



True Bugs (Hemiptera)

Bed Bugs (Cimicidae)

- The family Cimicidae includes species known by several common names, including bed bug, bat bugs, and swallow bugs.
- All species in this family are wingless, obligate hematophagous ectoparasites.
- Their medical and veterinary importance relates primarily to the loss of blood and discomfort caused by their feeding on vertebrate hosts.

Taxonomy

- The family Cimicidae is divided into six subfamilies with 23 genera and 91 described species.
- The cimicids include 12 genera with species associated with bats and nine genera with species associated with birds.
- *Cimex hemipterus*
- *Cimex lectularis*

Morphology

- The most striking feature of cimicids is their dorso-ventral flattening.
- Adults of the oval, mahogany-colored *Cimex* species generally range in length from about 5.5 to 7.0 mm, with abdomens 2.5 to 3.0 mm wide.

Life History

- Mating occurs with the male bug straddling the female's back at an oblique angle.
- Mated females usually feed to repletion and then begin to lay eggs three to six days later.
- The eggs usually are deposited in groups or clusters.
- There are five nymphal stages, each lasting 2.5 to 10 days.
- The total developmental time from egg to adult for *C. lectularius* varies from 24 days (at 30° C) to 128 days (at 18° C).

- Despite the fact that cimicids do not play a significant role as vectors of human pathogens, bed bugs are medically important because they cause unpleasant bite reactions and significant blood loss in people living in dwellings that are chronically infested.
- Cimicids can be significant pests in commercial poultry production.

Prevention and Control

- Measures to prevent cimicid infestations should begin with house sanitation.
- Removing accumulations of paper and wood trash eliminates hiding places and harborages for the bugs.
- However, once an infestation occurs, eliminating cimicids requires thorough fumigation with residual insecticides that must be sprayed on surfaces over which the bugs crawl to reach their hosts.
- Pyrethroids have provided good control.