Daniel Silverman
CEE 577
3/11/20

3/11/20 Workshop Commentary

The article presented is titled “Spatial distribution and source tracing of per- and polyfluoroalkyl substances (PFASs) in surface water in Northern Europe”. The authors are Minh A. Nguyen, Karin Wiberg, Erik Ribeli, Sarah Josefsson, Martyn Futter, Jakob Gustavsson, and Lutz Ahrens. They are all researchers in the Department of Aquatic Sciences and Assessment at the Swedish University of Agricultural Sciences (SLU) in Uppsala, Sweden. The article is relatively recent, having been published in the November 2016 edition of the *Environmental Pollution* journal.

This article is of particular interest because it discusses the tracing of PFAS chemicals in surface water. PFAS is an emerging contaminant that has gained a large amount of attention in the scientific community and general public in recent years. Known as “forever chemicals” because of their apparent inability to degrade in natural settings, PFAS has been linked to several forms of cancer in humans. The most significant exposure pathway for people is usually drinking water, which often comes from surface water. There are thousands of different species of PFAS that are known to exist and so tracking how certain common types of PFAS move in water is a valuable idea.

The study involved taking samples from 40 rivers in watersheds all along the coast of Sweden along with samples from 18 locations off the coast of Sweden. These samples were analyzed for 13 different PFAS compounds in a lab and the concentrations of each were reported. The maximum PFAS concentrations from the rivers were much higher than those from the sea samples, which makes sense logically since the sources of PFAS are land-based industries. Overall, this paper offers an interesting perspective on how PFAS can be spread through surface water and what types of PFAS may be most prominent in particular areas.