

## Review

PFEFFER, W.T. 2007. *The opening of a new landscape: Columbia Glacier at mid-retreat*. Washington, DC, American Geophysical Union, 116pp. ISBN-10: 0-875907-29-1, ISBN-13: 978-0-87590-729-1, hardback, US\$70.

Who was this book written for?

I found myself asking this question before, during and after reading the book. The title led me to believe that this would be a glorified scientific paper filled with facts, theories and predictions. But flipping through the pretty pictures before reading it led me to believe that it was intended to live on a coffee table rather than an office bookshelf. The reality is that the text is easily read in an evening and powerful enough to give lasting memories for anyone with a passing to professional interest in glaciers, but the photos are captivating enough to encourage leaving it on the coffee table rather than letting it collect dust on a bookshelf.

In this book, Tad Pfeffer takes us on an intellectual tour of not just the history of Columbia Glacier, Alaska, but, more importantly, the history of the scientific lineage of the Columbia Glacier record. Indeed, at some points the glacier dynamics seem more like a substrate to discuss the personalities and interconnections of the scientists who have been involved with the study of tidewater glaciers in Alaska. Personally I find this sort of contextual information a valuable form of metadata, a way to better understand the dry science of a journal paper through a better understanding of what drew authors together, how their ideas influenced each other, and why they took the directions they chose. And any glaciologists interested in the history of their field, particularly Alaskan history, will gobble up this text. I noticed this at a glaciology meeting earlier this year, where Tad brought a copy of the book hot off the presses and left it sitting in the social area: the book never spent more than a minute on the table before someone would pick it up and become transfixed by it until someone else distracted them long enough to steal it away.

Most people reading a review in the *Journal of Glaciology* will likely be familiar with Columbia Glacier and have some sense of its importance both globally and as a nexus for stimulating new glaciological theory, so no sense rehashing that in a review like this. This book is where the full story is told, including the famous predictions that came true and the lesser-known combinations of hard work and circumstance that drew numerous researchers together to build what is perhaps the premier tidewater glacier record in existence today. It is well written, and, despite the author's obvious love of the site and friendships with colleagues mentioned here, it is well balanced and informative without being either dry or sappy. I finished the book thinking that every glacier with a history of research spanning more than one investigator should have a book like this written for it.

Something many glaciologists might not be familiar with is how Columbia Glacier is being used as a natural laboratory to better understand the impacts of glacier retreat on

ecosystem development. An underlying scientific theme of this book is that what is happening at Columbia Glacier now in terms of landscape formation, vegetation colonization and species migration is analogous with what happened decades to hundreds of years ago at many other locations in Alaska, so that we now have a rare chance to use this natural laboratory to directly observe what we can only deduce on these older landscapes. It is a fascinating idea, and one which sets the stage for closer relationships between scientists from normally disparate fields and makes one wonder what new predictions will be made and whether they will be as successful as previous ones.

Whether you are a glaciologist or not, the photography is compelling, and readers will likely find new details to explore every time they open the book. There is a full-page photo on every other page, in total documenting not just the glacier ice but everything the glacier ice leaves behind when it melts, like buried forests, calcium precipitation on sub-glacial boulders, and exposed land which is quickly overrun with vegetation. So it is definitely the kind of book you can give your mom or someone who will never read the text, but it's also the kind you can give to someone who has never thought much about glaciers before and might take an interest if they noticed a book like this under their feet while watching the big game on TV.

The only thing I found distracting about the book was that there was no location map showing the place names used in the text, but this is something easily added to the photo-location map in future editions (which will hopefully include a soft-cover version for those on a budget). Hopefully, future editions will also do a better job with printing, as I've seen a few of these photos as prints and know that American Geophysical Union publishing should have done a better job with them.

So, who was this book written for?

Maybe it was written for the unknown friends who will see the glacier retreat onto land, or those who will see it begin to advance again after that, so that they will have a better understanding of what once was here and how it changed and why. Maybe it was written for budding glaciologists who need to know that the scientific record of most glaciers is won through hard work, personal sacrifice, random chance and a lot of failed proposals. Or maybe it was written to have something for everyone, just to sell more copies. I guess only the author really knows for sure. But in any case, this really is a book that likely has something for everyone, while still being a valuable resource for any glaciologist now or in the future.

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