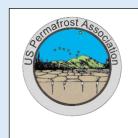
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Thawing Ground

A Newsletter of the US Permafrost Association



The mission of USPA is to encourage sharing of knowledge and data in permafrost science.

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Katie Braun, Permafrost Ph.D. Student and Leader in DEI

The Active Layer

A History of Permafrost: Lessons from Batagay

This 2023 article in *Permafrost and Periglacial Processes* teaches us the history of permafrost dating back to the Middle Pleistocene Epoch and offers valuable current insights to permafrost in Russia. Its lead author is Julian Murton, the UK's representative to IPA. USPA's Vladimir Romanovsky and Chris Burn (IPA President) are referenced.

"Batagay megaslump: A review of the permafrost deposits, Quaternary environmental history, and recent development" is a thorough review of the largest known megaslump in the world at 80 ha, where anything greater than 20 ha constitutes a megaslump. This fascinating and informative geological feature began to form after taiga vegetation disruption in the 1940s and is growing at a brisk rate, although the authors anticipate slowing and stabilization at some point. Murton and colleagues highlight the "unique access to ancient permafrost [which] offers enormous potential to reconstruct paleoenvironmental conditions...since the Middle Pleistocene...and the high sensitivity of ice-rich permafrost to abrupt thaw...." (p.414) Further, they draw attention to the impact of warming temperatures and increased precipitation as likely explanations for the slump's rapid growth. Check it out.

The article is available through the Creative Commons Attribution License at: https://onlinelibrary.wiley.com/doi/full/10.1002/ppp.2194

USPA Diversity, Equity, and Inclusion Spring 2024 Activities

By Katie Braun (University of Wisconsin-Madison) and Melissa Ward Jones (University of Alaska Fairbanks)

The second annual field safety workshop was held in March 2024. In the virtual workshop, USPA members facilitated small group discussion among participants on different fieldwork scenarios: wildlife encounters, unexpected emergencies, community relations, and interpersonal conflict. The workshop was well received, with participants highlighting the benefits of peer interactions and shared knowledge.

The Family Care Program (FCP) launched in April 2024 with the panel discussion event 'Balancing Childcare and Work Responsibilities in Permafrost Research'. Feedback was positive, some attendees reported it was helpful to hear from others who have previously experienced what they are currently or will be experiencing; other parents-to-be found the discussion encouraging.

Quotes

"The Ice of Spitsbergen...looketh likest unto the Ground Ice of the Rivers in our country. ...it also happeneth some times that the Land is begirt with Ice in the Summer, as they have often seen, that go thither every year."

Frederich Martens, 1691

Spotlight on an Historian



Bernadette Hince of Canberra, Australia, is currently finishing a historical dictionary, *Polar Companion*, due out next year. It will define, over time, some 3000 words in permafrost and related fields. The entries, some of which are captured in the history lesson on the left, will give us a wonderful glimpse into the lives and works of those who built our disciplines.

Thank you, Bernadette!

A History Lesson in Permafrost Science

In our featured article, we learned some of the geomorphic history of permafrost. Here, we look at how the scientific discipline developed. Frederich Martens, in *Account of Several Late Voyages*, published in 1694 and quoted in the box on the left and shown in the photo below, reads with the poetic beauty of its time, enriching the vision we usually experience as gray and gritty, cold and caustic. Martens and colleagues explored Svalbard in detail, and his collaborative account is now available through the link below. In 1811, an unknown author described "ground ice...formed at the bottom of the water [rivers Avon and Stour] and is known by the roots and leaves of water-plants, which it carries along with it." In 1838, Baer, whom we met in the February issue, measured the permafrost in Yakutsk to "not less than 382 feet," publishing his findings in the *Royal Geographical Society Journal*.

SW Muller coined the term we now use in 1943, writing, "Permanently frozen ground' is the most appropriate, particularly as [it] commonly extends well below the level of soil....The expression...however, is too long and cumbersome and...'permafrost' is proposed as an alternative." This was in a 1945 piece with the interesting title of *Permafrost or permanently frozen ground*.

Marten text 1694



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Permafun Corner

Who coined the term "permafrost" and when? (Hint: it's more recent than you may think.)



Answer: SW Muller in 1943. Want to learn more about Muller? https://en.wikipedia.org/wiki/s iemon muller

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