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Evan M Milliken* (evmilliken@ufl.edu), Department of Mathematics, PO BOX 11805, University of Florida, Gainesville, FL 32611-8105. *A Model of Infectious Salmon Anemia Virus with Viral Diffusion between Wild and Farmed Patches*. Preliminary report.

As the practice of aquaculture to provide farmed seafood has risen, the question of the effect large fish farms have on nearby wild fisheries has become ever more pressing. Infectious Salmon Anemia (ISA) is highly contagious disease with high accumulated mortality rates that has affected farmed salmon around the world. ISA is caused by Infectious Salmon Anemia virus (ISAv). Proposed is a model to examine the dynamics of a salmon farm and a wild fishery both on their own and when coupled via viral diffusion. The conditions for strong uniform persistence of the disease are given for the complete systems as well as for invariant subsystems. (Received October 27, 2014)