README\_{Metadata/Air and soil temperature and soil moisture in various vegetation types and experimental manipulations near Daring Lake Research Station, Northwest Territories}\_{April 18 2013}.txt

**Mandatory information:**

1. MASTERSUMMARY Winter 2006 onwards diel – WEB limited graphs

This file contains diel data on air temperature, soil temperatures at 2, 5 and 10 cm and soil moisture from 0-5 cm for birch hummock ecosystem. Corresponding data for several experimental manipulations (snowfences, and greenhouse warming) on this vegetation type are included. In addition, similar data have been recorded for dry heath, tall birch and wet sedge ecosystem types.

Temperature data is recorded as degrees centigrade and the probes are copper constantan thermocouples; Moisture data is recorded as volumetric water content (% VWC) measured using time domain reflectometry on the basis of the standard calibration provided by the manufacturer (Campbell Scientific CS616 Water content reflectometer).

Abbreviations in the Master datasheet are as follows:

CF- Control plot for snowfence study; SF Snowfence plot; VWC Volumetric Water Content; W – Warming treatment (with plastic greenhouses with closed ends); D – Drying treatment (greenhouses open ended with extended lateral flaps); WD –warming drying combination as described above; C – Control; Sedge – Probes in wet sedge ecosystem; TBirch – probes in Tall birch ecosystem; Heath – Probes in Dry Heath ecosystem.

Graphs included are numbered from left to right as they appear in the spreadsheet (Note that the x axis is Julian day in all cases - see Master spreadsheet tab for details):

1. Soil temperatures at 5 cm in the birch hummock vegetation (control plots, snowfence plots) and in tall birch hummock vegetation since 2006
2. Soil temperatures at 10 cm in the birch hummock vegetation (control plots, snowfence plots) and in tall birch hummock vegetation since 2006
3. Soil temperatures at 2 cm in birch hummock (control and snowfence), wet sedge, tall birch and dry heath vegetation since 2006
4. Soil temperatures at 5 cm in birch hummock (control and snowfence), wet sedge, tall birch and dry heath vegetation since 2006
5. Air temperatures during the growing season in the greenhouses and control plots on birch hummock vegetation since 2006
6. Soil volumetric water contents during the growing season in the greenhouses and control plots on birch hummock vegetation since 2006
7. Soil temperatures at 2 cm during the growing season in the greenhouses and control plots on birch hummock vegetation since 2006
8. Soil temperatures at 5 cm during the growing season in the greenhouses and control plots on birch hummock vegetation since 2006
9. Soil temperatures at 10 cm during the growing season in the greenhouses and control plots on birch hummock vegetation since 2006

2. Definitions of acronyms, site abbreviations, or other project-specific designations

used in the data file names or documentation files, if applicable: NONE.

3. Definitions of special codes, variable classes, GIS coverage attributes, etc. used in

the data files themselves, including codes for missing data values, if applicable: NONE

4. Description of the parameters/variables (column headings in the data files) and

units of measure for each parameter/variable:

See Master spreadsheet tab for explanation

5. Uncertainty, precision, and accuracy of measurements, if known:

All data reported here are means of varying numbers of probes (See Notes tab for details).

See analysis on Notes spreadsheet tab for precision and accuracy estimates.

6. Environmental conditions, if appropriate (e.g., cloud cover, atmospheric influences,

etc.): Variable.

7. Method(s) for processing data, if data other than raw data are being contributed:

Data have been computed from 4 hourly means (see Notes tab for details).

8. Standards or calibrations that were used: NONE.

9. Specialized software (including version number) used to prepare and/or needed to

read the dataset, if applicable: NONE

10. Quality assurance and quality control that have been applied, if applicable: See checks on each year’s data that are described in detail on the Notes tab.

11. Known problems that limit the data's use or other caveats (e.g., uncertainty,

sampling problems, blanks, QC samples):

12. Date dataset was last modified: 18 April 2013.

13. Related or ancillary datasets outside of this dataset, if applicable: Weather station data collected by Bob Reid, Dept. of Indian and Northern Affairs. Similar data also collected by Peter Lafleur (Trent University) and Elyn Humphreys (Carleton University).