

# Grade 7 IB Habitat & Adaptation



# Habitat



- The environment in which a specific species lives in.
- Example :  
Canadian beavers live in the wetlands and lakes of North America.



# Habitat



- Characteristics that define a habitat:
- Geographical location
- Flora
- Fauna
- Proximity of man-made constructions

# Why are habitats important?



- 4 major reasons:
- 1) Needed to meet other animals of the same species in order to reproduce
- 2) Shelter
- 3) Food and water
- 4) To be in a climate to which they are adapted to

# Ecological niche



- Ecological niche describes the relational position of a species or population in an ecosystem.
- Characteristics that define an ecological niche:
  - Habitat
  - Diet
  - Daily rhythms



# Ecological niche



- The ecological niche describes how an organism or population responds to the distribution of resources and competitors (for example, by growing when resources are abundant, and when predators, parasites and pathogens are scarce)

# Species



- **Living organisms that share similar physical characteristics belong to the same species.**
- **Members of the same species must also have natural, viable and fertile reproduction.**

# Adaptation



- An adaptation is a way an animal's body helps it survive, or live, in its environment
- Species must be adapted to their habitat

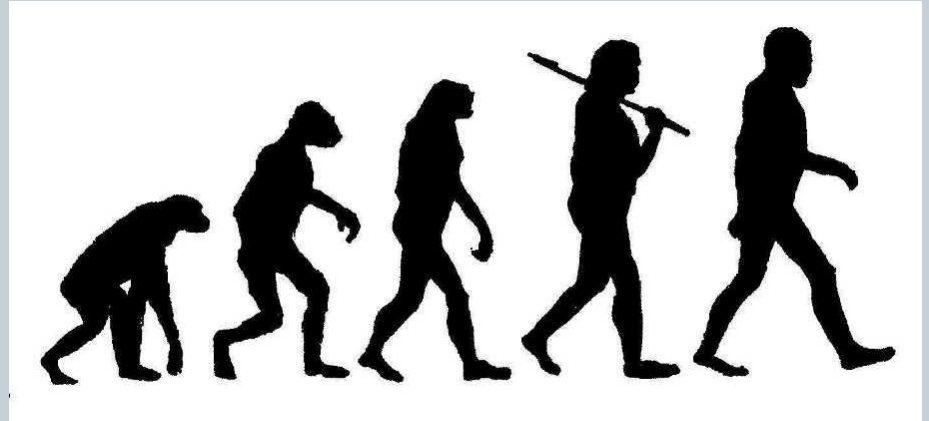






- **Animals depend on their physical features to help them obtain food, keep safe, build homes, withstand weather, and attract mates.**
- These physical features are called **physical adaptations**. They makes it possible for the animal to live in a particular place and in a particular way.

- Each adaptation has been produced by evolution. This means that the adaptations have developed over many generations.





- **Examples of the basic adaptations that help creatures survive:**
- shape of a bird's beak,
- the number of fingers,
- colour of the fur,
- the thickness or thinness of the fur,
- the shape of the nose or ears

# What is a mimicry adaptation?



- Mimicry is adapting to look like something else. An example would be the hawkmoth as it looks just like a dead leaf, tattered and veined.



# Example of Adaptations to Climate



- Red fox vs. Arctic fox



# Adaptation and movement



- Animal movement is adapted to specific habitats.

Example:

Smooth green snake: has no legs (it slithers) → lives in fields where plants provide shelter

# Adaptation and eating



- Every animal species has physical adaptations that helps it eat.



# Teeth and diet



- Canine teeth (tear) → carnivores
  - Molars (grind, crush) → herbivores
  - Incisor (shred, cut) → herbivores (bark)
  - Premolar (grind, crush)
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- Humans → all four types → omnivores



# Plants and adapting for food



- Plants will also adapt to their habitat in order to obtain food
- Example:
- Lichen : Algae and fungi live in symbiosis. The algae produces the food for the fungi and the fungi protects the algae from drought and temperature variations.



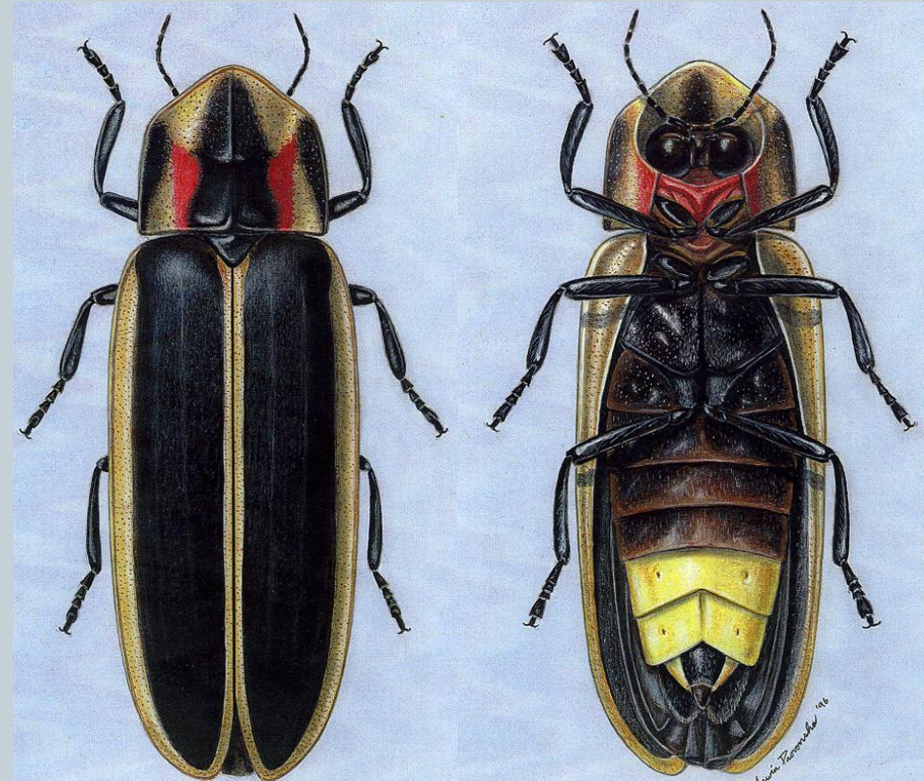
# Adaptation and communication



Communicating through  
visual signs : Fireflies (light)

Communicating through  
Smells : skunks (spray)

Communicating through  
Sound : dolphins (whistle)



# Behavioural adaptation



- Enables animals and plants to improve their chances of survival
- Example: moving in groups and phototropism.