



# Birds 9,000 species

#### Characteristics

- 1. endotherm
- 2. Feathers and scales
  - 3. Lay eggs
- 4. Incubate eggs
- 5. All have wings
- 6. Back legs with toes and claws

#### Bird eggs an nests

- 1. Like reptiles except there is a hard shell
- 2. Lay eggs in a nest and incubate eggs
  - a. Called clutch
  - b. Incubation period varies



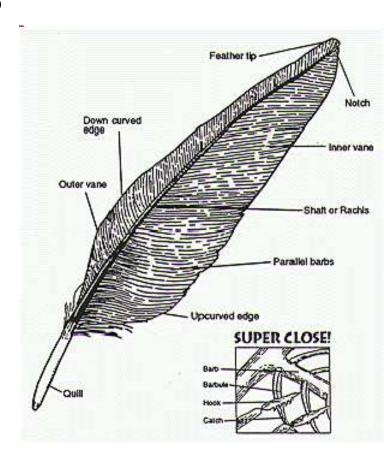
### Flight

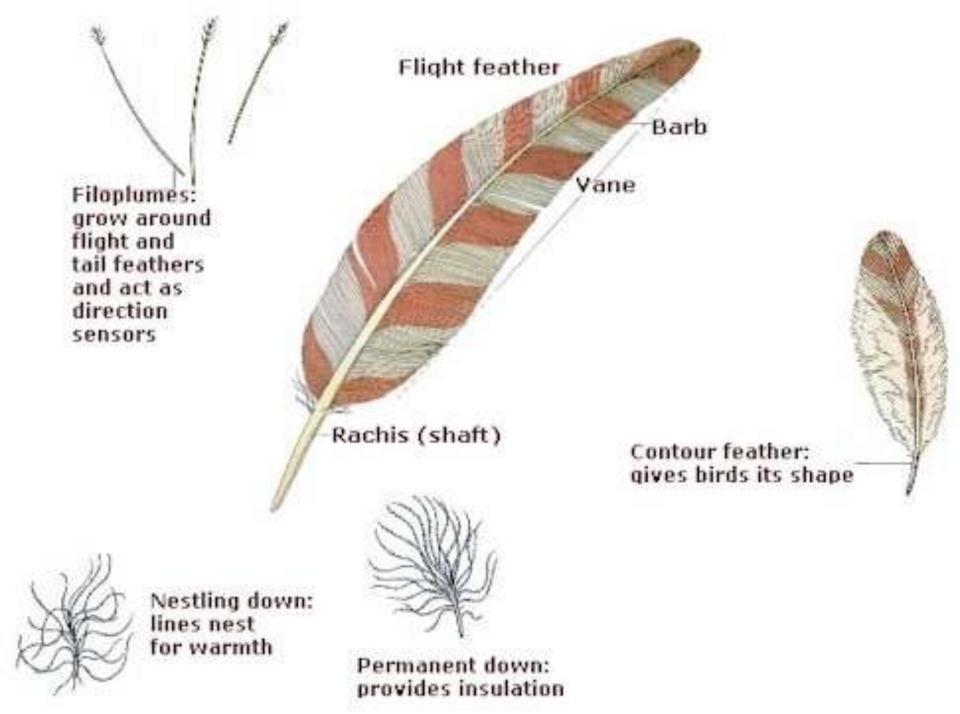
- 1. Hollow bones
- 2. Keen eyesight
- 3. high energy
- 4. breast bone for muscle attachment
- 5. no bladder
- 6. wings that provide thrust and lift



#### Feathers

- Three types of feathers
  - Contour are used for warmth
    - Birds preen feathers to oil and repair
  - Feathers are used for flight
  - Down feathers separations











#### monotremes

- lay eggs
- nurse by licking
- example: duck billed platypus and spiny anteater



# Marsupials (the pouched mammals)

- Give birth to tiny undeveloped offspring
- Crawl to and develop in pouch

Examples: kangaroo, koala, wallaby and

opossums

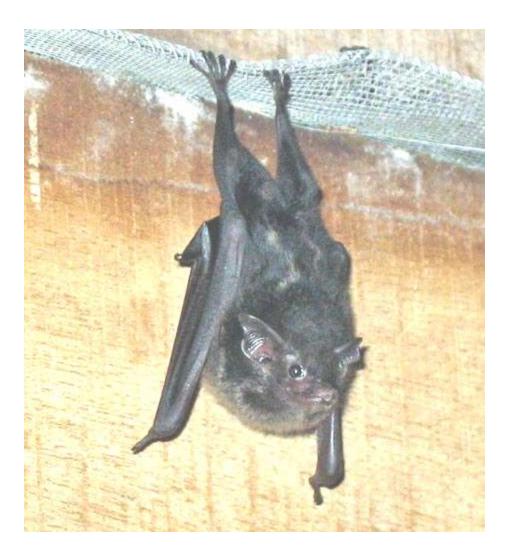


#### **Placental**

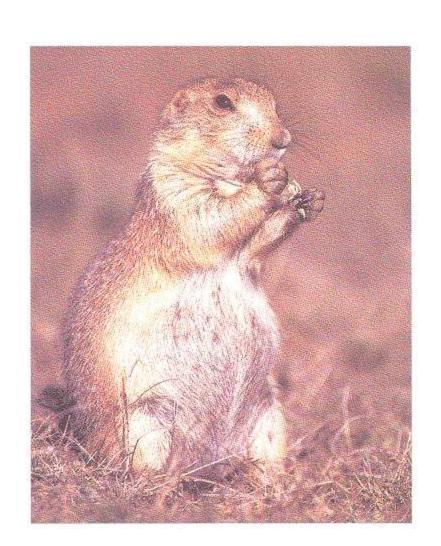
- a. Embryo develops in the uterus
  - 1) Developmental period is called gestation
  - 2) Embryo is attached to mother by placenta and umbilical cord
  - 3) Great diversity among placentals
  - 4) Page 443

#### Different orders of Mammals

• Chiropetera



#### Rodentia



#### Insectivora



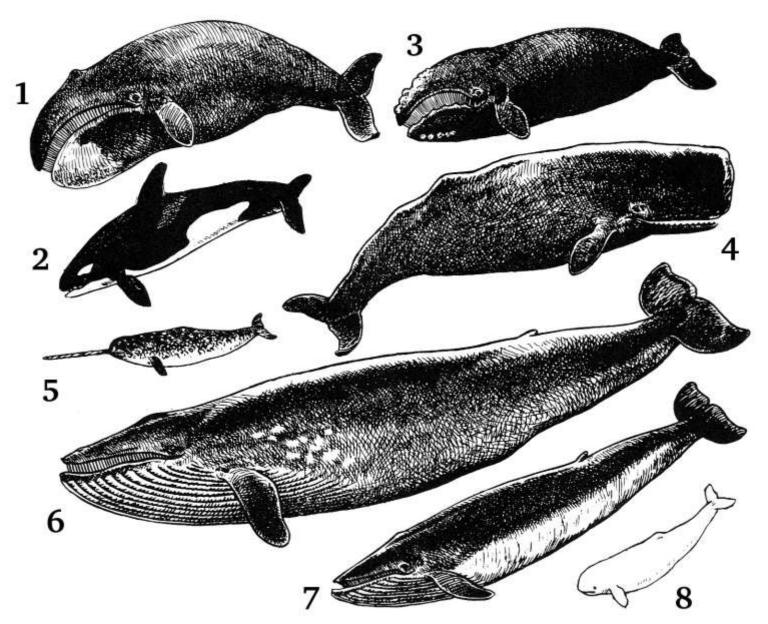




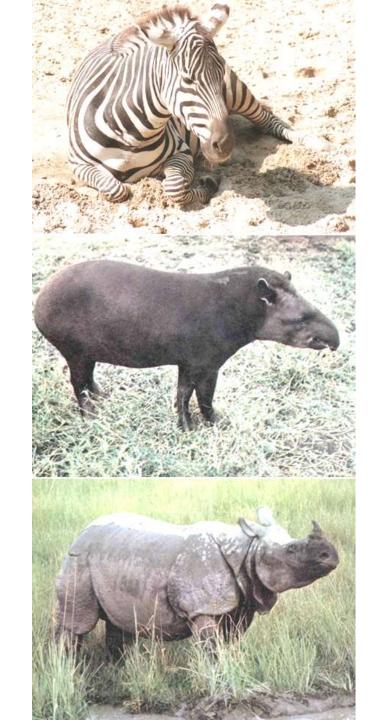
lagomorpha



#### Cetacea



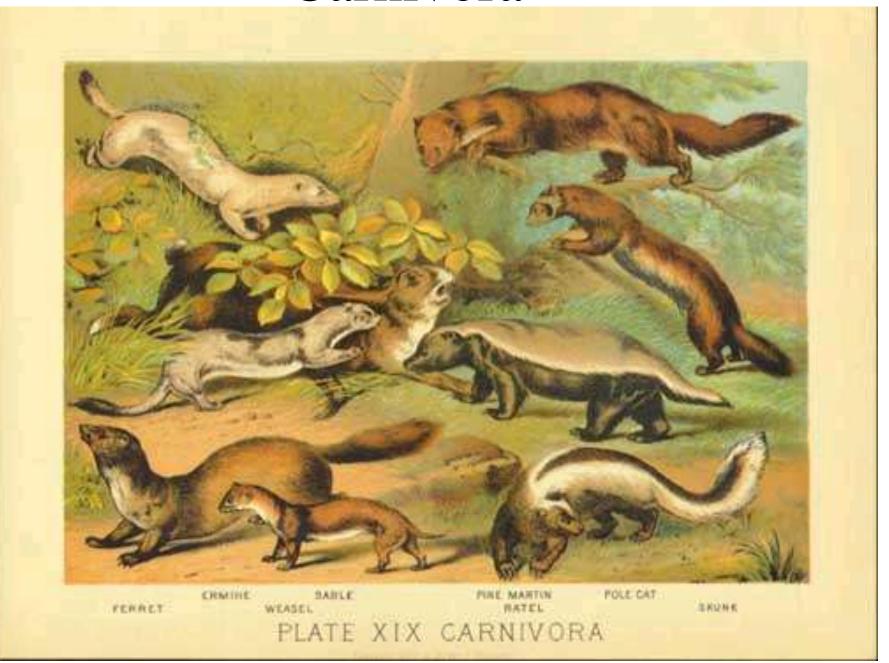
# Perisodactyla



# Artiodactyla



#### Carnivora



# Hyracoidea



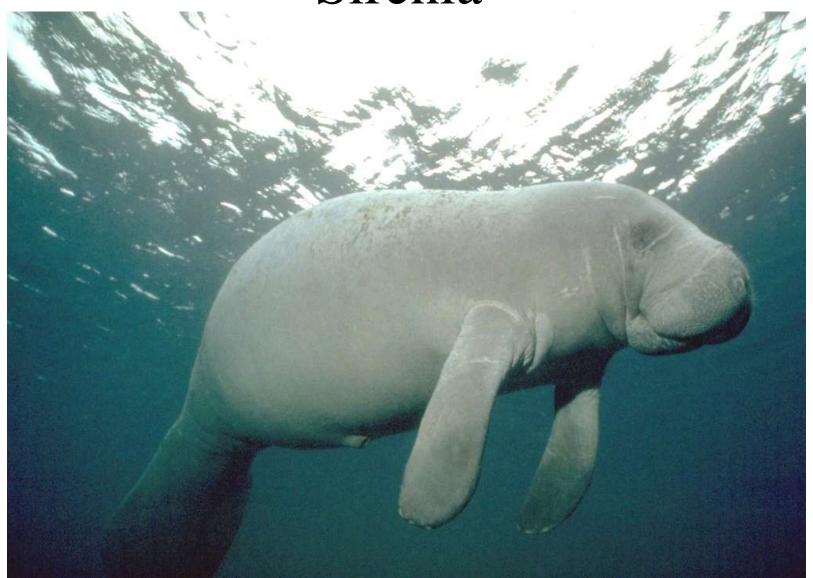
# Proboscidea

### **Primates**





## Sirenia



#### Edentata







# Dermoptera

























