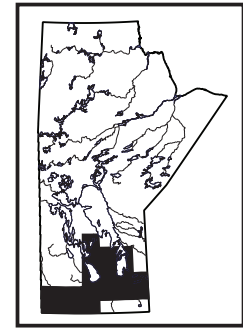


Bamburak, J.D. and Pacey, J.M. 2015: Roadside geology of southern Manitoba; in Report of Activities 2015, Manitoba Mineral Resources, Manitoba Geological Survey, p. 140–142.



Summary

The Geolocalities/Roadside Geology of Manitoba project was initially conceived in 2010 by the Manitoba Geological Survey for presentation at the annual Manitoba Mining and Minerals Convention. At first, the project consisted of compiling a photographic and written repository of southern Manitoba's unique geological features—outcrops, quarries, utilization sites and geoscientific interpretative centres, which could be easily visited by automobile or other means of transportation.

By April 2012, the objectives of the project had evolved to include unscripted video recordings to enhance the description of these features and to provide for public use, a legacy of unique, digitally documented Manitoba geological and geomorphological localities (geolocalities) on the MGS portion of the Manitoba Government Provincial Data Network for internal use by MGS staff; and (selected information) on YouTube™ (Manitoba Virtual GeoTours).

From 2011 to 2014, video recordings of selected geological features were made across southern Manitoba, with more recordings and video releases scheduled for 2016.

Introduction

Southern Manitoba contains many unique geological features that are located only a short distance away from road access. In 2010, the Manitoba Geological Survey (MGS) concluded that there was a need to document features that could be easily visited by automobile or other means of transportation, both by the general public and the geological community.

Previous work

2010–2011

The Geolocalities/Roadside Geology of Manitoba project was first conceived as a repository of still photography and detailed geological descriptions of geoscientific sites from across Manitoba. The material collected in the repository was to come from the MGS, the Geological Survey of Canada (GSC) and other sources, and could also include field notes, guidebooks and reports. The initial methodology was to focus on incorporating selected sites, including outcrops, quarries, utilization sites and geoscientific interpretative centres, which could be easily visited by automobile or other means of transportation. Many of these sites had been visited by J.D. Bamburak

during his employment, for more than 20 years, as a geologist with the MGS. A secondary long-term goal of the project was to include selected localities from other MGS staff speciality areas.

At the public session of the 2010 Manitoba Mining and Minerals Convention (MMMC) in November 2010 (Bamburak, 2010a, b), a presentation was delivered that outlined two, one-day geological field trips to the east and west of Winnipeg. The trip to the east followed the Trans-Canada Highway, almost to the Ontario boundary, and then returned to Winnipeg along PTH 44. The trip to the west paralleled much of the lower Pembina and Assiniboine river valleys in south-central Manitoba; mainly following PTH 3 and PTH 34, and returned along the Trans-Canada Highway (see location maps in Bamburak, 2010b). The purpose of this information was to allow interested users to plan single-day field-trip outings to visit these interesting geological features, without the need to have an extensive background in geology.

2011–2012

A presentation on the *Roadside geology of southwestern Manitoba* was given at the 3rd Manitoba Paleontology Symposium hosted by the Canadian Fossil Discovery Centre in Morden, Manitoba in September 2011. The presentation (Bamburak and Pacey, 2011a) was an enhanced version of the 2010 'west of Winnipeg' presentation made at the 2010 MMC (Bamburak, 2010a, b).

In 2011, to enhance the descriptions of Manitoba's unique geological features, unscripted videos featuring J.D. Bamburak were recorded in the field. These videos were filmed onsite in October 2011. During this trip, 28 geological sites in southwestern Manitoba were visited, including the Canadian Fossil Discovery Centre in Morden, Manitoba and the The Rock Shop and quarry in Souris, Manitoba. Some of these sites were presented as a 'virtual' field trip at the public session of MMC, in November 2011 (Bamburak and Pacey, 2011b), and in March 2012 at the meeting of the Manitoba Mineral Society (Mineral Society of Manitoba, 2012).

2012–2013

By April 2012, the focus of the Geolocalities/Roadside Geology of Manitoba project shifted toward providing a legacy of unique, digitally documented geological and geomorphological localities (geolocalities) on the


internal MGS portion of the Manitoba Government Provincial Data Network for use by MGS staff; and (selected information) on YouTube™ (Manitoba Virtual GeoTours) for public and internal MGS use. The intention of the project was to give interested individuals the ability to view the video presentations on their personal devices (cell phones, tablets, laptops) at each site, enabling them to see and hear a geoscientific description of the features that they were viewing.

In August 2012, 10 Manitoba Virtual GeoTours (recorded in 2011) were released on YouTube™ by the

MGS (Figure GS-13-1). Following that release, in September 2012, a field trip was made to southwestern Manitoba to video record petroleum-related development activities in the vicinity of Virden Manitoba, as well as geoscientific features in Spruce Woods and Pembina Valley provincial parks.

2013–2014

In July and August 2013, 15 new roadside geology sites were recorded in southeastern Manitoba including



Manitoba Virtual GeoTours

by Manitoba Government • 10 videos • 536 views • Last updated on Sep 25, 2013

▶ Play all
◀ Share
+ Save



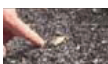



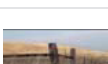



1		1 - Canadian Fossil Discovery Centre - Morden, Manitoba by Manitoba Government	3:26
2		2 - Pavement outcrop of Upper Cretaceous Marco Calcarenite beds by Manitoba Government	3:42
3		3 - Roadside outcrop of Upper Cretaceous Morden Member of the Carleton Place Formation by Manitoba Government	5:35
4		4 - Spencer's ditch (For information purposes only, on private land, please do not attempt to visit) by Manitoba Government	6:59
5		5 - Mount Nebo roadside outcrop of Upper Cretaceous Millwood and Pembina members of the Pierre Shale by Manitoba Government	3:58
6		6 - R.M. Thompson shale aggregate quarry in the Upper Cretaceous Odanah Member of the Pierre Shale by Manitoba Government	4:38
7		7 - Pilot Mound ice-thrust hill of Pleistocene till by Manitoba Government	2:22
8		8 - Boissevain Methodist Church with Upper Cretaceous Boissevain Formation building stone by Manitoba Government	1:52
9		9 - Boissevain sand north quarry within the Upper Cretaceous Boissevain Formation by Manitoba Government	9:12
10		The Rock Shop in Souris, Manitoba by Manitoba Government	0:58

Figure GS-13-1: List of 10 Manitoba Virtual GeoTours from the Manitoba Geological Survey website, as of September 25, 2013 (<http://www.youtube.com/playlist?list=PL56BA2DBA79F307CD>).

the Red River floodway, Vermette gravel pit at Richer, Winnipeg aqueduct, Falcon Creek hiking trail, West Hawk Lake meteorite crater and the Seven Sisters Falls generating station. The Whiteshell Provincial Park, Pinawa Provincial Park and Manitoba Glass Works in Beausejour were also recorded.

The pottery studio of A. Lacovetsky (near Oak Hammock Marsh) was visited in October 2013 to record pottery making and loading of the kiln; a return trip was later made to record the final products coming out of kiln.

2014–2015

In July 2014, a field trip was made to the Seymourville and Pine Falls areas to record several roadside geology sites, including a Precambrian soapstone quarry and an Ordovician silica sand outcrop. In August 2014, sites from Hecla-Grindstone Provincial Park to the Lake Manitoba Narrows in the southern Interlake area, including the Lake St. Martin crypto-explosion crater, near Gypsumville, Manitoba and the Stonewall Quarry Park Heritage Arts Centre were visited to record roadside geology.

Current work

During the spring and summer of 2015, efforts have been directed to prepare previously recorded geological sites (dating back to 2012) for YouTube™ release. Additional work is required to prepare subject keywords for each site and to add visual and written documentation of the sites. In addition, substantial editing of the videos is required to improve the quality of the unscripted recordings. It is anticipated that by the end of fiscal 2015–2016 over 40 new videos will be added to the MGS YouTube™ website. Also, new Precambrian and Paleozoic outcrop descriptions (geolocalities) will be added to the Manitoba Government Provincial Data Network, for internal use by MGS staff.

Future work

In 2016–2017, a four day field trip is planned through the Devonian outcrop belt of west-central Manitoba, with possible additional stops in Cretaceous–Jurassic outcrops and other geoscientific sites in the vicinity of the Porcupine Hills, and Duck and Riding mountains. The roadside geology trip will include, for the first time, video recorded interaction between two MGS geologists, J.D. Bamburak and K. Lapenskie.

Economic considerations

The project addresses a need to preserve the geological knowledge of the staff of the MGS in a format that is easily accessible and that can be downloaded as an educational tool by MGS staff, the public or for use by industry in developing exploration strategies and logistics.

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References

- Bamburak, J.D. 2010a: Roadside geology of Manitoba – a user’s guide to the province’s unique geological features (abstract); Manitoba Innovation, Energy and Mines, Manitoba Geological Survey, Manitoba Mining and Minerals Convention 2010, Winnipeg, Manitoba, November 18–20, 2010, Program, p. 57, URL <<http://www.gov.mb.ca/iem/info/library/bmgintro.html>> [September 2015].
- Bamburak, J.D. 2010b: Roadside geology of Manitoba – a user’s guide to the province’s unique geological features; Manitoba Innovation, Energy and Mines, Manitoba Geological Survey, Manitoba Mining and Minerals Convention 2010, Winnipeg, Manitoba, November 18–20, 2010, presentation, URL <<http://www.gov.mb.ca/iem/geo/mgstracker/images/region6/PRES2010-6.pdf>> [September 2015].
- Bamburak, J.D. and Pacey, M. 2011a: Roadside geology of southwestern Manitoba; Canadian Fossil Discovery Centre, 3rd Manitoba Paleontology Symposium, Morden, Manitoba, September 10–12, 2011, presentation.
- Bamburak, J.D. and Pacey, M. 2011b: Roadside geology of southwestern Manitoba – a virtual guide to many of its unique geological features (abstract); Manitoba Innovation, Energy and Mines, Manitoba Geological Survey, Manitoba Mining and Minerals Convention 2011, Winnipeg, Manitoba, November 17–19, 2011, Program, p. 59, URL <<http://www.gov.mb.ca/iem/info/library/bmgintro.html>> [September 2015].
- Bamburak, J.D. and Pacey, M. 2012: Roadside geology of southwestern Manitoba; Manitoba Mineral Resources, Manitoba Geological Survey, YouTube™ presentation, URL <<http://www.youtube.com/playlist?list=PL56BA2DBA79F307CD>> [September 2015].
- Mineral Society of Manitoba 2012: Virtual collecting in Manitoba; Mineral Society of Manitoba, The Mineral Vein, March, 2012, newsletter p. 1, 4.