

# S. J. McKee Archives



## Crepeelee locale Radiocarbon Dates

<http://archives.brandonu.ca/en/permalink/descriptions11966>

Part Of:	RG 7 Beverley Nicholson fonds
Description Level:	Sub-series
Series Number:	1.5
Accession Number:	1-2010
GMD:	textual records
Date Range:	2003-2008
Material Details:	Radiocarbon date reports have been scanned in multi-page PDF files.

History /

Biographical:

The Crepeelee locale is located within the larger Lauder Sandhills area, located in southwestern Manitoba. The area is a complex region of high biodiversity made up of stabilized sand dunes and wetlands that encourage the development of mixed forest and grass prairie. This area provided a variety of subsistence resources for pre-European hunter-gatherers. At the present time the grass prairie is now farm land but the areas of vegetated sand dunes have not been cultivated and have revealed numerous pre-contact archaeological sites.

Archaeological surveying was conducted in 2003. The results of the 2003 Casselman survey showed over 300 test units contained cultural material and indicated several areas for further examination including the Crepeelee site DiMe-29, Sarah site DiMe-28 and Graham sites DiMe-30.

From 2003 to 2008 field work took place at the locale with 75 - 1m x1m units excavated. The Crepeelee locale is a complex region of high biodiversity made up of stabilized sand dunes and wetlands that encourage the development of mixed forest and grass prairie. This area provided a variety of subsistence resources for pre-European hunter-gatherers. At the present time the grass prairie is now farm land but the areas of vegetated sand dunes have not been cultivated and have revealed numerous pre-contact archaeological sites.

To help establish the cultural sequence at the locale Radiocarbon dates were obtained from the three sites in the Crepeelee locale.

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 series contains radiocarbon dates from: Crepeelee, Sarah and Graham sites.

Name Access: Crepeelee locale Radiocarbon Dates

Subject Access: Archaeology  
Crepeelee locale  
Crepeelee locale Radiocarbon Dates



## Flintstone Hill - DiMe-26

<http://archives.brandonu.ca/en/permalink/descriptions12283>

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Part Of: RG 7 Beverley Nicholson fonds  
Description Level: Sub-series  
Series Number: 2.2  
Accession Number: 1-2010  
GMD: multiple media  
Date Range: 1997-2000  
History /  
Biographical:

Flintstone Hill is located on the north bank of the Souris River. It is a deeply stratified lacustrine, fluvial and aeolian soil profile that has been exposed by the river through stream-bank erosion. This section is thought to be the most complete middle to late Holocene exposure on the northeastern plains. While the value of the site is primarily for paleo-environmental research and reconstruction, cultural deposits have been identified at the site. Local collectors have picked up lithic materials as they eroded out of the bank for the past several decades and it was they who had named the site. Mr. Bruce Timms from Lauder first drew the Flintstone Hill site to the attention of Dr. Nicholson of Brandon University.

During the mid 1990's to the early 2000's archaeological testing took place on Flintstone Hill. In 1998, an archaeological field crew dug a series of overlapping trenches down the slope of the profile and produced a schematic drawing. A peat layer at the bottom of this profile, dated from the top at 9,400 RCY and at the bottom to 10,400 RCY, has provided details of marsh plant and insect communities at this time.

Subsequent archaeological investigations at the site recovered several cultural deposits including: a hearth dating to 3250+/-70 R.C.Y. (BETA 109529); a butchered atlas bone 4090+/-70 R.C.Y. (BETA 109990); and bone fragments accompanied by Swan River Chert and Knife River Flint lithic flakes 5350+/-50 (BETA 109530). While no diagnostic tools were recovered, these dates suggest that this occupation, which is contemporary with the Atkinson site, may be a Gowen occupation.

Extensive paleo-environmental research has been conducted at the site. Dr. Running, a geomorphologist from the University of Wisconsin – Eau Claire, participated in the Study of Cultural Adaptations in the Prairie Ecozone (SCAPE) Project and he and his students tested the site for several years. He was joined in this effort by Dr. Havholm, Dr. Boyd, Dr. Wiseman, Dr. Beaudoin, and other SCAPE researchers in the interpretation of the paleo-environment of the Glacial Lake Hind basin. The following article is recommended reading.

Running, Garry L., Karen G. Havholm, Matt Boyd and Dion J. Wiseman  
2002 Holocene Stratigraphy and Geomorphology of Flintstone Hill, Lauder Sandhills, Glacial Lake Hind Basin, Southwestern Manitoba. *Geographie Physique et Quaternaire* 56(2-3):291-303.

Scope and Content:

Sub series has been divided into two sub sub series including: (1) Flintstone Hill 1997 (2) Flintstone Hill 1998-2000

Name Access: Flintstone Hill - DiMe-26  
Subject Access: Archaeology  
North Lauder locale  
Flintstone Hill - DiMe-26