

## Special Session at SFS 2018

Title: Effects of Multi-stressors in Stream Ecology Across Regional Landscapes and Mesocosm Studies

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In general, national- or large regional-scale models typically focus on large-scale natural landscape features, such as climate, topography, elevation, and geology, as the most important discriminating variables, with disturbance variables, such as land use, nutrients, sediments, and contaminants, usually of lower predictive importance. Large data sets recently have become available. These data sets enable researchers to build stream bioassessment models across a range of spatial scales (Feld 2013, Waite et al. 2014, May et al. 2015) and to incorporate more types of stressors, such as hydrological alteration and water quality (Norton et al. 2002, Kennen et al. 2010, Wiley et al. 2010, Riseng et al. 2011, Esselman et al. 2015, Villeneuve et al. 2015). In addition, experiment approach in the field or in laboratory conditions using mesocosms helps to elucidate some interactions of reduced number of stressors acting together (De Castro et al, 2017). This Special Session will highlight research on the effects of multiple stressors on stream biota across large regional or laboratory studies with various objectives. Regional studies will highlight the issues of multi-stressors from agricultural and urban land use, while laboratory studies will allow more detail focus on select stressor variables in a control setting.