

# Lice: They may be closer than you think



**ROBERT HOLMBERG**

## LIFE LONG LEARNING

Have you ever used the words "nit-picking", "going over things with a fine-toothed comb", "lousy" or "nit wit"? If so, you are referring to a constant companion of humans since at least the first century BC — lice. Anyone, no matter of what social or financial position, can acquire lice. Lice are wingless, flattened, blood-sucking insects that normally live their entire lives on their hosts. Here is some information on human lice and how to avoid and remove such "visitors" from your self or family.

### HEAD LICE

Female head lice glue their eggs (nits) individually to hairs, especially at the nape of the neck and behind the ears. The eggs appear as small white spots (less than one mm, thinner than the thickness of your fingernails) scattered throughout the scalp.

They normally take seven-ten days to hatch but the egg cases remain attached to the hairs. The three immature (nymphal) stages last only one-two weeks. Adults (two-three mm) live for about a month and during this time each female produces about 200 eggs. Both the nymphs and adults feed exclusively on human blood. Their feeding

and feces cause irritation to the scalp. The irritation causes scratching and the scratching can lead to skin infections. As a rule, these insects do NOT transmit diseases.

Catching head lice usually comes from direct hair contact such as when children play or sleep together. Transmission can also occur by sharing brushes, combs, hair ornaments, towels, pillows and hats. In some societies, head lice are so common that there is no social embarrassment and friends and families work together to remove the lice.

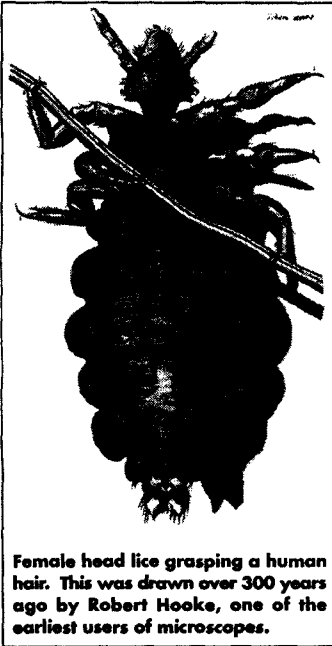
Washing the hair and using a very fine comb (lice comb) reduces louse populations. However one usually needs to use a shampoo that contains an insecticide (pediculosis or pediculicidal shampoo) to eliminate head lice. The entire family should be treated to prevent reinfestation. Washing of hairbrushes, clothing, bedding, etc. in hot, soapy water is also advised. Shav-

ing of the head is effective but drastic. Fumigation of buildings is not needed as the insects quickly die when off their hosts.

Regularly inspect young children, especially those in elementary school or who "sleep over" at friends' houses. Wash bedding and clothing often, have separate towels and hats for each child and, if possible, keep each child in a separate bed. Be watchful when hair is kept in tight curls or braids for long periods of time.

### BODY LICE

Body lice, which are a bit bigger but very closely related to head lice, live on people's clothing next to the skin. They leave the clothing several times a day to feed on their host. Females lay their eggs in clothing, especially along seams, rather than on humans.



Female head lice grasping a human hair. This was drawn over 300 years ago by Robert Hooke, one of the earliest users of microscopes.

Body lice are transmitted by sharing clothing and bedding, especially that which lies next to the skin. Washing clothing and bedding in hot, soapy water or just heating them in a tumble drier for 15 minutes at 60 degrees Celsius kills the lice. Body lice are dangerous because they can transmit deadly diseases such as epidemic ty-

phus and relapsing fever.

During natural disasters and war, when humans are crowded together and sanitation is poor, people and clothing may be dusted with insecticides.

### PUBIC LICE

Pubic lice, often called crab lice because they resemble one-two mm crabs, infest the hair of human pubic and anal regions. Only rarely do they inhabit other areas of coarse hair such as armpits, legs, eyebrows, eyelashes and beards. "Crabs" do not transmit any microbial diseases but are the most contagious sexually-transmitted organism. After several weeks of feeding by such lice, infected persons may become sensitive to the bites and develop red sores. Long-term infestations cause brown pigmented spots and dry skin. Treatment is with insecticidal shampoos and lotions. "Crabs" die within two days of leaving humans.

### OTHER LICE

There are about 1,000 species

of sucking lice (Anoplura) in the world. All of them are external parasites of mammals. Most species live on rodents, but they also infect cattle, horses, pigs, sheep, goats and dogs. Cats are free of sucking lice, but not of chewing lice.

Most lice are host specific. For example, the pubic louse only occurs on humans but a similar species infests gorillas. Some lice

occur on several hosts. For example, the human head louse also occurs on monkeys, gibbons and great apes. There are many other kinds of lice, including chewing and book lice. Most have no negative economic significance but several infect birds and mammals of agricultural importance.

Lice are nice — at least to a biologist such as myself. Are you scratching yet?

Robert Holmberg is a biology professor at Athabasca University. He's particularly fascinated by the behavior of insects, arachnids (e.g. spiders), and ecology.