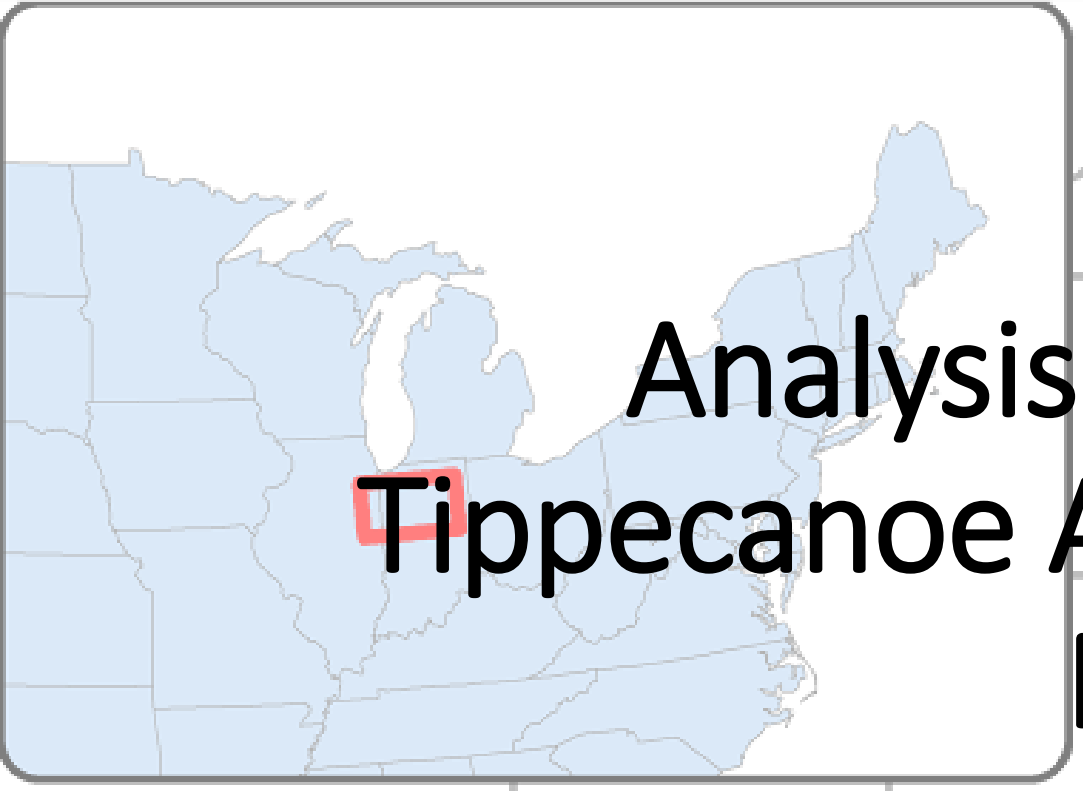

Analysis of Wildcat and Tippecanoe Annual and Monthly Metrics

Les Warren

ABE 651- Lab 11

04/20/2020

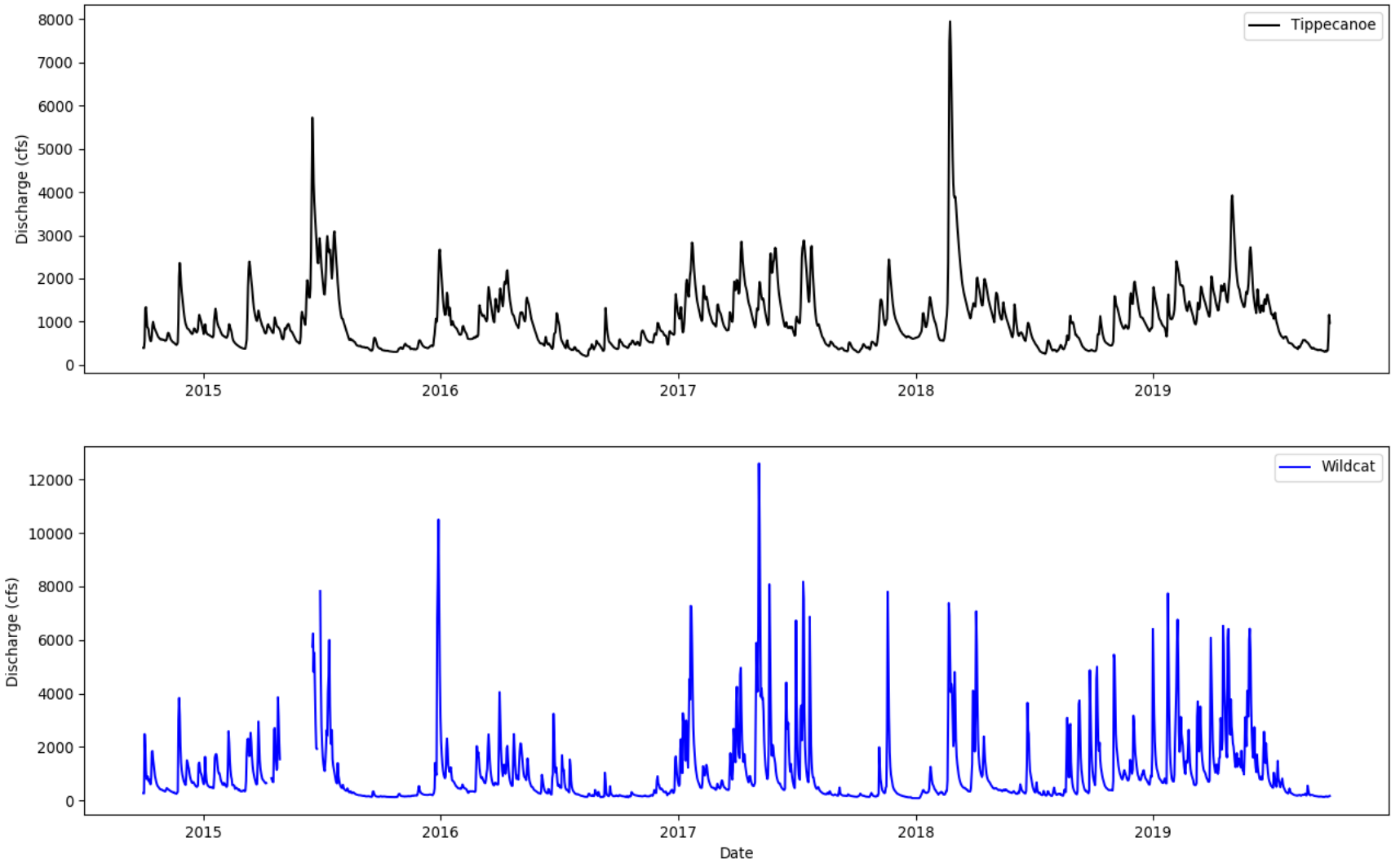

Figure 1. Daily streamflow values for the past 5 years on record for the Wildcat (blue) and Tippecanoe Rivers (black). Discharge is monitored as units of cubic feet per second. Note, there is a small period where no data was collected for the Wildcat River in 2015.

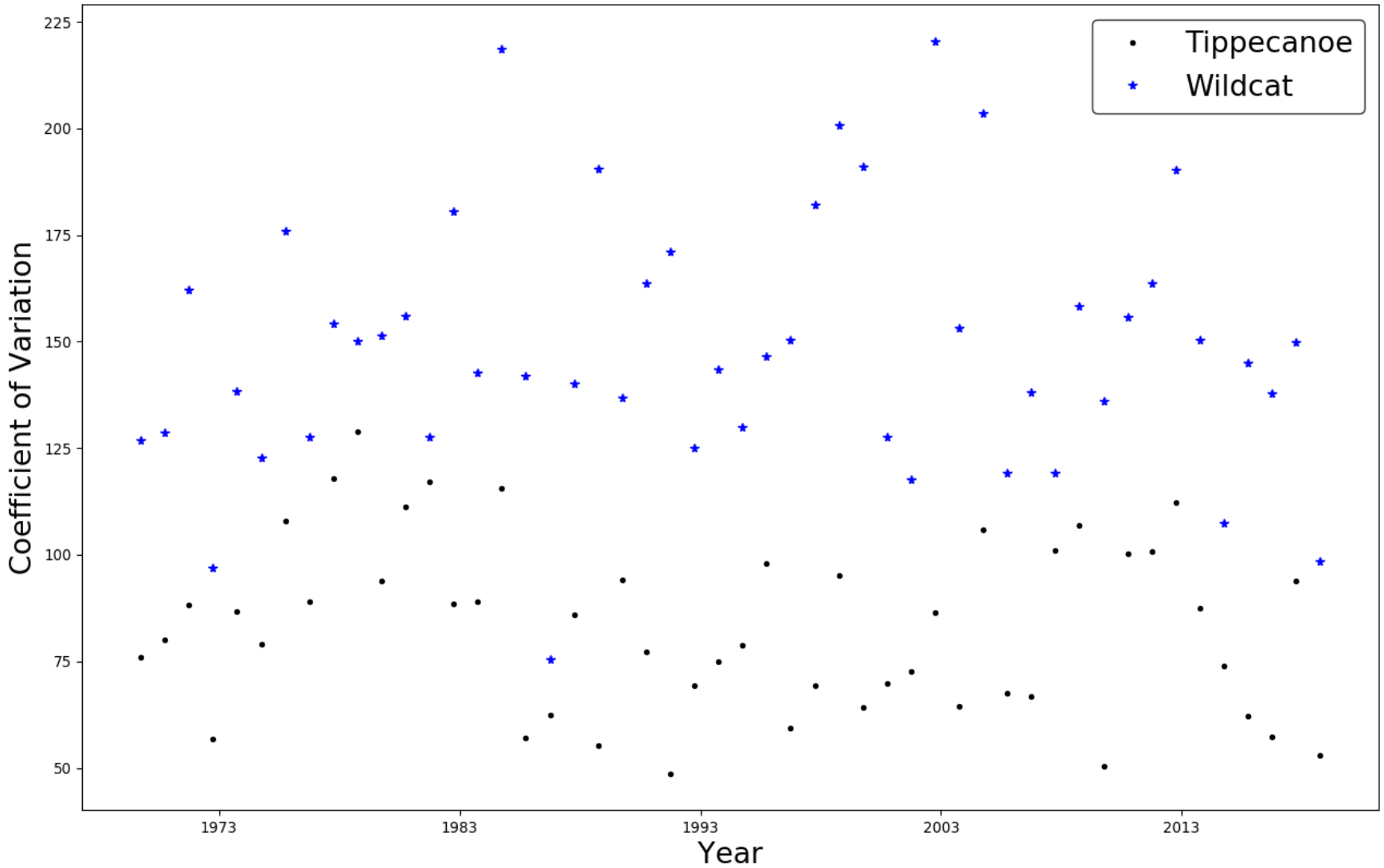

Figure 2. Annual mean coefficient of variation for the Wildcat (blue) and Tippecanoe (black) rivers from 1969-2019. Coefficient of Variation is calculated by (standard deviation/mean annual streamflow) * 100.

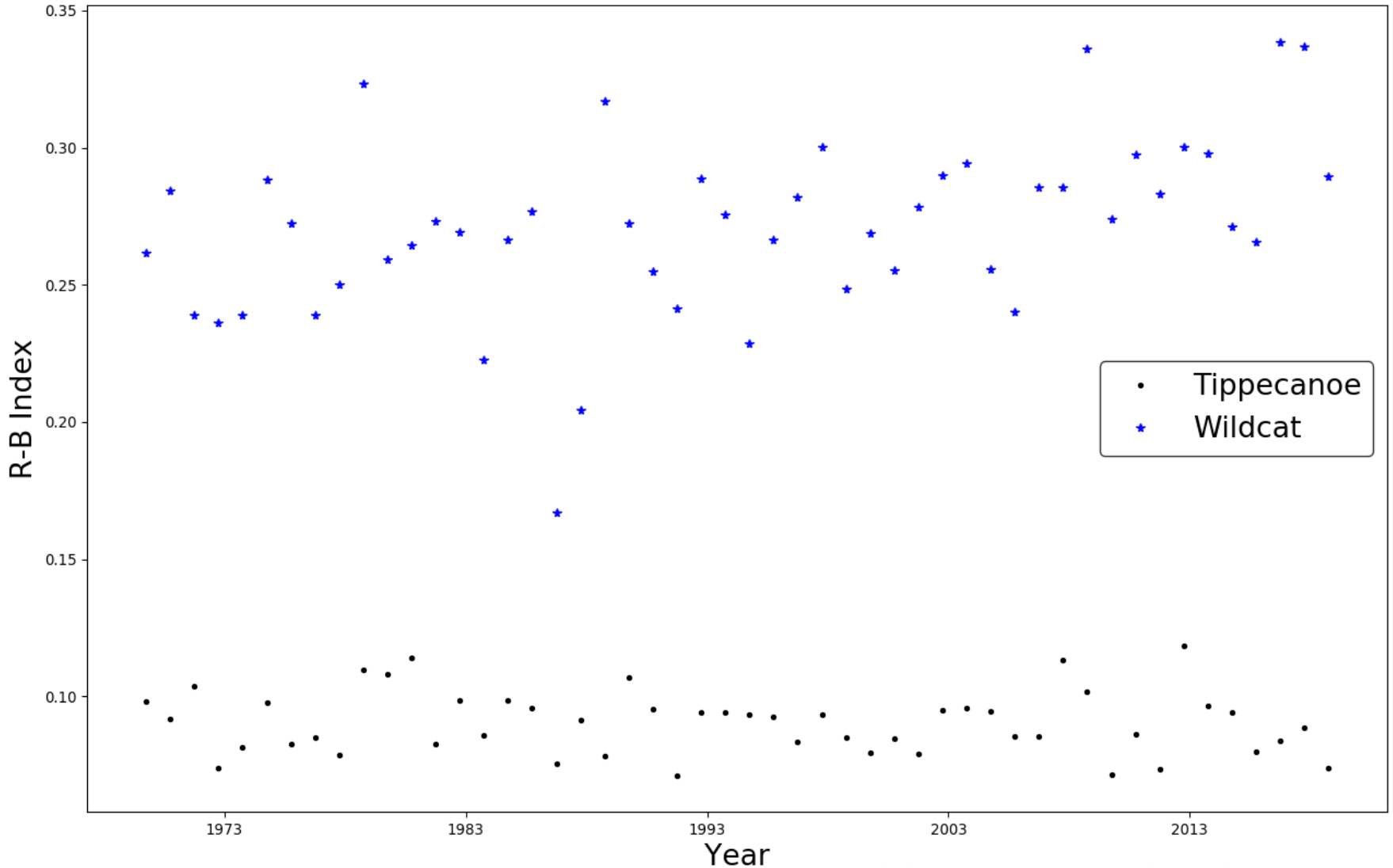

Figure 3. Annual mean Richards-Baker Flashiness Index (R-B Index) for the Wildcat (blue) and Tippecanoe (black) rivers from 1969-2019. R-B Index is calculated by (Sum of absolute streamflow day to day changes/total discharge volume for the year).

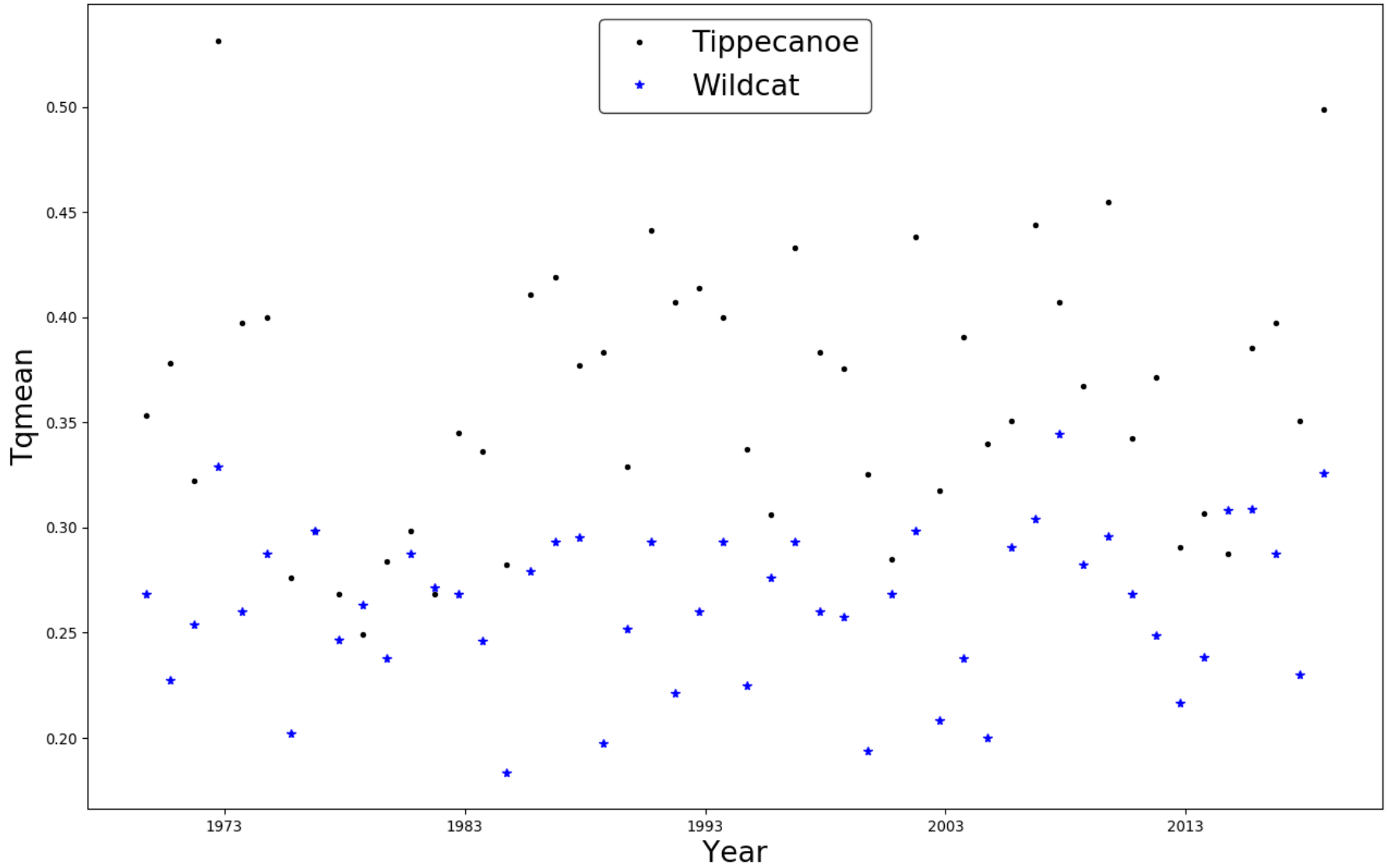

Figure 4. Annual mean T-Q Mean for the Wildcat (blue) and Tippecanoe (black) Rivers from 1969-2019. T-Q Mean is the fraction of days that streamflow exceeds the mean annual streamflow for the year.

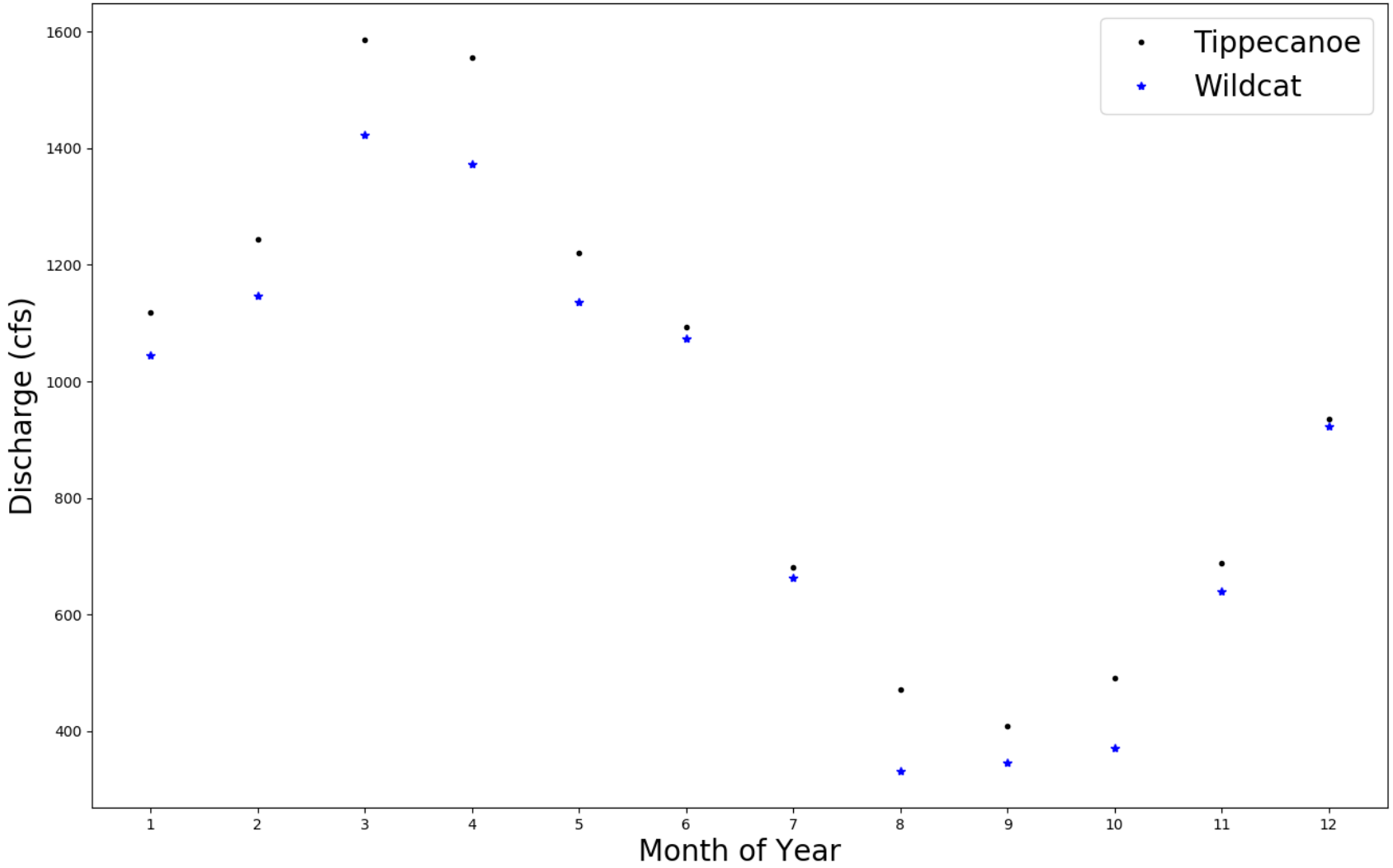

Figure 5. Mean streamflow averaged monthly for the Wildcat (blue) and Tippecanoe (black) from 1969-2019. Streamflow is measured by discharge in cubic feet per second. The X-axis is labeled by month of calendar year started with January as 1.

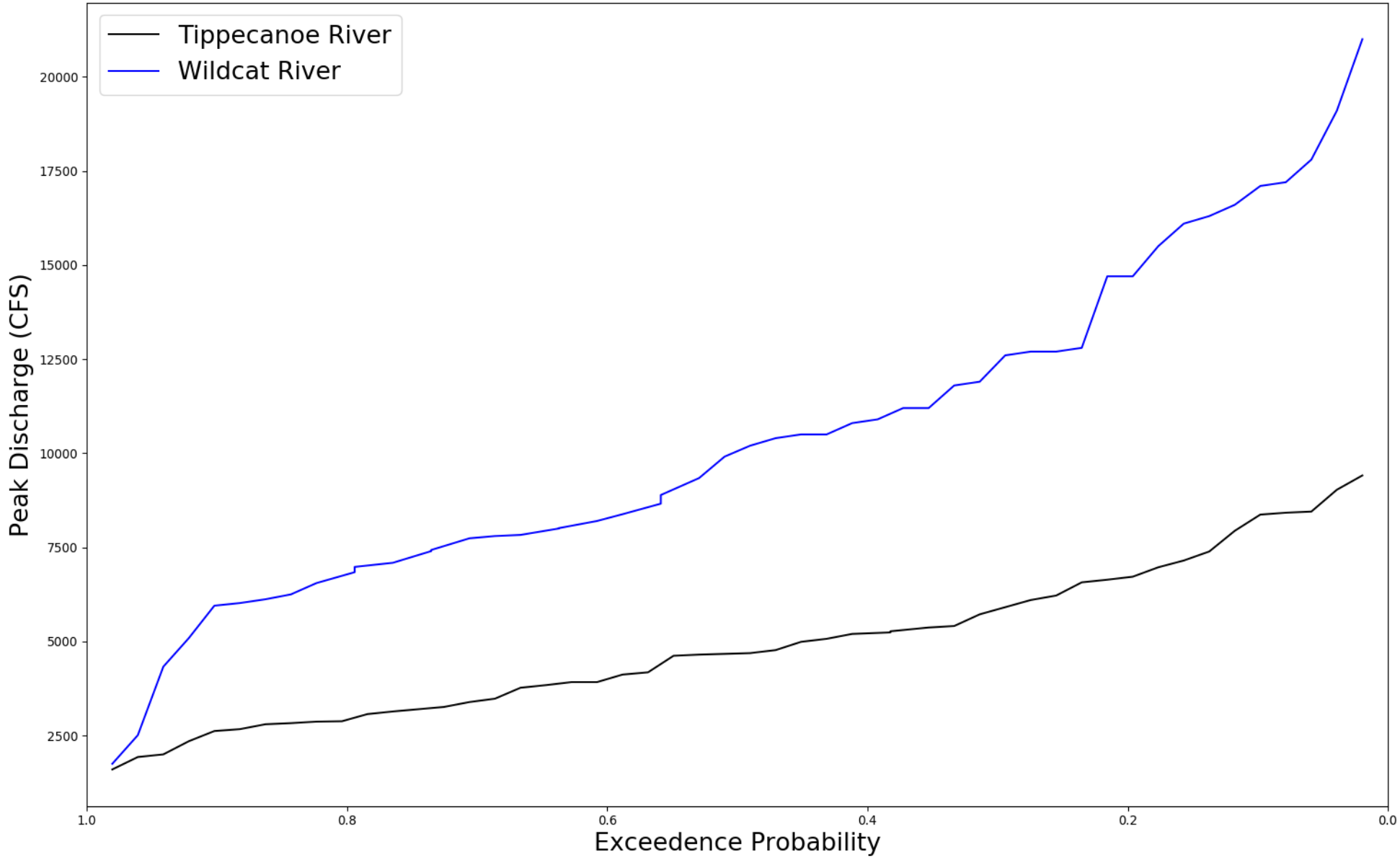

Figure 6. Exceedance probabilities for discharge rates for the Wildcat (blue) and Tippecanoe (black) Rivers. Exceedance probability is calculated as $P(x) = \frac{m(x)}{N+1}$. Probability decreases as the move along the x-axis.