

1125-Q1-1373 **James P Peirce*** (jpeirce@uwlax.edu). *Turning an REU Investigation into Calculus II Projects.*

In our recent REU in Mathematical Ecology, a group of students investigated the prevalence of swimmer's itch in regional lakes. Swimmer's itch is an emerging disease caused by flatworm parasites that typically use waterfowls as definitive hosts. When parasite larvae mistakenly penetrate human skin they initiate localized inflammation that leads to intense itching and discomfort. Concerns about this issue have been growing recently due to an apparent increase in the occurrence of swimmer's itch and its subsequent impacts on recreational activities and revenues. Numerous media reports of swimmer's itch outbreak during the summer fostered our research student's enthusiasm for the project. Their peaked interest motivated a substantial modification of two existing writing projects for a second semester Calculus course. The projects used common Calculus II topics including approximate integration, first-order differential equations, and geometric series. In this talk, I will discuss the process of leveraging recent undergraduate research experiences to add life to old course projects. In particular, how a contemporary story captured the imaginations of classes of Calculus II students. (Received September 16, 2016)