

A Simple Insight into Swimmers Itch ...

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Background

Swimmer's itch, a dermatitis that often results from the accidental exposure to avian schistosome parasites, is a problem on many recreational lakes in the United States. These parasites naturally infect a variety of waterfowl species, and all live as larvae in a snail intermediate host species. Because the life cycles of avian schistosomes require the alternation of living within a bird and snail host, successful swimmer's itch control strategies have focused on trapping infected waterfowl and relocating them to areas devoid of the suitable snail intermediate host species.

Common mergansers serve as adult hosts for two of these parasite species, *Trichobilharzia stagnicola* and *Trichobilharzia physellae*. These birds, when adults, are notoriously difficult to capture, but common merganser ducklings, which are typically ten to a hundred times more heavily infected with avian schistosomes compared to adult conspecifics, can be trapped. When common merganser broods are relocated from recreational lakes to sites without *Stagnicola emarginata* snail populations, the parasite's life cycle is broken for one year and swimmer's itch cases on those lakes can be dramatically reduced. Common merganser relocation has resulted in a 98-99% reduction of snail infection rates on Crystal Lake, MI and Higgins Lake, MI in just 2 years, with these reductions continuing to the present.

There are numerous species of parasites, however, that each use particular species of waterfowl and snail hosts. Determining which parasite species may be cycling on a particular lake and contributing to swimmer's itch requires an assessment of the waterfowl hosts and the snail hosts present. Collection of a large number of snails (if sufficiently abundant) and analyzing them for the presence of parasites can identify species present and provide an indication of their abundance. In addition, water sampling can be used for parasite species identification and as a measurement of abundance.

More educational materials maybe found at [Swimmer's Itch Solutions ...](#)