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Book Review

Roadside Geology of Maine

Caldwell, D. W., 1998. Mountain Press Publishing Co., Missoula, Montana
ISBN 0-87842-375-3, Listed price: US\$18.

D. W. Caldwell has written a wonderful book as part of the popular Roadside Geology Series. The "Roadside Geology of Maine" is a well illustrated, scientifically "on-target" book and what makes it a joy to read is the clever wit and humor mixed in with the good stuff of geology that is the trademark of D. W. Caldwell. I highly recommend it to the layperson who is, as the Roadside folks put it, "interested in how the earth works". Whether you're cruising through Maine on a vacation or are planning a trip to this great state, Caldwell's book will be fun reading and a very good introduction to the bedrock and glacial history.

It is organized in five parts. The opening section is an excellent overview of the geology of Maine. This is followed by four sections describing the Geology in Coastal Maine, Central Maine, The Mountains of Maine, and Northern Maine and The County. (That would be Aroostook County for the uninitiated!) In each of these geographic regions, D. W. Caldwell breaks up the sections by describing the geology along popular routes. For example, the Golden Road from Millinocket to Ripogenus Dam is described in the Mountains of Maine section and Pegmatite Alley (Route 26) from Portland to Bethel in the Central Maine section. These four sections make up the meat of the book and include descriptions of classic Maine geology such as Mount Desert Island (Acadia National Park) and Mt. Katahdin (Baxter State Park).

The introductory section on the Geology of Maine is great reading and captures the essence of the complex bedrock/tectonic history as well as the glacial and post-glacial history. Imagine yourself having to boil down the geology of your state from A-Z in 320 pages with figures! It's not an easy job but Caldwell has really succeeded here. The tectonic models Caldwell presents are pretty up to date and the illustrations helpful and clear. There are of course some new ideas about Maine tectonics that aren't incorporated here, but as far as an introduction for the layperson this is a very well done section. The glacial history of Maine is described even better and is also well illustrated and clear.

There were a few places where more updated bedrock information would have helped. It is now believed by most Maine geologists that the Chain Lakes Massif in northwestern Maine is probably Cambrian (as cover to Grenville rocks) and not Precambrian. So it is no longer the oldest rock in the state. That honor now goes to rocks in Penobscot Bay exposed on Isleboro and Seven Hundred Acre

Island where bonafide Precambrian rocks are found. Also, the Norumbega Fault is not thought to be, by a growing number of Maine geologists, a continental suture or terrane boundary. It has a complex long-lived history of motion that has in places juxtaposed very different rocks, but in most regions simply shuffled similar rocks on either side. Perhaps the more significant fault these days is the Sennebec Pond Fault separating Acadian-dominated terranes from pre-Acadian dominated terranes. These are minor flaws in an otherwise excellent book.

What makes this book such fun to read is Caldwell's style of writing and the descriptions of the diverse geology that Maine enjoys. I enjoyed the introductory pages for each geographic section where a brief description of the history of human exploration and development was given. For example there is a really great old lithograph showing wolves attacking a stage coach riding the Air Line (Route 9 between Bangor and Calais), and a wonderful story about a Quaternary mammoth tusk found in marine clays that was for a while mistakenly thought to belong to "Old Bet" a circus elephant that was shot by a farmer!

Here are a few quotes from Caldwell to give you a flavor of his writing. "A group of whales is a pod, a group of quails is a covey, a group of tourists is a passel, and a large number of basaltic dikes is a swarm". "On each of his three trips up the Penobscot River between 1846 and 1857, Henry David Thoreau stopped at Indian Island to engage a guide, although on his first trip they were all too busy moose hunting to accompany him". "In 1972, a local man took up mineral collecting after being advised to get more exercise. Someone advised him to try the old Dunton pegmatite. Still knowing nothing about minerals, he started to bang the solid pegmatite with his new rock hammer. The wall suddenly gave way, exposing an open cavity, from which he extracted some large tourmaline crystals of gem quality". "This sand and gravel was well known to the gravel operators, who seem to be able to smell it a mile away and are usually well on their way to removing it from the face of the earth before geologists get wind of it".

For a suggested retail price of \$18, this book with its clear maps, diagrams, and photos, its witty, humorous and interesting style of writing, and its care in describing the complex bedrock and glacial geology of Maine, is well worth it. I highly recommend it to those wanting to understand the overall geologic history of Maine

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