

The Itch of Summer

By Kerri Savage



Ah, summer! Warmer weather, holidays, visits from friends and relatives. It all seems idyllic, but don't forget the sunburns, pesky mosquitoes and, possibly, swimmer's itch.

If you have spent any time at the lake, you have probably come across or have even been afflicted by swimmer's itch (cercarial dermatitis). What causes swimmer's itch? Does this mean the lake is polluted?

The itch, as it is commonly known, is caused by microscopic, aquatic parasites (flatworms) that live between two different hosts, a living animal or plant from which a parasite obtains nutrition, at different life cycles. In Alberta, these hosts are most commonly snails and ducks. Swimmer's itch can occur in both fresh and saltwater.

The life cycle of the parasites involve snails as the first host and aquatic birds or sometimes other mammals as the final host. The parasite or cercariae lives off of the snail's internal organs. Once in the larval stage, the free swimming parasite tries to locate a duck as its second host to continue its life cycle. Once it finds its target by entering through the skin, the parasite, now in a worm stage, lives in the duck's blood vessels, produces eggs that are then expelled through the duck's feces and urine. The eggs hatch and the worm then cycles back to live off a host snail.

When the parasite releases from the snail, it is unable to distinguish duck skin from that of human skin, enjoying a swim in the lake. The parasite accidentally penetrates the skin of a human, but is unable to pass through the epidermis as it does when it penetrates a duck's skin. The parasite dies attempting to penetrate a human causing an allergic reaction in the human and the formation of papules (an itchy spot). One parasite causes one papule. The itch normally lasts from 4 – 7 days and antihistamines can be used to help relieve the itching and steroid creams may help to reduce swelling on the papules.

It seems that contracting the itch is all about timing. The parasite released from the snail can only live for up to two days without a bird host. Also, the water temperature needs to reach an appropriate level in order for snails to reproduce and grow rapidly, providing the parasite its first host. The number of birds, water currents, wind direction and the number of hours swimmers spend in the water all are factors that contribute to swimmer's itch. Of course these conditions can change from year to year so while a lake may have the itch one year, it may not the next.

You can reduce your chance of getting swimmer's itch by not swimming in shallow water for long periods of time (where snails live) or areas that have water fowl. Avoid swimming areas where there is an onshore wind (pushing the larvae to the edge of the lake). It may help to rinse or towel off immediately after leaving the water to prevent the larvae from penetrating the skin. Applying waterproof sunscreen may also help prevent penetration of the larvae.