

Supplementary Material for: Csank, A.Z., 2009. An International Tree-Ring Isotope Data bank--a proposed repository for tree-ring isotopic data.

Tree-Ring Research 65(2):163-164.

Items include: Examples of output metadata of 13C and 18O data in current ITRDB format, and example of isotope data in TRiDaS.

La Selva HYAL  
Costa Rica Hyeronima alchorneoides 40M 1985-2001 1 tree  
core multiple samples/ring alpha cellulose  
Brendel et al. 2000 method Analyzed/collected 2002-2003  
d18O isotope chronology  
M.N. Evans; D.P. Schrag

Strathcona Fiord, NU LAGR  
Canada Larix groenlandii 364M undated 203 rings 1 tree  
disk 3 samples/ring Loader et al. 1997 method  
Analyzed/collected 2004 U of Sask. isotope lab. d13C no chronology  
No Suess correction  
A.Z Csank

IGBP PAGES/WDCA CONTRIBUTION SERIES NUMBER: 2007-093

SUGGESTED DATA CITATION: Evans, M.N. and D.P. Schrag. 2007.  
Tropical and Temperate Americas Tree Isotope Data.  
IGBP PAGES/World Data Center for Paleoclimatology  
Data Contribution Series # 2007-093.  
NOAA/NCDC Paleoclimatology Program, Boulder CO, USA.

ORIGINAL REFERENCE: Csank, A.Z., Patterson, W.P., Eglington, B., Basinger, J.F.  
in review. Boreal climate variability during the Pliocene: evidence  
from stable isotope values of sub-fossil wood, Ellesmere Island,  
Canada. Palaeogeography, Palaeoecology, Palaeoclimatology.

ORIGINAL REFERENCE: Evans, M.N. and D.P. Schrag. 2004.  
A stable isotope-based approach to tropical dendroclimatology.  
Geochimica et Cosmochimica Acta, Vol. 68, Issue 16, pp. 3295-3305,  
15 August 2004. doi:10.1016/j.gca.2004.01.006.

DESCRIPTION:  
Sub fossil wood of Pliocene age (4-5 mya) from Ellesmere Island in the Canadian Arctic

DESCRIPTION:  
Tropical and Temperate Americas Tree Isotope Data

Lat. Lon. Elev. Environment Age Information  
78.33fN 81.9fW 364m Boreal Pliocene (4-5 mya)  
see Tedford and Harington, 2003

Lat. Lon. Elev. Environment Age Information  
10fN 84fW 40 m wet tropical plantation

DATA PRECISION (1 STANDARD DEVIATION):

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d18O: +/- 0.3 permil (analytical)  
d13C: +/- 0.2 permil (analytical)  
d2H: +/- 1.5 permil (analytical)

Depth: +/- 0.2 mm  
d18O: +/- 0.3 permil (analytical)

DATA:  
Column 1: ring, with 1 arbitrarily set as the center-most ring a value of .5 after the ring  
number signifies a latewood sample.  
Column 2: d13C, mean of 2-3 replicates, per mil, relative to Vienna Pee-Dee Belemnite  
(VPDB)

Age Model: +/- 5 years

Tree Isotope Data, La Selva, Costa Rica  
Column 1: Depth (mm), with 0 arbitrarily set to most recent tree growth  
Column 2: Years, based on age model described in Evans and Schrag (2004)  
Column 3: d18O, per mil, relative to Standard Mean Ocean Water (SMOW)

1 -23.09  
2 -22.31  
3 -22.66  
3.5 -23.36  
4 -22.88  
5 -22.29  
6 -22.76  
7 -23.06  
8 -22.41  
9 -21.98

Depth Year d18O  
0.20 2001.29 28.75  
0.60 2001.23 28.74  
1.40 2001.17 28.99  
2.60 2001.11 30.94  
3.80 2001.05 27.85  
4.20 2000.99 27.06

**Project**

Title: Strathcona Fiord, Pliocene

type: Isotope series

laboratory: Saskatchewan Isotope Laboratory, University of Saskatchewan, SK, Canada

category: dendroclimatology

investigator: Adam Csank

period: Sept. 2004-May 2006

reference: Csank, A.Z., Patterson, W.P., Eglington, B., Basinger, J.F. in review. Boreal climate variability during the Pliocene: evidence from stable isotope values of sub-fossil wood, Ellesmere Island, Canada. *Palaeogeography, Palaeoecology, Palaeoclimatology*.

**Object**

Title: STA-04-001

Type: sub-fossil trunk

**Element**

Title: STA-04-001

Taxon: *Larix Groenlandii*

Authenticity: Dated to 4-5 mya via biostratigraphy (see Tedford and Harrington, 2003)

Location: Strathcona Fiord, Ellesmere Island, 78.33°N 81.9°W

Processing:  $\alpha$ -cellulose after Loader et al. 1997

Altitude: 385m

Soil: peat

**Sample**

Title:  $\delta^{18}\text{O}$  series STA-04-001

Comments: no chronology/ undated series

Type:  $\delta^{18}\text{O}$  series

Position: 3 samples per ring

State: single tree

**WoodCompleteness**

Pith: absent

Heartwood: absent

Sapwood: unknown

Bark: absent

**MeasurementSeries**

Title:  $\delta^{18}\text{O}$  series

MeasuringMethod: on-line combustion via TC/EA

Generic Field: Data precision ( $1\sigma$ ), +/- 0.3 ‰

Values:

<i>variable: ring unitless:</i>	<i>variable: <math>\delta^{18}\text{O}</math> unit: permil (VSMOW)</i>
<i>value: 1</i>	15.92
2	19.45
3	21.52
4	21.29
5	20.56
6	20.35
7	20.77
8	21.77