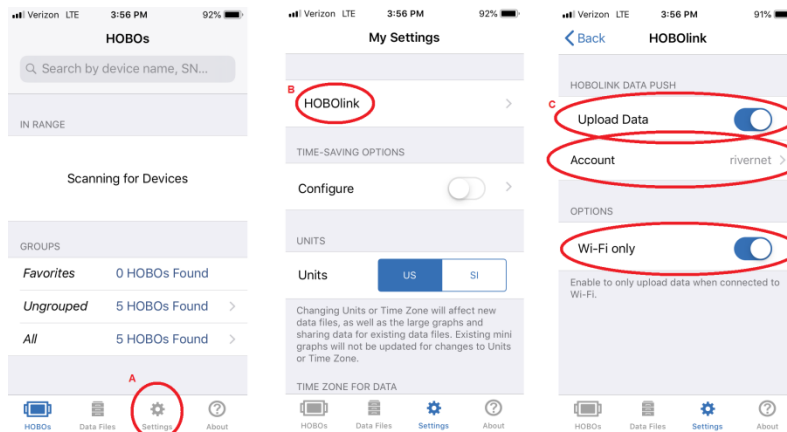


RiverNET Bluetooth Sensor Data Download Instructions Yellowstone Ecological Research Center, May 2019 [REVISED June 2019]

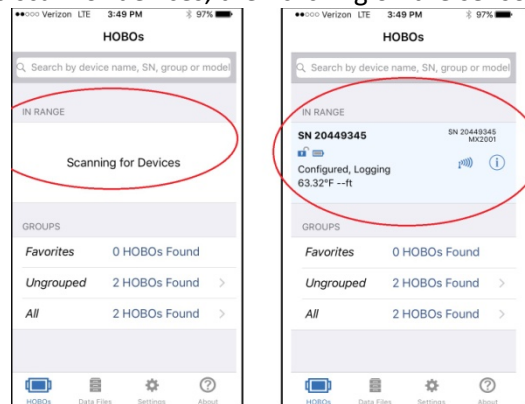
You can access and view the stream depth and temperature data from the sensors YERC is installing in the Upper Yellowstone watershed (see Appendix 1), helping us build our long-term dataset in the process. And all you need is a smart phone! Here's how:

- (1) *Download* and install the **HoboMobile** app (it's free!), and *enable* the **Bluetooth** and **WiFi** functions on your phone.
- (2) *Configure* the HoboMobile app:
 - (a) Click the "Settings" icon from the lower menu on the opening screen
 - (b) Click "HOBOLink"
 - (c) Flip the switches next to "Upload Data" and "Wi-Fi only" (the switches will show blue when activated), then click on "Account" and enter "rivernet" for both the Username and Password– this enables auto data uploads

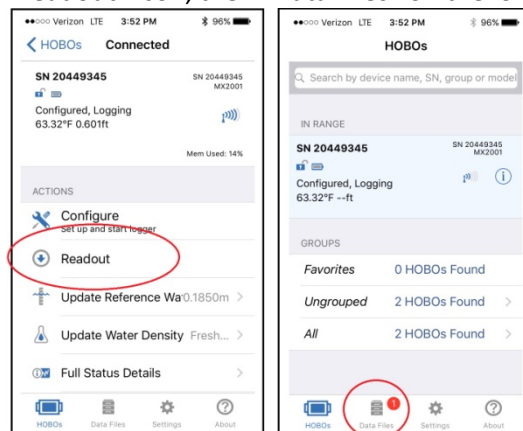


- (3) *Connect* to any sensor within 100 feet range by:

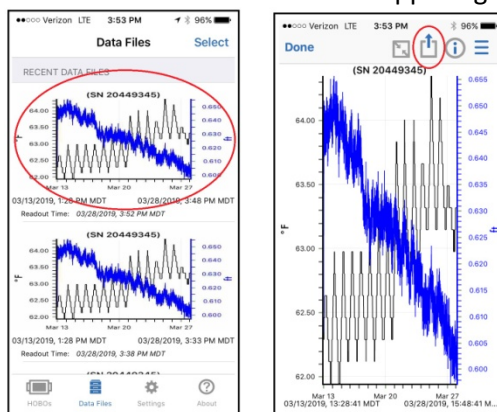
- (a) Giving the app a minute to scan for devices, then clicking on the sensor that pops up



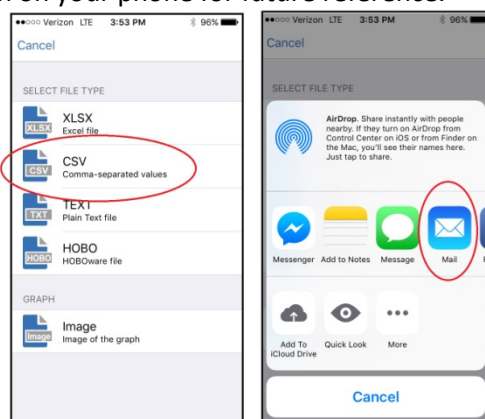
- (b) After connecting, click the "Readout" icon, then "Data Files" on the lower menu



(c) A plot will pop up showing the hourly depth (blue) and the temperature (black) readings since the sensor was installed. Click on the plot, then click the download icon in the upper right.



(d) In the next page, select “CSV comma separated values”, and then click your phone’s email icon, and email it to rivernet@yellowstoneresearch.org – this is a redundant, fail-safe measure so that we can get the data if the HOBOLink function fails. You could repeat this step and email it to yourself or a friend, if interested, otherwise the data file and plot will remain on your phone for future reference.



(4) When you get home (i.e., within WiFi range), turn on HoboMobile and click on Data Files: there will be a cloud icon at the upper right corner of each plot, indicating whether the automatic data upload is complete (green check), pending (gray clock), or failed (red exclamation). If the upload fails, please let us know when you email the data.

(5) TO SEE AND DOWNLOAD THE DATA go to <https://www.yellowstoneresearch.org/rivernet>

For questions or more information, please contact us at rivernet@yellowstoneresearch.org or cross@yellowstoneresearch.org.

Your participation in this data collection effort will help us keep the program costs down while also broadening our outreach effort and engaging the community in this *community science* project – Thanks!

Appendix 1:

RiverNET sensors (May 2019)

LOCATION	S/N	LATITUDE	LONGITUDE	NOTE
Lower Big Creek	20449344	45.29918	-110.83132	Under/downstream U.S. 89 bridge – MTDOT property
Upper Big Creek	20449345	45.30541	-110.86681	Private land: parking spot across Big Creek Road from sensor, please respect landowner
Lower Mill Creek*	20618626	45.39482	-110.63992	Private land: NO PUBLIC ACCESS
Upper Mill Creek*	20618627	45.4924	-110.55557	Private land: NO PUBLIC ACCESS
Rock Creek	20618628	45.21079	-110.90348	Downstream from 1 st bridge on Rock Creek Road – within range or road
Eight Mile Creek	20618629	45.4091	-110.6996	Upstream of flume near old railroad bridge
Six Mile Creek	20618630	45.3309	-110.7538	Downstream of East River Road bridge – MT DOT property

* = PRIVATE LAND, NO PUBLIC ACCESS

Photo of sensor (Upper Mill Creek) and 2019 field crew

