Flora of the Hudson Bay Lowland contains a complete catalogue of vascular plants found so far in the region. In itself this catalogue would be useful, but John L. Riley’s book also provides us with a comprehensive analysis of the region’s “young” flora—its postglacial origin and probable dispersal patterns. As Riley reminds us, the Hudson Bay Lowland is ecologically one of the youngest regions in North America. The region was the centre of the late Wisconsinan-Laurentide continental ice sheet when at its full extent, and it emerged from ice cover relatively recently. Today, the Hudson Bay Lowland has one of the most rapid isostatic rebounds on the continent, still showing rapid sea emergence. A study of its flora, and how it developed, provides ample insights on how other floras, in older post-glacial regions, may have developed.

John L. Riley, now working at the Nature Conservancy of Canada, has tapped into many years of survey material and field notes, recorded during his multiple visits to the Hudson Bay Lowland, for this latest analytic book. Riley first traveled to the region in the early 1970s, when he co-published reports on the vegetation of protected areas near Moosonee and the Abitibi River. His passion for and thorough knowledge of the flora and geography of the region were already evident in his 1980 master’s thesis. He continued to publish works on the Hudson Bay Lowland, its flora, and its extraordinary peatland formations for the next 20 years. This most recent work on the Hudson Bay Lowland thus stems from decades of research by Riley and others.

Riley’s stated objectives for this book were to (1) provide a complete list of vascular plants in the Hudson Bay Lowland, (2) assess and characterize the distinct floristic zones in the region, and (3) examine the probable postglacial origin and mode of dispersal of groups of Lowland plants.

The catalogue of vascular plants of the Hudson Bay Lowland is presented as a series of maps, in Appendix A, and a summary list of species with codes indicating distribution patterns and rarity, in Appendix B. Thus this Flora is not a field book: one should not expect the full descriptions and drawings necessary for field species identification. However, it does contain excellent photographs in full-colour plates for some of these species.

The Flora includes a useful overview of past studies on the zonal classification of the Hudson Bay Lowland from different perspectives, including forest-based, climatic, physiographic, and ecological. I found the reproduction of these zone maps particularly useful and pertinent. Riley describes in detail the methods and results of the floristic treatment for the region’s zonal classification and provides a summary map of the floristic zonation of the region (p. 33) for future use, and hence for analysis by other botanists. In addition, the 12 full-colour plates illustrating the typical terrain and landscapes of the Lowland are strikingly beautiful. They offer a glimpse of the ecological and geomorphologic wonders of this region.

One of the most readable sections of the book pertains to Riley’s third objective: an analysis of the postglacial origin of vascular plants in the Lowland (p. 34–76). The large geographical extent of both maps and analysis makes this section a most valuable tool for biologists working on the conservation of vascular plants in all North American regions where the last glacial event left any footprint. Riley’s overview in this section of past floristic “abilities” for re-colonization gives food for thought. The insights it provides allow far more substantiated speculation on how climate change will affect plant distribution than I have ever seen published.

I recommend this book for its wealth of information on this fascinating region, but also for its insights. It should be considered mandatory reading for any biologist about to visit and work in the Hudson Bay Lowland for the first time. For all other less lucky souls, I would recommend this book to biologists/botanists interested in rare plant conservation, invasive exotic plant management, and climate change. They may find insights that will help them in their work, whether they are working in a region that was at the edge of the late Wisconsinan-Laurentide continental ice sheet or near the centre.