



Nova Scotia 2010

**Wednesday 29th September to Saturday 2nd October 2010
Harbourview Holiday Inn, Dartmouth, Nova Scotia**

Joint Meeting of AASP-The Palynological Society, the Geological Association of Canada Paleontology Division (as its annual Canadian Paleontology Conference, CPC), and CAP- Canadian Association of Palynologists

Local Organizing Committee. Rob Fensome, Nelly Koziel, Peta Mudie and Graham Williams, Geological Survey of Canada, Bedford Institute of Oceanography, Dartmouth, Nova Scotia

Society Representatives.

For AASP-TPS — Francine McCarthy, Brock University, St. Catharines, Ontario;
For GACPD — Mike Melchin, St. Francis Xavier University, Antigonish, Nova Scotia; For CAP — Elisabeth Levac, Bishops University, Sherbrooke, Quebec.

Location. The meeting will be held at the Harbourview Holiday Inn in Dartmouth, Nova Scotia, with a modern conference centre overlooking the Halifax skyline across Halifax Harbour. The Inn is minutes away from buses and ferries that take visitors directly to historic downtown and waterfront Halifax, with its many dining venues to suit all tastes, a variety of traditional pubs (some with their own brews), and opportunities for harbour cruises. The hotel is also across the road from a sports complex, including swimming pool and gym; and close to downtown Dartmouth with its own waterfront attractions, restaurants and pubs. Dartmouth is known as the City of Lakes and is the starting point of the historic Shubenacadie Canal, a Nineteenth Century link between the Atlantic and the Bay of Fundy. Short bus rides or drives take the visitor to the seashore and attractive

waterside walks. Autumn foliage should be in its early stages at the time of the meeting, and the weather is usually (but not always) fine and temperate in early fall, so participants should bring layers of clothes to adapt to changing temperatures.

Costs (all in Canadian Dollars). Pre-registration will be \$190, \$90 for students; on site registration will be \$225 and \$110 respectively. Pre-registration deadline is 27 August 2010, field trip deadline to be announced.

The hotel rate at Harbourview Holiday Inn Hotel will be \$149 plus taxes per person for single or double occupancy, with \$15 for additional beds. The organizing committee will do their best to play “matchmaker” for individuals seeking to share rooms. We encourage participants to stay at the Harbourview Holiday Inn --- the more rooms we use, the better will be the price for the meeting rooms.

Door-to-door airport bus transport from Halifax International Airport is about \$21.

Meeting Events. The social program includes an opening night “Meet and Greet” and public lecture. Natalia Rybczynski of the Canadian Museum of Nature has agreed to give the public talk on new Cenozoic mammals from the Arctic, and the Arctic’s role as an evolutionary pump. Natalia is an excellent speaker and has been involved with exciting Arctic finds, including the preserved remains of a beaver dam. A dinner is planned for GAC Paleo Division and business lunches for CAP and AASP, accompanied by traditional Nova Scotian Town Crier, bagpipers and the Order of Good Cheer awards. Dependent on interest and availability, a mid-conference harbour cruise aboard the sternwheeler Harbour Queen will be planned.

Technical Sessions. The planned technical program will accommodate more than 60 talks (with two concurrent sessions), including keynotes. The sessions will include:

1) Paleobotany in all its aspects. Conveners, Graham Williams and John Calder. This session will highlight macro and micropaleobotany (palynology of spores and pollen) and talks on how the two subdisciplines shed new light on ancient plant communities and evolution are especially welcome. The session could include talks on classic localities such as Joggins and other North American Carboniferous localities, as well as those elsewhere. Another focus could be the impact of evolving plant cover on sedimentation. It is hoped to include some contributions relating to the K/T boundary and other work of Doug Nichols (recently deceased).

2) Canadian Paleontology. Conveners, Mike Melchin and Paul Johnston. Some of the world’s most significant paleontological discoveries have been Canadian. Possible topics could include the

Mistaken Point fauna, Burgess Shale, Tiktaalik, Miguasha fish, Joggins vertebrates and invertebrates, and Wasson Bluff.

3) The Amazingly Diverse World of Quaternary Palynology: A Session in Celebration of the Career of Jock McAndrews. Convener Francine McCarthy. The versatile palynological career of Jock McAndrews and his students has covered the spectrum from Holocene freshwater dinocysts and other non-pollen palynomorphs, through the archaeopalynology of mammoth skulls and varved lake sediments to volumes on modern pollen morphology and identification. In celebration, a keynote talk will be given by Roger Byrne from the University of California at Berkeley, Jock's first post-doctoral associate and co-worker at Crawford Lake in 1973. Roger is now studying wildfire records and human impacts of landscapes using varved marine sediments off California and Mexico.

4) New frontiers in paleobiology. Conveners, Rob Fensome and Peta Mudie. One focus of this session will be the integration of molecular and fossil data, and several potential speakers have been approached on this topic — Kazumi Matsuoka will give a keynote talk on DNA and the classification Pleistocene – Recent dinocysts. Another focus could be on the elucidation of the phylogeny of groups such as ferns and angiosperms using both molecular and fossil data.

5) General session. Convener, Elisabeth Levac. Papers addressing industrial uses of paleontology are especially encouraged.

Field Trips. Two field trips are being planned, both on the Saturday 2nd October. At the moment, participant costs are about \$100 Canadian for each trip, inclusive of lunches and museum entrance fees, based on a minimum of 20 and a maximum of 29 people per trip.

Field Trip 1 --- Bay of Fundy: Parrsboro Shore and Joggins Fossil Cliffs

We will head to the shores of the Bay of Fundy, major stops being in the Five Islands-Parrsboro area and Joggins, the latter designated a UNESCO World Heritage site in 2008 for its spectacular late Carboniferous (Pennsylvanian) succession exposed in the famous "Fossil Cliffs". The trip's coordinators will be Rob Fensome and Graham Williams, with various experts "chipping in" along the way. We will leave the hotel at 8.00 am and head to the north shore of the Minas Basin, where we will explore either the Mesozoic rocks at Five Islands or the mid Carboniferous section at East Bay, Parrsboro, the choice depending on tide constraints. The first underwater turbines for tidal power generation in North America are currently being installed in the Bay of Fundy near Parrsboro. The site has been chosen because offshore is the Minas Channel, through which more water flows during a tide change than the water flowing from all the world's

estuaries during equivalent time. We will eat lunch at the Fundy Geological Museum, which highlights Canada's oldest-known dinosaurs.

In the afternoon, on the way to Joggins, we will stop at the Cobequid Fault, Nova Scotia's ancient answer to the San Andreas Fault (though no longer active). Once at Joggins, we guarantee low tide and the possibility to explore both the exciting new Joggins Fossil Centre and the cliffs. This part of the trip will be coordinated by Melissa Grey, Science and Education Coordinator at the Joggins Fossil Centre. Joggins was the haunt of Victorian geological superstars William Dawson, Charles Lyell, Abraham Gesner (discoverer of kerosene) and William Logan (first director of the GSC). The site was also mentioned in the Darwin's Origin of Species, and is associated with coal mining and Canadian confederation. All of this historical interest is in addition to the fact that it is home to the world's earliest known reptiles and land snails, and spectacular fossil tree trunks (if erosion cooperates). There is also a till section for Quaternary enthusiasts.

We will take "tea" at the Joggins Fossil Centre and thence return to Dartmouth via the Trans-Canada Highway and Veterans Memorial Highway. This will be a long day trip and participants should not plan on taking an evening flight.

Field Trip 2 --- Nova Scotia's Atlantic Shore: Quaternary and Environmental Geology

This field trip will explore Nova Scotia's Atlantic Shore, focusing on Quaternary and environmental geology. The coordinator will be Peta Mudie, and leaders at particular sites will include geologists Ralph Stea, Bob Taylor, Mike Parsons, Peter Giles and archaeologist Roger Lewis. This trip will also leave the hotel at 8 am. First stop will be West Lawrencetown, where we will see a wave-eroded section of a drumlin with older Hartlen and younger Lawrencetown tills, and Cambrian bedrock outcrops with glaciated grooves and striations. The drive will then take us along the coastline of embayments to the Chezzetcook drumlin field and salt marsh, via Minesville abandoned gold mine, with its ongoing history of arsenic and mercury pollution from tailings. At Chezzetcook, we will view vegetation zonation and explore the history of the salt marsh.

The trip will then continue to Peggy's Cove, southwest of Halifax, where (weather permitting) we will eat lunch near Peggy's Cove lighthouse perched on glacier-scoured Devonian granite, part of the South Mountain Batholith, the largest granitic body in the Appalachian Orogen. The unique landscape of Peggy's Cove and surrounding areas was produced by the Wisconsinan glaciation. On retreat of the ice, rising sea level filled the scoured areas, forming an endless array of coves and inlets now hosting an endemic ice-age relic flora and ponds filled with bog moss, sundew and pitcher plants.

On the return trip, we will first examine exposures of Mississippian Windsor Formation shell-bearing carbonates near Glen Margaret, then explore the Quaternary geology and archaeology of eastern St. Margaret's Bay, and visit one of the last remaining Mi'kmaq shell middens on Indian Point where the coast is rapidly changing from erosion and urban development. Roger Lewis, of the Nova Scotia Museum of Natural History, will talk about the history of Mi'kmaq archaeological sites in the region before our return to Dartmouth.

Don't miss all the stimulating and fun events at Nova Scotia 2010 — registration will be available in spring 2010. Contact Rob Fensome (rfensome@nrcan.gc.ca), Peta Mudie (pmudie@nrcan.gc.ca) or Graham Williams (graham.williams@nrcan.gc.ca) for more details and updates.