

S. J. McKee Archives



ARCH 2: North Lauder locale

<http://archives.brandonu.ca/en/permalink/descriptions12079>

Part Of: RG 7 Beverley Nicholson fonds

Description Level: Series

Series Number: 2

Accession Number: 1-2010

GMD: multiple media

Date Range: 1997 to present

History /

Biographical:

ARCH 2: North Lauder Locale

The North Lauder locale has a long archaeological and geological history that is important for understanding the forces that shaped the region. Archaeological research in the locale shows that the area has been occupied by humans for at least the past 6,500 years. Environmental forces provided an area of diverse resources that attracted early peoples.

Environment of the Lauder Sandhills

The North Lauder locale is part of the greater Lauder Sandhills area. The glaciers that covered this region began to recede approximately 11,000 years ago leaving a large lake known as glacial Lake Hind. The Souris River, the Lauder Sandhills and the Oak Lake Aquifer are remnants of the environmental and geological forces that shaped the region.

The Lauder Sandhills region is characterized by a landscape of sand sheets and stabilized sand dunes interspersed with a variety of wetlands. This complex topographic and hydrological situation favoured the development of an island mosaic of mixed forest, wetland and meadow, surrounded by mixed grass prairie. The result was a large, isolated ecotone which provided a rich variety of subsistence resources for hunter-gatherers.

Research in the Lauder Sandhills

Archaeologists from Brandon University have been conducting research in the Lauder Sandhills since 1991. Research in the North Lauder locale has focused on the Atkinson site, a 6,500 year old hunter-gatherer site and Flintstone Hill.

The Atkinson site

The Atkinson site is one of the oldest excavated sites in Manitoba and has been Radiocarbon dated to 6,500 years before present. The Atkinson site is located on the bank of the Souris River and was discovered when a hearth (fire pit) was seen eroding out of the bank. Based on the date of the site and the kind of lithics (stone tools) present it is considered a Gowen occupation. The Atkinson site is evidence that bison hunters were active on the northern plains at a very early date. Similar sites have also been found on the High Plains in the U.S. and are referred to as the Mummy Cave Complex.

The Atkinson Site is of great importance as it is the first undisturbed site of this type to be excavated in Manitoba and extends the range of these sites south and east from the type-sites in central Saskatchewan.

Flintstone Hill

The geomorphology of the glacial Lake Hind Basin over the past 11,000 years is known primarily through the study of a cut bank along the Souris River. Flint Stone Hill contains the most complete stratigraphic record for the post-glacial period on the northern plains. The site has been extensively studied by geoarchaeologists, geologists and paleoenvironmentalists over many years and their findings have contributed to our understanding of the region.

The North Lauder locale Borden designations of Atkinson site DiMe-27 and Flintstone Hill site DiMe-26.

Borden System

Archaeological sites in Canada are identified by the Borden system, which is a uniform site designation system. The country is divided into grids based on latitude and longitude in blocks of 10 x 20 minutes. The first 4 letters indicate the block and the following numbers indicate the actual site. For example the area of the Lauder Sandhills in southwestern Manitoba is identified by the letters DM and the North Lauder locale within that area is DiMe. The Atkinson site is DiMe-27 and the Flintstone Hill site DiMe-26. As new sites are discovered they will be numbered sequentially.

Scope and Content:

The Series has been divided into two sub-series, including (1) Atkinson site DiMe-27 and Flintstone Hill site DiMe-26.

Name Access: North Lauder locale
Subject Access: Archaeology
Atkinson site DiMe-27

Arrangement:

Series is arranged by site and by year of field work.



North Lauder locale Radiocarbon Report 2

<http://archives.brandonu.ca/en/permalink/descriptions12328>

Part Of: RG 7 Beverley Nicholson fonds
Description Level: Sub sub series
Series Number: 2.5.2
Accession Number: 1-2010
GMD: multiple media
Date Range: 1997-2000
Physical Description: 2 pages
Material Details: Radiocarbon date reports have been scanned in multi-page PDF files.

History /

Biographical:

North Lauder Radiocarbon Date report by IsoTrace Laboratory for Atkinson site #TO-10640.

Radiocarbon dating

The technique of radiocarbon dating was developed by Willard Libby and his colleagues at the University of Chicago in 1949.

Radiocarbon dating is used to estimate the age of organic remains from archaeological sites. Organic matter has a radioactive form of carbon (C14) that begins to decay upon death. C14 decays at a steady, known rate of a half life of 5,730 years. The technique is useful for material up to 50,000 years. Fluctuations of C14 in the atmosphere can affect results so dates are calibrated against dendrochronology. Radiocarbon dates are calibrated to calendar years.

Dates are reported in radiocarbon years or Before Present. Before Present refers to dates before 1950. The introduction of massive amounts of C14, due to atomic bomb and surface testing of atomic weapons, has widely increased the standard deviation on all dates after A.D. 1700 causing these dates to be unreliable.

Accelerated mass spectrometry can more accurately measure C14 with smaller samples and can date materials to 80,000 years.

Scope and Content:

Sub sub series contains radiocarbon dates from: Atkinson site and Flintstone Hill.

Name Access: North Lauder locale Radiocarbon Report 2

Subject Access: Archaeology
North Lauder locale
North Lauder locale Radiocarbon Report 2

Documents

IsoTrace Radiocarbon Laboratory
Accelerator Mass Spectrometry Facility
at the University of Florida

400 N. College Avenue
Gainesville, Florida 32602-7020
Telephone: 352-392-2025
Email: iso@ufl.edu

Radiocarbon Analysis Report
May 17, 2005

Reference: A. Hatcher, "The Use of Radiocarbon Dating in Archaeology",
University of Florida Press, 1998.

The report was prepared for the purpose of providing information to the client regarding the results of the radiocarbon dating analysis performed by IsoTrace Radiocarbon Laboratory. The results of the analysis are presented in the table below. The results are presented in both radiocarbon years (BP) and calibrated years (CE).

Sample	Concentration	Age (BP)	Age (CE)
TO-10640-1	0.00012	10,000 ± 100	10,000 ± 100

I warrant that the data presented in this report is the result of the analysis performed by IsoTrace Radiocarbon Laboratory and is accurate to the best of our knowledge.

[Signature]
Dr. R. P. Hatcher

2.5.2_Atkinson_RC14_
TO-10640.pdf

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