

**Seasonal dynamics and geographic distribution of *Cercaria batillariae*
(Trematoda) in the non-native Japanese mud snail, *Batillaria attramentaria*
(Gastropoda) on Southeastern Vancouver Island**

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The accidental introduction of non-native species into new geographic regions can result in the colonization and potential spread of their parasites. The marine mud snail, *Batillaria attramentaria* (= *B. cumingi*), was introduced to the west coast of North America in the early 1900's. In Japan, this snail is an obligate first intermediate host to nine digenetic trematode morphospecies. The most common of these species, *Cercariae batillariae*, has colonized coastal mudflats of the western United States. This trematode is known to use fish as second intermediate hosts and marine piscivorous birds as definitive hosts. The success of this parasite reflects the ability to infect novel host species in its introduced range. The objective of this study was to determine seasonal dynamics and geographic distribution of *C. batillariae* in snail populations. Snail samples were collected from seven never before studied mudflats throughout southeastern Vancouver Island. Snail shell size was recorded, and individuals were examined for the presence of trematode larval stages (rediae and cercariae). *Cercariae batillariae* was the only trematode species observed in the 691 snails examined. Prevalence was high at all sites, ranging from 44.4% in Ladysmith, to 96.0% in Black Creek. Monthly sampling of snails at Pipers Lagoon revealed consistently high prevalences (>50.6%) and no seasonal infection patterns. Larger snails ($\geq 20\text{mm}$) were more heavily infected. These results reflect longevity of *B. attramentaria*, the permanency of *C. batillariae* infections, and a parasite's ability to thrive in an introduced range.

