

BOREAS HYD-03 SSA/Old Aspen DBH Data

Summary:

The BOREAS HYD-03 team collected several data sets related to the hydrology of forested areas. This data set contains measurements of tree diameter at breast height (DBH) from a variety of sites. This study was undertaken to predict spatial distributions of energy transfer, snow properties important to the hydrology, remote sensing signatures, and transmissivity of gases through the snow and their relation to forests in boreal ecosystems.

A text document which includes more information about this data set and other BOREAS HYD-03 Tree Measurements can be found at

http://daac.ornl.gov/boreas/HYD/h03candd/comp/HYD03_Tree_Meas.txt. Additional information on Parameter/Variable Names, Variable Description/Definition, Units of Measurement, and Data File Format is available in the companion file <http://daac.ornl.gov/boreas/HYD/h03candd/comp/h03candd.def>.

Data Citation:

Cite this data set as follows:

Hardy, J. P., and R. E. Davis. 1998. BOREAS HYD-03 SSA/Old Aspen DBH Data. Data set. Available on-line [<http://www.daac.ornl.gov>] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A. [doi:10.3334/ORNLDAAAC/264](https://doi.org/10.3334/ORNLDAAAC/264).

Data Format:

This data set contains a single ASCII data file delimited by commas.

Variable Name	Description
SITE_NAME	The identifier assigned to the site by BOREAS, in the format SSS-TTT-CCCCC, where SSS identifies the portion of the study area: NSA, SSA, REG, TRN, AND TTT identifies the cover type for the site, 999 if unknown, and CCCCC is the identifier for site, exactly what it means will vary with the site type.
SUB_SITE	The identifier assigned to the sub-site by BOREAS, in the format GGGGG-IIIII, where GGGGG is the group associated with the sub-site instrument (e.g. HYD06 or STAFF), and IIIII is the identifier for sub-site, often this will refer to an instrument.

DATE_OBS	The date on which the data were collected, DD-MON-YYYY.
DBH	The diameter at breast height (DBH) of the tree in millimeters.
CRTFCN_CODE	The BOREAS certification level of the data. Examples are CPI (Checked by PI), CGR (Certified by Group), PRE (Preliminary), and CPI-??? (CPI but questionable).
REVISION_DATE	The most recent date when the information in the referenced data base table record was revised.

Data Access:

This data is available through the Oak Ridge National Laboratory (ORNL) Distributed Active Archive Center (DAAC).

Data Archive Center Contact Information:

E-mail: uso@daac.ornl.gov
 Telephone: +1 (865) 241-3952

References:

- Ganey, J.L., W.M. Block. 1994. A comparison of two techniques for measuring canopy closure, Western Jour. Appl. Forestry 9(1)21-23.
- Lemon, P.E. 1957. A new instrument for measuring forest overstory density. Journal of Forestry, 55(9)667-668.
- Lemon, P.E. 1956. A spherical densiometer for estimating forest overstory density. Forest Science, 2(4)314-320.
- Davis, R.E., C. Woodcock, and J.P. Hardy. 1996. Toward spatially distributed modeling of snow in the boreal forest. Eos Transactions, AGU 1995 Fall Meeting, Abstract, p. 218.
- Davis, R.E., J.P. Hardy, W. Ni, C. Woodcock, C.J. McKenzie, R. Jordan, and X. Li. 1997. Variation of snow ablation in the boreal forest: A sensitivity study on the effects of conifer canopy. Journal of Geophysical Research. 102(D24):29389-29396.
- Hardy, J.P., R.E. Davis, and G.C. Winston. 1995. Evolution of factors affecting gas transmissivity of snow in the boreal forest. In: Biogeochemistry of Seasonally Snow-Covered

Catchments (ed. by K. Tonnessen, M.W. Williams, and M. Tranter) (Proc. Boulder Symp., July 1995). IAHS publication no. 228, p. 51-60.

Hardy, J.P., R.E. Davis, and R. Jordan. 1996. Snow melt modeling in the boreal forest. *Eos Transactions, AGU 1996 Fall Meeting*, abstract, p. 196.

Hardy, J.P., R.E. Davis, R. Jordan, X. Li, C. Woodcock, W. Ni, and J.C. McKenzie. 1997. Snow ablation modeling at the stand scale in a boreal jack pine forest. *Journal of Geophysical Research*. 102(D24): 29397-29406.

Sellers, P. and F. Hall. 1994. Boreal Ecosystem-Atmosphere Study: Experiment Plan. Version 1994-3.0, NASA BOREAS Report (EXPLAN 94).

Sellers, P. and F. Hall. 1996. Boreal Ecosystem-Atmosphere Study: Experiment Plan. Version 1996-2.0, NASA BOREAS Report (EXPLAN 96).

Sellers, P., F. Hall, and K.F. Huemmrich. 1996. Boreal Ecosystem-Atmosphere Study: 1994 Operations. NASA BOREAS Report (OPS DOC 94).

Sellers, P., F. Hall, and K.F. Huemmrich. 1997. Boreal Ecosystem-Atmosphere Study: 1996 Operations. NASA BOREAS Report (OPS DOC 96).

Sellers, P.J., F.G. Hall, R.D. Kelly, A. Black, D. Baldocchi, J. Berry, M. Ryan, K.J. Ranson, P.M. Crill, D.P. Lettenmaier, H. Margolis, J. Cihlar, J. Newcomer, D. Fitzjarrald, P.G. Jarvis, S.T. Gower, D. Halliwell, D. Williams, B. Goodison, D.E. Wickland, F.E. Guertin. 1997. BOREAS in 1997: Experiment overview, scientific results, and future directions. *Journal of Geophysical Research*. 102(D24):28731-28770.

Sellers, P., F. Hall, H. Margolis, B. Kelly, D. Baldocchi, G. den Hartog, J. Cihlar, M.G. Ryan, B. Goodison, P. Crill, K.J. Ranson, D. Lettenmaier, and D.E. Wickland. 1995. The boreal ecosystem-atmosphere study (BOREAS): an overview and early results from the 1994 field year. *Bulletin of the American Meteorological Society*. 76(9):1549-1577.

Winston, G.C., B.B. Stephens, E.T. Sundquist, J.P. Hardy, and R.E. Davis. 1995. Seasonal variability in gas transport through snow in a boreal forest. In: *Biogeochemistry of Seasonally Snow-Covered Catchments* (ed. by K. Tonnessen, M.W. Williams, and M. Tranter) (Proc. Boulder Symp., July 1995). IAHS publication no. 228, p. 61-70.

Revision Date: Wednesday, 23-Jun-2010 12:20:49 EDT