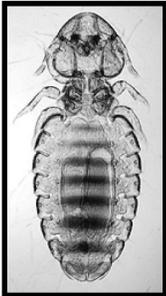


# "Bug of the Month"

The deer encountered in the local area occasionally suffer from hair-loss. This syndrome is not fully understood, but appears to be related to a severe infestation of chewing lice (*Damalinia* spp.) and a lung or muscle nematode (*Parelaphostrongylus* spp.).

**WHAT DO THEY LOOK LIKE?** The adult lice are 1 to 2 mm. long. The head is broad and flat, with mouth parts adapted for chewing skin and hair. The wingless body is flattened. Eggs are white and are cemented to the hair of the animal.



**WHAT DO THEY DO?** It is presently believed that the underlying problem is a muscle nematode. This parasite lays eggs into the blood stream and which are then filtered out in the small capillaries of the lungs. Here the eggs hatch and the larvae grow in the air sacs creating a small zone of inflammation. Lungs of some deer have revealed as much as thirty percent of the lung is occupied by larvae. This is similar to a low grade pneumonia that suppresses the deer's immune system. The suppressed immune system along with the poor nutrition in cold, wet weather of winter, allows for louse numbers to greatly increase. A hyper-

sensitive reaction to the lice causes the deer to excessively lick and rub at their skin, leading to hair-loss. The nematode only completes part of its life cycle in the deer's lung. The larvae move up the respiratory tract until they reach the throat. They are then swallowed and carried through the gastrointestinal tract, and eventually leave the deer in the mucus coat surrounding the fecal pellets. The mucus is fed upon by numerous species of snails or slugs, which then become infected. The infected mollusks are then ingested by a deer accidentally while browsing or grazing.



The Washington State Department of Fish and Wildlife has been investigating the hair-loss syndrome and asks that sightings of afflicted deer be reported using the form on their web site (<http://www.wa.gov/wdfw/wlm/research/health/report.htm>).

Staff members from the Navy Disease Vector Ecology and Control Center, Bangor have been working with the wildlife biology staff of Naval Subbase Bangor to evaluate the base deer population.

## MANAGEMENT

Not much in the way of management has been determined at this time. Large scale control of the lice, nematodes or mollusks would be difficult. Some success has been shown with injections of ivermectin, but work is still continuing on ways to effectively treat small populations of deer.

**MORE QUESTIONS?** Please do not hesitate to give your "Bug Docs" a call at com.: (360) 315-4450, DSN: 322-4450 or you can e-mail us at [ndveccmei@pnw.med.navy.mil](mailto:ndveccmei@pnw.med.navy.mil).