Title: Effect of rearing container volume on rotifer colony success

Burbot (*Lota lota*) are freshwater fish with circumpolar distribution. In aquaculture settings, rotifers are the first food source for larval burbot because they are small, and can continue to reproduce quickly, even in high densities. Rotifers are microscopic and can be found in freshwater environments such as lakes, streams, and rivers. Rotifers are considered easy to culture; however, if they are not managed properly, rotifer colonies can collapse. This project is determining if volume has an effect on rotifer density and carrying capacity. I will evaluate the effect of volume for small batch cultures and will estimate the number of rotifers for whole batches. A sample of rotifers (1mL) will be taken from each volume and counted under a microscope. This number will then be used to approximate the number of rotifers per container. Rotifers will be kept in 0.5L beakers, 1 L beakers, 2L beakers, and a 5-gallon bucket. They will be kept at 28°C, with salinity of 20ppt, and constant aeration. Rotifer counts will be conducted for each replicate every day before harvest of 30% of the volume water. The goal is to find the optimum volume size for maximized rotifer density and to help increase efficiency for larval burbot aquaculture by maintaining multiple smaller cultures.