Rattus rattus

The introduced black rat also known as roof rat and ship rat (Rattus rattus) is usually black to brown in color with a lighter underbelly. The black rat’s body can measure up to 32-47 cm, and the tail can measure up to 17-25 cm, the length including the tail measures anywhere between 47-72 cm.

Diseases

Rats are carriers of infectious diseases because of the bacteria’s and viruses in their systems. A few parasites that are common to rats include: Streptococcus pneumoniae, Corynebacterium kutcheri, Bacillus piliformi, Pasteurella pneumotropica, Streptobacillus moniliformis to name a few. All of this bacterium is disease causing agents in humans and in some cases, these diseases are incurable.

One serious infectious disease is the rat lungworm that causes a neurological disease called Angiostrongyliasis cantonensis in humans and in other animals.

How rat lungworm first passed to people?

The lung worm travels through parts of the nervous system of the rat to a definite area of the rat’s heart. The worm deposits eggs into the smaller blood vessels of the lung. The hatched eggs pass up through the bronchial tube, swallowed and then pass through the faeces.

This is when snail and slugs come in to feast on the rat faeces which then can spread the disease containing first stage larvae. The snail and slug are the middle man serving as an intermediate host until it finds a transport host or a non-developed parasite in which the development of the larvae stops.

Transport hosts for the larvae can sit in some aquatic animals such as marine and freshwater crabs, fresh water shrimp, fish and sea snakes. The hosts for the intermediate stage of the worm are animals such as rats and humans. Rats may carry an early stage of the worm and also pass it to humans indirectly by eating fresh, unwashed raw salad or garden vegetables like lettuce. The worms are deposited on vegetables growing in gardens within the slime trails of slugs or snails that have fed upon infected rat droppings.

How to avoid getting this worm

- Wash hands thoroughly when eating fresh fruit and vegetables removing snail and slug slime.
- Eat thoroughly cooked vegetables over raw vegetables
- Educate yourself on proper food preparation techniques
• If eating freshwater crustaceans such as freshwater prawns boil for at least 5 minutes before eating.
• Do not handle snails or slugs with bare hands
• Wear gloves when handling snails and throw them away in garbage bins provided not compost bin
• Control or deter rats
• Control or deter slugs and snails

Low impact tips for controlling or deterring snails and rats
- Don’t leave pet food, food scraps, bread or bird seed outdoors
- Regularly turn compost bins and heaps and do not put in meat or bread scraps
- Use fully enclosed or off-the ground compost bins (i.e. not in contact with the ground)
- Deterrents to help repel rats include: naphthalene flakes, moth balls, lavender oil or oil of cloves

Diet
Black rats like to eat a variety of foods from seeds, fruits, fungi, invertebrates and vertebrates. They don’t have a strict diet of any one particular food as they will feed on food provided for cows, chickens, dogs, cats and are a threat to agricultural crops such as cereal, sugar cane, coconuts, oranges, coffee beans and cocoa. They are also a threat to our natural habitats because they feed on native birds and insects.

Habitat
Black rats adapt to a wide range of habitats including human habitat. They are found around warehouses, residential properties, buildings, and other human settlements. They are also found in agricultural areas, such as in barns and crop fields. When they create their own nests they use shredded material, including sticks, leaves and other vegetation. The rat can also be found near ponds, riverbanks, streams and reservoirs. It is an animal that is widespread throughout the world because of it’s flexibility in adapting to different environments and its potential in eating a wide variety of foods.

Behaviour
The female black rat can produce as many as eight litters per year with as many as 20 young per litter. In hard times when food is scarce the rat produces one litter a year.

Control
Use pet and wildlife friendly control methods such as:
- pet friendly snail pellets (also prevents poisoning of blue tongue lizards that eat snails)
- traps made with old margarine containers half filled with stale beer
- encourage blue tongue lizards
- barriers around garden beds made with lines of sawdust, diatomaceous earth (pool filter medium) or garden lime
Neuroangiostrongyliasis - a disease found in wildlife and humans

- Neuro- nerves or the nervous system
- angio- relating to blood vessels
- strongyliasis- is an infection by a nematode from the Angiostrongylus genus of kidney and alimentary tract roundworms.

Information on rat lungworm Neuroangiostrongyliasis visit:

First report of human Angiostrongyliasis acquired in Sydney (The Medical Journal of Australia)

Life Cycle of the Lungworm
http://www.dpd.cdc.gov/dpdx/HTML/angiostrongyliasis.htm

Rat Lungworm/ Angiostrongyliasis (Animal Planet)
http://animal.discovery.com/invertebrates/monsters-inside-me/angiostrongyliasis-rat-lungworm

The story on Native rats fighting for their habitat
http://www.abc.net.au/catalyst/stories/2981267.htm