

EQ: How do we classify  
animals?

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# Birds and Mammals

- The warm-blooded vertebrates...
- Animals that help raise their young.



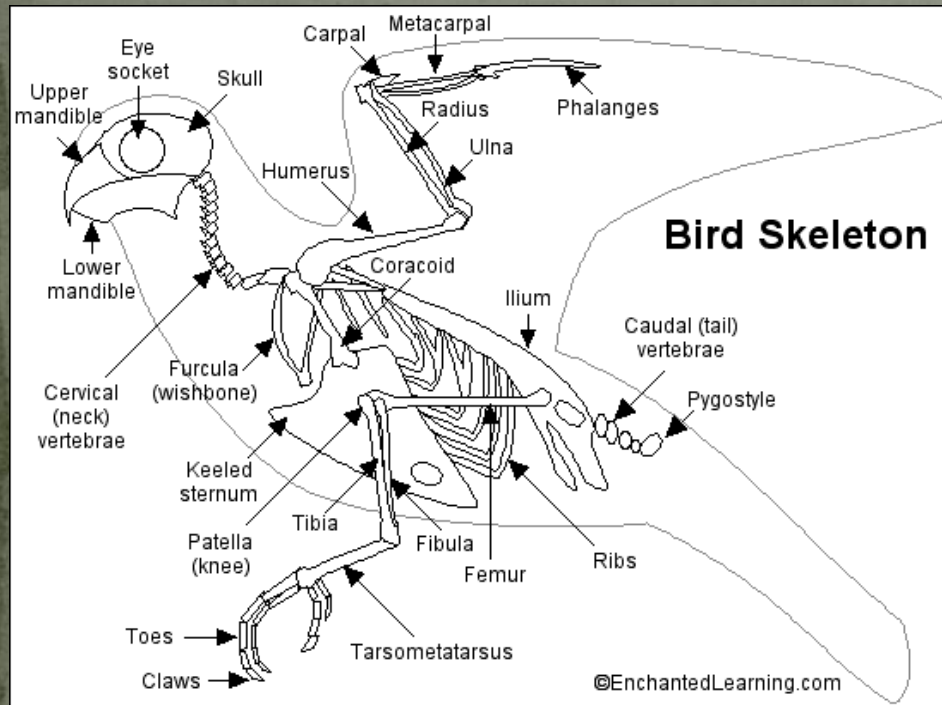


# Characteristics of Birds

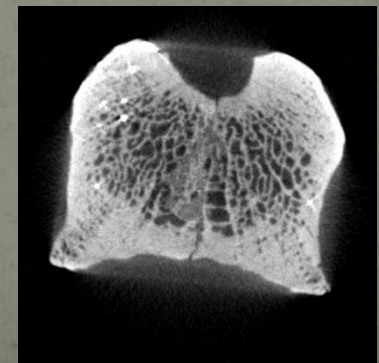
- Endothermic vertebrate
- Covered in Feathers
- Four-chambered heart
- Lays eggs in nests



# Four ways birds are adapted for flight



- Bones of a bird's forelimbs form wings
- Bones are nearly hollow
- Large chest muscles that move the wings
- Feathers





# Birds have beaks!



Generalist



Insect catching



Surface skimming



Scything



Grain eating



Coniferous-seed eating



Probing



Filter feeding



Nectar feeding



Fruit eating



Aerial fishing



Pursuit fishing



Chiseling



Dip netting



Scavenging



Raptorial

# Penguins



- Live south of the Equator
- Flightless birds
- Wings are used like flippers for swimming
- Dense, thick feathers keep them warm



# Hummingbirds



**Bee Hummingbird**

- They are the smallest of birds.
- They can flap their wings 12-90 times per second (depending on the species).
- They are the only birds able to fly backwards.
- They have a long bill to suck nectar from flowers.





# Fastest Animal in the World

- Can reach speeds up to 200 mph in the air.
- Uses this speed to capture prey.
- Many have adapted to living in cities where they can dive off skyscrapers onto prey like pigeons.



## Peregrine Falcon



# Characteristics of Mammals

- Endothermic vertebrate
- Four-chambered heart
- Skin covered with fur or hair
- Most young are born alive
- Fed with milk produced in its mother's body



# Three groups of mammals

1. Monotremes
2. Marsupials
3. Placental mammals





# Monotremes

- There are two species of monotremes: the echidna and duck-billed platypus.
- They are mammals that **lay eggs!!**





# Marsupials

- Marsupials are mammals whose young are born alive, but at an early stage of development, and they usually continue to develop in a pouch on their mother's body.
- Three species of marsupials are: kangaroos, koalas, and opossums.





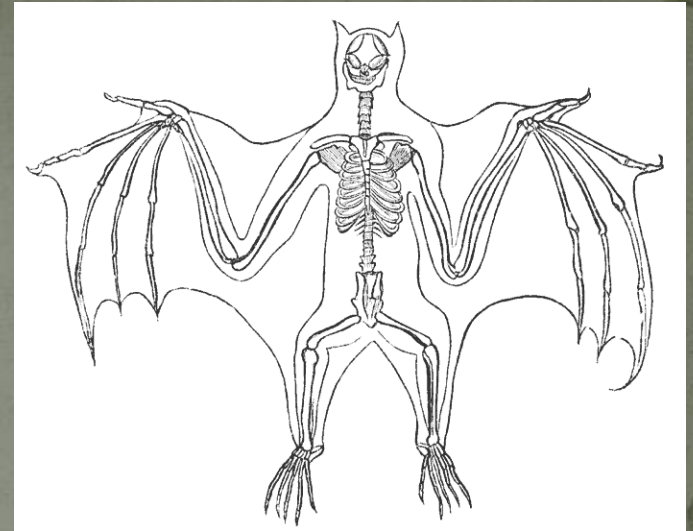
# Placental Mammals

- Placental mammals develop inside its mother's body until its body systems can function independently.
- A few species of placental mammals are: primates, bats, rabbits, elephants, dolphins, otters, squirrels, etc.



# Mammals that FLY?!

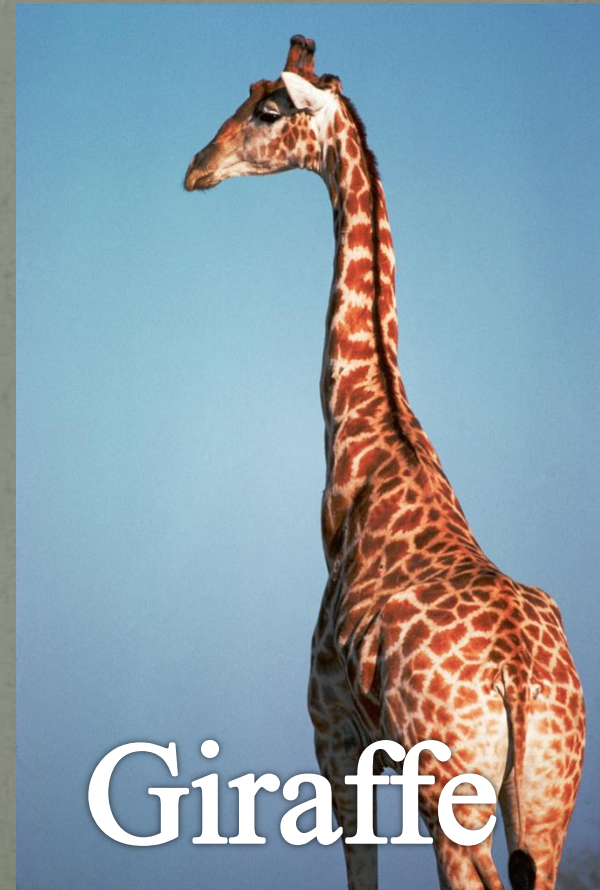
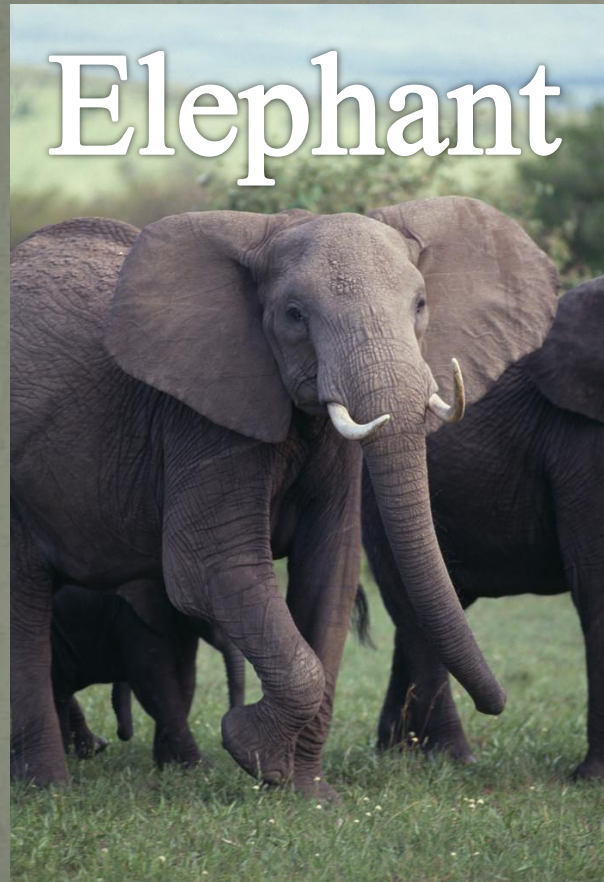
- Bats are the only mammals that can fly.
- They are covered with fur and have a thin layer of skin connecting their fingers and arms to form wings.
- They use echolocation to find prey at night.



**Bat**



# Largest and Tallest Land Animals



# Fastest Land Animal

- Can reach speeds up to 70 and 75 mph on land.
- Cannot retract their claws.
- Cannot growl—instead they “chirp”



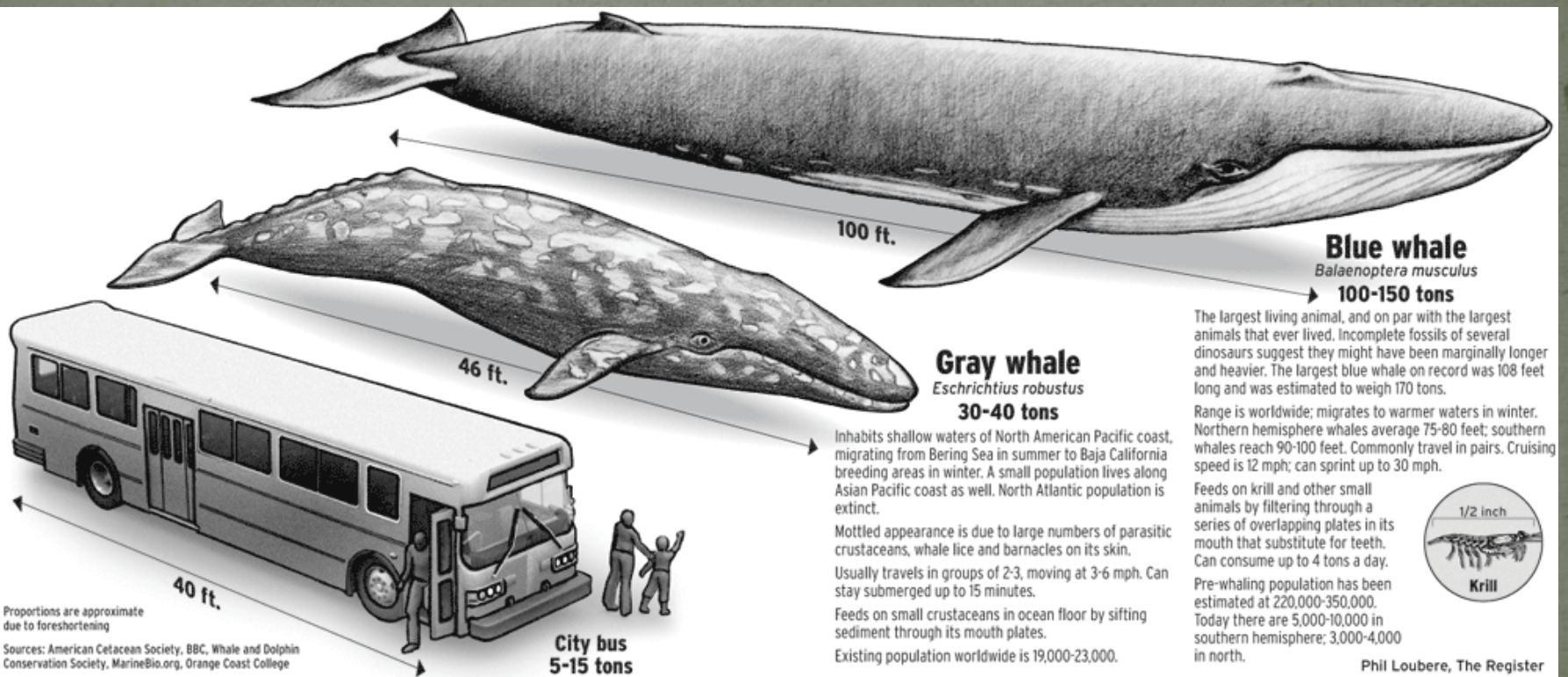


# Largest Animal in the world

- The blue whale is the largest animal in the world.
- It can get to be 108 ft in length.
- It can weigh up to 150 tons... that's 300,000 pounds!



# Size Comparison



The largest living animal, and on par with the largest animals that ever lived. Incomplete fossils of several dinosaurs suggest they might have been marginally longer and heavier. The largest blue whale on record was 108 feet long and was estimated to weigh 170 tons.

Range is worldwide; migrates to warmer waters in winter. Northern hemisphere whales average 75-80 feet; southern whales reach 90-100 feet. Commonly travel in pairs. Cruising speed is 12 mph; can sprint up to 30 mph.

Feeds on krill and other small animals by filtering through a series of overlapping plates in its mouth that substitute for teeth. Can consume up to 4 tons a day.

Pre-whaling population has been estimated at 220,000-350,000. Today there are 5,000-10,000 in southern hemisphere; 3,000-4,000 in north.

Phil Loubere, The Register

Proportions are approximate due to foreshortening

Sources: American Cetacean Society, BBC, Whale and Dolphin Conservation Society, MarineBio.org, Orange Coast College

Inhabits shallow waters of North American Pacific coast, migrating from Bering Sea in summer to Baja California breeding areas in winter. A small population lives along Asian Pacific coast as well. North Atlantic population is extinct.

Mottled appearance is due to large numbers of parasitic crustaceans, whale lice and barnacles on its skin.

Usually travels in groups of 2-3, moving at 3-6 mph. Can stay submerged up to 15 minutes.

Feeds on small crustaceans in ocean floor by sifting sediment through its mouth plates.

Existing population worldwide is 19,000-23,000.