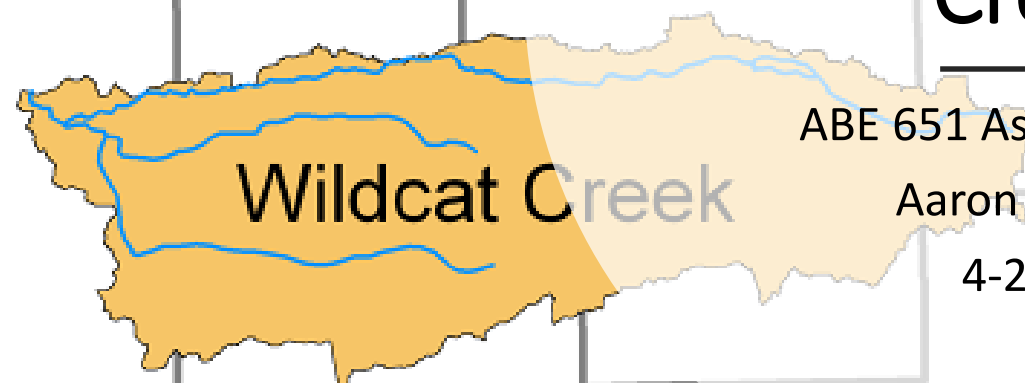




Tippecanoe
River

Streamflow Metrics for Tippecanoe River and Wildcat Creek



Wildcat Creek

ABE 651 Assignment 11

Aaron Etienne

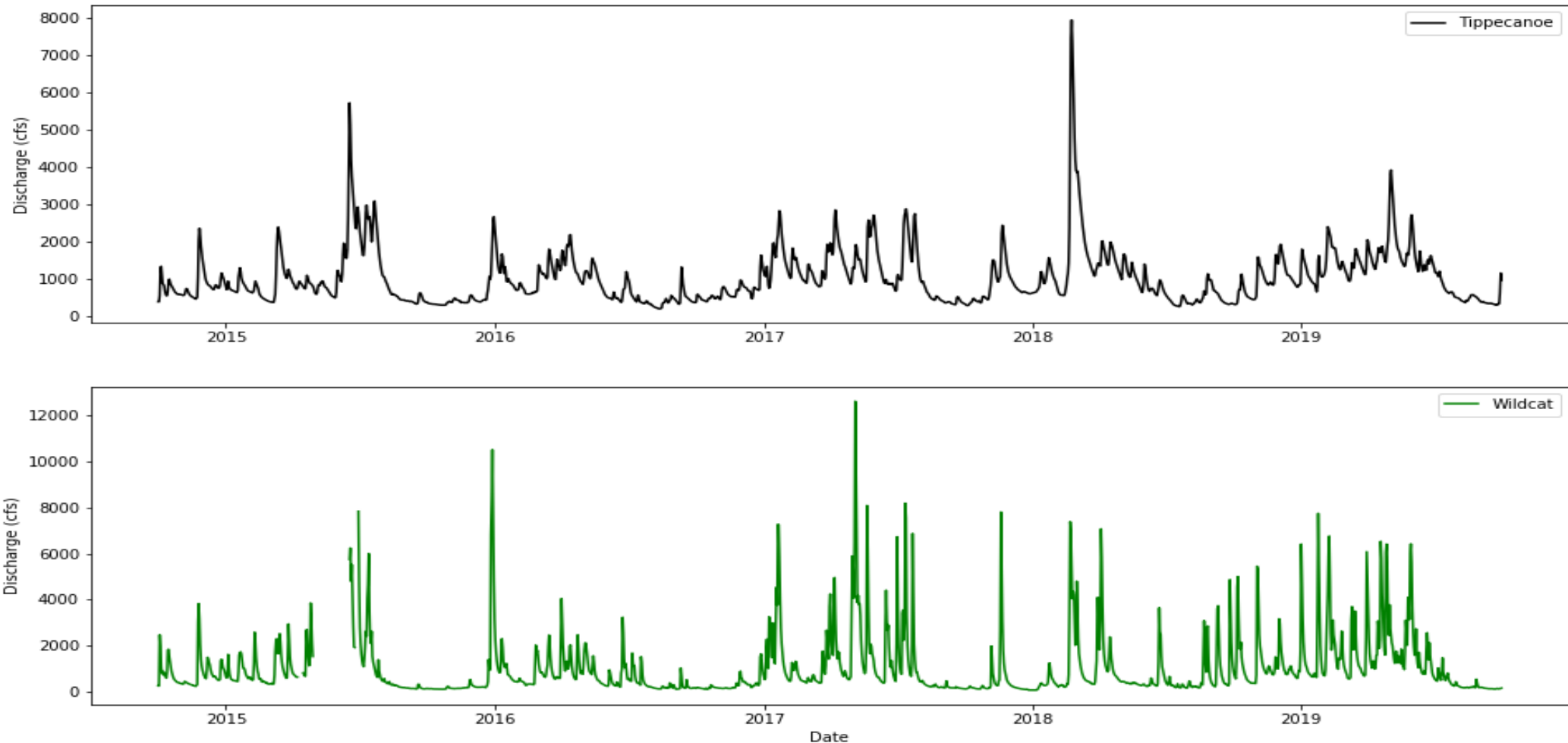
4-21-20



30

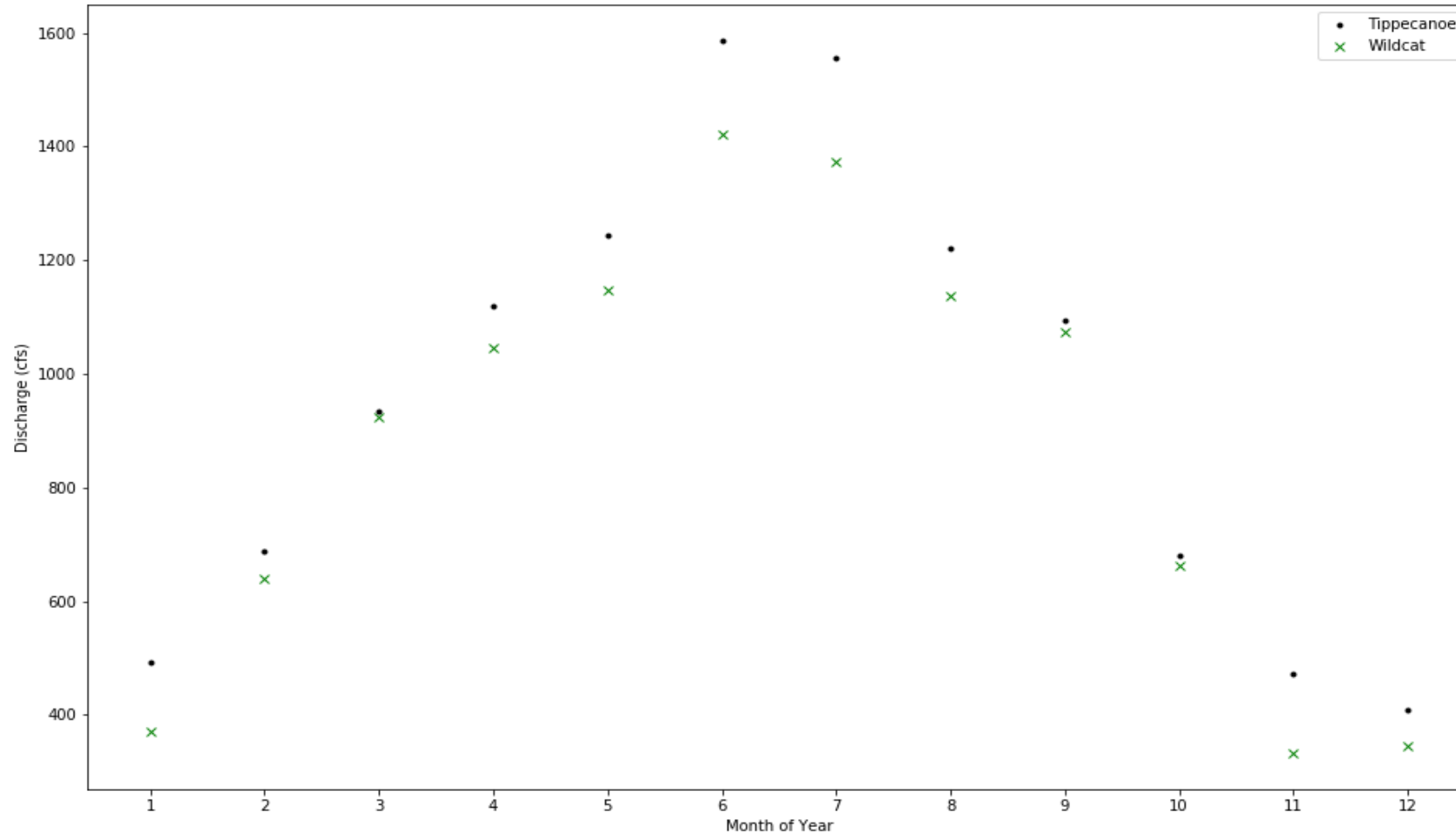
km

Five Year Daily Discharge 2014-2019



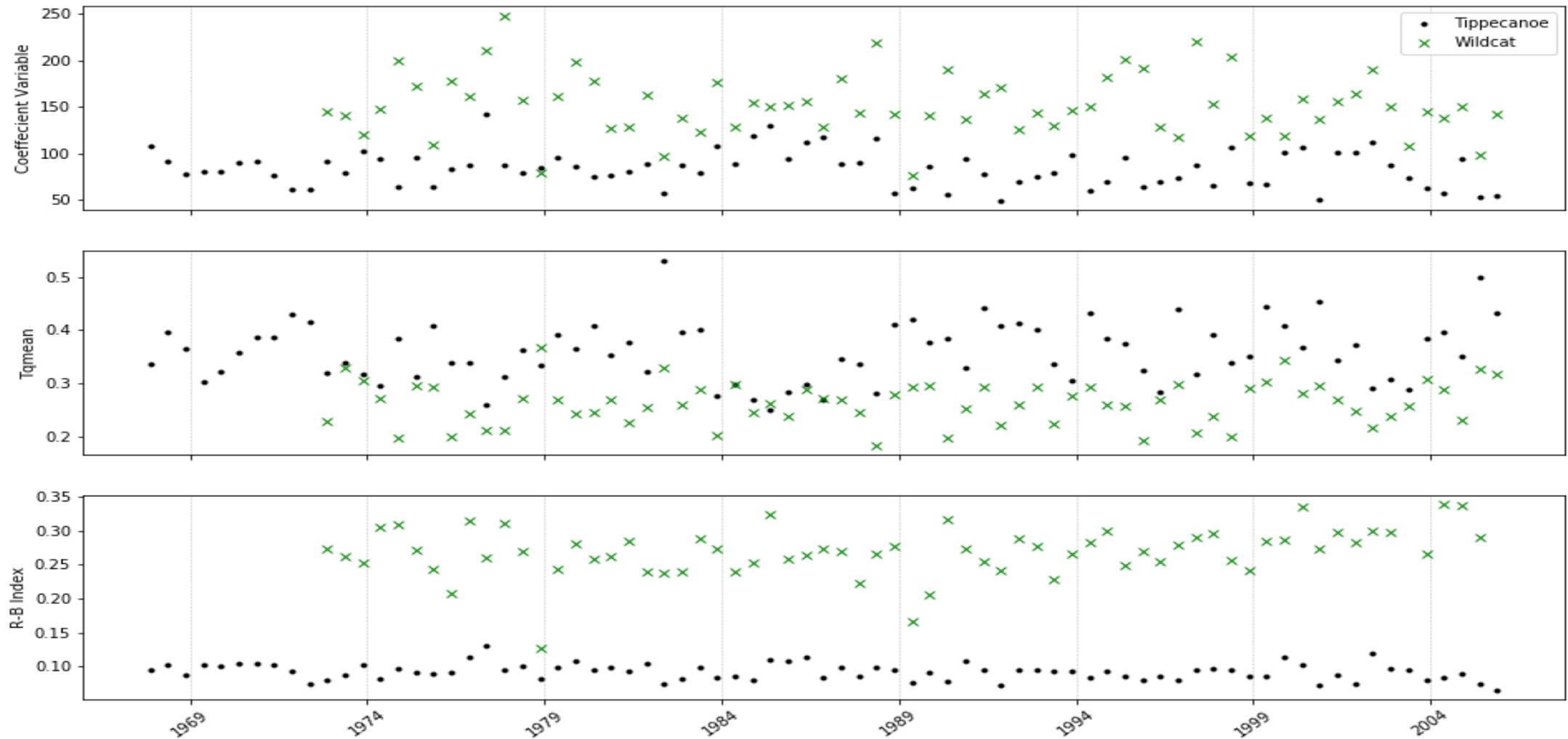
Daily streamflow values from the last five years of the record, measured in cubic feet per second (cfs). Values for Tippecanoe River are shown on the top graph (in black). Values for Wildcat Creek are shown on the bottom graph (in green). Note that data logging started in October, 2014 and ended in October, 2019. There is a small gap in data for mid-2015 in Wildcat Creek.

Average Monthly Streamflow



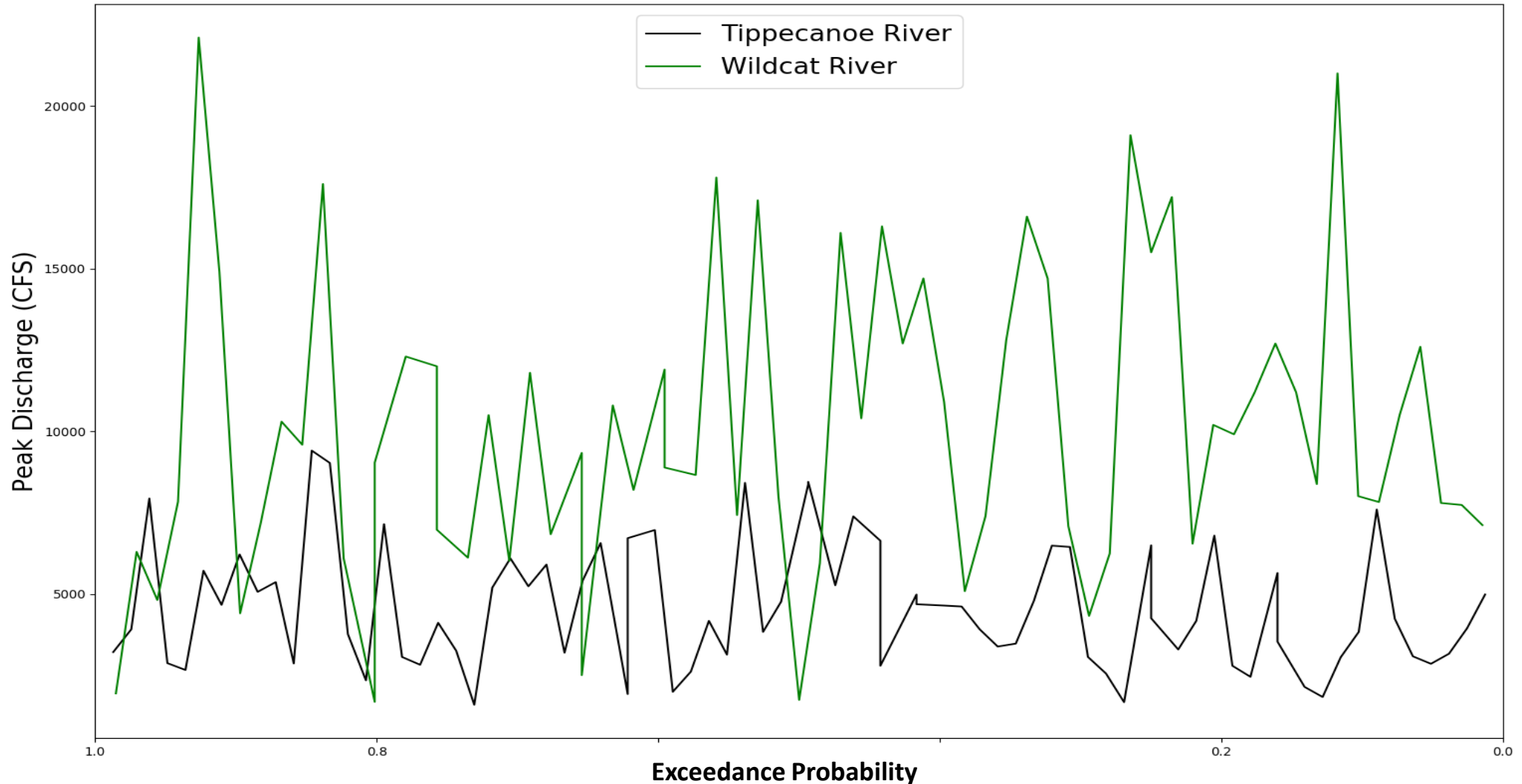
Average monthly streamflow is shown for Tippecanoe River (in black circles) and Wildcat Creek (in green x's). Averages are calculated over the 50 years (Oct,1969 – Oct, 2019) of recorded data for each site.

Annual Coefficient Value, Tqmean, and R-B Index



A multi-part comparative plot of annual mean coefficient of variation, annual T-Q mean, and annual Richards-Baker index for Tippecanoe River (black circles) and Wildcat Creek (green x's) is shown for the 50 year data provided. Note: 1969 should be moved to the left three points. Spacing is slightly off-center.

Exceedance Probability



Exceedance probabilities are calculated for peak discharge rates (in cubic feet per second) at Tippecanoe River (black line) and Wildcat Creek (green line). Exceedance is calculated given the following equation: $P(x) = \frac{m(x)}{N + 1}$