

CLASS INSECTA & GENERAL CHARACTERISTICS

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CLASS INSECTA



General characters of class insecta

- These are tracheated arthropods
- It possesses 3 pairs of jointed legs
- Body is segmented
- Insect body is divided into 3 regions
 - Head
 - Thorax
 - Abdomen
- It possesses a pair of compound eyes & antennae
- Two pair of wings are present in adult stage





Flesh Fly (source wikipedia)

CLASSIFICATION

- Kingdom : *Animalia*
- Phylum :
Arthropoda
- Subphylum : *Hexapoda*
- Class : *Insecta*



Representatives

- Fleas, moths, flies, wasps, mosquitoes, grasshopper, beetles, cockroaches, termites, butterflies, ants
- Are mostly solitary, but some insects (bees, ants termites) are social and live in large, well-organized colonies
- Communication occurs in many different ways; males can sense pheromones of female moths over distances of many kilometers (moths), sounds to attract mates (crickets)





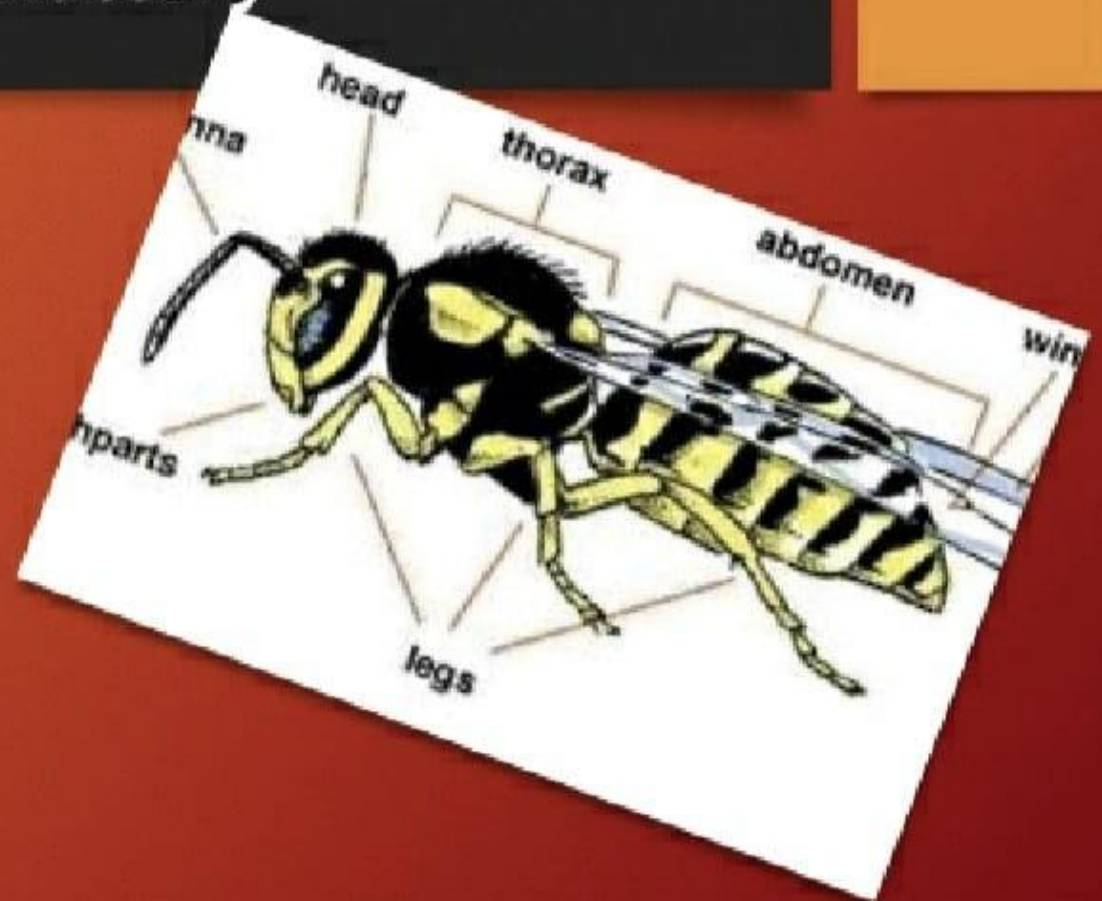
Flesh Fly (source wikipedia)

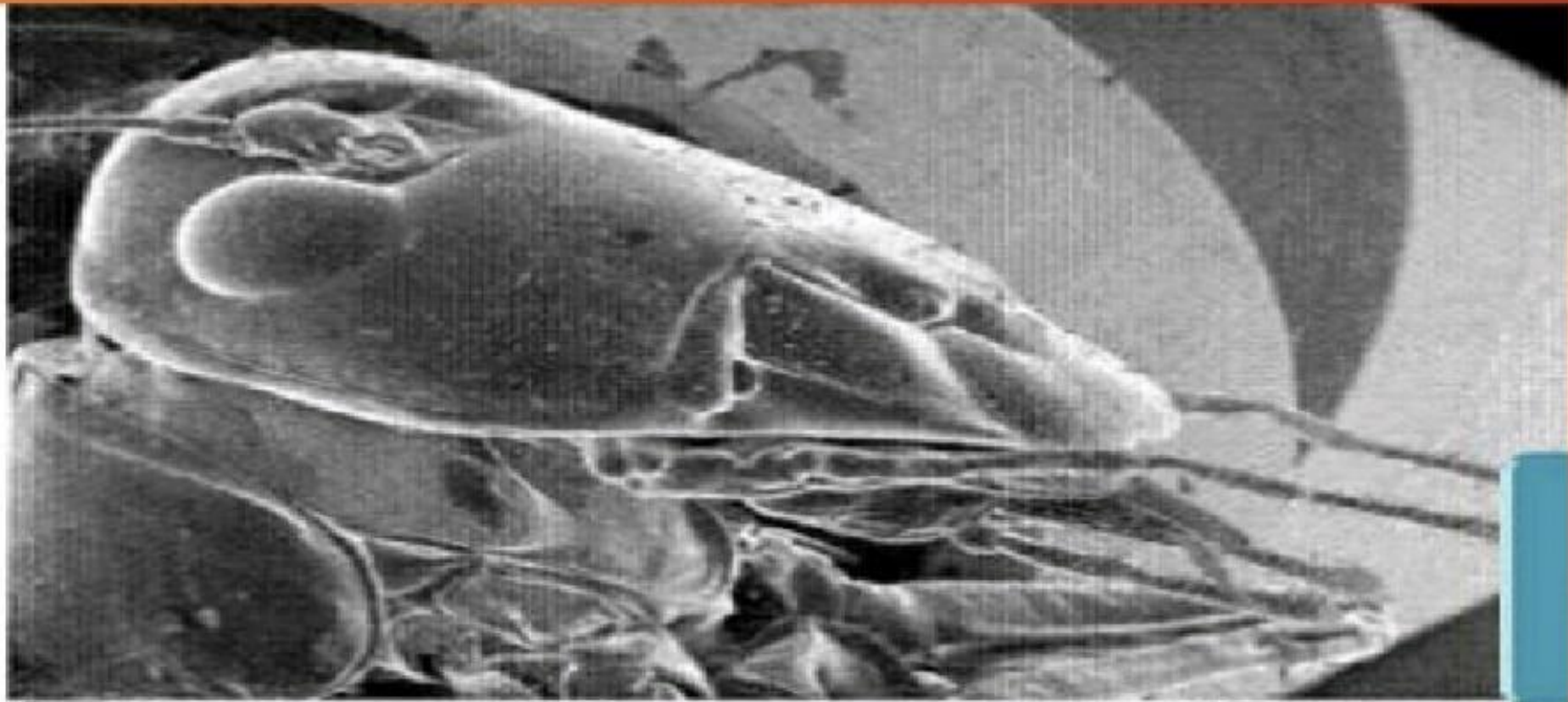




Basic Anatomy

- Chitinous (hard) exoskeleton, no bones or a skeleton
- Three-part body, head, thorax, abdomen
- Three pair of jointed legs
- Compound eyes which contain several thousand lenses leading to larger field of vision
- Two antenna





Chewing mouthparts of grasshopper under magnification

Basic Anatomy cont:

- **Cuticle** : Outer layer, made up of epicuticle (thin, waxy, water resistant, no chitin)
- **Three body part** :
 1. **Head** : pair of sensory antenna, pair of compound eyes, and if Present, one to three simple eyes and three sets of modified appendages that form the mouth part
 2. **Thorax** : six segmented legs which are used for several things such as running or swimming, and if present, two or four wings
 3. **Abdomen** : consists of eleven segments, contains most of the digestive , respiratory, excretory and reproductive internal structure
- Only invertebrates who can fly, which is very important for their success: muscles are connected to exoskeleton and are able to contract multiple times for each nerve impulse



Identification

- One pair of antennae
- Usually one pair of compound eyes ;
Simple eyes (ocelli) present in many groups



THANK YOU