# CZO Metadata Worksheet

|  |  |
| --- | --- |
| Data File Name | CZO\_TreeIsotopes.xls |
| Date Prepared | January 7, 2013 |
| Descriptive Title | Natural abundance stable isotopes of oxygen and hydrogen from tree branch samples for 2009 and 2011 |
| Update Frequency | N/A |
| Abstract | Small tree branches were sampled by tree climbing over the course of the season in 2009 and 2011. Samples were sealed in glass vials, frozen, and later the water was extracted from the tissue via cryogenic vacuum distillation. Samples were analyzed at the University of California at Berkeley, Center for Stable Isotope Biogeochemistry by mass spectroscopy, equilibration method. |
| InvestigatorContact Info | Katie Gaines, kpgaines@psu.edu; David Eissenstat, dme9@psu.edu |
| Data Value Descriptions |

|  |  |
| --- | --- |
| TreeID | unique identification number for each tree |
| SampleID | identification number for analytical lab |
| Species | tree species name abbreviation, see tab Species Codes for full names |
| Elevation | tree location elevation in meters |
| Date | date sample was collected (day-month-year) |
| treedelta18O | 18-oxygen isotope ratio in permil |
| treedeltaD | deuterium isotope ratio in permil |
| X-Coordinate | GIS X coordinate in meters in State Plane PA South |
| Y-Coordinate | GIS Y coordinate in meters State Plane PA South |

 |
| Keywords | vegetation, stable isotopes, tree water, oxygen-18, deuterium |
| Methods | Cryogenic vacuum distillation to extract water from plant tissue and mass spectroscopy. (equilibration method). |
| 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. |
| Publications | Manuscript in progress. |
| Data Use Notes | The user of Shale Hills Susquehanna CZO data agrees to provide proper acknowledgment with each usage of the data. Citation of the name(s) of the investigator(s) responsible for the data set, in addition to the generic statement above, constitutes proper acknowledgment. Author(s) (including Shale Hills Susquehanna CZO investigators) of published material that makes use of previously unpublished Shale Hills Susquehanna CZO data agree to provide the Shale Hills Susquehanna CZO data manager with four (4) copies (preferably reprints) of that material for binding as soon as it becomes available. The user of Shale Hills Susquehanna CZO data agrees not to resell or redistribute shared data. The user of these data should be aware that, while efforts have been taken to ensure that these data are of the highest quality, there is no guarantee of perfection for the data contained herein and the possibility of errors exists. These data are defined as either public or private, such that a password may be required for access. |