

Order: Siphonaptera

‘Siphon’ means tube, ‘a’ means without, and ‘ptera’ means wing. These are the fleas. Fleas are wingless. They are all blood-sucking, temporary ectoparasites of warm-blooded animals, mainly mammals, but a few will feed on birds

Fleas are minute to small (from 0.8 mm to 5 mm) and have the following characteristics: compound eyes are absent or each is represented by a single ommatidium

Antennae are short and can be folded into grooves in the head, mouth parts are piercing-sucking, coxae are long and tarsi are five-segmented, cerci are small and one segmented, and wings are absent

Fleas have powerful legs adapted for jumping and can leap 10-15 cm. The abdomen is the bulkiest part of the body and is segmented. The ending is rounded in the female, whereas in male the genitalia are apparent.

fleas are of medical importance to humans through disease transmission. Fleas are vectors of plague (bubonic form) and endemic or murine typhus. Several species of tape worm can, but not commonly, infect humans after utilizing the flea as an intermediate host. In the tropics, the chigger flea attaches itself to humans and can initiate severe lesion. Fleas can also become pests to such domesticated animals as dogs and cats.

- Fleas are also causes for chigger on man and other animals.
- Fleas are annoying and irritating

Order : Hymenoptera

These are insects having wings which is membrane like. They include the ants, bees, and wasps. Their sizes range from 0.21 to 65mm in length, excluding the appendicular ovipositor. Characteristics include filiform antennae, chewing or chewinglapping mouthparts

- Bees, wasps: cross pollination of plants.
- Ants: serve as biological control means by feeding on larvae of others destroying unnecessary pests as in orchards and gardens; certain ants kill cockroaches in dwellings..

- Vectoriness: Not of significant role due to their habitat, but rarely may serve in mechanical contamination
- Venomization, annoyance

Order : Lepidoptera:

“Lipid” means scale, and “ptera” means wings) The order Lepidoptera comprises of the moths and butterflies

Groups of this order have two pairs (four) wings, but also absent in some (rarely). The adults have sucking type mouth parts.

They are of advantage in plant cross-pollination and some are silk producers (cocoon of the bombidae family = silk worm); nevertheless their larvae are the greatest economical destructors. Their being a vector is not of significance

Order : orthoptera

Orthoptera are insects having straight wings. These Include such insects as grass hoppers, preying mantids, katydids, crickets, walking stick

Dictyoptera (cockroaches)

The mouth parts are of the generalized biting-chewing type (orthopteran). There are two pairs of wings in most species;

The cockroaches are mechanical disease transmitters because of their dirty living and feeding habits. Their body parts (if inhaled as dust contact) produce allergy to some people.

Order : Coleoptera

“Coleas” means sheath or cover and “ptera” means wings. This group is identified by having two pairs (four) of wings and mandibulate (biting-chewing mouth parts).

The order of coleoptera is the beetles and the weevils

- Chemically skin blistering: Meloidae groups.
- Some serve as intermediate hosts of helminthic parasites.
- Accidental invasion of natural body openings by beetles is also common.

Order : Isoptera

The termites (white ants) are grouped in this order. They have two pairs (four) wings although temporarily used. Termites vary from 2mm to 12mm in length

White termites are of great biological and economic importance. In the tropics and in forests their feeding recycles nutrients and aids in soil development.