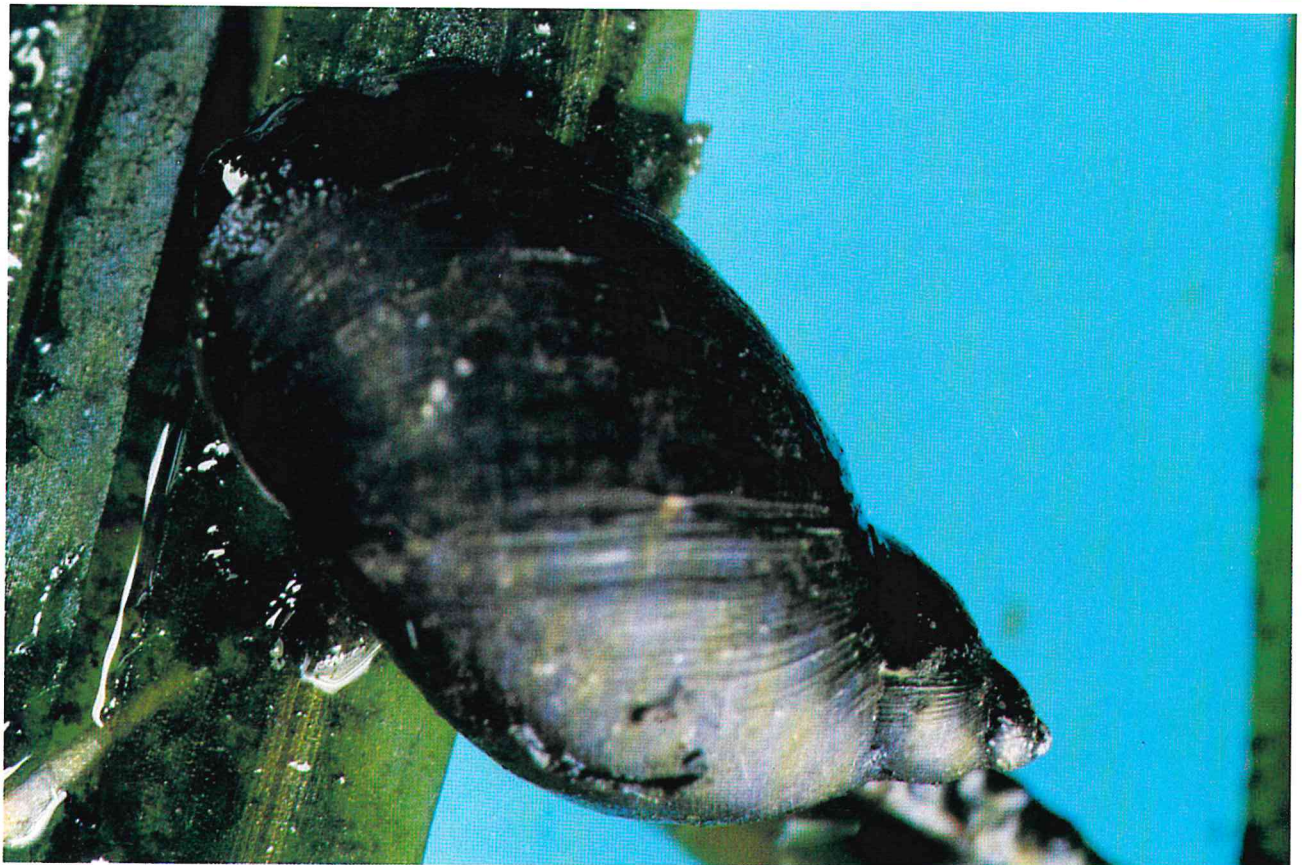


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LYMNAEA SNAIL



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THE LYMNAEA SNAIL

(Lymnaea columella) is an introduced animal in Western Australia. Unlike native snails it lives and breeds successfully in a variety of environments. Together with a number of related snails, *Lymnaea viridis*, *L. auricularia rubiginosa*, *L. peregra* and *L. tomentosa*, it is a declared animal in Western Australia because it is the alternate host of the Liver Fluke parasite. Of these five snails only *L. columella* has been found in Western Australia. Liver flukes seriously affect sheep, cattle, horses and sometimes people. It cannot complete its life cycle in the absence of its alternate host, the *Lymnaea* snail.

To date, livestock have remained free from liver fluke in Western Australia although occasionally infested stock have been imported in the past from the eastern States. To prevent the introduction of liver fluke, stock may be imported from a liver fluke area, only under carefully controlled conditions. Until recently, the absence of *Lymnaea* snails ensured that even if liver flukes reached Western Australia they would not become established. Now however, *Lymnaea* snails have been found in the Perth metropolitan and some close farming areas and it is essential to prevent them spreading to other areas.

Lymnaea columella originated in North America. It has successfully colonised many parts of the world including Europe, South Africa, New Zealand and the eastern States of Australia.

The snails are thought to have been introduced to Western Australia along with aquarium plants. Snail eggs and small adults may stick to the leaves of aquatic plants and be carried in aquariums from place to place. They could find their way into streams and waterways as a result of aquarium owners emptying fish tanks into creeks

or lakes. Snail eggs may also be spread for short distances on the legs and webbed feet of waterfowl.

Habitat:

Lymnaea snails are found in mud or on plants in shallow water along streams and rivers and in lakes, ponds, drainage ditches and seepage areas. They prefer clear, calm and shallow water and cannot survive in salty water.

Lymnaea snails live on algae and other aquatic plants. They may sometimes be found feeding on the surface of floating aquatic weeds.

Liver fluke disease:

Liver fluke disease is caused by a small flat oval-shaped parasitic worm about 2-3 cm long which feeds on blood and spends most of its adult life in the bile ducts of its host.

While in the bile duct liver flukes lay thousands of eggs which pass out in the dung. They hatch out in water from nine days to six weeks later.

At hatching the fluke larva enters water and swims until it finds a potential host snail. It then penetrates the soft tissue of the snail, grows and produces fluke larvae there for several months.

After one to two months larvae escape by burrowing out of the snail. They swim in water until they find grass or other plants on which they settle. They then form a hard protective layer called a cyst.

Cysts may survive for several months until they are eaten by a grazing animal.

Inside the new host's gut the cyst breaks down and the immature flukes escape, burrow through the intestinal wall and make their way to the liver.

This only takes from four to six days. This migration causes liver damage which may result in a secondary infection by bacteria leading to Black disease. In other parts of the world, liver fluke is a major cause of liver condemnations.

After about six weeks in the liver the flukes enter the bile duct. There they reach sexual maturity after another five to six weeks and begin another cycle of egg laying.

Infected animals suffer anaemia from loss of blood; they appear weak and listless and grow slowly. Severely affected animals may die. Treatment of the parasite is both difficult and costly.

Lymnaea snail recognition:

Lymnaea snails are small, usually not more than 11 mm long when fully grown. The body is dark grey, but the empty shell is brown and translucent. Red-brown specimens are sometimes found when the bed of the watercourse is formed of red material. The snail's shell is coiled clockwise away from the centre as seen when the apex is pointed towards the observer. When the snail withdraws there is no hard closure for the shell opening. Compared to garden snails, *Lymnaea* snails are small and the shell appears thin and fragile.

It is vital that *Lymnaea* snails are not allowed to spread further throughout the State. The extra risk of liver fluke becoming established in Western Australia would impose a severe threat to our livestock industry.

Take care never to spread snails by transferring water plants from one waterway to another or by emptying aquariums or fish ponds into the natural environment. To be safe, always buy aquarium plants from dealers accredited as *Lymnaea* snail-free.

Liver fluke is an animal parasite we can well do without.

For help with identification of Lymnaea snails contact the Agriculture Protection Board, Jarrah Road, South Perth W.A. 6151, telephone (09) 367 0111 or any country office of the APB or the Department of Agriculture.