CHAPTER 10

CHEWING AND SUCKING LICE

LEARNING OBJECTIVES

After you complete your study of this chapter, you should be able to:

- Tell what sucking and chewing lice feed on.
- Describe the general appearance of lice.
- Explain the general life cycle of lice.
- Understand how to control lice and prevent the spread of lice.

Lice (singular: louse) are insects belonging to either the **sucking louse** order (**Anoplura**) or the **chewing or biting louse** order (**Mallophaga**). All lice are obligatory ectoparasites of birds and mammals. There are about 460 species of sucking lice and 3,000 species of chewing lice. Sucking lice feed solely on blood and have mouthparts designed for sucking. Their mouthparts penetrate the skin and actually fit into a blood vessel, from which the blood meal is drawn. Sucking lice occur only on mammals.

Biting lice have mouthparts designed for chewing, not sucking, and they feed on feathers, hair and skin scales. They live on mammals and birds. An infestation of lice is called **pediculosis.**

Lice are highly host-specific—that is, a particular species of louse is generally associated with only one kind of animal host. Often, a species of louse will even be restricted to one part of the body of one kind of animal host. Lice do not survive long if they are removed from their host, so they live on the host all the time. They are transferred from host to host by direct contact.

Infestations of lice are associated with overcrowding and poor sanitation in the animal's environment. Infestations are seen mostly in the winter. Long winter hair coats are desirable homes for lice. Populations are limited by summer heat.

Lice are wingless insects that are flattened from top to bottom. They are usually tiny to minute in size (from 1 to 5 mm in length), though they can be seen with the naked eye. Figure 10.1 shows a typical chewing louse and a typical sucking louse. The head of a sucking louse is much narrower than that of a chewing louse. As a general rule, the **head of a sucking louse is narrower than the thorax** (middle body part), whereas the **head of a chewing louse is wider than the thorax.** The legs often have claws to grasp hairs or feathers.

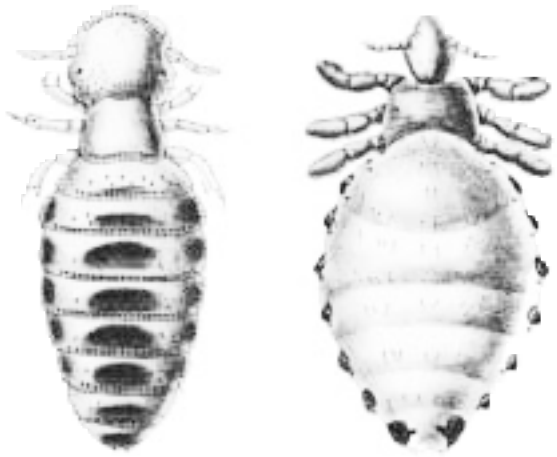

Figure 10.1 Typical chewing louse (A) and a typical sucking louse (B).

LICE LIFE CYCLE

The eggs of lice are called nits and are cemented to hairs or feathers on an animal host. The eggs hatch and larval lice, called **nymphs**, emerge. Nymphs blood-feed. Nymphs continue to feed and molt three times before maturing into adult male or female lice. The adult lice mate and the

females lay eggs onto host hairs or feathers. The entire life cycle takes up to 30 days or more, depending on temperature. All life stages of lice occur on the host.

EFFECTS OF LICE ON ANIMAL HEALTH

A single animal may be infested with thousands of lice. Their feeding activity results in hair or feather loss, blood loss, skin irritation and secondary infection. Lousy animals may be weak and susceptible to other infestations or diseases. Infested animals will scratch frequently, worsening the condition. However, grooming by the host animal may remove lice and help lessen the effects of lice activity. Also, an animal's immune system may affect lice and reduce their numbers. Some animals may be infested with lice and show no ill effects. For example, one study showed that 50 percent of the individuals in a herd of beef cattle were infested with lice but only 2 percent were severely infested and showed pathological signs.

Lice of Companion Animals and Horses

Dogs and cats may occasionally be infested with chewing lice. The dog biting louse (Figure 10.2) is uncommon but may harm dogs, particularly puppies, when present in large numbers. The cat biting louse occasionally occurs on cats.

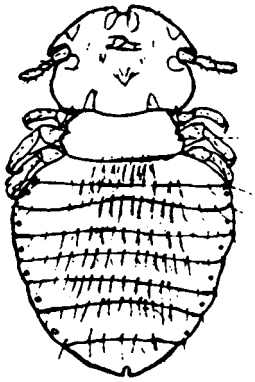

Figure 10.2 Dog biting louse.

LICE MANAGEMENT

Prevention involves isolation or culling of chronic lice carriers so that lice will not be transferred to non-infested animals. Animals should be checked and treated for lice before being added to a kennel, cage or exercise area with other animals. Remove thick mats of hair before treating, and treat all contact animals.

Lice control on animals involves use of insecticides. Many young animals acquire lice from infested mothers during the suckling stage. Some insecticides cannot be used on young animals, or on pregnant or lactating mothers. Therefore, the least risky lice management strategy is to control the lice on both adults prior to mating. If the mother does not have lice, the offspring will not contract an infestation from contact with their mother. Read all label directions and precautions before applying products to animals.

Check treated animals for lice at two-week intervals after application and retreat if lice are found. Retreatment is often necessary because many insecticides do not kill the eggs or nits. Lice may hatch from eggs that survive an insecticide treatment and reinfest the animal. The louse life cycle must be completely broken on each animal.

Apply insecticides as coarse sprays, pour-ons, dips, shampoos or dusts of registered insecticides. All accompanying animals, litter mates or those in the same cage, kennel, exercise area or home should also be treated. The animal's living quarters and bedding must be treated and disinfected.

Chapter 10 – Review Questions

Write the answers to the following questions and then check your answers with those in the back of this manual.

1. What do sucking lice eat? How do they obtain it?

2. Lice can survive for extended periods of time between hosts. True or False?

3. Describe the physical difference between sucking and chewing lice.

4. List two ways lice infestations can be influenced or reduced on animals.

5. Why is it important to control lice on both adult animals prior to mating?

6. To prevent reinfestations from surviving eggs, the _____ of the lice must be completely broken on each host animal.