

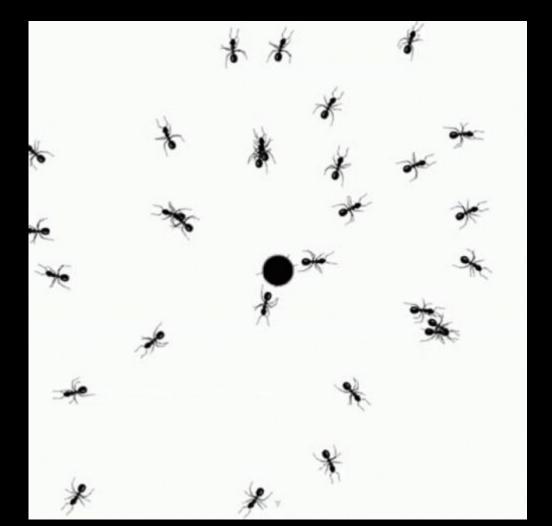
# Entomology for Beginners

**General Entomology ENT 100** 





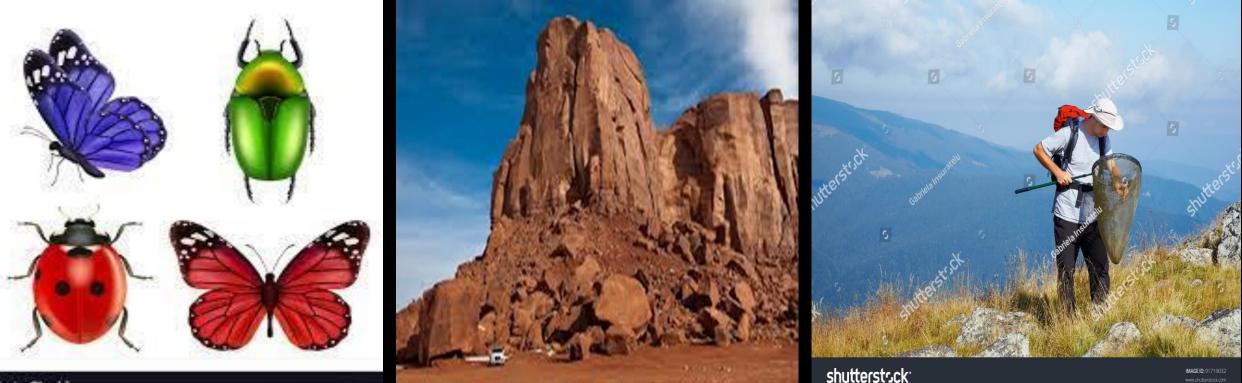
#### • Insects are found everywhere.





#### • Most insects live on land.

#### • Insects can be found in mountains and hot desert.



VectorStock\*

# • Insects can be found in dry deserts or freezing areas.



# • Many insects live in caves.











• Insects can be found in all plant parts or plant products, (leaves, stems, roots, fruits, and stored grains).



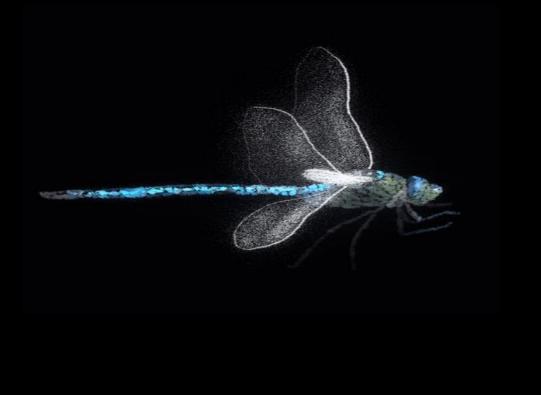


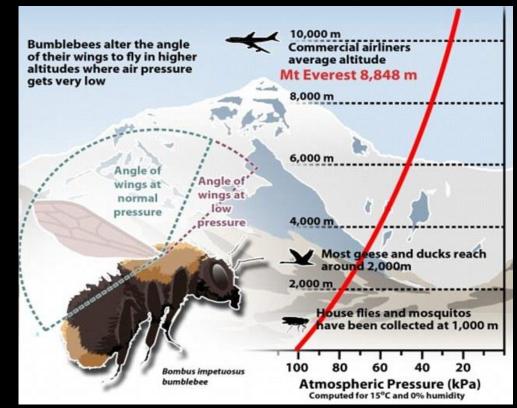






- Flying insects mastered the air.
- Some insects can rise to altitudes of hundred meters.
- Insects can be found higher by ascending currents of air.





- Some insects are completely aquatic.
- Some insects spend part of their life in water (immature stages)
  & another part (adult stage) in air.

#### shutterstuck







youtube.com/KQEDDeepLook



nature1upclose.con



# • Some insects live on the water surface, running on it on their long legs.







# **INSECTS' LIFE SPAN**

#### **INSECTS' LIFE SPAN**

- Insects have different life spans.
- Some insects have short life as adult Mayflies which live less than 1 day (dayflies). Naiads of Mayfly may live more than a year.
- Some insects live for a few months such as mosquitoes and flies.







#### **INSECTS' LIFE SPAN**

- Bee queens may live for five years whereas worker bees live about one month.
- Female ants can live up to 15 years. Male lives for days and die after mating.



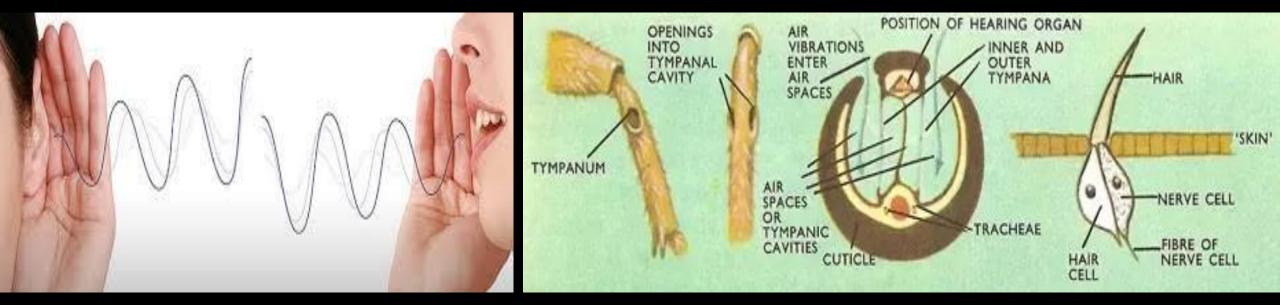


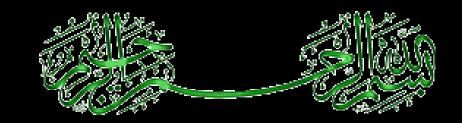


### **How Do Insects Hear?**

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- Insects are the only invertebrates which have been proved to be distinguishing sounds.
- Insect's ear is a thin part of cuticle sensitive to air vibrations.
- The hearing organs may be located on the thorax, legs, or on the wings.







• The sexes are separate in insects & reproduction is usually sexual.





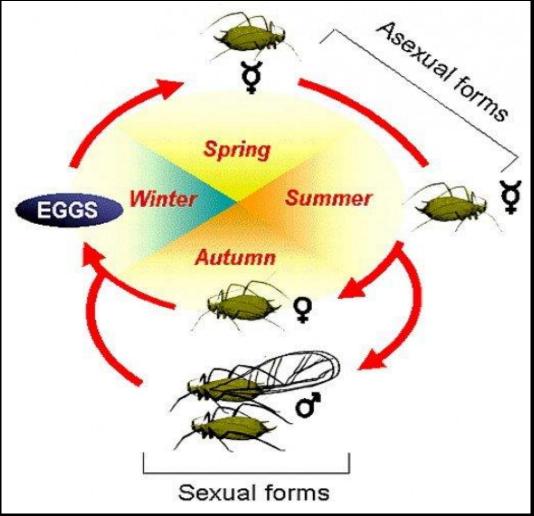






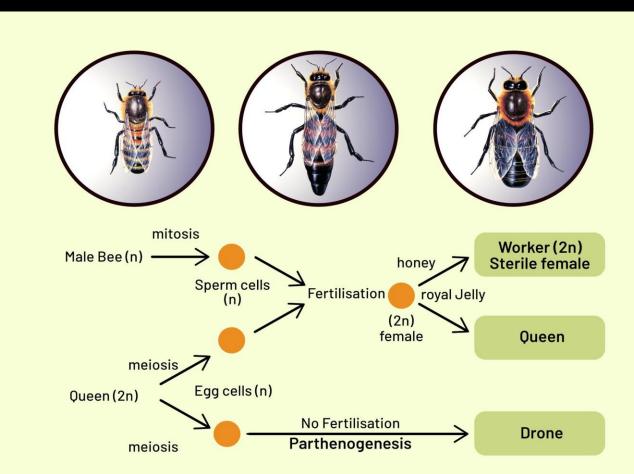
• In many insects, eggs may develop without fertilization by sperm (parthenogenesis).





• In some insects, as bees, unfertilized eggs become males and fertilized eggs females.





### • After egg hatching, the insect must molt periodically

# as it grows.



