

EGU2020 Flow trends in Western Hungary

Mátyás, Bene, Koch

Széchenyi István University

Department of Transport Infrastructure and Water Resources Engineering

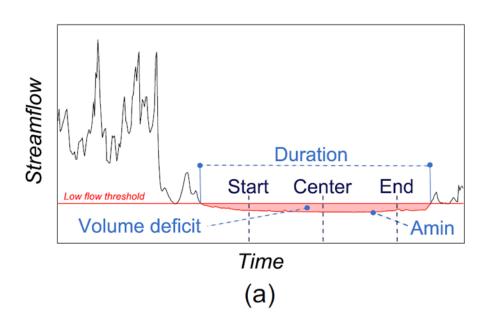


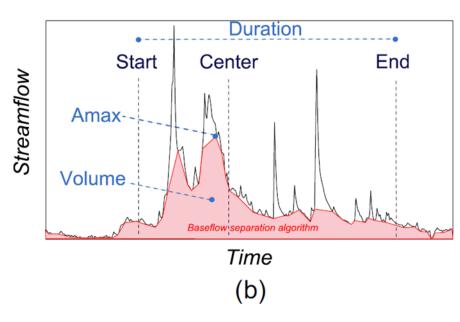
Introduction

- 74 small streams in Hungary;
- Time period: 1980-2016 (36 years);
- Daily measured discharge;
- 10% significance using Mann-Kendall test.



Flow signatures evaluated



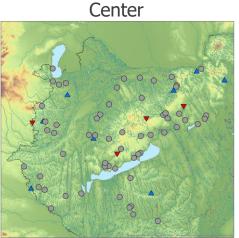


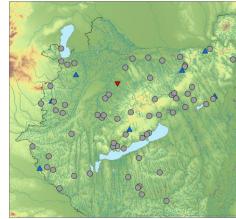
(Bard et al., 2011)



Trends in low-flow signatures

Start

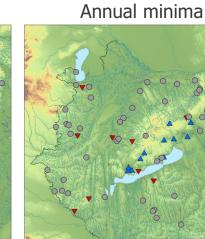




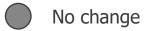
End

No significant change; start occurs earlier.









Increase





Trends in high-flow signatures

Start

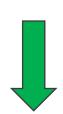
Decrease

No change

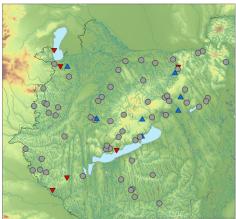
Center Volume deficit

End

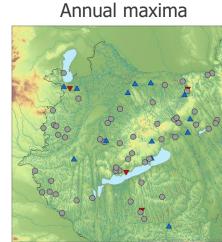
Significant change; start and occurs later, center earlier.



Faster runoff, higher peak







Increase



This work was undertaken as part of a project funded by the EFOP-3.6.1-16-2016-00017.