



Edies

International Commission on Stratigraphy
Subcommission on Ediacaran Stratigraphy

Newsletter of the Subcommission
on Ediacaran Stratigraphy

Number 7
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Remarks from the Chair

By Shuhai Xiao

First, I would like to thank Marc for once again putting together an excellent issue of *Eddies*.

The year of 2018 was a busy and fruitful one for the Ediacaran Subcommission. Many of us participated in one or more field workshops sponsored by the Subcommission. Several of the field workshops were focused on the TES, including the January 2018 field trip in Oman, the April-May 2018 field trip in Nevada of western US, and the August 2018 field trip in southern Shaanxi of South China. A special issue in Canadian Journal of Earth Science based on ISECT 2017 was published in 2018. Finally, the Upper Ediacaran Series (UESr) Working Group kicked off, with Jim Schiffbauer as the chair and a slate of 15 voting members. UESr will initiate the discussion on criteria to define the Upper Ediacaran Series. Thus, we currently have three active working groups, TES, SES, and UESr.

In 2019, the main Subcommission events include the Guadalupe field workshop in Spain and the Ediacaran symposium at STRATI 2019 in Milan, Italy. Hope to see many of you at both events. Other related events include the NAPC meeting at UC Riverside where several Ediacaran-related symposia have been planned, the Second Geobiology Conference in Banff (Canada) which is an excellent venue for junior scientists, and Ediacaran-related symposia at other regular meetings (GSA, AGU, EGU).

In 2020, the Subcommission will sponsor a field workshop in Brazil and Argentina, again focusing on the terminal Ediacaran stage. Also, there will be Ediacaran-related symposia and field workshops at the 36th IGC in India.

We have a new website. Our old website was hosted at Virginia Tech. To have more flexibility and easy access, we have decided to host our website at Google, which also manages our mailing list. The URL ediacaran.stratigraphy.org is still valid and it will be automatically directed to

<https://sites.google.com/view/ediacaran>. Check it out!

Finally, I would like to bring to your attention that my second term as the Subcommission chair will end in 2020. Per ICS statutes, the Subcommission will select a new chair, who will form a new executive team by the 36th IGC in 2020. An announcement will be sent out soon to solicit nominations for the next chair.

Notes from the Secretary

By Marc Laflamme

First off, I'd like to apologise for the delay in getting our newsletter to you. I am pretty excited to report the progress we have made over the past year, and I am delighted to see where 2019 takes us. As alluded to by Shuhai, several international meetings featuring Ediacaran sessions and field trips will soon be upon us, with the Canadian Geobiology conference in Banff, Alberta from June 9-13 (2019) (<https://cms.eas.ualberta.ca/geobiology2019/>), the North American Paleontological Convention in Riverside, CA (<https://napc2019.ucr.edu/>) from June 23-27, STRATI 2019 Milano Italy from July 2-5 2019 (<http://www.strati2019.it/>), and the International Meeting on the Ediacaran System and the Ediacaran-Cambrian Transition (IMECT 2019) (<https://www.geoparquevilluercas.es/imect2019/?lang=en>) in Guadalupe, Spain from 17-24 2019. The IMECT meeting is particularly important, as it will allow voting members of the Subcommission to visit key Ediacaran-Cambrian boundary sections in Spain.

I'd also like to highlight the special issue (Volume 55) of the Canadian Journal of Earth Science "Geobiology of the Ediacaran-Cambrian Transition: ISECT 2017". The range of topics and the conclusions drawn from the articles in this special volume highlight the healthy state of Ediacaran and Cambrian research, while also identifying key questions that will shed new light on this critical interval in Earth history.

Stemming from discussions as part of the ***Terminal Ediacaran field workshop in Nevada (April 26 – May 2 2018)***, Voting Member Jim Schiffbauer was nominated and agreed to chair the ***Upper Ediacaran Series Working Group***. His executive team includes Vice Chair Jay Kaufman (Maryland) and Secretary Tara Selly (Missouri).

Upper Ediacaran Series (UESr) Working Group:

Voting Members:

Schiffbauer, James, Missouri (Chair)
Kaufman, Jay, Maryland (Vice Chair)
Cai, Yaoping, Northwest
Christie-Blick, Nick, Columbia
Fike, David, Washington
Jiang, Ganqing, UNLV
Laflamme, Marc, UToronto Mississauga
Liu, Pengju, CAS
Myrow, Paul, Colorado College
Narbonne, Guy, Queen's
Smith, Emmy, Johns Hopkins
Strauss, Justin, Dartmouth
Warren, Lucas, Sao Paulo
Wood, Rachel, Edinburgh
Xiao, Shuhai, Virginia Tech
Zhou, Chuanming, CAS

Corresponding members

Secretary – Selly, Tara, Missouri
Bykova, Natasha RAS
Maloof, Adam, Princeton
Muscente, Drew, UT Austin

TES Working Group:

Voting Members:

Narbonne, Guy M. (Chair)
Moczydowska-Vidal, Malgorzata (Secretary)
Alvaro, Jose-Javier
Buatois, Luis A.
Gehling, James G.
Grazhdankin, Dmitri V.
Jensen, Soren
Kaufman, Alan Jay
Laflamme, Marc
Liu, Alex
Schiffbauer, James

Sharma, Mukund
Warren, Lucas
Wood, Rachel
Xiao, Shuhai
Yuan, Xunlai
Zhu, Maoyan

Corresponding Members:

Christie-Blick, Nicholas
Duda, Jean-Pierre
Dornbos, Stephen
Erdtmann, Bernd-D.
Erwin, Doug
Gärtner, Andreas
Grey, Kathleen
Hofmann, Mandy
Ivantsov, Andrey
Jiang, Ganqing
Knoll, Andrew
Li, Chao
Linnemann, Ulf
Mangano, Gabriela
Meyer, Michael
Rai, Vibhuti
Reitner, Jochim
Schiffbauer, James
Shields-Zhou, Graham A.
Vickers-Rich, Patricia
Weaver, Patricia
Yin, Chongyu
Zieger, Johannes
Zhu, Maoyan

SES Working Group:

Voting Members:

Chuanming Zhou (Chair)
Christie-Blick, Nicholas
Grazhdankin, Dima
Grey, Kathleen
Jiang, Ganqing
Kaufman, Alan Jay
Liu, Pengju
Moczydowska-Vidal, Malgorzata
Sharma, Mukund
Shields, Graham
Xiao, Shuhai

Corresponding Members:

Adamson, Peter William
Alvaro, Jose-Javier
Gärtner, Andreas

Gaucher, Claudio
Gehling, James G.
Hofmann, Mandy
Jensen, Sören
Joshi, Harshita
Kenchington, Charlotte
Laflamme, Marc
Li, Chao
Linnemann, Ulf
Liu, Pengju
Liu, Alex
Nagovitsin, Konstantin
Rai, Vibhuti
Schiffbauer, James
Shukla, Rajita
Sperling, Erik
Tiwari, Meera
Vickers-Rich, Patricia
Willman, Sebastian
Xunlai Yuan
Yin, Chongyu
Zhu, Maoyan
Zieger, Johannes

Beatrice Rodewald, Jim Schiffbauer, Tara Selly, Michael Strange, and Lydia Tarhan. Participants included 10 voting members of the Ediacaran Subcommission and the Terminal Ediacaran Stage Working Group: Shuhai Xiao, Marc Laflamme, Jim Schiffbauer, Nicholas Christie-Blick, Jay Kaufman, Pengju Liu, Maoyan Zhu, Luis Buatois, Ganging Jiang, Chaunming Zhou. Like the Oman field workshop, the Nevada field workshop was also focused on the terminal Ediacaran stage, specifically to examine the Shuram excursion preserved in the Johnnie Formation as well as terminal Ediacaran tubular and trace fossils in the Deep Spring, Stirling, and Wood Canyon formations.

Meeting reports:

Terminal Ediacaran field workshop in Oman, January 13-22, 2018. This field trip was sponsored by the Ediacaran Subcommission and led by Dr. Kristin Bergmann from MIT. Six voting members of the Ediacaran Subcommission and the Terminal Ediacaran Working Group (Luis Buatois, Pengju Liu, Lucas Warren, Shuhai Xiao, Chuanming Zhou, Maoyan Zhu) participated in this field workshop. The goal of this field workshop was to examine the Shuram Formation, to investigate the stratigraphic relationship between the Shuram negative carbon isotope excursion and the tubular fossil *Cloudina*, and to discuss the possibility of using either the Shuram excursion or *Cloudina* fossils as a criterion to define the terminal Ediacaran Stage.

Terminal Ediacaran field workshop in Nevada (USA), April 26 – May 2, 2018. This field workshop was led by Emmy Smith and Lyle Nelson (Johns Hopkins), with contributions from: Simon Darroch, E. B. Hodgin, Jon Husson, Akshay Mehra,

International Conference on Ediacaran and Cambrian Sciences (ICECS), held on August 12-16, 2018 in Northwest University, Xi'an, China (<http://www.icecs2018.cn>). Participants included 11 voting members of the Ediacaran Subcommission and the Terminal Ediacaran Stage Working Group: Dima Grazhdankin, Alan J. Kaufman, Alex Liu, Pengju Liu, Guy Narbonne, Jim Schiffbauer, Shuhai Xiao, Xunlai Yuan, Chuanming Zhou, Maoyan Zhu, and Lucas Warren. Four pre- and post-conference field trips were organized examine Cryogenian, Ediacaran, and Cambrian successions in North and South China. Of these four trips, Trip 2 (From Snowball Earth to Cambrian explosion, rocks and fossils in Yangtze Gorges) was directly relevant to the Second Ediacaran Stage Working Group, and Trip 3 (Precambrian-Cambrian transition in the northern margin of South China) was of importance to the Terminal Ediacaran Stage Working Group. With help from the Subcommission and several funding agencies, we were able to offer financial assistance to ten participants (Guy Narbonne, Morrison Nolan, Lucas Warren, Huan Cui, Patricia Vickers-Rich, Juliana Okubo, Frances Dunn, Marjorie Cantine, Leandro Silva, Dana Korneisel), seven of whom were graduate students and post-doctoral fellows.

ICDP GRIND (*Geological Research through Integrated Neoproterozoic Drilling*) met at the Annual American Geophysical Union meeting on December 13, 2018, in Washington, DC. Specifically, they discussed the proposal to drill 13 cores through the Ediacaran-Cambrian transition in Namibia, Brazil, and China.

Upcoming meetings and workshops:

June 9-13 (2019): The Geobiology conference (<https://cms.eas.ualberta.ca/geobiology2019/>) is a multidisciplinary conference that is particularly relevant to Ediacaran Subcommission members interested in interpreting the geochemical signals that accentuate the Proterozoic. Several thematic sessions will be of interest to our Subcommission, including “*Evolution of the Precambrian Geosphere*” and “*Phanerozoic Earth-Life Transitions*”, in addition to a point-counterpoint debate surrounding “*Carbonate carbon isotope excursions: Tracers of global biogeochemical change or records of diagenetic processes?*” and “*What provides a better indicator of ancient metabolisms - the rock or genomic records?*”

June 23-27 2019 North American Paleontological Convention (<https://napc2019.ucr.edu/>), will include several sessions dedicated to Ediacaran questions, including “*Behavioral Innovations and Environmental Feedbacks*” hosted by Lidya Tarhan, Dan Hembree, Jon Smith, Jim Gehling, “*Avalon to Zaris*” by Emily Mitchell, Charlotte Kenchington, Chrissy Hall, “*Cambrian Konservat-Lagerstatten*” by Rudy Leroey-Aubril, Robert Gaines, Xingliang Zhang, “*Environmental Change and the Dawn of Animal Life*” by Charles Diamond and Scott Evans, and a dedicated topical session “*Advances in understanding of Precambrian and Paleozoic life and environments*”.

July 2-5 2019: STRATI 2019 Milano Italy (<http://www.strati2019.it/>) will have a major Ediacaran session “*ST3.1 Ediacaran Subdivision*” hosted by Guy Narbonne, Shuhai Xiao, Marc

Laflamme, and Dima Grazhdankin and “*ST3.2 Cambrian stratigraphy, events and geochronology*” hosted by Per Ahlberg and Loren E. Babcock. Another session to keep an eye open for would be “*ST9.2 Calibrating rates and dates in stratigraphy*” by Urs Schaltegger and Daniel Condon.

October 17-24th, 2019 International Meeting on the Ediacaran System and the Ediacaran–Cambrian Transition organized by Soren Jensen, Javier Álvaro, and their colleagues (www.geoparquevilluercas.es/imect2019/?lang=en) will explore all aspects of the Ediacaran System and its boundaries, including paleontology, stratigraphy, sedimentology, geomicrobiology, geochemistry, geochronology and geodynamics. Field trips will provide opportunities to visit key outcrops of the Ediacaran and Ediacaran–Cambrian transition in the Central-Iberian Zone of the Iberian Massif.

March 2-8, 2020: The 36th International Geological Congress (IGC) will be held in Delhi, India, (<http://www.36igc.org/>). Ediacaran successions in northern India are important for SES stratigraphy. Voting members Mukund Sharma and Shuhai Xiao have proposed a symposium on the Ediacaran System and, working with Nigel Hughes at UC Riverside, the Ediacaran Subcommission will develop a field workshop at IGC to examine the Ediacaran and Cambrian succession in northern India.

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