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SYMPOSIUM

2023 Punnary of Graduate Student Presentations

Here are Dan Sandweiss' punning summaries of all 25 graduate student presentations at the 2023 Borns Symposium:

4-6-23

Emily Blackwood kicked us off with a model presentation on the ethics of virtual archaeology, a topic we can all dig. In her virtual environment, not only can she clam up, she can clam 3D. As an archaeo-molluscan analyst, from my shellfish perspective this is wonderful. More importantly, she calls attention to ethical considerations that we must take into consideration.

Zander Roman gave a timely talk on glacial chronology in the Wind River range. In passing, he addressed the eternal question: to Be or not to Be. His data support the utility of Berylium 10 dating for resolving glacial chronology, which is a real advance.

Ligia Naveira assessed water quality in South Greenland, which is hardly a dry topic. It would be unhealthy not to pay close attention to this research.

Alessandro Mereghetti talked about the nature and disappearance of the mammoth steppe biome, which are really big issues. Although he could only graze over the related topics, he gave us the straight poop about what he is doing to learn more through multi-proxy analysis of coprolites. I do worry about Alessandro considering coprolites to be donuts and I'm not sure I want to visit his field camp…

Lizi Gadrani gave a high calibre presentation that shone a light on calibrating laser ablation of ice core samples.

In her talk on the effect of public policy and the pandemic on lead pollution from Asia as seen in Alaskan ice cores, **Hanna Brooks** tackled a really heavy, elemental problem. Work is in progress, but she may well find that the effect of the pandemic was more systemic than is policy.

Lauren Woods evaluated Mercer's paradox about interhemispheric synchronicity. Her results appear to synch closely with Zander Roman's work on the same project, which is entirely appropriate and should no longer be considered an eccentric finding. This work raises the question of whether

Milankovich's theory should be phased out. The work on the Wind River record really blew me away.

Bailey MacLaughlin planted the idea that trees' climate tolerances may not differ across life history, although geographic ranges do move. This may be a niche topic, but it's one that is important in growing our understanding of past forest ecology as well as plotting the future. Also, the same methodology could be used to branch out to other categories of taxa.

Madelyn Woods gave a dynamic presentation on a current hot topic—Holocene temperature history of the Gulf of Maine. Part of the work is outreach and Madelyn let us see her sea research video. Despite all the bugs, it worked quite well.

Andrea Tirrell's talk on New England alpine communities was hardly a pie in the sky perspective. She truly elevated out understanding of the structure of these important communities and showed that no plant community is (entirely) an island.

Kailey Mannello put her cool work on our radar in outlining her study of snow properties in the Yukon Territory. She also showed that archaeologists aren't the only ones whose work is the pits.

Suman Acharya got us all high…into Nepal where he works. He discussed of how different people and places are affected by climate change and cast climate impacts in a sociopolitical context.

Elizabeth Leclerc presented her current research on resilience to El Niño on the north coast of Peru. She is near the start of this research but one can hardly characterize her El Niño work thus far as baby steps, nor is it precipitous for her to outline her research in process. Her discovery of indigenous villages still occupied during the 1578 event allow her to adapt her research to include direct comparison.

Scott Braddock offered an insightful, penetrating commentary on his glacial GPR (Ground Penetrating Radar) work in Alaska, which is related to the cool work Kailey discussed. He addresses a topic that is of critical importance to the University of Maine, though in a very different context—namely, retention.

Inga Kindstedt shared her accumulated wisdom on snow accumulation and melt percolation in Alaskan glaciers. This reminded me a bit of Zach Galifianakis' show Between Two Ferns… Inge also explained with her plans to wise up even more in the next field season by doing cluster coring.

Emma Erwin did her level best to understand the stratigraphy of the Denali Ice Core and whether or not it gets really old, using various radar systems. Among other findings, repeat measurements with the ApRES radar had a strong CORE-elation, which seems appropriate.

Maraina Miles discussed her emerging research on Mt. Katahdin during deglaciation.

Meghan Spoth waxed eloquent on use of multiproxy methods in the American West to study hot topics such as fire activity, how hydrologic changes might have put a damper on fires, and the growing understanding of the role of fire in plant community composition. Through the long term perspective she is developing, she may be able to help predict whether climate change will further dry out the region or rain on westerners' parade.

4-7-23

Madeleine Landrum kicked off day 2 with by discussing a burning issue, Maine's fire history. Through a multi-proxy approach, she demonstrated that in Maine, the presence of different human groups and especially European colonization are associated with regime change, that is, fire regime change. Causality is still obscure, but Maddy is getting closer, or, one might say, warmer.

Pratima Pahadi's study of leaf economic spectrum (or LES) for tracking environmental change showed that LES is more if some unanswered questions can be resolved. She presented a fruitful analysis of wild blueberries as a test of LES's utility.

Katherine Follansbee explained how agritourism can become a growth industry for Greenland. A key question is how to successfully farm out the tourists to distribute the income to those who most need it. This requires working directly with the target people and places, otherwise recommendations will be inappropriate and thus miss the mark.

Sydney Baratta's productive consideration of the relation of sediment plumes to melting tidewater glaciers in Greenland is a feather in her cap, although plumes per se make it hard to shed light on the topic.

Avery Lamb explained her work on the historical reconstruction of harmful algal blooms to better understand the effects of climate change on these bad HABits. Her talk included a genial discussion of the problems with using sedDNA.

Douglas Hasson is working on understanding the relationship between climate change and the electorate, a topic to which he is clearly de-voted. Indeed, he noted that voters are do not rank climate change highly in their priorities. Possibly they view outcomes of change such as devastating drought as simply too dry to be engaging. Doug is trying to figure out how to make climate change a hotter topic for more voters.

Eric Brown gave us a shrewd analysis of how to model treeshrew climate niches. Understanding the relation between these wild tropical mammals and

climate is an exciting if difficult avenue of research—treeshrews are hardly a tame topic. Unfortunately, zoom was behaving shrewishly and we couldn't hear all of the talk.