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HUMAN LICE

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INTRODUCTION

Human lice are insect parasites of man. Parasites are animals (or sometimes plants) which live off another animal (or plant) called the host. Lice are ectoparasites - they live and feed on the outside of their host.

There are three kinds of human lice. Each lives on a different part of the body. The head louse is normally found on the head. The body louse is normally found on the body or in clothing. The pubic louse is normally found in the hairs of the pubic area.

The head louse is very common in Papua New Guinea. The body louse is not common. Both these lice are a nuisance to man, because they bite and cause itchy lumps. They can be a health hazard, because they can spread diseases from man to man.

The pubic louse does not spread diseases, but it again is a nuisance because of the itchy lumps caused by its feeding.

THE HEAD LOUSE AND THE BODY LOUSE

Taxonomy

The head louse and the body louse are very closely related. Some entomologists think that they are different subspecies (forms) of the same species, *Pediculus humanus*. Others entomologists give them separate scientific names:

The head louse - *Pediculus capitis*
The body louse - *Pediculus humanus*.

In this bulletin they will be dealt with together, using their common names.

Description

Head lice and body lice are small (about 3 mm long), wingless insects with mouthparts adapted for piercing the skin and sucking blood. They are greyish-brown to dirty white in colour. Their bodies are flattened from top to bottom.

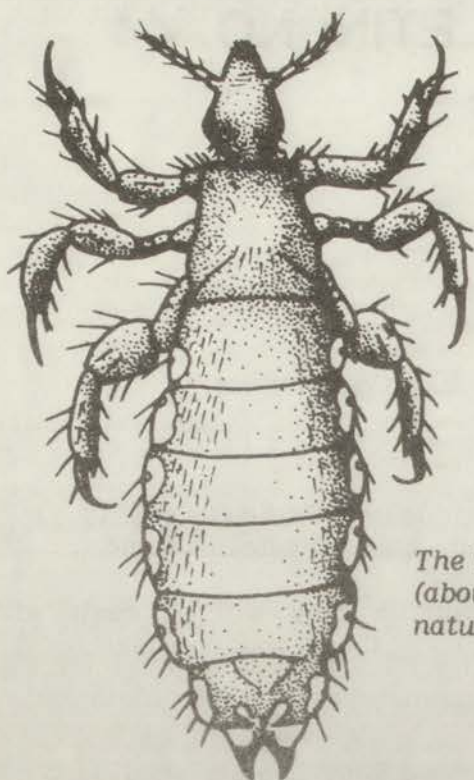
Head lice live on the skin of the scalp, neck and behind the ears. Body lice spend most of their time hidden in the seams of clothing. They only visit the skin to feed.

Biology

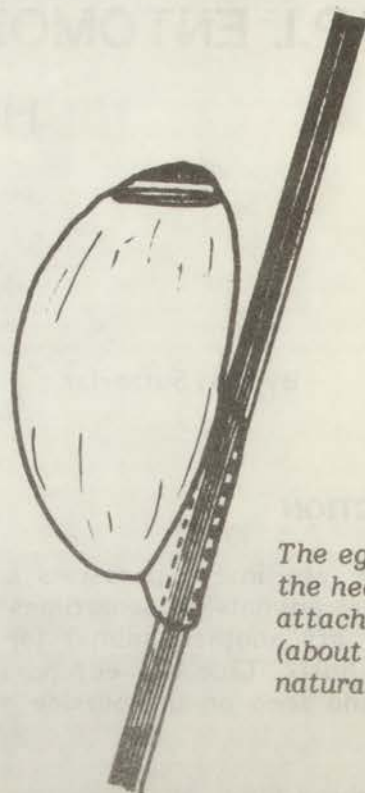
The female head louse lays yellowish-white eggs on the base of hairs. The eggs are firmly attached to the hair and are called 'nits'. The female body louse attaches the eggs to the fibres of clothes.

The females lay 8 to 10 eggs per day and can produce 200 to 300 eggs altogether. Nymphs (early stages) hatch from the eggs after about 1 week. The nymphs look like small adults. During the next 4 weeks, the nymphs moult (lose their skins and grow) 3

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The head louse
(about 25 times
natural size)



The egg ('nit') of
the head louse
attached to a hair
(about 25 times
natural size)

times, gradually growing larger and becoming adult. Nymphs and adults bite and suck up blood 2 to 6 times a day.

Once it leaves the host, the head louse dies. However, the body louse can survive for up to a month in damp clothing.

Medical importance

Head lice are extremely common in Papua New Guinea. They spread from person to person by close contact. They are especially common in young children. They are easily spread in schools and within families.

Body lice are not common. They also spread by contact, but they are usually found where people wear heavy clothing. Body lice are only common in tropical countries in highlands areas.

Head and body lice feed by piercing the skin and sucking the blood of the host. The bites of head and body lice are extremely itchy. Scratching can break the skin, and infected sores may develop. The itching also leads to loss of sleep. If an infestation of lice is left untreated for many months, the person may develop a slightly raised temperature

and aching muscles, and may feel sick all the time.

Both the head louse and body louse can spread diseases from person to person. However, the body louse is more likely to pass on diseases than the head louse. The three important louse-borne diseases are relapsing fever, trench fever and typhus.

Fortunately, lice do not appear to spread any of these diseases in Papua New Guinea.

Control

Since head lice spread from person to person very easily, they are quite difficult to control. If head lice are found on one member of a family, it is very likely that the whole family will be infected. The whole family **MUST** be treated at the same time, otherwise the control will not work.

The best treatment is 1% gamma benzene hexachloride (Gamma BHC), known commonly as scabies lotion.

Apply the lotion to about 10 different partings in the hair. Rub into the scalp thoroughly. Take care - do not get the

medicine into the eyes. Cover the hair with a towel or cloth. Wash after 24 hours. After 1 week, repeat the treatment. The dead eggs (nits) should be removed by combing with a fine toothcomb.

Keeping the hair short makes treatment easier. However, do not cut the hair so short that the person feels embarrassed by it. If there are infected sores on the scalp, caused by scratching, the hair should be kept very short until they have healed.

Gamma BHC is available from pharmacies. Commercial shampoos which contain Gamma BHC are also available at pharmacies but they are quite expensive.

DO NOT USE ANY OTHER CHEMICALS TO CONTROL HEAD LICE.

Infestations of body lice can be prevented by regular washing and changing of clothes. If lice are present, the clothes and the person can be washed in a commercial preparation which contains Gamma BHC. These are available from pharmacies and are specially made to control lice. **DO NOT USE ANY OTHER CHEMICALS TO CONTROL BODY LICE.**

THE PUBIC LOUSE

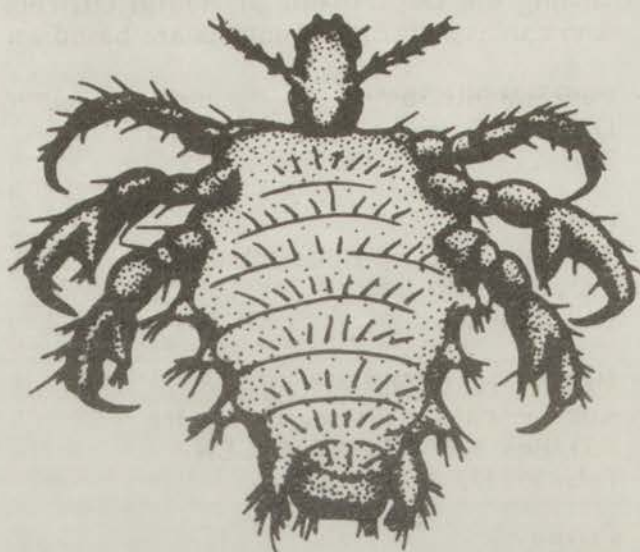
Description

The pubic louse (*Pthirus pubis*) is shorter and rounder than the head louse and the body louse. It is sometimes called the crab louse because its large front legs make it look like a crab. An infested person is said to 'have the crabs'.

The pubic louse is about 2 mm long, wingless, and flattened from top to bottom. Its whole life cycle is spent among the hairs of the pubic region. If many pubic lice are present it may spread to the armpits and beard, but this is unusual.

Biology

The female pubic louse lays 12 to 50 eggs altogether. These are firmly attached to the coarse hairs of the pubic region. Nymphs hatch from the eggs after about one week. The nymphs look like the adults,



Adult pubic louse (Pthirus pubis), about 25 times natural size.

but are smaller. Nymphs moult 3 times before becoming adult.

Medical importance

Like the head louse and body louse, the pubic louse feeds by piercing the skin of its host, and sucking the blood. The pubic louse is not known to spread diseases. It is only important because its itchy bites are a nuisance and may cause infected sores to develop. People infested with pubic lice are usually very embarrassed by their condition.

Control

The control measures for the pubic louse are the same as for the head louse and close contact with infested people should be avoided.

FURTHER INFORMATION

For further information and advice about human lice and their control, you should contact your Provincial Health Inspector.

The Department of Primary Industry is not responsible for health matters in Papua New Guinea but you can contact your nearest D.P.I. entomologist for help in

finding the Department of Health Officers who can assist. Entomologists are based at:

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(Illustrations: R.E. Sutherland)