Our scientists are always working with new technology. Discharge measurements can now be collected from a kayak! This is made possible by mounting an acoustic doppler current profiler in the kayak’s hull. This method of data collection was recently used at Kansas River at Lecompton (06891000).

USGS Chemist Ashley collecting hyperspectral images, at Hillsdale Lake, using a HR-512i radiometer for ground to space verification of the Cyanobacteria Assessment Network (CyAN). The intention is to create an early warning system to detect potentially toxic HABs. http://ow.ly/HoUz50Ko3Y1

Little rain means little flow. Nathan utilized the flume method to collected a discharge measurement of 0.01cfs at Smoky Hill River below Schoenchen (06862850). A flume is useful for measuring discharge when the depths are shallow, and the velocities are low in a stream. You can learn more about how the USGS uses flumes here: https://www.usgs.gov/publications/discharge-measurements-gaging-stations-0

A large part of our data field scientist’s job is to capture changes of debris at gages and how these changes affect streamflow. Pictured here is Travis next to a 5ft in diameter tree along the banks of Solomon River near Minneapolis (06876440). Learn more about how we collect streamflow data here: http://ow.ly/eIUh50J9fRn
Science Spotlights

**New Report!** The summary of the national streamflow conditions for water year 2021 has been published. Within this report, water year 2021 is compared to all water years since 1930. The USGS operated a nationwide network of more than 8,400 year-round, real-time streamgages in water year 2021. The streamflow information used to prepare this summary also is used for water management, flood and drought monitoring, bridge design, and recreational activities.

https://doi.org/10.3133/fs20223072

**New Report!** A review of algal toxin exposures on reserved federal lands and among trust species in the U.S. has been published. In a review of public information, algal toxin and effects were observed on 11% of Federal land units and found to affect 67 Trust species on and off Federal land. This estimate is likely an underestimate based on identified knowledge gaps.

https://doi.org/10.1080/10643389.2021.2010511

**New Report!** The 2021 Water Year report for KS has just been published. This publication summarizes the hydrologic conditions in KS. Streamflow conditions and drainage basin runoff, Statewide precipitation and drought conditions, and Reservoirs are all included. Hydrologic conditions in Kansas during water year 2021 were generally normal, although seasonal variation in precipitation and runoff was observed in different parts of the state.

https://doi.org/10.3133/fs20223071

**New Report!** A paper discussing Stakeholder Engagement to Guide Decision-Relevant Water Data Delivery was published. A platform built for managers would ideally include synthesized, user-friendly data (such as maps, graphs, and web tools), while the same system built for data analysts would ideally include access to raw data.

https://doi.org/10.1111/1752-1688.13955

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