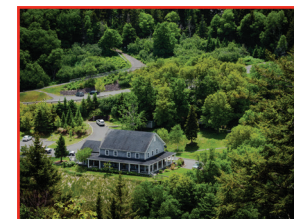
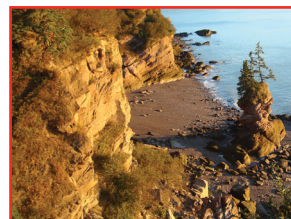


Fundy Trail Parkway

Information Sheet



Location: FUNDY TRAIL PARKWAY

Conservation designations: Stonehammer UNESCO Global Geopark (1st 10km); Fundy UNESCO Biosphere Reserve; Trans Canada Trail

Grid reference: GPS: 45°23'11" N / 66°27'55" W

Address: Fundy Trail Pkwy, Salmon River, NB E5R 0B3

Parking available: Yes, seasonal/fees apply, school programming available

Personnel to be contacted prior to visit: 1-866-386-3987 or info@fundtrailparkway.com

Useful equipment:

- Compass, Map/GPS
- Camera
- Binoculars
- Tide table
- Sketch book
- Towel
- Sun protection
- Wear layers

Relevance national curriculum:

Grade 7 Unit 2 Earth's Crust
Grade 8 Unit 1 Water Systems on Earth
Grade 9 Social Studies 9.2.1
Physical Geography 110: Geological emphasis Unit 5G
Canadian Geography 120: The Physical Basis of Canadian Geography

Rock types and geological processes observed: Sandstone and conglomerate: fluvial, alluvial fan, and dune deposits into a rift valley (aulacogen) associated with the breakup of Pangea and the initial stages of Atlantic Ocean formation; erosion features, coastline. Volcanic and sedimentary rocks from Iapetus Ocean island arc volcanics and sea floor deposits.

Geological structures: Flowerpot rocks, cliffs, ocean, river, waterfalls

Earth processes: eg. Continental drift, physical erosion, folding and thrusting, volcanoes, landslides

Geological periods present: Precambrian to Cambrian (about 600 to 500 Ma) and Permian to Triassic (about 251 to 199 Ma)

Site specific hazards and risks:

- Steep drops, eroding edges
- Mixed use car, bikes and hiking, be aware of surroundings
- Wear footwear suitable for hiking across sandy, wet and rocky areas
- Temperatures can change within the park
- Fear of crossing the suspension bridge
- Danger of being stranded on beaches due to quick changing tide. Ensure familiar with tide schedule and be aware the tide can come in quickly behind you

Mitigation measures:

- Park in a designated area
- Do not collect rocks or fossils
- Do not feed or disturb wildlife habitat
- Do not litter
- Find out whether the tide is going in or out and when the next high or low tide occurs

Did you know: The Fundy Trail gets to the heart of the story of the Opening of the Atlantic Ocean, where the Drifting Apart area got its name. Permian-Triassic rocks record the breakup of Pangea and the opening of Atlantic Ocean. Coastal erosion of the sandstones has produced spectacular sea caves and flowerpot rocks.

Topics to cover before visit: Coastal erosion, ancient erosion: fluvial, alluvial fan, and dune deposits, rock classification, plate tectonics, Atlantic Ocean formation (breakup of Pangea)

Keywords: Coast cliffs, physical erosion, fluvial, alluvial fan, dune deposits, sandstone, conglomerate, Echo Cove formation, Middle Triassic, rift valley, aulacogen, Pangea, flowerpot rock, volcanic, sedimentary, Silver Hill formation, Seelys Beach formation, clay, cobble, grain size, Iapetus Ocean, Atlantic Ocean, island arc volcanoes, seafloor sediments



Flower Pot Rock



Triassic sedimentary rock



Long Beach

Description of Flower Pot Rock:

- Part of the Triassic coastline stretching from St. Martin's to Big Salmon River further along the Fundy Trail, is a testament to the power of the tides and coastal erosion.

Description of Triassic sedimentary rock:

- Triassic sedimentary rock along the Fundy Trail consists of bedding of various size and colour of clasts. This fragment of sandstone shows finer clast and is intermingled with conglomerate.

Description of Long Beach:

- Extends 500m into the Bay of Fundy at low tide so you can truly walk on the ocean floor. The 2.5km beach is sandy and the shoreline is rimmed with an array of rocks of a range of sizes from tiny particles in clay to large cobble stones.

Geological history:

The rock outcrops along the Fundy Trail Parkway expose both Precambrian to Cambrian rocks near the bridge at Big Salmon River and Triassic age rocks along the coast to the west. About 400 million years of Earth history can be seen here! The older rocks tell the story of the ancient Iapetus Ocean which existed before the Atlantic Ocean. The younger Triassic indicate the Atlantic Ocean was created by sea-floor spreading. Molten rock from the Earth's interior rises to the surface to create new crust. As it rises and cools the new crust expands along volcanic mountain chains on the seafloor. Old crust returns to the Earth's interior along deep ocean trenches. Seafloor volcanic mountain chains mark the middle of an expanding ocean basin. The rising molten material creates a 'bubble' in the crust that eventually breaks (to create volcanoes). They eventually join to form a long break in the crust where a new ocean is born. One crack fails to join another. The 'failed rift' is called an aulacogen. The Bay of Fundy is a 'failed rift' created when the Atlantic Ocean was born. Instead of becoming part of a new ocean, it became a 'rift valley' that filled with sediment.

Water action erodes rocks breaking down the layers and the resultant mud and sand are washed out into the Bay of Fundy by the St John River.