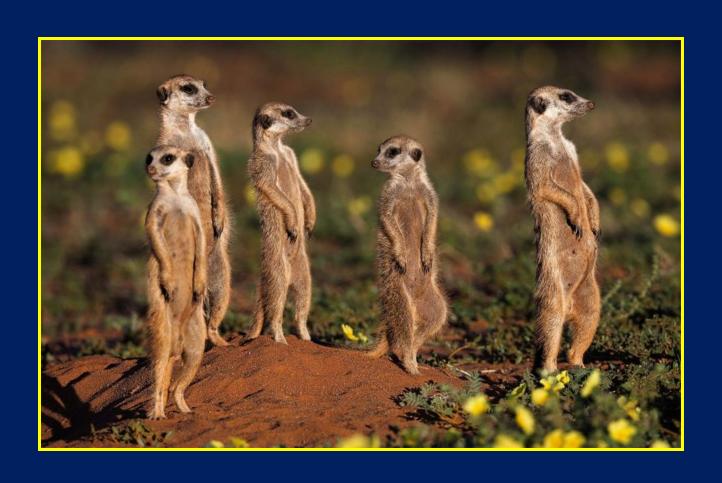
# Animals in their Environment



## **Behavioral Cycles**

Some animal behaviors occur in cycles based on environmental stimuli

Circadian Rhythms

Behaviors that occur in daily patterns are called circadian rhythms







Roosting

**Nocturnal** 



#### Migration

Response to seasonal changes and availability of food

#### Hibernation

Also a season response but involves slowing down metabolism to conserve energy

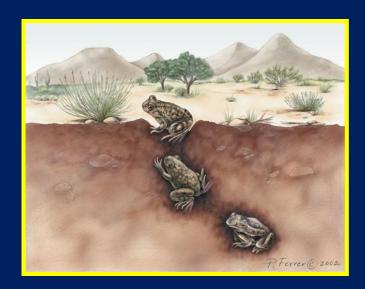


#### **Estivation**

Response to hot and dry conditions but is similar to hibernation in that it also involves slowing down metabolism



Common in areas that have wet and dry seasons.



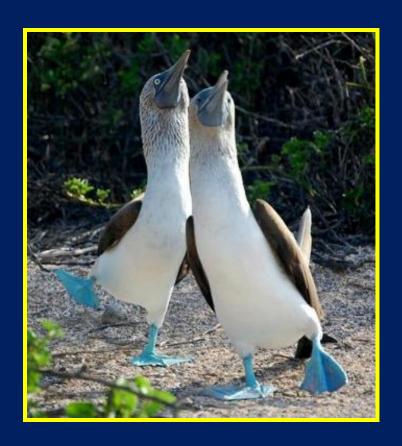
## Social Behavior

Social behavior involves interactions between two or more animals, usually of the same species, resulting in better evolutionary fitness.



### Courtship Behavior

Courtship behavior is species specific behavior that results in members choosing the best mate











#### **Territorial Behavior**

Used to mark or defend specific areas in an attempt to decrease competition for limited resources

#### **Aggressive Behavior**

Used to exert dominance or just to intimidate in order to avoid fights



#### **Animal Societies**

Groups of animals of the same species that interact and cooperate for the benefit of the group







#### Dominance Hierarchy

Form of social structure in animal societies that results in a ranking system







#### Communication

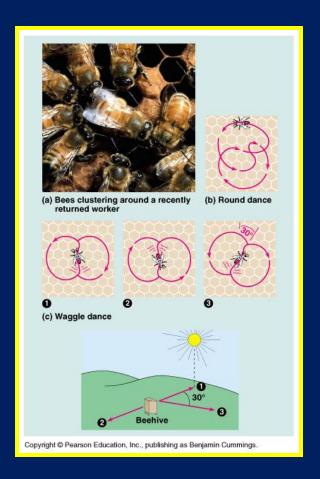
Passing of information from one organism to another, involving visual, sound, chemical signals and sometimes even language.







# Scout bees perform the waggle dance to show other bees where a source of food is located.



Waggle Dance





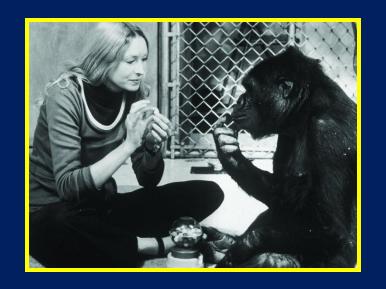




Drone Bee (male)

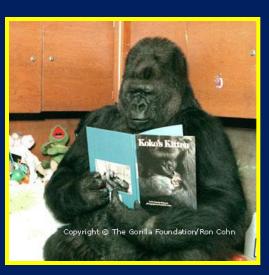


Queen Bee (Fertile Female)



Koko, the first gorilla to learn communication with humans through sign language, as taught by Dr. Penny Patterson.







#### Pheromones

# Chemicals released by animals for communication







