Mount Desert Island glacial deposits, landforms, and place in the regional deglaciation sequence

Led By: Duane Braun, Env, Geog, and Geol Sciences, Emeritus, Bloomsburg University of PA & Maine Geological Survey mapping volunteer.
   P. Thompson Davis, Natural and Applied Sciences, Bentley University
   Joe Kelley, Geological Sciences, University of Maine, Orono
   Jeremy D. Shakun, Earth and Environmental Sciences, Boston College

Field Trip Overview
The trip will focus on several themes:
1. How Lidar imagery permitted very detailed delineation of glacial features on Mount Desert Island (MDI).
2. The age of glacial recession from MDI from recent cosmogenic surface age dating.
3. The spacing of the small recessional moraines (annual “push moraines” of the marine based glacier) and their relationship to the much larger lake damming moraines in the glacial troughs between the mountains.
4. Marine strandlines, the multitude of small-scale ones at some sites and far fewer but much-larger ones at other sites; why the difference? Also, no present climate analog of climate at MDI at 16 Ka.
5. Post glacial large-scale rock block slides of the fractured granite.
6. MDI as a prime example of a deeply eroded bimodal magma chamber under a 15 km wide caldera of a “super-volcano” at the surface 420 million years ago.

Tentative Stops and Topics of Discussion:
Saturday, June 2, 2018, 7:45 am to 5:00 - Travel by bus in a 30-mile loop around MDI.
Stop 1 – Overview of glacial and bedrock geology from the top of Cadillac Mountain, weather permitting. Coffee and snacks at end of discussion, weather permitting.
Stop 2 – Sand Beach glaciomarine and Holocene marine beach sediments. Ongoing slumping at the site and future longevity of Park infrastructure. Alternate coffee and snack site.
Stop 3 – Multiple small-scale strandlines up to 220 feet above present sea level. Do individual strandlines record individual major storm events, stormy years, stormy decades, or what? Lunch at Otter Point World War 1 Fabbri Radio station site (site of first radio talk to Europe).
Stop 4 – Shatter zone at margin of Otter Point magma chamber; and local topography-controlled striations. View of rock block slide on east flank of Cadillac Mountain.
Stop 5 – The Tarn (misnamed), a proglacial lake site with ice-contact glaciofluvial deposit on its north side; an excellent glacial polish, striation, and crescentic fracture site; and post glacial talus slopes.

Sunday, June 3, 2018, 7:30 to 1:00 - Travel by bus in a 20-mile loop around MDI.
Stop 1 – Small-scale annual “Push Moraines” at Somesville harbor.
Stop 2 – Jordon Pond frontal and lateral moraines, cosmogenic surface age dating, and longevity of the pause in glacial recession that built the moraine complex.

Note: This is a non-digging trip almost entirely within Acadia National Park. So don’t even bring your digging tools! I have had to get special permission even to visit some sites.

Braun contact information
If you have any questions about the announcement, please contact:
   Email: DBraun9@roadrunner.com, Phone (207) 244-0295

REGISTRATION DEADLINE: May 4, 2018
REFERENCES
Available on the Maine Geologic Survey's website is:
  Duane Braun, 2016, Surficial Geology map of MDI at 1:30,000 scale in PDF format.

A generalized overview of MDI bedrock and glacial geology intended for the educated Park visitor is available:
  Duane and Ruth Braun, 2016, Guide to the Geology of Mount Desert Island and Acadia National Park,

It is one of the options to pay for on the registration form below.

Travel advisory about Rte. 3 reconstruction during 2018
Please follow posted detour routes upon crossing the bridge to enter the island. The main road to Bar Harbor,
Rte. 3, is being torn up and completely reconstructed north and at the conference hotel site. Expect
considerable traffic delays (10’s of minutes) upon entering the island and approaching the hotel.

Conference Headquarters and Lodging
  Atlantic Oceanside Hotel and Event Center
  119 Eden Street (Rte. 3), Bar Harbor, Maine, 04609
  Reservations: 800-336-2463, Hotel Telephone: 207-288-5801
  Email: reservations@barharbormainehotel.com
  Block of 30 rooms at reduced conference rate of $159 + tax per night guaranteed until April 6, 2018.
  Make your own registration noting you are part of the Friends of the Pleistocene geology group.

Other hotel options
There are a number of hotels in Bar Harbor, several within walking distance of the Atlantic Oceanside Hotel. It
may be difficult to get a better rate than our group rate at the Atlantic Oceanside. Also the Atlantic Oceanside
is literally at the ocean side with excellent views to the east over Frenchman Bay and the Gouldsboro Hills.

Campgrounds
There are several campgrounds on the island, particularly the Blackwoods campground in Acadia National
Park. Be aware it will take 30 to 60 minutes to reach the conference site from any of the campgrounds. So
one should plan to leave a campground 7:00 AM on Saturday and Sunday to make the bus.

OVERALL CONFERENCE SCHEDULE:
Friday, June 1, 2018
  1:00 – 4:00 PM Pre-meeting trips:
    Maine Granite Industry Museum – learn about granite quarrying and then help split a block.
    A walk up Otter Creek to view outcrops of glacial and glaciomarine sediments.
  6:00 - 9:00 PM Registration, Hulls Cove Room, Atlantic Oceanside Event Center.
  7:00 - 9:00 PM Reception, with snacks and cash bar in Hulls Cove Room.
  7:30 - 8:30 PM Overview of field trip and announcements in Hulls Cove Room.
Saturday, June 2, 2018
  6:00 AM Continental breakfast begins at the hotel.
  6:30 AM - 7:15 AM Registration: In parking lot of the Atlantic Hotel and Event Center.
  7:45 AM - 5:00 PM Field Trip: Bus leaves from the parking lot.
  6:00 PM - 10:00 PM FOP Banquet/Business Meeting at Jack Russell Steakhouse & Brewery across the street
                     from the Atlantic Oceanside Event Center. Cash Bar starts at 6:00. Meal starts at 7:00.
  7:45 PM Stephen Norton presentation on “Sargent Mountain Pond, from its beginning to the present”. Sargent
       Pond is near the top of Sargent Mountain and was probably the first water body to start
       collecting sediment in Maine during glacial recession.
  8:30 PM Business meeting starts
Sunday, June 3, 2018
  6:00 AM Continental breakfast begins at hotel.
  7:45 AM to 1:00 PM Field Trip by Bus, returning to hotel. Park does not allow following cars on such a trip.
81st Annual Reunion of the Northeastern Friends of the Pleistocene on MDI

PRE-REGISTRATION FORM (DEADLINE Friday, MAY 4, 2018)

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<td>Emergency Contact</td>
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If you cannot attend this year’s trip, but wish to have your name retained on the FOP mailing list for future meetings, please send an email to: Woody Thompson at: iceagemaine@myfairpoint.net.

REGISTRATION
In right column below, note costs of items you choosing and total them at the bottom of that column. If you choose a lunch, put a check mark opposite one of the three sandwich choices.

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<th>Required Registration - includes guidebook, snacks at the reception, coffee &amp; snack breaks, and bus transportation on Saturday &amp; Sunday. There will be an abbreviated paper guidebook to use on the field trip and a more extensive digital (PDF) version of the guidebook sent prior to the field trip.</th>
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Options: For menu or special dietary considerations, email Braun.

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<tr>
<th>Friday pre-meeting trip to Granite Museum – no attendee limit - check box to right</th>
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<td>Friday pre-meeting trip to Otter Creek – limit of 18 who sign up first – check box to right</td>
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<td>Saturday Box Lunch (sandwich, chips, fruit, cookie, water)</td>
<td>$15.00</td>
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<td>Veggie – check box to right</td>
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<td>Saturday night banquet - includes buffet, dessert, coffee, tax and gratuity</td>
<td>$40.00</td>
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<td>Extra paper abbreviated guidebook</td>
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<td>200 page Guide to the Geology of Mount Desert Island and Acadia National Park,</td>
<td>$20.00</td>
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Total

REGISTRATIONS MUST BE ACCOMPANIED BY PREPAYMENT

Make check or money order for total fee payable to: DUANE BRAUN - NEFOP 2018
Receipt will be in registration materials upon arrival.

MAIL TO: DUANE BRAUN – NEFOP 2018
240 Beech Hill Road
Mount Desert, ME 04660

DEADLINE FOR RECEIPT OF REGISTRATION IS MAY 4, 2018.