E-SCAPE

Edmonton component of the SCAPE project

Annotated Bibliography of Palaeoenvironmental Studies Within the E-SCAPE Study Area

Alwynne B. Beaudoin
Quaternary Environments
Provincial Museum of Alberta
12845-102nd Avenue
Edmonton, Alberta, T5N 0M6
and
Tim Panas
Anthropology Department
University of Alberta
Edmonton, Alberta, T6G 2E1

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Introduction

Established in March 2000, the SCAPE (Study of Cultural Adaptations in the Canadian Prairie Ecozone) project has endeavored to create a greater understanding of human history in western Canada through the examination of human interaction with the natural environment over the past 9,000 years. While focussing on such fields as archaeology, history and ethnohistory, the project also relies heavily on palaeoenvironmental studies to provide an accurate reconstruction of the world that Aboriginal peoples inhabited in southern Alberta, Saskatchewan, and Manitoba. Work has been undertaken to create this palaeoenvironmental portrait at the E-SCAPE node (Edmonton component of the SCAPE project). One of the main goals is to examine pollen records from dated lake cores within the study area to create ecological reconstructions for time slices at 10,000 yr BP, 9,000 yr BP, 6,000 yr BP, 3,000 yr BP, 1,500 yr BP and 500 yr BP. (For a more complete description of the methodology involved in this work, see Beaudoin and Panas, 2002).

As part of this research, a large bibliography of palaeoenvironmental and lake core references has been amassed from government reports, theses, unpublished sources, journal articles, and books. This brief report describes how these source materials were collected. It also provides an appendix, comprising an annotated listing all of the sources gathered as of May 2004.

Methodology

At the outset, careful consideration was given to the definition of geographic boundaries for the E-SCAPE study area. Because ecozones and environmental influences are not constrained by political borders, the boundaries for the palaeoenvironmental study were necessarily wider than those of the SCAPE study area. However, the E-SCAPE study area does not extend into terrain (and thus vegetation) so radically different from the plains study area that the analyses would be
misleading. The study area is centred on the Canadian Plains. For these reasons, the ESCAPE boundaries were set as follows: North, roughly 54°N; South, roughly 45°N; West, roughly 114°W; and East, roughly 93°W. Therefore, the study area encompasses the southern portions of Alberta, Saskatchewan, and Manitoba, and extends into western Ontario, Montana, North Dakota, South Dakota, and much of Minnesota.

Once defined, a search for sites falling into these boundaries was undertaken. While traditional paper journals and books were consulted for references, on-line data sources were also utilized. Of great assistance in establishing the bibliography was the National Geophysical Data Center Paleoclimatology search page (http://www.ngdc.noaa.gov/paleo/ftp-pollen.html), administered by Eric Grimm (Illinois State Museum). This search engine allows the user to search a voluntary database of fossil pollen data and radiocarbon dates using latitude and longitude ranges as search parameters. Although not cited in the bibliography, we acknowledge it as being a vital resource used in the completion of this bibliography. Other sources were obtained through the first hand knowledge of work done by the authors and others consulted, as well as by reviewing the bibliographies of other lake core studies.

Results

As of May 2004, 281 references have been found for the 257 sites currently listed within the E-SCAPE study boundaries. The majority of these reflect work published since 1990. Two major projects - work at Elk Lake, Clearwater County, Minnesota, and the Geological Survey of Canada’s Palliser Triangle project - account for the bulk of these publications. By decade, the number of references breaks down as follows:
<table>
<thead>
<tr>
<th></th>
<th>Journal article</th>
<th>Thesis</th>
<th>Abstract</th>
<th>Unpublished report/grey literature</th>
<th>On-line source</th>
<th>Chapter in book or monograph</th>
<th>Field guide item</th>
<th>Monograph</th>
<th>Newsletter item</th>
<th>Totals</th>
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<td>1940 - 49</td>
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<td>1960 - 69</td>
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<td>1980 - 89</td>
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<td>1990 - 99</td>
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<td>2000 - present</td>
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<td>Totals</td>
<td>149</td>
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<td>11</td>
<td>17</td>
<td>4</td>
<td>62</td>
<td>9</td>
<td>5</td>
<td>4</td>
<td>281</td>
</tr>
</tbody>
</table>

It should be noted that, with regards to paleoenvironmental fieldwork done under the auspices of the SCAPE project, final publications on current research are not yet completed. As such, the totals given for both SCAPE sites and references in this report are expected to increase.

An on-line compilation of palaeoenvironmental sites in the E-SCAPE study area with associated references, called *The Lake File*, can be found at http://www.scirpus.ca/lakes/lakes.shtml

**Reference**

Beaudoin, A. B., and T. Panas

Appendix
Annotated list of references for palaeoenvironmental sites in the E-SCAPE study area

Aitken, A. E., W. M. Last, and A. K. Burt
Site discussed: Andrews.

Aitken, A., and B. Last
Site discussed: Little Manitou Lake. Includes information on the lake's present water chemistry, and on its palaeolimnology. Notes that the oldest record so far recovered extends to around 2000 yr BP.

Almendinger, J. C.
Sites discussed: Peterson Slough, Big John Pond, Lake Minnie, Mud Lake, Wentzel's Lake.

Sites discussed: Peterson Slough Big John Pond, Lake Minnie, Mud Lake, Wentzel's Lake.

Almendinger, J. E.
Site discussed: Upper Graven Lake.

Almquist-Jacobson, H., J. E. Almendinger, and S. E. Hobbel
Site discussed: Upper Graven Lake.

Anderson, R. Y.
Site discussed: Elk Lake (Clearwater County).

Anderson, R. Y., J. P. Bradbury, W. E. Dean, and M. Stuiver
Site discussed: Elk Lake (Clearwater County).

Anderson, R. Y., W. E. Dean, and J. P. Bradbury
Site discussed: Elk Lake (Clearwater County).

Aravena, R., B. G. Warner, G. M. MacDonald, and K. I. Hanf
Deals with Toboggan Lake (Alberta) and Chesney Bog (Ontario).

Ashworth, A.
1999 Climate Change in North Dakota Since the Last Glaciation. *North Dakota Academy of Science* 53:171-176.
Reviews a number of pollen records from across North Dakota (including Moon Lake). Mentions bison remains found in Spiritwood Lake basin by divers. Based on horn core dimensions, Ashworth suggests that these may be from an extinct form (*Bison bison occidentalis*) and hence may be associated with a mid-Holocene lower lake level. On-line version of paper available at http://www.ndsu.nodak.edu/instruct/ashworth/webpages/g440/ndas.html.

Ashworth, A. C., and A. M. Cvancara
Sites discussed: Bog D Pond, Terhell Pond, Moorhead, Red Lake Peatland, Lake Bronson, Pickerel Lake, Mirror Pool, Seminary Site, Thompson Pond, Martin Pond.
Ashworth, A. C., D. P. Schwert, W. A. Watts, and H. E. Wright Jr
Site discussed: Norwood.

Ashworth, A. C., and D. P. Schwert
Site discussed: Johns Lake. Reports on beetle remains from a peat bed radiocarbon dated around 10,000 yr BP. Assemblage resembles those from the southern boreal forest margin.

Bajc, A. F., D. P. Schwert, B. G. Warner, and N. E. Williams
Sites discussed: R87, RR223, RR49, RR54, F87, E13, E1, E165, ML.

Barnosky, C. W.
Sites discussed: Guardipee Lake, Lost Lake.

Barnosky, C. W., E. C. Grimm, and H. E. Wright Jr
Sites discussed: Pickerel Lake, Medicine Lake, Cottonwood Lake.

Bartlein, P. J., and C. Whitlock
Site discussed: Elk Lake (Clearwater County).

Beaudoin, A. B.
Sites discussed: Fletcher (DjOw-1), Jenner Dugout, Webb Dugout, Kirrimuir Dugout.
1996 An Early Holocene Macrofossil Record from the Fletcher Site (DjOw-1) in Southern Alberta. C.A.G. (Canadian Association of Geographers) Annual Meeting, Saskatoon, Saskatchewan, 11-16 May, Program and Abstracts. Site discussed: Fletcher (DjOw-1).


2000 Stop 4: The Fletcher Site (DjOw-1). In Late Quaternary History and Geoarchaeology of Southeastern Alberta and Southwestern Saskatchewan, edited by A. B. Beaudoin and D. S. Lemmen, pp. 21-23. Field Trip Guidebook No. 3. GeoCanada 2000, Calgary, Alberta, Canada. Site discussed: Fletcher (DjOw-1).


Birks, S. J., and V. H. Remenda


Bjorck, S.

Boyd, M., G. L. Running IV, and K. Havholm

Boyd, M. J.

Boyd, M.
2000 Changing Physical and Ecological Landscapes in Southwestern Manitoba in Relation to Folsom (11,000 - 10,000 BP) and McKean (4,000 - 3,000 BP) Site Distributions. Prairie Forum 25(1):23-43. Site discussed: Flintstone Hill.

Bradbury, J. P.
Sites discussed: Pickerel Lake, Lake Sallie, St Clair Lake, Elk Lake (Clearwater County), Shagawa Lake, Tanager Lake, Lake Minnetonka (Browns Bay), Lake Minnetonka (Carman Bay).

Bradbury, J. P., W. E. Dean, and R. Y. Anderson
Site discussed: Elk Lake (Clearwater County).

Bradbury, J. P., and K. V. Dieterich-Rurup
Site discussed: Elk Lake (Clearwater County).

Bradford, M. E.
Information on current limnological conditions. Includes a bathymetric map.

Information on current limnological conditions. Includes a bathymetric map.

Information on current limnological conditions. Includes a bathymetric map.
Note: location is given incorrectly in the Atlas (113°55', when it should be 112°55').

Brooks, G. R., and A. Grenier
Site discussed: Lake Louise. Part of a project to investigate the history of flooding of the Red River, by looking at sediments in oxbows or channel scars close to river. Site is shallow perennial lake, eutrophic for part of year, Receives floodwaters periodically. Base of record dates to around 1600 yr BP. Zone 1 (lower) dominated by NAP, with some oak and pine pollen. Rather than oak
savannah, this may represent more wooded vegetation in moister habitats near river and lake. Represents vegetation prior to EuroCanadian incursion. Zone 2 (30 cm to surface) shows increase in NAP, especially grass and *Ambrosia* pollen. Probably represents land clearance and disturbance. Dates back to 19th century, though greater precision is not possible. Zone exhibits a greatly increased sedimentation rate. Some sediment may be from agricultural disturbance, some may be from Red River high flows. Report is available only on-line as a PDF file.

Brugam, R. B.
Site discussed: Elk Lake (Clearwater County).

Buckland-Nicks, L. H., and P. A. Mitchell
Information on current limnological conditions. Includes a bathymetric map.

Campbell, C.
Sites discussed: Pine Lake, Klassen Bajada.

Site discussed: Pine Lake.

Site discussed: Klassen Bajada.

Campbell, C., and I. D. Campbell
2002 Reply to Letter to the Editor on "Late Holocene Sedimentology and Climate Change in Southern Alberta, Canada" by White. *Quaternary Research* 58:398-399.
Site discussed: Pine Lake. Notes that original interpretation of Pine Lake record is consistent with regional climate signals.
Campbell, C., I. D. Campbell, C. B. Blyth, and J. H. McAndrews  
Sites discussed: Pine Lake, Pasqua Lake.

Campbell, I. D., and C. Campbell  
Site discussed: Oliva Lake.

Sites discussed: South Pond, Pen 5 Pond, Birch Island Pond. All sites are in Elk Island National Park.

Campbell, I. D., C. Campbell, M. J. Apps, N. W. Rutter, and A. B. G. Bush  
Site discussed: Pine Lake.

Campbell, I. D., W. M. Last, C. Campbell, S. Clare, and J. H. McAndrews  
Site discussed: Pine Lake.

Campbell, I. D., S. C. Zoltai, and D. D. Delorme  
Site discussed: St Laurent Ferry Fen. Site has been re-cored for SCAPE project.

Clark, J. S.  
Site discussed: Elk Lake (Clearwater County).

Site discussed: Kettle Lake. Site is in mixed prairie ecoregion. Looked at several proxies, including detrital quartz, endogenic aragonite, pollen (Poaceae and Ambrosia percentages), and charcoal. Examined a 50 cm core segment from mid-
Holocene (8500 - 7900 calendar yr BP) and noted marked fluctuations in the proxies, reflecting moister and drier intervals. Detected a periodicity of 100 - 130 yrs in this pattern. A second core segment (2950 - 2700 calendar yr BP) did not show the same patterning.

Clark, J. S., E. C. Grimm, J. Lynch, and P. G. Mueller  
Sites discussed: Deming Lake, Brush Lake, Kettle Lake, Lake Cochrane, Dark Lake, Moon Lake, Fish Lake.

Sites discussed: Devils Lake, Elk Lake (Clearwater County). A useful review article that touches on proxy palaeoenvironmental data and considers impacts of future climate change scenarios. Contains a useful and extensive reference list.

Crosby, J. M.  
Information on current limnological conditions. Includes a bathymetric map.

Information on current limnological conditions. Includes a bathymetric map.

Information on current limnological conditions. Includes a bathymetric map.

Information on current limnological conditions. Includes a bathymetric map.

Crosby, J. M., and E. E. Prepas  
Information on current limnological conditions. Includes a bathymetric map.

Cummings, L. S.  
Site discussed: Mill Iron.

**Cushing, E. J.**

Site discussed: Andree Bog.


Site discussed: Siebold.

**Dean, W. E.**

Site discussed: Elk Lake (Clearwater County).


Site discussed: Elk Lake (Clearwater County). Found that aeolian input to Elk Lake (Clearwater County, MN) was greater in the mid-Holocene. Found distinct patterning (regularity) in the geochemical signature of aeolian activity.

**Dean, W. E., E. Gorham, and D. J. Swaine**

Site discussed: Elk Lake (Clearwater County).

**Dean, W. E., and R. O. Megard**

Site discussed: Elk Lake (Clearwater County).

**Dean, W. E., and A. Schwalb**
2000 Holocene environmental and climatic change in the Northern Great Plains as recorded in the geochemistry of sediments in Pickerel Lake, South Dakota. *Quaternary International* 67:5-20.
Site discussed: Pickerel Lake.

Dean, W. E., and M. Stuiver
Site discussed: Elk Lake (Clearwater County).

de Vries, B., and C. D. Bird
Site discussed: Hafichuk.

Dew, J.
Site discussed: Scrimbit.

Digerfeldt, G., J. E. Almendinger, and S. Bjorck
Site discussed: Reidel Lake, Almora Lake, Upper Graven Lake.

Site discussed: Elk Lake (Grant County).

Dove, J. E.
Sites discussed: near Winchell Lake, Unnamed Lake.

Elson, J. A.
Site discussed: Rossendale.

Site discussed: Rossendale.
Engstrom, D. R., and S. R. Nelson  
Site discussed: Devils Lake.

Farnham, R. S., J. H. McAndrews, and H. E. Wright Jr  
Sites discussed: Aitkin, West Aitkin.

Flannigan, M. I. Campbell, M. Wotton, C. Carcailllet, and P. Richard  
Site discussed: Klassen Bajada.

Forbes, J. R., and M. Hickman  
Sites discussed: Lac Ste Anne, Hastings Lake.

Forbis, R. G.  
Site discussed: Fletcher (DjOw-1).

Fries, M., H. E. Wright Jr, and M. Rubin  
Site discussed: North Branch.

Fritz, S. C.  
Site discussed: Devils Lake.

Fritz, S. C., D. R. Engstrom, and B. J. Haskell  
Site discussed: Devils Lake.
Site discussed: Devils Lake.

Fritz, S. C., E. Ito, Z. Yu, K. Laird, and D. R. Engstrom
2000 Hydrological Variation in the Northern Great Plains During the Last Two Millennia. Quaternary Research 53:175-184.
Sites discussed: Moon Lake, Coldwater Lake, Rice Lake.

Fritz, S. C., S. Juggins, R. W. Battarbee, and D. R. Engstrom
Site discussed: Devils Lake.

Griffin, K. O.
Site discussed: Red Lake Peatland.

Grimm, E. C.

Grimm, E. C.
Sites discussed: Kettle Lake, Rice Lake, Spiritwood, Moon Lake, Pickerel Lake, Medicine Lake, Rosebud, Devils Lake.

Guliov, P.
Site discussed: Earl Grey.

Hall, R. I., P. R. Leavitt, R. Quinlan, A. S. Dixit, and J. P. Smol
Site discussed: Pasqua Lake.
Hansen, H. P.
Sites discussed: Johns Lake, Fish Lake.

Sites discussed (informal names): Hansen 12 (Lacombe), Hansen 13 (Kavaugh), Hansen 14 (Edmonton), Hansen 15 (Edmonton), Hansen 16 (Edmonton), Hansen 17 (Cooking Lake), Hansen 18 (Tawatinaw).

Harper, N. S.
Short core, only deals with upper part of sediment column. Provides a modern pollen spectrum.

Harper, N. S., and L. D. Delorme
Short core, only deals with upper part of sediment column. Provides a modern pollen spectrum.

Short core, only deals with upper part of sediment column. Provides a modern pollen spectrum.

Short core, only deals with upper part of sediment column. Provides a modern pollen spectrum. Copy of report not available.

Short core, only deals with upper part of sediment column. Provides a modern pollen spectrum. Paper also refers to "Millar" Lake, apparently a typo.

Short core, only deals with upper part of sediment column. Provides a modern pollen spectrum.


Short core, only deals with upper part of sediment column. Provides a modern pollen spectrum. Exact location of this site is not known.


Short core, only deals with upper part of sediment column. Provides a modern pollen spectrum.


Short core, only deals with upper part of sediment column. Provides a modern pollen spectrum. Map (p. 2) shows location of another coring site, Whitemouth Lake, for which report is not available.


Short core, only deals with upper part of sediment column. Provides a modern pollen spectrum. Report contains a map showing location of several other sampled sites for which no additional data are available.

Haskell, B. J., D. R. Engstrom, and S. C. Fritz

Site discussed: Devils Lake.

Havholm, K. G., N. D. Bergstrom, H. M. Jol, and G. L. Running IV

Site discussed: Flintsone Hill.

Hickman, M.
Site discussed: Cooking Lake. Large but shallow lake, southeast of Edmonton. Describes the diatom record.

Hickman, M., and D. M. Klarer
Site discussed: Lake Isle.

Hickman, M., and C. E. Schweger
Site discussed: Lake Wabamun.

Hickman, M., C. E. Schweger, and T. Habgood
Site discussed: Lake Wabamun.

Holloway, R. G., and V. M. Bryant Jr
Sites discussed: Horseshoe Lake (MN), Kylen Lake, Wolf Creek, Itasca, Stevens Pond, Lake Carlson, Kirchner Marsh.

Holloway, R. G., V. M. Bryant Jr., and S. Valastro
Site discussed: Lake Wabamun. There are problems with the dating control on this record; the radiocarbon dates do not agree with the occurrence of Mazama tephra (known age around 6800 yr BP) in the core.

Site discussed: Deep Lake (MN).

Jacobsen Jr, G. L.
Jacobsen Jr, G. L., and E. C. Grimm  
Site discussed: Billy's Lake.

Jacobson, H. A., and D. R. Engstrom  
Site discussed: Devils Lake.

Janssøn, C. R.  
Site discussed: Stevens Pond.

Site discussed: Myrtle Lake.

Jelgersma, S.  
Site discussed: Madelia.

Keen, K. L., and L. C. K. Shane  
Site discussed: Lake Ann. Examines aeolian sediment input to lake sediments as an indicator of dune activation episodes.

Klassen, R. W.  
Sites discussed: Gaff, Rangeview, Val Marie, Horseman.

Kompelien, M. G., and D. P. Schwert  
Site discussed: Seminary Site. Beetle remains not in good condition, fragmented. Most identifiable remains are from taxa associated with aquatic or marsh habitats. Agrees with site's interpretation by McAndrews (1967).


Site discussed: Moon Lake.

Sites discussed: Moon Lake, Coldwater Lake.

Site discussed: Moon Lake. Diatom-inferred salinity record for Moon Lake, North Dakota, extending to around 2400 yr BP.

Last, W. M.
Site discussed: Ceylon Lake.

Site discussed: Freefight Lake.

Site discussed: Freefight Lake.

Sites discussed: Little Manitou Lake, Freefight Lake, Deadmoose Lake.

Site discussed: Willow Bunch Lake.

Site discussed: Lake Manitoba.

Site discussed: Oro Lake.

Last, W. M., and D. J. Sauchyn
Site discussed: Harris Lake.

Last, W. M., and T. H. Schweyen
1985  Late Holocene History of Waldsea Lake, Saskatchewan, Canada. Quaternary Research 24:219-234.
Site discussed: Waldsea Lake.

Last, W. M., and Y. Shang
Site discussed: Ingebrigt Lake.

Last, W. M., and J. T. Teller
Site discussed: Lake Manitoba.

Last, W. M., J. T. Teller, and R. M. Forester
Site discussed: Lake Manitoba. Examines record from the South Basin of the lake.

Last, W. M., and R. E. Vance
Site discussed: Antelope Lake.

Sites discussed: Chappice Lake, Waldsea Lake, Deadmoose Lake, Little Manitou Lake, Freefight Lake, Lake Manitoba.
Last, W. M., and R. E. Vance
2002 The Holocene History of Oro Lake, One of the Western Canada's Longest
Site discussed: Oro Lake.

Leavitt, P., G. Chen, J. Rusak, S. Wunsam, and B. Cumming
nd Drought and Flood Risk in Western Manitoba. Unpublished manuscript, pp. 27
pp. Available from
http://www.uregina.ca/biology/faculty/leavitt/drought/update00/nora1.pdf Copy
A site (Nora Lake) being investigated as part of a project entitled "Sustainable
Agriculture in Western Canada: Planning for Droughts Using the Past," see
http://www.uregina.ca/drought.

Available from
http://www.uregina.ca/biology/faculty/leavitt/drought/update00/chauvin1.pdf Copy
A site (Chauvin Lake) being investigated as part of a project entitled "Sustainable
Agriculture in Western Canada: Planning for Droughts Using the Past," see
http://www.uregina.ca/drought.

Available from
http://www.uregina.ca/biology/faculty/leavitt/drought/update00/moon1.pdf Copy
A site (Moon Lake) being investigated as part of a project entitled
"Sustainable Agriculture in Western Canada: Planning for Droughts Using the
Past," see http://www.uregina.ca/drought.

Leavitt, P. R., and R. D. Vinebrook
1996 Effects of Human Activity and Recent Climatic Variability on Lakes in the
Palliser Triangle. Canadian Association of Geographers Annual Meeting,
Program and Abstracts. Saskatoon, Saskatchewan, May 11-16 1996.
Sites discussed: Antelope Lake, Kenosee Lake.
Leavitt, P. R., R. D. Vinebrook, R. I. Hall, S. E. Wilson, J. P. Smol, R. E. Vance, and W. M. Last  

Lemmen, D. S., R. E. Vance, S. A. Wolfe, and W. M. Last  
1997 Impacts of Future Climate Change on the Southern Canadian Prairies: A Paleoenvironmental Perspective. Geoscience Canada 24(3):121-133. Sites discussed: Chappice Lake, Elkwater Lake, Harris Lake, Antelope Lake, Clearwater Lake, Oro Lake, Kenosee Lake, Max Lake, Killarney Lake. Brief review of the work carried out at the nine lake sites that were the focus of the Palliser Triangle project.

Lent, R. M., H. E. Gaudette, and W. B. Lyons  

Lent, R. M., W. B. Lyons, W. J. Showers, and K. H. Johannesson  

Lyons, W. B., M. E. Hines, W. M. Last, and R. M. Lent  

MacDonald, G. M.  

MacDonald, G. M., R. P. Beukens, and W. E. Kieser  
Site discussed: Toboggan Lake.

1987 Comparative Radiocarbon Dating of Terrestrial Plant Macrofossils and Aquatic Moss from the "Ice-Free Corridor" of Western Canada. *Geology* 15: 837-840.
Site discussed: Toboggan Lake.

MacDonald, G. M., and T. K. McLeod
Includes discussion of data from the Horseman Site, near the Cypress Hills in Saskatchewan.

MacWilliams, A. C.
Site discussed: Fletcher Site (DjOw-1).

McAndrews, J. H.
Sites distributed as follows. *Pinus*-Hardwood Formation: Martin Pond (long core), Cindy Pond, Bog D Pond (long core), Bog A Pond, Bad Medicine Pond, McCraney Pond, Reichow Pond, Terhell Pond (long core). *Quercus* Savannah Formation: Horse Pond. Prairie Formation: Faith Pond, Thompson Pond (long core). Eleven cores analyzed in total; four long cores that cover entire postglacial, seven short cores that cover only the immediate presettlement and post settlement record. Sites comprise the Itasca transect.

Sites discussed: Horse Pond, Faith Pond, Bad Medicine Lake, Thompson Pond.

Sites discussed: Seminary Site, Mirror Pool. At the Seminary Site, there is an organic deposit, near Fargo, North Dakota. Wood (spruce and larch) from deposit radiocarbon dates around 9900 yr BP. Material accumulated during Moorhead Phase of Glacial Lake Agassiz.


McAndrews, J. H., R. E. Stewart Jr, and R. C. Bright


McIntyre, L. G.

Megard, R. O., J. P. Bradbury, and W. E. Dean
Site discussed: Elk Lake (Clearwater County).

Mitchell, P. A.
Information on current limnological conditions. Includes a bathymetric map.
Information on current limnological conditions. Includes a bathymetric map.

Moir, D. R.
1957 An Occurrence of Buried Coniferous Wood in the Altamount Moraine of North Dakota. Proceedings of the North Dakota Academy of Science XI.
Site discussed: Tappen (Wolt).
Site discussed: Tappen (Wolt).

Morlan, R. E., R. McNeely, S. A. Wolfe, and B. T. Schreiner
Includes information on radiocarbon dates from sites throughout Saskatchewan, including archaeological sites. With respect to The Lake File, it includes information for the following sites: Bushfield West (p. 52), Bushfield East (p. 53), Crown Site (pp. 54-55), Horsemnan (p. 77), Earl Grey (p. 80), Marl Pond (p. 82), Cycloid Lake (p. 82), Lake A (p. 82), Scrimbit (pp. 95-96), Clearwater (pp. 96-97), Andrews (pp. 99-100), Kyle (pp. 100-101), Beechy (p. 101), Martens Slough (p. 103), and La Ronge Bog (p. 117).

Morlan, R. E., R. McNeely, and E. Neilson
Includes information for radiocarbon dates throughout Manitoba. With respect to The Lake File, it includes information for the following sites: Max Lake, Killarney Lake, Rossendale, and sites in Lakes Winnipeg and Manitoba.
Mott, R. J.  
Sites discussed: Clearwater Lake, Lake A (Mott), Cycloid Lake, Lake B (Mott).

Mott, R. J., and E. A. Christiansen  
Site discussed: Martens Slough.

Mott, R. J., and L. E. Jackson Jr.  
1982  *An 18,000 Year Palynological Record from the Southern Alberta Segment of the Classical Wisconsinan "Ice Free Corridor."* *Canadian Journal of Earth Sciences* 19:504-513.  
Site discussed: Chalmers Bog.

Nambudiri, E. M. V., C. T. Shay, and J. T. Teller  
Site discussed: Lake Manitoba.

Nichols, H.  
Sites discussed: Porcupine Mountain, Clearwater Bog.

Nielson, E., W. B. McKillop, and G. G. Conley  
Site discussed: St Boniface.

North, M. A.  
1992  *Preliminary Palynological Record from Elkwater Lake, Cypress Hills, Alberta, Covering the Last 5,000 Years*. *The 2nd Palliser Triangle Global Change Conference, Regina, Saskatchewan, Program with Abstracts*.  
Site discussed: Elkwater Lake. Short abstract, reports on the pollen record from a core that extends back to around 4700 yr BP.

Nuhfer, E. B., R. Y. Anderson, J. P. Bradbury, and W. E. Dean  

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Site discussed: Elk Lake (Clearwater County).

Porter, S. C.  
1993  
Site discussed: Harris Lake.

Porter, S. C., D. J. Sauchyn, and L. D. Delorme  
1999  
*The Ostracode Record from Harris Lake, Southwestern Saskatchewan: 9200 Years of Local Environmental Change.* *Journal of Paleolimnology* 21:35-44.  
Site discussed: Harris Lake.

Potzger, J. E.  
1946  
Sites discussed: Henzell Lake (Bog), Hubbard Lake Bog.

Powers, J. S.  
1994  
Site discussed: Beauvais Lake.

Prepas, E. E.  
1990  
Information on current limnological conditions. Includes a bathymetric map.  
Shallow, highly saline lake.

Preston, R. S., E. Person, and E. S. Deevey  
1955  
*Yale Natural Radiocarbon Measurements II.* *Science* 122:954-960.  
Site discussed: Rossendale. Reports C14 dates from two samples from Rossendale, submitted by J. A. Elson. Both dates (Y-165 and Y166) are terminal Late Pleistocene in age. One date is on wood, second is on clam shell. Shell date adduced as age for delta built into Lake Agassiz.

Quigg, J. M.  
1976  
Site discussed: Fletcher Site (DjOw-1).
Radle, N. J.  
Site discussed: Medicine Lake.

Radle, N., C. M. Keister, and R. W. Battarbee  
1989  Diatom, Pollen, and Geochemical Evidence for the Palaeosalinity of Medicine Lake, S. Dakota, During the Late Wisconsin and Early Holocene. *Journal of Paleolimnology* 2:159-172.  
Site discussed: Medicine Lake.

Rhodes, A.  
Site discussed: Pine Lake.

Richmond, K., and L. G. Goldsborough  
Site discussed: Killarney Lake.

Risberg, J., P. Sandgren, J. T. Teller, and W. M. Last  
Site discussed: Lake Manitoba. Deals with diatom records. Core obtained from south basin of the lake at 50°26′42″N 98°15′43″W. .

Ritchie, J. C.  
Site discussed: Riding Mountain, Riding Mountain (F Lake), Riding Mountain (R Lake), Riding Mountain (E Lake).

Sites discussed: Glenboro (Tiger Hills), Crestwynd, Haichuk, Riding Mountain (E Lake).


Ritchie, J. C., and B. de Vries

Ritchie, J. C., and K. A. Hadden

Ritchie, J. C., and S. P. Harrison
Ritchie, J. C., and S. Lichti-Federovich
Sites discussed: Glenboro (Tiger Hills), Belmont Lake (Tiger Hills), Baldu Lake (Tiger Hills).

Ritchie, J. C., and G. M. MacDonald
Sites discussed: Kylen Lake, Wolf Lake.

Rosendahl, C. O.
Sites discussed: Faribault, New Ulm, Redwood Falls, Mankato, Garden City, St Paul, Backus, Springfield, Boy River, Bloomington, St James, Bird Island, Moorhead, Lake Bronson.

Rusak, J., and P. Leavitt
2001 Historical Trends in the Production and Water Quality of Big Shell Lake, Saskatchewan. Unpublished report on file. Department of Biology, University of Regina, Regina, Saskatchewan, Canada.
Site discussed: Big Shell Lake.

Sanger, J. E., and R. J. Hay
Site discussed: Elk Lake (Clearwater County).

Saros, J. E., S. C. Fritz, and A. J. Smith
2000 Shifts in Mid- to Late-Holocene Anion Composition in Elk Lake (Grant County, Minnesota): Comparison of Diatom and Ostracode Inferences. Quaternary International 67:37-46.
Site discussed: Elk Lake (Grant County).

Sauchyn, D. J.
Site discussed: Harris Lake.
Sauchyn, M. A., and D. J. Sauchyn
Site discussed: Harris Lake.

Schweger, C. E.
Site discussed: Robinson.

Schweger, C., T. Habgood, and M. Hickman
Report that they have examined 16 lakes on a west-east transect through central Alberta: Gregg Lake, Mary Gregg Lake, Fairfax Lake, Goldeye Lake, Lake Wabamun, Smallboy Lake, Muskrat Bog, Lac Ste. Anne, Lake Isle, Hastings Lake, Cooking Lake, Elk Island Park, Joseph Lake, Baptiste Lake, Lofty Lake, Moore Lake. Paper includes a pollen diagram and some preliminary discussion of the Fairfax Lake record, includes total pigments curve for Gregg Lake and Fairfax Lake, a summary pollen diagram, percentage diatom community diagram and preliminary discussion of the Moore Lake record, and a summary stratigraphic diagram for the Lofty Lake record. They note that detrital coal in the sediment at Fairfax Lake makes the basal date (of around 11,250 yr BP) somewhat doubtful.

Schweger, C. E., and M. Hickman
Sites discussed: Buffalo Lake, Muskrat Bog, Hastings Lake, Lac Ste Anne, Moore Lake, Buck Lake.

Shang, Y., and W. M. Last
Site discussed: Ingebrigt Lake.

Shay, C. T.
Site discussed: Itasca.

Shay, C. T., J. Hansen, and J. Gennett
Site discussed: Mondrian Tree Site.

Slater, D. S.
Sites discussed: Bushfield East, Bushfield West, Crown Site.

Smith, A. J., J. J. Donovan, E. Ito, and D. R. Engstrom
Site discussed: Elk Lake (Grant County).

Smith, A. J., J. J. Donovan, E. Ito, D. R. Engstrom, and V. A. Panek
Site discussed: Elk Lake (Grant County).

Sproule, T.
Site discussed: Delta Marsh.

Sprowl, D. R.
Site discussed: Elk Lake (Clearwater County).
Sprowl, D. R., and S. K. Banerjee
Site discussed: Elk Lake (Clearwater County).

Steinhauser, R. A.
Site discussed: Fletcher Site (DjOw-1).

Strong, W. L.
Sites discussed: Twelve Mile Coulee, Chappice Lake, Lloyd's Lake, Eagle Lake, Little Fish Lake, Keiver Lake, Gooseberry Lake, Red Deer Lake, Bellshill Lake. Looked at cores from nine lakes in southern Alberta. Pre- and post-settlement levels distinguished on basis on palynology, including increases in pollen from weedy taxa and from introduced plants (such as Taraxacum officinale, dandelion).

Sites discussed: Twelve Mile Coulee, Chappice Lake, Lloyd's Lake, Eagle Lake, Little Fish Lake, Keiver Lake, Gooseberry Lake, Red Deer Lake, Bellshill Lake. Looked at cores from nine lakes in southern Alberta. Pre- and post-settlement levels identified on basis on palynologky. Examined characteristics of sediments (particle size, clastic content, carbonate content, organic content). Higher organic content in post-settlement sediments. Higher proportion of silt in post-settlement sediments, which Strong considers reflects increased amount of aeolian input (agriculture and clearance). Patterns were not identical across the area, showing influence of local effects, such as land use, around lakes.

Swain, P. C.
Sites discussed: Stone Lake Tamarack Swamp, Pogonia Bog Pond, Beckman Lake.
Teller, J. T.  
1989 Importance of the Rossendale Site in Establishing a Deglacial Chronology Along the Southwest Margin of the Laurentide Ice Sheet. Quaternary Research 32:12-23.  
Site discussed: Rossendale.

Teller, J. T., and W. M. Last  
Site discussed: Ceylon Lake.

Teller, J. T., J. Risberg, G. Matile, and S. Zoltai  
Site discussed: Wampum.

Site discussed: Moon Lake.

Vance, R. E.  
Sites discussed: Smallboy Lake, Elk Island Bog, Elk Island Pond.

Site discussed: Chappice Lake.

Vance, R. E., A. B. Beaudoin, and B. H. Luckman  
Sites discussed: Metiskow Lake, Toboggan Lake, Riding Mountain, Lofty Lake.

Vance, R. E., J. J. Clague, and R. W. Mathewes  
Site discussed: Chappice Lake.

Vance, R. E., D. Emerson, and T. Habgood
Sites discussed: Joseph Lake, Hastings Lake, Smallboy Lake, Elk Island Pond.

Vance, R. E., and W. M. Last
Sites discussed: Killarney Lake, Harris Lake, Kenosee Lake, Chappice Lake, Antelope Lake, Clearwater Lake, Little Fish Lake, Elkwater Lake, Max Lake.

Site discussed: Oro Lake.

Site discussed: Clearwater Lake.

Vance, R. E., W. M. Last, and A. J. Smith
Site discussed: Kenosee Lake.

Vance, R. E., and R. W. Mathewes
Site discussed: Chappice Lake. Modern comparative data obtained from transects across the lake shoreline.

Vance, R. E., R. W. Mathewes, and J. J. Clague
Site discussed: Chappice Lake.
Vance R. E., and S. A. Wolfe
Site discussed: Chappice Lake.

Van Stempvoort, D. R., T. W. D. Edwards, M. S. Evans, and W. M. Last
Deals with Redberry Lake in east-central Saskatchewan.

Vetter, M. A., W. M. Last, and D. J. Sauchyn
2000 Palynology and Lithostratigraphy of Deep Lake, Saskatchewan, Canada. In Eighth International Paleolimnology Symposium, August 20 to 24, Queen's University, Kingston, Ontario.
Site discussed: Deep Lake.

Vickers, J. R.
Site discussed: Fletcher Site (DjOw-1).

Vickers, J. R., and A. B. Beaudoin
Site discussed: Fletcher Site (DjOw-1).

Waddington, J. C. B.
Site discussed: Rutz Lake.

Walde, K.
Site discussed: Buffalo Lake.
Watts, W. A., and R. C. Bright  

White, E. M.  
2002 Comment on "Late Holocene Lake Sedimentology and Climate Change in Southern Alberta, Canada" by Campbell. Quaternary Research 58:397. Site discussed: Pine Lake. Disputes the interpretation of the sedimentological record from Pine Lake.

Whitlock, C., P. J. Bartlein, and W. A. Watts  

Wiche, G. J., R. M. Lent, and W. F. Rannie  

Wiche, G. J., R. M. Lent, W. F. Rannie, and A. V. Vecchia  

Wilson, I. T., and J. E. Potzger  

Wilson, M.  
Wilson, M. C., and A. C. MacWilliams  
Site discussed: Fletcher (DjOw-1). Reports information derived from sediment samples collected around the dugout section, esker, and dune. Notes recovery of teeth from Bison. Considers that wear patterns on four molars suggest fall kill.

Wilson, M. C., J. R. Vickers, A. C. MacWilliams, A. B. Beaudoin, and I. G. Robertson  
Site discussed: Fletcher (DjOw-1).

Wilson, S. E., and J. P. Smol  

Winter, T. C.  
Sites discussed: Kirchner Marsh, Madelia. Presents pollen diagrams from Kirchner Marsh and, for comparison, from Madelia (redrawn from Jelgersma 1962). Kirchner Marsh record shows a marked spruce pollen maximum prior to a level dated at 10,225 yr BP. Marked reduction in oak pollen and increase in grass and forb pollen between about 7200 - 5000 yr BP. Mentions that the Kirchner Marsh pollen record is similar to that from Lake Carlson. Both sites are in the St Croix moraine.

Winter, T. C., and D. O. Rosenberry  
Sites discussed: Devils Lake, Cottonwood Lake.
Wright Jr, H. E.
Sites discussed: Elk Lake (Clearwater County).

Wright Jr, H. E., T. C. Winter, and H. L. Patten
Sites discussed: Kirchner Marsh, Lake Carlson.

Xia, J., D. R. Engstrom, and E. Ito
Sites discussed: Coldwater Lake, Pickerel Lake, Roslyn Lake.

Xia, J., E. Ito, and D. R. Engstrom
Site discussed: Roslyn Lake.

Yansa, C. H.
Site discussed: Andrews.

Site discussed: Andrews.

Sites discussed: Kyle, Beechy, Andrews.

Site discussed: Andrews.
Sites discussed: Andrews, Neufeld, Coldwater Lake (ND), Beechy, Wendel.

Yansa, C. H., and J. F. Basinger
Site discussed: Andrews.

Yu, Z., and E. Ito
Site discussed: Rice Lake.

Zeeb, B. A., and J. P. Smol
Site discussed: Elk Lake (Clearwater County).

Zoltai, S. C.
Site discussed: Wanipigow Lake.