# **SSHCZO Metadata Worksheet**

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| Data File Name | **GR\_LRMS\_sapflux.csv** |
| Date Prepared | 2018-05-03 |
| Descriptive Title | Sap Flux measurements  |
| Update Frequency | Monthly |
| Abstract | Measurement of sap flux in mature oak trees at the CZO Garner Run catchment in Rothrock State Forest during the entire year. Motivation for study is to monitor actual water usage of trees in order to understand water flux rates throughout the water catchment. The tree ID numbers are 3158, 144, 3164, and 180. Additionally, the data helps to understand the soil, plant, atmosphere continuum (SPAC) at the CZO. Measurements are made using four Dynamax Thermal Dissipation sensor (TDP) with 30 millimeter probes. These are connected to a Campbell Scientific CR1000 data logger that are manually downloaded monthly.  |
| InvestigatorContact Info | *David Eissenstat, Professor of Woody Plant Physiology, 201 Forest Resources Building, University Park, PA 16802, 814-863-3371, dme9@psu.edu* |
| Data Value Descriptions | COL1: Label = TmStamp\_UTC; Timezone = UTC; format yyyy-mm-dd hh:mm:ssCOL2: Label = T3158\_dT\_Avg, Difference in Voltage between paired sensors in tree 3158COL3: Label = T144\_dT\_Avg, Difference in Voltage between paired sensors in tree 144COL4: Label = T3164\_dT\_Avg, Difference in Voltage between paired sensors in tree 3164COL5: Label = T180\_dT\_Avg, Difference in Voltage between paired sensors in tree 180 |
| Keywords | Sap Flux, SPAC, Garner Run, Water Usage, Water Flux |
| Methods | Data collected using paired temperature probes installed in trees and insulated. In each tree one probe produces a small amount of heat, the other probe measures the ambient temperature of the sap. The greater the sap flux in a tree the greater the voltage difference in the probes. |
| Sites | Garner Run: Four trees near LRMSTree 3158: Tree 144: Tree 3164:Tree 180:  |
| Publications |  |
| Citation | The following acknowledgment should accompany any publication or citation of these data: Logistical support and/or data were provided by the NSF-supported Shale Hills Susquehanna Critical Zone Observatory. |
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