SPECIAL ISSUE

Geological correlations between New Brunswick and Maine

Foreword

The papers in this issue result from a special symposium on "Geological correlations between New Brunswick and Maine" that was held in conjunction with the Annual Colloquium of the Atlantic Geoscience Society on February 9–10, 2001, at the Delta Beausejour Hotel, Moncton, New Brunswick.

Understanding geological correlations between New Brunswick and Maine is important for interpreting the tectonic evolution of the northern Appalachian orogen. These correlations involve such diverse aspects as stratigraphic and plutonic units, major faults, faunal provinces, terranes and their boundaries, and mineral deposits. The purpose of the symposium was to focus attention on unresolved problems and inconsistencies in geological connections between New Brunswick and Maine, and foster more discussions (maybe even some heated arguments!) and most importantly collaborations among geologists working in these areas. The theme of the symposium was timely, with a new geological map of the Appalachian orogen in preparation to replace the 1978 classic by Harold Williams, and the Maine – New Brunswick area, in particular, needs improvement.

The symposium attracted eight oral and four poster presentations, involving 24 different authors and co-authors from the Maritimes, New England, Québec, and Ontario, as well as a large audience of interested participants. A wide range of topics was covered, both in the formal presentations and in follow-up discussions throughout the meeting. Not all of the correlation problems are between New Brunswick and Maine, and not all are unresolved, as emphasized in the nice presentation by R.G. Marvinney, R.H. Moench, R. Marquis, P. Cousineau, and W.A. Bothner on Silurian–Devonian stratigraphic correlation across the Québec – Maine – New Hampshire borders. The abstract for this and other presentations from the symposium are included in this issue of *Atlantic Geology*, together with abstracts from the other sessions at the 2001 AGS meeting.

The five papers included here arise from, or are related to, topics covered at the symposium. The paper by Susan Johnson presents new interpretations of the New River belt in southern New Brunswick, based on her on-going mapping in the area. Malcolm McLeod, with co-authors Ron Pickerill, and Dan Lux, presents an up-dated interpretation of previously unpublished data from Campobello Island and shows how the island may provide the link between the Kingston belt in New Brunswick and the Quoddy belt in Maine. Les Fyffe provides a new interpretation of stratigraphy in the Eel River area of west-central New Brunswick, and shows that volcanic rocks in the area include andesite and likely formed in an arc environment. Harriet Van Vleck and her thesis supervisor Rachel Beane provide new insights on the origin of mafic blocks in the Hurricane Mountain melange in Maine. David Stewart and co-authors Robert Tucker, Robert Ayuso, and Dan Lux describe the complex geological relationships in the Penobscot Bay area of Maine, and present new geochronological and petrochemical data from the Seven Hundred Acre Island and Islesboro formations, and suggest possible correlations of these enigmatic units with similar rocks in southern New Brunswick.

We thank all the contributors to, and participants in, the symposium. Its success is indicated by subsequent field trips and on-going collaborations and discussions among the contributors/participants. We are optimistic that we will figure it out before we all have to hang up our hammers and boots due to old age!

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