

Chapter 1 : Manitoulin Island - Wikipedia

Back Roads Bill contacted one of the three authors of 'Manitoulin Rocks!' Peter Russell is the Curator for the Earth Sciences Museum at the University of Waterloo. Their aim was to present a "simplified account" of geological history and to present interesting and unusual facts.

Manitoulin is famous for its rare alvar bedrock outcroppings; million yr. Many of these rocks are rich in fossils of ancient plants and animals. In addition, most areas of Manitoulin have a rich coating of glacial till and moraines of rocks and boulders transported hundreds of miles from the Canadian shield, then dropped by the retreating ice over 15, years ago. These glacially deposited rocks include volcanic Obsidian or volcanic glass, granite, basalt, and andesite porphyry , sedimentary, and metamorphic rocks strewn about on the surface. The fossils of the Manitoulin area are renowned world-wide. The fossils have been dated as far back as the Silurian and Ordovician period. These geological periods are part of the Paleozoic Era dating between to million years ago dinosaurs were million years ago, humans first appeared , years ago. Those interested in these rocks and fossils can take rubs pencil impressions onto paper from rock surfaces , or take home up to a pound of rock samples for your new or expanding rock collection. Information on the Sheguiandah dig, which resulted in the discovery of stone implements, can also be obtained. Special events and courses are held during the summer months. Minimum 1 person Maximum 8 persons due to available sleeping accommodations in the cottage where you will be staying. Participants should be capable of walking on uneven ground. Ability to climb sloped area or work in proximity to a rock face or rock cut is an asset. Young rockhound with her shovel and goody bag for found treasures. This package is designed for small groups and families. The package is ideal for parents with children 8 yrs. Children above the age of 3 will generally be able to fully participate in the recommended activities. Their keen eyesight and "close to the ground" stature is ideal for rock and fossil hunting. Children between 1 and 3 will be able to participate on a limited basis. Once children have been shown what to look for and congratulated for their finds, there is no stopping them. Children under 1 years old will usually have to be carried, and slings or backback carriers are not generally suitable for stooped over position often needed by rockhounding. Books on Rocks and fossils will be available for your use during your weekend adventure Safety glasses or monogoggles protection from flying rock chips, available from local Canadian Tire store Sturdy shoes with excellent ankle support open toe, flip flops, sandals, etc. Add-ons for horseback riding, swimming, boating, hiking, nature trails, wildlife observing, canoeing, fishing, cycling, bird watching, and many others.

Chapter 2 : 47 Things to Do in Manitoulin Island: Points of Interest + Activities

Enter City: Deals are my favourite! Let me know when you have new ones. Yes.

A rock hound has found her favorite rock. Note the Size 13 boot toe for scale at the bottom of the picture. The alvars are similar to poured concrete; flat, plate-like limestone dolomite rocks formed from ancient coral seas. Here, we can see a number of the large shells fossilized into the mass formed by millions of microscopic shells. These rocks are similar to poured concrete in some areas. A few of the cracks slowly become a habit for plant life. A sedimentary slate that shows quartz intrusion during a metamorphic conversion. The setting sun is used to add bright yellow colouration to this limestone rock. The white limestone is dark gray from bacteria and lichen growing on the rock surface. The pock marks in this rock are the softer less mineralized fossil shells parts of the rock etched away by the acid rain. The harder, more mineralized parts stay intact contains greater concentrations of magnesium, less calcium. Found on the East beach at BBay. Ancient muds collected sedimentary, igneous, and metamorphic rock fragments and pebbles on an ancient beach or river. Millions of pounds pressure and heat turned the conglomeration into sedimentary rock. An igneous, large grain granite on the bottom brown, black, and cream speckled rock , with a sedimentary shale on top, with a granite intrusion through the shale. Big, brown rock hound on the East beach. The alvars here are broken and cracked from the extreme pressure and gouging from the ancient glacier that passed by. The plants have taken advantage of the dust and dirt that collected into the cracks over the last 8, years. These are some of the heartiest plants in the world; baked dry in the summer, and frozen solid in the winter with nothing but the dust in the air as a food source. Again, pock marks from the acid rain. We can clearly see the outline of large marine creatures and plants that have been fossilized into the rock millions of years ago. Picture shows a close-up scale is approx. Over the years, the grasses have tried to form a habitat between the rocks. Quick examination of the beach yields a treasure trove of geological mysteries and finds.

Chapter 3 : Rocks and Rock Hounds on Manitoulin Island, Northern Ontario Canada

Previous Slide. Next Slide. HOME.

To start on Friday afternoon, three local groups participated in a Battle of the Bands competition: Rural Roots, Deadline and Pop Mach! All three groups brought something unique to the competition. Rural Roots, from the Tehkummah and Assiginack areas, took to the stage first. Although they set an impressive baseline performance, Deadline was undeterred, and determined to prove that the Island is big enough for two bands that definitely rock. Deadline, consisting of Brent Pyette, Scott Riching and Jared Nardi, pumped out finely-tuned grunge, alt and indie rock. They proved three people can rock as hard as six and filled the centre with their heavy tones. Their setlist of audience favourites proved to be a good choice, as they received enthusiastic crowd support during their set. In the end, Pop Mach! After that competition, Railroad Steele came out to play. The five-piece band is based in the Sudbury area and its lead vocalist Glenda Massicotte does double duty on keyboards as well as singing. It was a family affair: Their style offers a mix of blues and roots influences entwined with the rock spirit that drove the whole event. Attendees eagerly supported this local group in their musical efforts. Kitchener-founded Helix jumped on stage to deliver their brand of hard rock and metal music. The audience was very receptive and clearly appreciated the effort the musicians put out on stage. They played some songs off their new, first album they released in April Harlequin took to the stage following Fortunate Losers. After sharing a few words of encouragement for the crews battling wildfires in B. Belanger got them to sing along for parts of the song as the band cut out, though it was clear that after such an intense set, his energy stocks were starting to run low. Stage crews took over as Harlequin said their goodbyes. The sun lowered in the sky, leaving behind only a burnt orange trace of the day that had passed. Soon, smoke machines engaged as shadowy figures stepped onto the stage. A man stepped behind his keyboard and began producing a long, low drone. By an anecdotal count of t-shirts in the audience, this was the band many had come to see. The fans, they swarmed like meteorites to the Flat Rock concert stage. Frontrunner Al Harlow and the band worked the crowd masterfully. During the jam, Mr. Harlow even held a chord and walked the full width of the stage, allowing front-row rockers to strum his strings. Prism lead singer and guitarist Al Harlow provides a virtuoso turn. References to Memphis were substituted with Little Current. However, that song was introduced with a curious line that left some scratching their heads: The wait after they left was tense; so many people were so excited to see their rock heroes, they could not stand to wait all night. Not a moment too soon, however, the band came out and the audience went wild for their hard rock sound. People waved, screamed and held out their hands towards the musicians they adored. Some people at the front held up a banner thanking the band for 20 years of music. But that was not about to stop the rocking from on-stage, nor was it going to stop the fans that immediately pulled out lighters and phone flashlights to create a sea of stars at the stage front. Thornley appreciated the gesture. In the dark, Mr. Event co-organizer Craig Timmermans said over 2, people attended the festival, just above the expected range of attendees. Informed that this was the first year, Mr. Grace and his bandmates expressed surprise. Grace, a sentiment immediately backed up by other members of the band. The years of experience Mr. As word of the new festival spreads and more big names are drawn in, Mr. Timmermans says he hopes the event grows.

Chapter 4 : Alvar™ “ Manitoulin Island | Steer to Northern Ontario

Whether you are a resident, tourist or professional geoscientist. Manitoulin Rocks! has something for everyone who wants to understand the natural beauty of this great island.

Manitoulin Island, on the north shore of Lake Huron, is the home of some of Ontario finest alvars. Illustrated on these associated pages are some alvar types found on Manitoulin Island and some of the flowering plants that occur on those alvars and adjacent lands. My perspective is through the eyes of a geologist. Alvar areas are globally unusual because they occur only in localized areas of the world. Alvars are formed, and are maintained, by local geological history, water conditions, local temperature conditions related to the local micro-climate, and related landscape processes such as fire. Alvars have the following characteristics that are challenging for many plants: Alvar habitat is interesting to many because: There are several detailed, technical and non-technical, descriptions of the geology of Manitoulin Island. Please refer to those works for a more comprehensive discussion of the geology. The foundation to Manitoulin Island are ancient, Precambrian quartzite rocks Lorrain Formation, Huronian Supergroup, for the technically inclined. Geologists estimate that the quartzite formed about 2, billion years ago! The ancient quartzite rocks are quite rare on the island, but are spectacular La Cloche Mountains around Willisville to the north. The quartzite was a very source of material used by early Aboriginal people who occupied the area near what is now called Sheguiandah - the site of an ancient archaeological site see " The Sheguiandah Site " reference. Lorrain quartzite outcrop located to the west of the Sheguiandah archaeological site, Manitoulin Island. April 3, Dr. Patrick Julig holding an historic tool made from Lorrain quartzite at the Sheguiandah archaeological site, Manitoulin Island. Lying on top of the ancient quartzite rocks are limestone deposits, which were deposited during the what geologists call the Ordovician Period , formed about to billion years ago! Shales occur within the Ordovician limestone rocks. These limestone rocks are most common along the north shore of Manitoulin Island. The central and south shore of the island is underlain by dolomite rocks that formed during the Silurian Period about to billion years ago. The Ordovician and Silurian rocks contain ancient coral fossils and ancient reef structures, not dissimilar to those that form today in warm oceans. In the recent history, these limestone rocks have weathered to form karst structures that enhance cracks and are often the foothold for plants. An Ordovician stromatoporoid fossil of the type that builds ancient coral reefs, Verulum Formation, Goat Island. A Silurian coral fossil impregnated with hydrocarbon from the Manitowaning Bioherm, Manitoulin Formation, southwest of Manitowaning, Manitoulin Island. A Silurian coral fossil of the type that builds coral reefs from the Manitowaning Bioherm, Manitoulin Formation, southwest of Manitowaning, Manitoulin Island. Overlying the rocks on Manitoulin Island are sands, gravels, and tills that were deposited by glaciers that covered all of Ontario up to about 25,000 years ago. The stage of glaciation, called the Late Wisconsinian age, is responsible for the shape of the land and the deposition of the land-based materials on the island. Some of these deposits include material that formed on the bottom of lakes during the retreat of the glacier. In general, the composition of the till reflects to composition of the underlying bedrock - not surprising given that the till represents bedrock eroded and ground up by the passing glacier. The temperature, moisture, and wind conditions are related to the local micro-climate. These conditions affect the plant and fauna that grow on the alvars. In a general sense, the cold waters of Lake Huron are an important moderating influence on the temperature of the coastal regional of Manitoulin Island. In the spring, the air temperature remains cool in the spring, but remains warmer as winter sets in, compared to inland regions. This temperature difference influences the location of some plants e. On open alvar pavements, the temperature can get very hot on a summer afternoon as there is virtually nothing to stop the solar incidence. In addition, the light coloured limestone and dolomite rocks can reflect the light back up to affect the underside of leaves and plants. Winter temperatures can be conversely cold and frost can extend deeply into the ground where snow cover is shallow. These temperature conditions limit the types of plants that can grow. In the spring and fall, most alvars on Manitoulin Island are flooded by snow melt and fall rains. However, this moisture soon disappears; rain water quickly runs off the flat rock surface. Close to lakes, where the ground water is close to the surface, plants that

take root in cracks in the rock or in the very shallow soil are sustained by the higher moisture available. The spring and fall flooding, contrasted by the dry hot summer conditions, creates a challenging growing habitat on the alvars. This wind helps keep the temperatures on the land cool and is suitable to low-growing plants. Along the south shore of Manitoulin Island, lake ice during the winter scrapes along the shore, cleaning off exposed soil and plants. Therefore, there is commonly a zone devoid of soil within several meters of the shoreline. Plants that grow in this region of the shore alvar are commonly rooted in cracks where a small amount of soil has accumulated. A summary of the relationship between fire and alvar formation and maintenance is given by Brownell and Riley. Although many questions appear to remain, fire has influenced the creation and sustenance of some alvars. The composition of the bedrock and the glacial deposits directly affects the chemistry of soils and the groundwater that sustain the plants. The composition of the glacial deposits reflects the limy composition of the bedrock, so the "soil" or growing medium is also limy. The limy, basic higher pH conditions of the rocks, soils and associated groundwater on the alvars creates difficult conditions for many plants to grow. Contrast this with the presence of blueberry bushes on the acidic quartzite rocks. Plants like blueberries are calcifuge plants that do not tolerate alkaline limy soils. So, in a simple way, we see a direct influence between geochemistry of the bedrock and soil and the plant community. The relevant geological history began about million years ago when the limestone rocks were deposited in a warm ocean. This was the origin of the limestone and dolomite rocks that underlie much of Manitoulin Island and the rocks that constitute the foundation for the alvar today. That geological history was augmented by the geological processes that marked the end of the last great period of glaciation to affect the area, about 10, years ago. During this post glacial period, conditions were such that the alvar pavements were created and washed clean of soils and land bridges with local climate encouraged the influx of many different plant species see below. The geological history of Manitoulin Island has been a significant factor that influenced the presence and distribution of plants on the island. For example, the limestone and dolomite bedrock is the foundation of the alvars and the presence of calciphile plants. The presence of the rare Precambrian quartzite supports calcifuge plants. The end of the most recent glaciation, at about 10, years ago, is marked by the melting and retreat of the glaciers and profoundly influenced the types of flora of Manitoulin Island: An ancient shoreline preserved in the glacial deposits, north of Sheguiandah, Manitoulin Island. This shoreline was formed when the lake level of Lake Huron as we know it today was much higher when the glaciers started to melt. This is the type of evidence that geologists use to infer that lake levels changed as the glaciers melted. Present on Manitoulin Island are plants from: Lawrence, Deciduous Forest and Maritime floristic regions. From the perspective of a geologist, the geological history of Manitoulin Island, which began about million years ago, had a very important role laying the foundation for the very rare and special habitat call alvar and its associated rare and distinctive plant communities. Different flowering plants may occur in a range of alvar habitats. I have illustrated the plants where I have seen them. This habitat association is not the result of a comprehensive study - just anecdotal observation. There are several classifications of alvar types. A comprehensive classification is provided by Brownell and Riley. There are transitions between different alvar types and an island of one type may occur within another. For simplicity, the following are the alvar classifications used on this website: Rocks, Fossils and Landforms of Manitoulin Island The Alvars of Ontario: Brownell and John L. Morton and Joan M. Venn, 3rd edition, No. Archaeological, geological and paleobotanical studies at a Paleoindian site on Manitoulin Island, Ontario; edited by Patrick J. Sources of Information on Alvars.

Chapter 5 : Andy's northern wildflowers - limestone beach

Manitoulin Rocks! has 2 ratings and 2 reviews. Yi said: Written by professors at U of Waterloo. was on a field trip to Manitoulin Island. Bought this boo.

We can learn much from these anomalies. Manitoulin Island is blessed with incredible natural beauty mainly because of the rocks. Its rocks are oddities. It is the 2nd largest island in the world and is the 31st largest in Canada. Lake Manitou is the largest lake in a freshwater island in the world and Treasure Island in Lake Mindemoya is the largest island in a lake on an island in a lake in the world. These facts alone give the island an atypical introduction. It is about 100 km long and 50 km wide and its intriguing landscape resulted from the action of ancient rivers and glaciers that altered the soft bedrock. These actions are what make the island distinctive. It is an extension of the Bruce Peninsula and the Niagara Escarpment. When compared to the granite of the Canadian Shield found in most of Northern Ontario it is the white, quartz and limestone rock and the alvars that make the island the exception. Five hundred million years ago, Paleozoic limestone were deposited in shallow, tropical seas at the time over top of the bumpy landscape of the Canadian Shield. Slowly the island was buried by these limestone sediments made from millions of sea shell pieces. Alvars- and Geomorphology Alvars, a Swedish word, are globally rare, naturally open habitats with either a thin covering of soil or no soil over a base of carbonate rock, such as limestone and dolostone; it is one reason why Manitoulin is unique. The rock is easily dissolved by water in its many forms through a process of karstification or karst landforms. Most of the features on the island likely formed in the last 15,000 years following the last glaciation period. It is a rare and sensitive ecosystem that is not found outside the Great Lakes basin. Junipers bushes and herbaceous plants such as grasses and sedges are typical of the alvar plant community. This delicate ecosystem manages to eke out a living under extreme and fluctuating conditions of temperature, moisture and poor soils. When you visit you will see a great deal of almost flat-lying, smooth pavement, linked to the movements of the glaciers. Soils are thin or almost non-existent. Because of the softness the pavements cracks form and become increasingly dissected. The sparsely vegetated bedrock barrens that develop are in fact, the alvars. As the fractures widen through dissolution the ground water flows to the water table. The importance of recognizing such passageways in bedrock cannot be overstated, because they bear on locating landfills, sewage treatment and management of livestock manure. It was attributed to farm runoff into an adjacent well that had been known for years to be vulnerable to contamination and to two employees of the Walkerton Public Utilities Commission who could have admitted falsifying reports to the contaminated water sooner. Go for a Visit The question to Mr. The trees are short bonsai-like due to the lack of soil. Highways and merge in Mindemoya, the village. Turn north on to Monument Rd. It is wonderful site to see the fractures and a multitude of sensitive ferns, stunted Junipers and exposed dolostone pavement with no topsoil. The page, comprehensive guide, with coloured photos, is one of the best of its kind as a stop-to-stop field guide of the island, with GPS coordinates and good directions, Pers. Understanding the Walkerton tragedy through visiting the Manitoulin alvars may prove to be more than just interesting. For the maps and GPD files Download.

Chapter 6 : Inaugural music festival rocks Manitoulin to its core

Discover the magic of Manitoulin as a guest at Black Rock Resort, which is located on the shores of South Bay in the heart of Manitoulin, the world's largest fresh.

The 8th Manitoulin Country Fest presented by Not only listening to marvelous Canadian country music, I felt part of a new huge Manitoulin Music Family. The professional focus and attention to detail Craig and KT, their staff and volunteers gave to ensure the four days were seamless. The entertainment buses kept arriving, with as few as five in their group and as many as 30 people. Don Cook, the chef on site, catered to the performers and volunteers. Craig and KT explained how important it is to look after the artist once they get to Manitoulin, which included food prepared by Don, as well as ensuring they had a nice place to stay. While the music flowed, security guards were attentive and polite, all under the attentive eye of manager and training officer Samantha Recollect, constantly walking the large property, checking her 11 security guards. Denis Seguin, a paramedic in Little Current, was part of this, so gently telling me I could not enter the beer tent: If only he had told me I was too young. When multi-award winning Canadian country music legend Patricia Conroy rocked on stage, I loved her. I was pleased to stand in line to meet the accomplished Ms. Two empty seats beckoned: I sunk into one. Ten minutes later, delightful Pierrette Labranche from Sudbury tapped me on the shoulder, recognizing me. You write for The Sudbury Star? We were teenagers with summer jobs. Sit as long as you want. When we talked later, I asked if she will attend post-secondary school or begin her path to the Great White Way. Endaa-aang cottages overlooking the North Channel: The famous Canadian band Doc Walker stayed with us in Chris, the lead singer, asked again for the Endaa-aang cabins when they would come to perform this summer, at AOK, where they always have a bit of holiday. Of course, we were delighted to have them. When the Doc Walker entourage pulled in, checked in to their cottage, and heard music on the beach. They went down to see. On Saturday night, more than 5, people attended, stomping and singing along with all the Doc Walker hits. We three, along with his many family members, friends and the whole crowd cheered when Damian rocked out. He keeps maturing as a powerful and moving performer. He sang the title song, haunting and lovely. During songs, he saluted his Manitowaning musical mama, Marilyn Wohlberg, who does so much work for the community, for wearing her bright pink cowboy boots. Everybody told me how nice it was to be part of a big family, the Country Fest family. The Roadhammers are booked for next year. Find her bestselling novel, Manhattan Manitoulin at Chapters in Sudbury. Find her at BonniKogos aol.

Chapter 7 : Black Rock Resort, Manitoulin Island

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Chapter 8 : Week of Rocks & Fossils on Manitoulin

Find your vacation needs at beautiful Black Rock Resort, located on Manitoulin Island. Book a campsite or cottage at this family friendly resort on South Bay.

Chapter 9 : Manitoulin Rocks! â€“ Manitoulin Expositor

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