha


Virginia Opossum

Order: $\qquad$ Order: $\qquad$
Rodentia
Dusky-footed Wood Rat


Little Brown Bat

$\qquad$
$\qquad$ Order: Carnivora


Shrew
Beaver

Rodentia
Order: $\qquad$ Order: $\qquad$

