

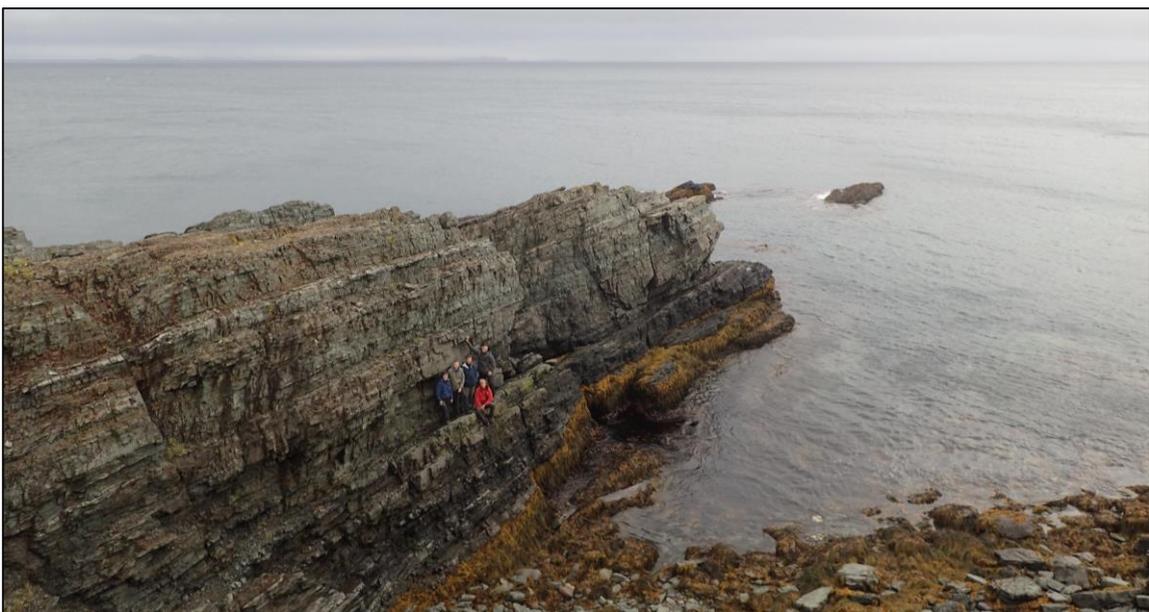


(ISECT NL17)

15 - 29th June 2017, Newfoundland, Canada

Organized under the support of:
The International Subcommittee on Ediacaran Stratigraphy (ISES)
The International Subcommittee on Cambrian Stratigraphy (ISCS)

FIRST CIRCULAR



The Ediacaran-Cambrian GSSP, Fortune Head, Newfoundland. D. Grazhdankin and students for scale.

Goals of the meeting

The International Symposium on the Ediacaran-Cambrian Transition (ISECT NL17) will provide a forum for the discussion of the geological, geochemical and palaeontological findings of relevance to Ediacaran and Cambrian stratigraphy, and offers an opportunity for Ediacaran and Cambrian researchers to visit several classic field localities in Newfoundland, eastern Canada. Topics for discussion will include the subdivision of the Ediacaran System (including the suitability of the Gaskiers glaciation event as a Stage boundary), and the utility of the criteria by which the Ediacaran-Cambrian boundary is globally recognized. The meeting serves as the 2017 Field Meeting of the Cambrian Subcommission, and time will be available for Subcommission technical and business meetings. In addition to Ediacaran-Cambrian boundary GSSP sections, meeting participants will have the opportunity to visit the lowest Cambrian (Fortunian Stage), as well as sections through Cambrian Stages 2-6.

ISECT NL17 will also celebrate the 50th anniversary of the discovery of Ediacara-type macrofossils at Mistaken Point (SE Newfoundland) by Shiva Balak Misra and Paul Thompson. Global research into the Ediacaran macrobiota will therefore figure prominently in the dedicated meeting symposia. An associated field trip will provide an opportunity for delegates to visit the remarkable Mistaken Point site, perhaps the most spectacular of all Ediacaran fossil localities, and to see first hand some of the recent discoveries from this locality. Mistaken Point Ecological Reserve has been nominated as a candidate UNESCO World Heritage Site, and if all goes well, we hope also to be able to celebrate its recognition as a World Heritage Site at ISECT NL17.

Finally, the conference will permit members of both the Ediacaran and Cambrian geological communities to discuss the origins and diversification of metazoan life, and the insights that sedimentological, palaeontological, geochemical and palaeomagnetic data can provide into the co-evolution of life and Earth.

Organizing and Scientific Committee

Dr Alex Liu (Chair)	University of Bristol, UK
Professor Guy Narbonne	Queens University, Canada
Professor Duncan McIlroy	Memorial University of Newfoundland, Canada
Dr Marc Laflamme	University of Toronto Mississauga, Canada
Professor Ed Landing	New York State Museum
Mr Jack Matthews	University of Oxford, UK
Dr Latha Menon	University of Oxford, UK

Additional field trip leaders

Professor Paul Myrow	Colorado College
Dr Luis Buatois	University of Saskatchewan
Dr Gabriela Mángano	University of Saskatchewan
Professor Gabriela Bagnoli	Università di Pisa
Professor Svend Stouge	University of Copenhagen

Keynote speaker (St. John's, 21st June 2017)

Professor Andrew H. Knoll	Harvard University
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Host city

St. John's, the capital city of Newfoundland and Labrador, is a vibrant, picturesque city located on the spectacular eastern coast of Newfoundland, Canada. The Organizing Committee would like to invite all researchers with an interest in the stratigraphy, sedimentology, geochemistry and palaeobiology of the Ediacaran and Cambrian Systems to participate in the ISECT NL17 meeting in St. John's in 2017.

A full two-day conference programme will cover all aspects of Ediacaran and Cambrian geobiology, and will be sandwiched between field excursions to sites including: the classic Ediacaran localities of the Mistaken Point Ecological Reserve; recently discovered Ediacaran localities at Spaniard's Bay and the Catalina Dome; the Ediacaran-Cambrian boundary stratotype sections around the Burin Peninsula; and the Cambrian and Ordovician sections of the western coast of Newfoundland.

The meeting will be conducted under the auspices of the Cambrian and Ediacaran International Subcommissions, and will have a particular focus on stratigraphic discussions relating to subdivision of the Ediacaran System, and the criteria for the global recognition of the Ediacaran-Cambrian boundary.

Venue

Topical sessions will be held at the Memorial University of Newfoundland, St. John's.

Travel and accommodation

St. John's International Airport (YYT) is well connected by air to other North American cities, and receives daily direct flights from Ireland (Dublin), the UK (London Heathrow or London Gatwick), and Norway, via Air Canada and Westjet. International routes via Halifax, Ottawa, Calgary, Montreal, Toronto and Newark are also available. Delegates wishing to attend the *Cambrian-Ordovician GSSP sections of Western Newfoundland* field excursion should note that this pre-meeting trip will begin in Deer Lake, which is connected by air to Toronto, Halifax and St. John's by the carriers Air Canada, Westjet and Provincial.

There are no train services in Newfoundland. All transport for field trips will be provided by the conference organisers. Transport within St. John's is best achieved via taxi, although many of the key conference venues are within walking distance of each other.

Delegates will need to make their own accommodation arrangements for the conference period. A list of recommended accommodation to suit all budgets will be made available in a subsequent circular.

Registration and abstract submission

Registration and abstract submission will open in October 2016. Please fill out the attached expression of interest form and email it to Dr Alex Liu at alex.liu@bristol.ac.uk, with the subject heading "NL2017 - your name" prior to this date if you intend to attend the meeting, since this will assist the organisers in their preparations.

All participants will be invited to submit abstract(s) for posters and oral presentations from 1st October 2016 onwards. Authors are responsible for the scientific content of their abstracts.

The deadline for registration and abstract submission will be 31st March, 2017.

Registration fee

Conference registration will be about **CAD \$300** per person. Final rates will be provided in a subsequent circular, and are anticipated, but cannot be guaranteed, to be less than the preliminary estimates given here.

The conference fee will entitle delegates to attendance at the welcome reception, conference sessions, keynote lecture, morning and afternoon refreshments, conference dinner, abstract submission, and related conference information.

Student and early bird rates will be offered. We anticipate being able to offer a limited number of financial assistance packages to student attendees (a partial waiver of the registration fee), dependent upon availability of funds. If you are interested in applying for one of these, please complete the form below and return it to Alex Liu <alex.liu@bristol.ac.uk>.

Accompanying delegates will be offered a reduced attendance rate, entitling them to attend the welcome reception, optional morning and afternoon refreshments at the conference venue, and the conference dinner.

Provisional programme

An Icebreaker Reception will be held on the evening of Tuesday 20th June 2017.

The Symposium will take place on **21st and 22nd June 2017**.

Themed symposia will focus on Neoproterozoic (particularly Ediacaran) and Cambrian palaeontology, stratigraphy and geochemistry. Further specific themes will be announced based on responses to this First Circular.

A keynote address by **Professor Andrew H. Knoll** (Harvard University) will be on the theme of the Ediacaran-Cambrian evolution of the Earth and life.

Presentations on current research will be in the form of 15-20 minute talks, and poster displays. Talks and posters are to be presented in English.

Field excursions

We plan to run four field trips in total, two prior to the symposium, and two after. These will visit classic Ediacaran and Cambrian localities of global geological significance, and will provide ample opportunities to discuss important sections, and to observe recently described findings and discoveries.

Potential participants are advised that all fieldtrips will involve a degree of physical exertion. Some sites can only be accessed by hiking distances of 2-3 km. IF YOU ARE INTERESTED IN ATTENDING ANY OF THESE TRIPS, PLEASE INDICATE YOUR INTEREST VIA THE ATTACHED 'EXPRESSION OF INTEREST' FORM AS SOON AS POSSIBLE.

Completing a form does not guarantee a place on a particular trip, but it will enable the organisers to cater appropriately for the demand for each excursion.



Cambrian pyritised *Aldanella* (left) and a modern relative (right) at Little Danzig Cove (Trip 4).

Trip 1: The Ediacaran Geology and Palaeontology of the Avalon Peninsula

This *four-day pre-conference field excursion* will depart from St. John's, and is proposed for **17-20th June 2017**. It will be led by Dr Alex Liu, Prof. Guy Narbonne, Jack Matthews and Dr Marc Laflamme.

Cost: Estimated at about **CAD \$700**. No payments are required at this time. This fee will entitle participants to return transport from St. John's, field guide, all accommodation, and all meals during the excursion period. Accommodation in St. John's for the night of Tuesday 20th June is not included.

The itinerary is yet to be finalised, but visits to the following localities are anticipated:

*Harbour Main and St. Mary's to view the ~582 Ma Gaskiers Formation and associated glacial and carbonate deposits.

*Mistaken Point Ecological Reserve, featuring sites including Pigeon Cove (hosting the oldest currently known Ediacara-type biota); Mistaken Point (the classic 'D' and 'E' Surfaces, trace fossil horizon, and Watern Cove); Shingle Head (the youngest surface in Newfoundland with non-discoidal Ediacara-type macrofossils); and newly discovered localities.

*Coastal localities at Ferryland with trace fossils and abundant discoidal fossils.

*Late Ediacaran fluvial deposits of the Signal Hill Group at either Cape Spear or Signal Hill.



Ediacaran macrofossils on the 'E' Surface, Mistaken Point Ecological Reserve.

Trip 2: The Cambrian-Ordovician GSSP sections of Western Newfoundland

This *six-day pre-conference field excursion* will run from **15-20th June 2017**, and will be led by Prof. Gabriella Bagnoli, Prof. Svend Stouge, and Prof. Duncan McIlroy. Participants are advised that the trip will depart from Deer Lake (n.b. NOT from St. John's).

Cost: Estimated at about **CAD \$900**. No payments are required at this time. This fee will entitle participants to transport from Deer Lake to the field sites, transport after the trip back to St. John's, field guide, all accommodation, and all meals during the excursion period. Accommodation in St. John's for the night of Tuesday 20th June is not included.

The itinerary is yet to be finalised, but visits to the following localities are anticipated:

- *Cambrian-Ordovician boundary (platform setting) at East Isthmus Bay.
- *Port au Port Peninsula - Cambrian and Ordovician sections, including a collapsed carbonate platform.
- *Tablelands (Gros Morne National Park), a spectacular ophiolite complex featuring the Moho.
- *The Cow Head Group at Cow Head Peninsula.
- *Cambrian-Ordovician boundary GSSP at Green Point, and lateral equivalent sections.
- *Flower Point, with Cambrian thrombolitic mounds.



Lower Cambrian *Rusophycus* from the trace-fossil rich Hawke Bay Formation on the Port au Port Peninsula of western Newfoundland.

Trip 3: The Ediacaran macrofossils of the Bonavista Peninsula

This *four-day post-conference field excursion* will depart from St. John's, and is proposed for **23rd-26th June 2017**. It will be led by Dr Alex Liu, Jack Matthews and Prof. Duncan McIlroy.

Cost: Estimated at about **CAD \$600**. No payments are required at this time. This fee will entitle participants to return transport from St. John's, field guide, all accommodation, and all meals during the excursion period. Accommodation in St. John's at the conclusion of the excursion is not included.

This trip will include visits to:

- * Manuel's River (trilobitic sections of the Cambrian)
- * Harbour Main (Gaskiers diamictite)
- * Spaniard's Bay (site of exceptional 3D preservation of Ediacaran rangeomorphs: to be run in conjunction with Trip 4)
- * Trinity (recently discovered Ediacaran-age glacial diamictite in the Musgravetown Group)
- * Catalina Dome (to view localities in the vicinity of Port Union, Little Catalina, Catalina, and Melrose, including exceptional sites first described by Hofmann et al. (2008), and the MUN Surface).
- * Terrestrial sedimentary sections on the western side of the Bonavista Peninsula from the late Ediacaran (currently unfossiliferous) Musgravetown Group.

Note that Trips 3 and 4 will include a joint first day on the Avalon Peninsula, before diverging to their respective main sites.



Late Ediacaran Rangeomorph from the MUN Surface, Bonavista Peninsula, Newfoundland

Trip 4: The Ediacaran-Cambrian Boundary GSSP sections of the Burin Peninsula

This *seven day post-conference excursion* will run from **23rd-29th June 2017**, and will depart from St. John's. It will be led primarily by Prof. Guy Narbonne and Prof. Ed Landing.

Cost: Estimated at about **CAD \$1300**. This will entitle participants to return transport from St. John's, field guide, all accommodation, and most meals during the excursion period. Accommodation in St. John's at the conclusion of the excursion is not included.

The proposed itinerary includes visits to:

- * Manuel's River area (trilobitic sections of the Cambrian)
- * Harbour Main (Ediacaran Gaskiers diamictite)
- * Spaniard's Bay (site of exceptional 3D preservation of late Ediacaran rangeomorphs: to be run in conjunction with Trip 3)
- * The Ediacaran-Cambrian boundary GSSP section at Fortune Head.
- * The Ediacaran-Cambrian boundary section at Grand Bank Head (with abundant trace fossils and microbial mats)
- * Little Danzig Cove, Cambrian Stage 2 (type *Watsonella crosbyi* zone) with shoaling in the middle Chapel Island Formation to caliche-stromatolite depositional sequence 1-2 contact; higher strata with unconformity (Stage 3 trilobites overlying middle Stage 2).
- * Branch section, Cambrian Stages 4 and 5 (with basal unconformity)
- * West Center Cove, upper Cambrian Stage 3 into Stage 4 succession (without trilobites) in the Bonavista Group (Petley-middle Cuslett Formations)
- * Smith Sound, sub-trilobitic unconformity (lower Brigus Fm. Stage 3) on non-trilobitic Stage 3 Foster's Point limestones.
- * Keels worm/mud mound reef, upper Stage 2, regarded as a cool-water analogue and replacement of coeval tropical archaeocyathan build-ups of the Siberian Tommotian.



Trace fossils within Member 2 of the Chapel Island Formation at Grand Bank.

Important dates

January 2016: First circular

1st May 2016: Deadline for financial assistance application

1st October 2016: Second circular. Registration and abstract submission open.

31st March 2017: Deadline for registration, payment of registration and excursion fees, and abstract submission

1st May 2017: Final circular

Visa Information

For those delegates who require a visa to visit Canada, invitation letters can be provided upon request. Please contact Prof. Duncan McIlroy at dmcilroy@mun.ca or Dr Alex Liu at alex.liu@bristol.ac.uk to arrange this.

Contact details

To receive subsequent circulars, interested parties should complete the accompanying expression of interest form and e-mail a copy to Dr Alex Liu <alex.liu@bristol.ac.uk> as soon as possible, and no later than 1st August 2016.

Note that return of a completed form does not reserve places on the excursions. Excursion places can be reserved only by full payment of the relevant fees at the appropriate time. Interested persons will be advised in due course as to when payment may be made.

If you have any questions about any aspect of the conference, please contact one of us:

Alex Liu, University of Bristol alex.liu@bristol.ac.uk

Duncan McIlroy, Memorial University of Newfoundland dmcilroy@mun.ca

Guy Narbonne, Queens University, Ontario narbonne@queensu.ca

International Symposium on the Ediacaran - Cambrian Transition

(ISECT NL17)

Expression of interest form

*Title _____

*First name _____

*Surname _____

*Institution _____

Contact postal address (including country)

Contact e-mail address _____

I am [if applicable]

a full-time student (please provide your institution and name of supervisor)

retired (over 60 years of age and not in full-time paid employment)

I will be bringing an accompanying delegate or delegates

Name(s) _____

I am interested in the following conference themes

- Neoproterozoic/Ediacaran
- Cambrian

I am interested in the following excursions (please tick all that apply)

- Pre-conference Ediacaran trip to Mistaken Point and the Avalon Peninsula
- Pre-conference Cambrian-Ordovician trip to western Newfoundland
- Post-conference trip to the Ediacaran localities of the Bonavista Peninsula
- Post-conference trip to the Ediacaran-Cambrian boundary stratotype sections on the Burin Peninsula

I anticipate contributing a talk/poster [please indicate which] with the provisional title/topic:

Please return completed form to Dr Alex Liu: alex.liu@bristol.ac.uk

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Financial Assistance Form

1. Applicant's Name: _____

2. Nationality: _____

3. Institution and E-mail Address: _____

4. Are you a PhD student [] or a post-doctoral fellow []?

If so, please indicate your advisor: _____

And ask your advisor to provide a support letter to be emailed to Dr Alex Liu at alex.liu@bristol.ac.uk by May 1st 2016.

5. Are you planning to give an oral presentation at the meeting?
Yes [] No []

6. Please briefly describe your financial needs to participate in this meeting and the relevance of this meeting to your research:

7. Signature/date: _____

Please return this form before May 1st 2016 to Dr Alex Liu: alex.liu@bristol.ac.uk