

# Ethology



# Objectives

- Know what *animal behaviour* (Ethology) is.
- Understand the different *grouping behaviour* in animals.
- Understand the various ways that animals *communicate*.
- Understand the different types of animal *protective behaviour*.
- Know the differences between a *home range* and a *territory*.
- Be able to *identify and interpret* the signs and sounds of the *flagship and indicator species*.



# Animal Behaviour - Ethology

- Ethology is the science of animal behaviour, in its natural habitat.

Ethology attempts to ask the questions – ***When, why, where, how, how often and with whom?***



# Animal Behaviour - Ethology

Behaviour is involved in:

- Finding food
- Finding shelter
- Escaping enemies
- Escaping unfavorable environments
- Finding a mate
- Courting
- Caring for the young



# Animal Behavior And Nature Guiding





# Group Hierarchies

## Hierarchies:

A form of social organisation in animals in which different members of a group possess different levels of status. This affects their feeding and mating behaviour

- Individual
- Population
- Community



# Animal Grouping Behavior

Each species has a typical group size at which it functions most efficiently.



# Solitary

As adults, these animals join up only in the breeding season.





# Pair

- When parental duties are too much for a single parent, the male and female form a strong attachment to one another.
- They will stay together as a bonded pair.



# Family

The family group is an extension of the pair.  
The young stay with the parents until fully grown.



# Harem

- A typical mammal grouping.
- Consists of one dominant male and a harem of females and their offspring.





# Matriarchy

- This is a female led society.





# Oligarchy

- This is a complex social grouping.
- The power is held by an elite gang of dominant males.



# Oligarchy



# Arena (Lek)

- This occurs most often in birds.
- The males group together in the breeding season to display competitively.





# Arena





# Temporary Associations

Animals that are not bonded on a permanent basis to one another may establish temporary associations



# Aggregation

- When non-breeding groups of animals congregate during migrations due to localised feeding areas.



# Caste System

An extremely complex social organisation in which there are various different classes of individuals.

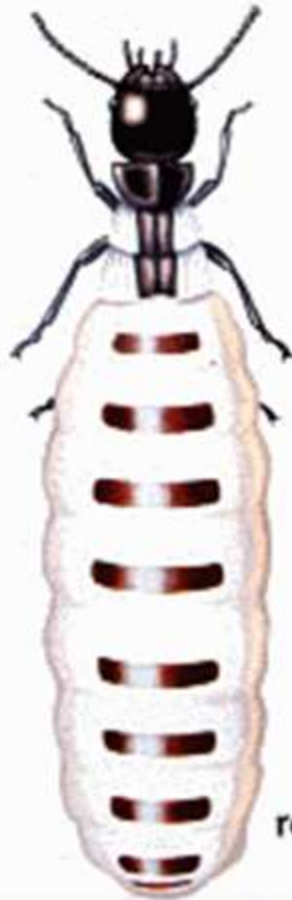




# Caste System



male  
reproductive



female  
reproductive



soldier



worker



winged  
reproductive

## Termite Casts





# Animal Communication

- **Communication is the way in which animals influence the behaviour of other animals.**

- ✓ Sound
- ✓ Sight
- ✓ Smell
- ✓ Touch



# Vocal Communication (Sound)

Sound signals can transmit a great deal of information.

- ✓ Indicate territories
- ✓ Alarm calls to indicate danger
- ✓ To attract mates
- ✓ To maintain contact between a mother and offspring
- ✓ To maintain contact between members of a group
- ✓ To determine the location of group members
- ✓ To locate prey through echolocation



# Vocal Communication (Sound)

There are other types of sound communication

- ✓ Many antelope snort through their noses
- ✓ Warthogs champ their teeth
- ✓ Some antelope rasp their horns on vegetation
- ✓ Sengi's and rabbits thump their feet on the ground
- ✓ Porcupines rattle their quills
- ✓ Many insects communicate by stridulating



# Visual Communication

There are different types of visual communication

- *Body posture*
- *Facial expression*
- *Body markings*
- *Facial markings*





# Visual Communication



# Visual Communication



# Olfactory Communication

This is communication through smell





# Olfactory Communication



# Olfactory Communication



# Olfactory Communication





# Olfactory Communication



# Tactile Communication

Communication through touch





# Protective Behaviour





# Protective Behaviour



# Protective Behaviour





# Protective Armour





# Camouflage





# Camouflage





# Disruptive Markings





# Warning Signals & Chemical Defense

## *Aposematic colouration*



# Warning Signals & Chemical Defense

## *Aposematic colouration*





# Warning Signals & Chemical Defense

## *Aposematic colouration*





# Startle Displays



# Thanatosis

Playing Dead



# Autotomy

*Self Mutilation*





# Distraction Displays



# Mobbing Behaviour



# Mobbing Behaviour





# Home Range

Home Range	Territory
All animals have a home range	Not all animals have a territory
Usually a large area	A smaller area within a home range
Can support several territories	An exclusive area depending on size
Not occupied permanently	Occupied on a permanent basis
No definite boundaries	Specific area with boundaries
Many different families can share the area	Occupied by one family unit
Not demarcated or defended	Actively defended
Overlaps other home ranges	Territories never overlap
Used for feeding, drinking, shelter and interacting	For reproduction and the rearing of young





**That's It  
For  
Now!!**

