

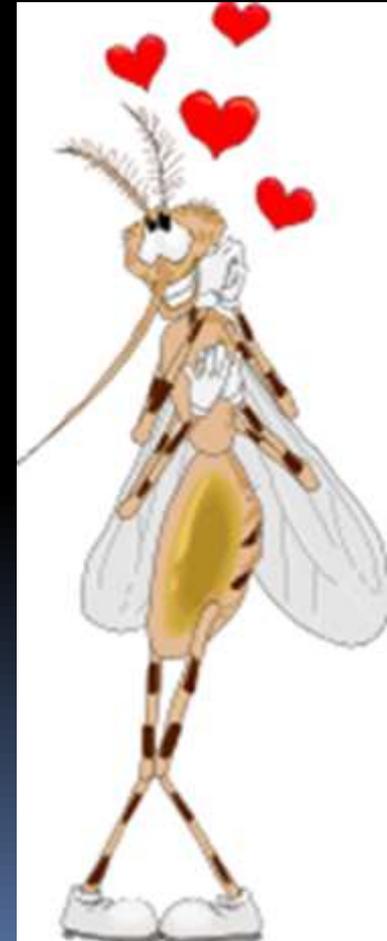


Entomology for Beginners

General Entomology ENT 100

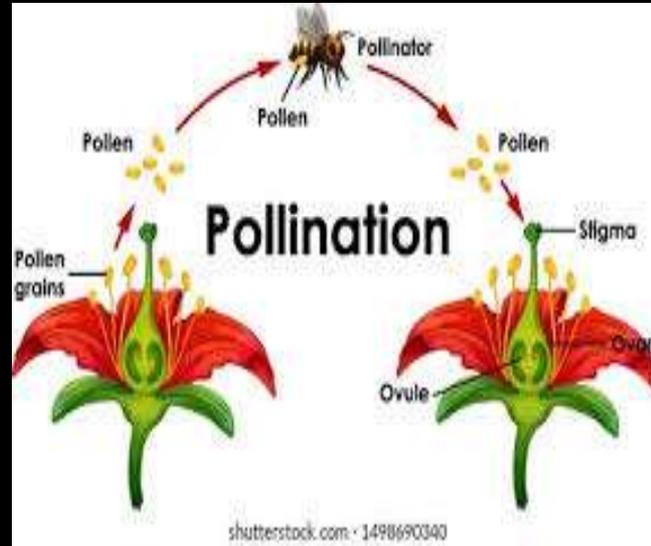
Insects as a friend

(Benefits of insects)



Economic benefits

- Pollinate flowering plants.



Economic benefits

- Important food source for many animals and humans in many countries.



Economic benefits

- As consumers, scavengers, and decomposers, insects play a vital role in the biogeochemical cycling of nutrients.
- Insects aerate the soil, improve its retention of rain water, and improve its fertility.

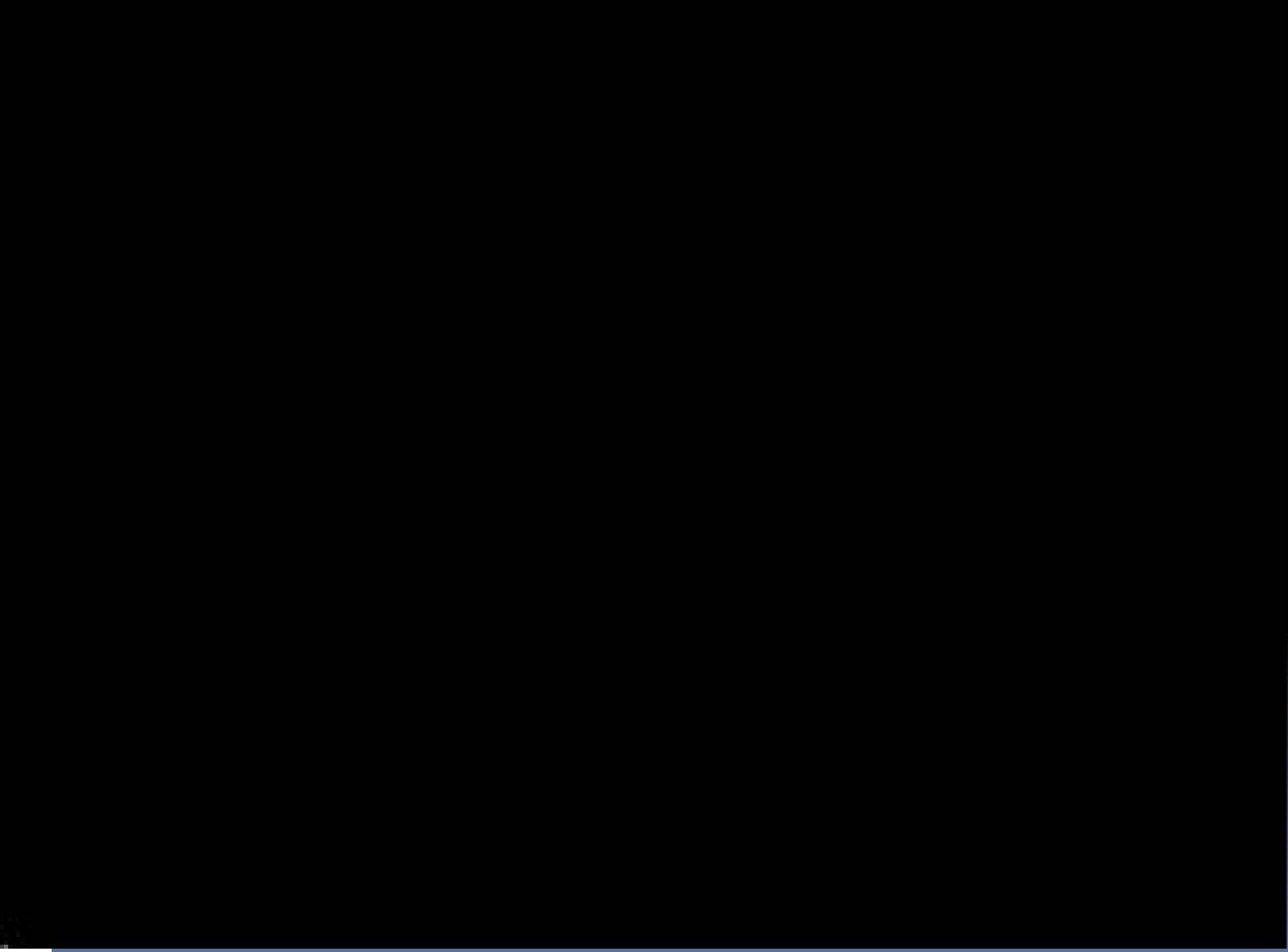


Economic benefits

- Decomposition of dead organisms.



Video



Economic benefits

- Many insects are used as biological control agents to fight pests and weeds.



Economic benefits

- Honeybees produce important products as honey, beeswax, pollen and royal jelly.



Economic benefits

- **The silkworm produces silk. Silk is the strongest of all natural fibers. Silk clothes are warm in winter, cool in summer, resistant to wrinkling, and light in weight.**



Economic benefits

- Scale insects produce **Shellac**, which is used in cosmetics and as varnish for floors and furniture.



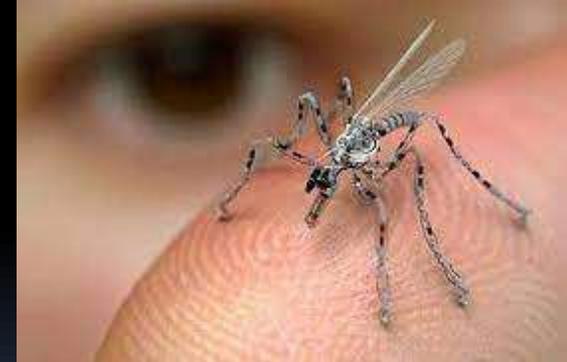
Insects and the development of science and technology

- Scientists destroyed the **theory of spontaneous generation** when they found that worms found in meat are due to fly eggs.
- Studies on life cycles, physiology, and ecology of insects improved our understanding of biology.



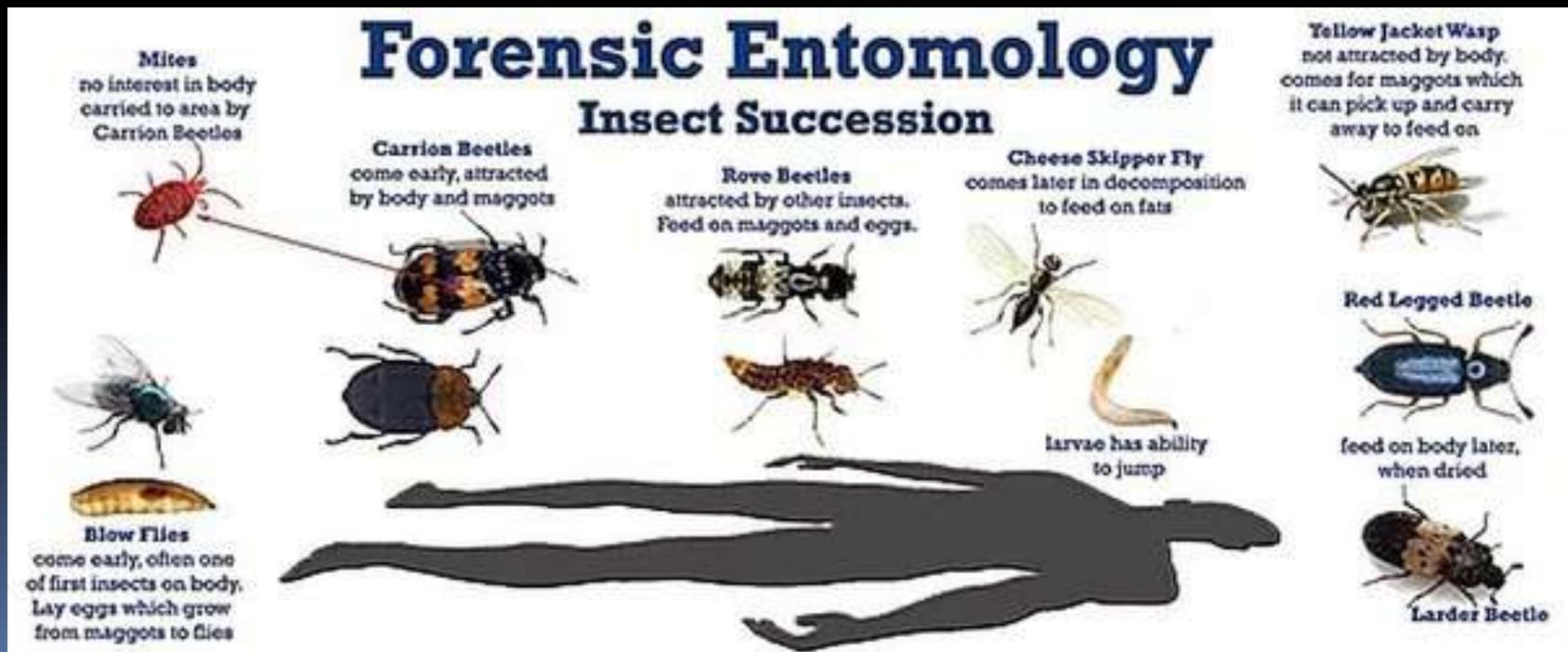
Insects and the development of science and technology

- Engineers studied the legs of a grasshopper to help them design shock absorbers for jet fighters and developing **robots** similar to insects.



Insects and the development of science and technology

- Specialists in forensic entomology can determine how, when, or where a crime was committed.



Medical and Therapeutic Value of insects

- During World War I, wounds infested with blow fly larvae rarely developed bacterial infections.
- Many doctors use **maggot therapy** (sterile-reared fly larvae for cleaning necrotic tissue from deep wounds).



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