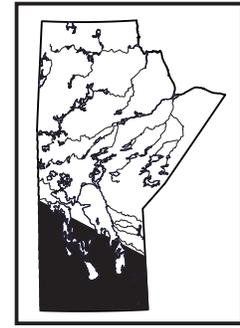


Bamburak, J.D., Pacey, J.M. and Lapenskie, K. 2016: Roadside geology of southern Manitoba: 2016 update; *in* Report of Activities 2016, Manitoba Growth, Enterprise and Trade, Manitoba Geological Survey, p. 212–214.



Summary

The Geolocalities/Roadside Geology of Manitoba project comprises unscripted video recordings, known as ‘GeoTours’ on YouTube™, that enhance the description of southern Manitoba’s unique geological features—outcrops, quarries, utilization sites and geoscientific interpretive centres. Manitoba virtual GeoTours provide a legacy of unique, digitally documented geological and geomorphological localities (‘geolocalities’) in the province for public use.

The video recordings were made at more than 60 geolocalities across southern Manitoba during 7 field trips between 2011 and 2016. To date, 25 GeoTours have been released on YouTube™, and another 6 will be released before the 2016 Manitoba Mining and Minerals Convention. The intention is to release most of the videos by March 2017 so they can be used as an educational tool by Manitoba Geological Survey (MGS) staff and the public, or for use by industry to assist in the development of exploration strategies and logistics.

Introduction

The Roadside Geology of Manitoba project attempts to provide a descriptive legacy of unique geological and geomorphological localities (geolocalities) that are generally road accessible, by providing a collection of virtual ‘GeoTour’ videos on YouTube™. The objectives of the project are to

- provide the general public with a simplified geological framework for Manitoba;
- briefly describe its historical and current mineral extraction, production and application sites; and
- introduce organizations, museums and interpretative centres that actively promote the geological knowledge of Manitoba.

The project comprises two separate portions:

- field trips to video geolocalities consisting of outcrops, landforms, mine sites, and geologically oriented buildings, museums and businesses; and
- follow-up office work to condense and reorganize the footage into meaningful summaries describing the features of each geolocality, with appropriate captions and diagrams to be released on YouTube™.

Roadside geology field trips

From 2011 to 2014, unscripted video recordings of selected geological features were made by Bamburak and

Pacey (2015a) during six field trips across southern Manitoba (Figure GS-22-1):

- 1) **October 2011:** Twenty-eight geolocalities in southwestern Manitoba were visited, including the Canadian Fossil Discovery Centre in Morden and the Souris Rock Shop and quarry.
- 2) **September 2012:** A field trip was taken through southwestern Manitoba to video-record petroleum-related development activities in the vicinity of Virden, as well as geoscientific features in Spruce Woods and Pembina Valley provincial parks. Beginning with this field trip, a wireless microphone was worn by J.D. Bamburak and other speakers, resulting in a notable improvement in sound quality.
- 3) **July and August 2013:** Fifteen geolocalities were recorded in southeastern Manitoba, including the Red River Floodway, Vermette gravel pit at Richer, Winnipeg aqueduct, Falcon Creek hiking trail, West Hawk Lake meteorite crater and Seven Sisters Falls generating station. Whiteshell and Pinawa provincial parks and Manitoba Glass Works in Beausejour were also recorded.
- 4) **October 2013:** The pottery studio of A. Lacovetsky (near Oak Hammock Marsh) was visited to record pottery-making and loading of the kiln; a return trip was later made to record the final products coming out of the kiln.
- 5) **July 2014:** A field trip was taken to the Seymourville–Pine Falls area to record four geolocalities, including a Precambrian soapstone quarry and an Ordovician silica-sand outcrop.
- 6) **August 2014:** Twelve geolocalities were visited between Hecla-Grindstone Provincial Park and the Lake Manitoba Narrows in the southern Interlake area, including the Lake St. Martin cryptoexplosion crater near Gypsumville and the Stonewall Quarry Park Heritage Arts Centre.

In June of 2016, a four-day field trip (Figure GS-22-1, field trip 7) was conducted mostly through Devonian outcrop belt (mainly along Provincial Trunk Highways [PTH] 68, 5 and 20 between PTH 6 on the east and PTH 10 on the west). Video recordings at more than 25 geolocalities were conducted, which included the Oak Point, Narrows West and Mafeking quarries, and the German Creek and Winnipegosis salt flats. The 2016 trip was especially noteworthy in that, for the first time,

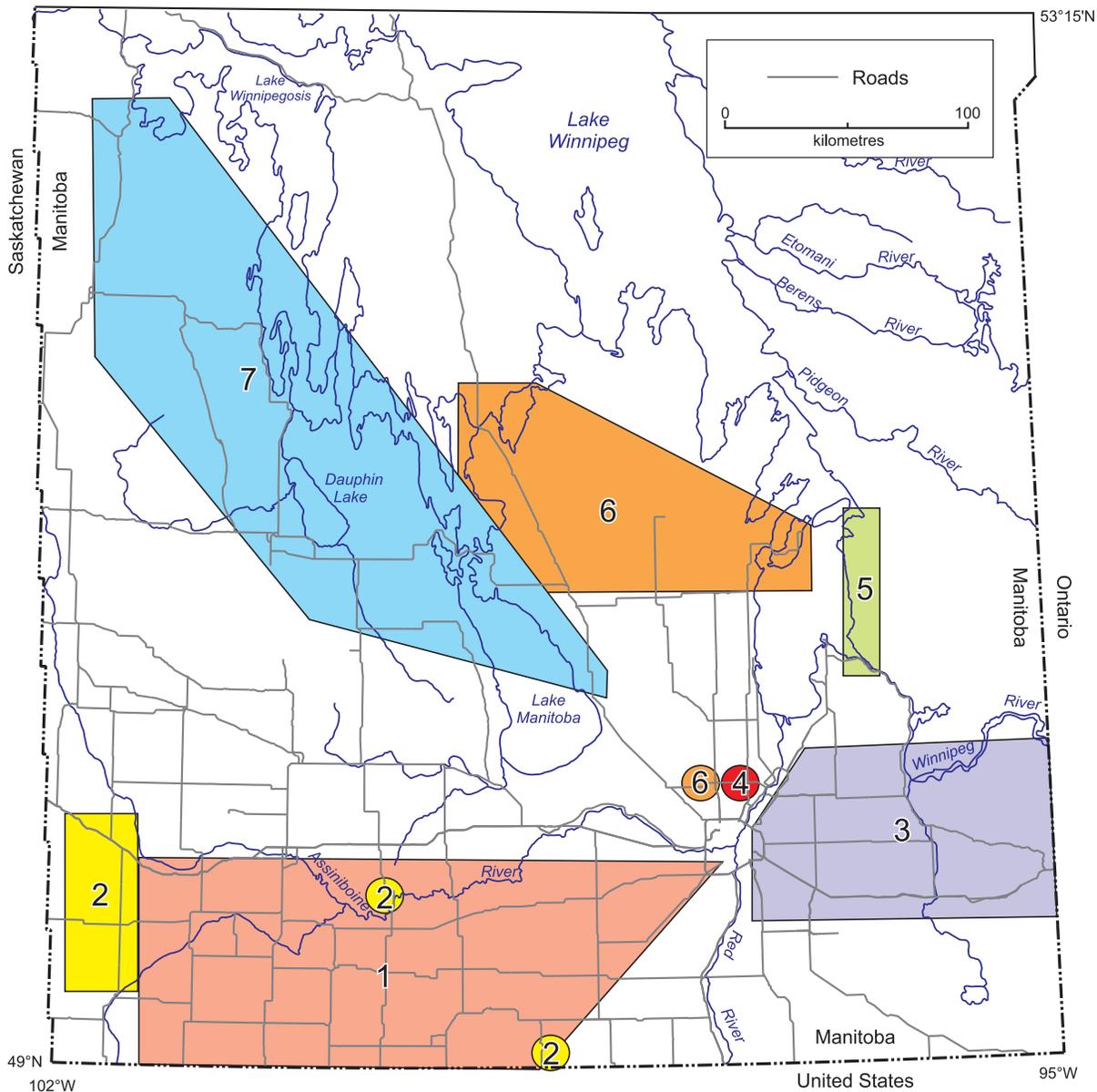


Figure GS-22-1: Location of the seven field trips carried out in southern Manitoba between 2011 and 2016 to record *Roadside Geology of Manitoba* videos. See text for details on each trip.

interactions between two Manitoba Geological Survey MGS geologists, J.D. Bamburak and K. Lapenskie, were recorded in the field. Figure GS-22-2 shows M. Pacey recording K. Lapenskie describing the geology at a 2016 geolocality.

MB GeoTours on YouTube™

Descriptions of 31 virtual Manitoba GeoTours on YouTube™ are contained in MGS Data Repository Item

2016007¹. Ten GeoTours were released on YouTube™ in December 2012 (Bamburak and Pacey, 2012) and an additional 15 were released in November 2015 (Bamburak and Pacey, 2015b). A further 6 GeoTours will be added before the 2016 Manitoba Mining and Minerals Convention.

The 31 GeoTours released to date were recorded between 2011 and 2013 during field trips 1 to 4 (Figure GS-22-1). Geological and geomorphological features

¹ MGS Data Repository Item DRI2016007, containing the data or other information sources used to compile this report, is available online to download free of charge at <http://www2.gov.mb.ca/itm-cat/web/freedownloads.html>, or on request from minesinfo@gov.mb.ca or Mineral Resources Library, Manitoba Growth, Enterprise and Trade, 360-1395 Ellice Avenue, Winnipeg, Manitoba, R3G 3P2, Canada.



Figure GS-22-2: M. Pacey (videographer) and K. Lapenskie at a Cretaceous Swan River Formation outcrop along the east bank of the Roaring River, east of Swan River, Manitoba on June 8, 2016.

shown in the videos include bedrock outcrops, glacial physiography, industrial mineral and aggregate quarries, utilization sites (petroleum wellsites, processing plants, studios, buildings and infrastructure) and geoscientific interpretive sites (museums, businesses and hiking trails). The geological ages covered in the GeoTours range from Archean to Recent, with 6 Precambrian and 18 Phanerozoic geolocalities recorded. The remaining GeoTours are of the utilization sites mentioned above. Total running time for the videos is 4 hours and 7 minutes.

Future work

Future work on the project will concentrate on releasing the majority of the videos recorded from 2011 to 2016. This will require geoscientific input and editing of

the videos to improve the quality of the rough recordings into future GeoTours.

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 and the public, or for use by industry in developing exploration strategies and logistics.

Acknowledgments

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References

- Bamburak, J.D. and Pacey, M. 2012: Manitoba virtual geotours 1 to 10; Manitoba Mineral Resources, Manitoba Geological Survey, compilation of YouTube™ presentations, URL <<http://www.youtube.com/playlist?list=PL56BA2DBA79F307CD>> [September 2015].
- Bamburak, J.D. and Pacey, J.M. 2015a: Roadside geology of southern Manitoba; *in* Report of Activities 2015, Manitoba Mineral Resources, Manitoba Geological Survey, p. 140–142.
- Bamburak, J.D. and Pacey, M. 2015b: Manitoba virtual geotours 1 to 25; Manitoba Mineral Resources, Manitoba Geological Survey, compilation of YouTube™ presentations, URL <<https://www.youtube.com/watch?v=5eOgrIV4AWg&index=1&list=PLbRqVP5PkCtZVtryUPknjuAdivzThnBWl>> [September 2016].