

Soils of Canada

L. J. Evans

Volume 5, Number 2, June 1978

URI: https://id.erudit.org/iderudit/geocan5_2br14

[See table of contents](#)

Publisher(s)

The Geological Association of Canada

ISSN

0315-0941 (print)

1911-4850 (digital)

[Explore this journal](#)

Cite this review

Evans, L. J. (1978). Review of [Soils of Canada]. *Geoscience Canada*, 5(2), 97–97.

the Canadian Cordillera. Forest resources and Agriculture are effectively treated to indicate their dependence on the physiography and climate. Examples of good and bad policies and practices are given from time to time, in order to focus on specific issues.

The Fishing section, of the Fish and Wildlife chapter, has been given more emphasis due to its vast impact on the local economy. Included in this chapter are the disturbing, catastrophic disasters borne by nature due to man; such as the Hells Gate slide of 1913-14 which caused unrecoverable losses to the Fraser River fishery, and the very near total depletion of Halibut stocks due to overfishing in the earlier part of the century.

In the chapter on Parks and Recreation, the subject matter has been written in a balanced and realistic way. The point is made that aesthetic, recreational and historical resources are every bit as important as minerals, oil and gas, coal, hydroelectricity, forest and agricultural products.

The last chapter surveys Natural Hazards such as landslides, earthquakes, floods, forest fires, and insect infestations.

The work has clarity and has been presented in a fluid style differing from the usually laconic, text-book script. The numerous diagrams, maps and sketches are lucid and perfectly adequate; some coloured graphs and maps would, however, have contributed nicely to the aesthetics. Also, photographs including colour prints (perhaps on the title pages of each section) would have been a welcome feature.

Finally, there are errors in some conversions to the metric system and a few spelling mistakes which could have been avoided by more careful scrutiny during editing.

MS received December 13, 1977

Soils of Canada

By J. C. Clayton, W. A. Ehrlich, D. B. Cann, J. H. Day and I. B. Marshall.
Canada Department of Agriculture, Supply and Services, Ottawa: Volume 1, 243 p.; Volume 2, 239 p., 1977.
\$25.00

Reviewed by L. J. Evans
*Department of Land Resource Science
University of Guelph
Guelph, Ontario N1G 2W1*

Pedology, the scientific investigation of soil, is, when compared to geology, a relatively young science. Much of the early impetus in pedology has been accredited to V. V. Dokuchaev of St. Petersburg University in the 1880s, though soil investigations in North America began much later. Soil survey in Canada for instance started in the 1910s in Ontario and in the 1920s in the Prairie Provinces. The first Canadian system of soil classification was introduced as recently as 1955. With such a recent history it is not too surprising to find that this publication is the first comprehensive attempt to describe in some detail the soils of Canada. This attempt is a cooperative project of the Canada Soil Survey Committee and the Soil Research Institute, Agriculture Canada, Ottawa.

The objective of this lavishly produced two volume work, as outlined in the introduction, is to describe the characteristics, distribution and extent of the major soils of Canada, and to assess their present potential and limitations for use as part of the renewable land resources of Canada.

The first volume consists of an outline of the biophysical environment as it affects soil distribution plus a description of the soils themselves. The second volume is a descriptive inventory of the individual map units delineated on the soil map. Included with the two volumes are three maps, a soil moisture map and a soil temperature map at a scale of 1:10,000,000 and soil distribution map at a scale of 1:5,000,000.

Volume one, the soil report, contains a short introduction to the current concepts of soil, a much larger discussion on the glacial history and geology of the

major physiographic regions of Canada, a brief outline of soil climate and vegetation and concludes with a discussion on the genesis, distribution and uses of the soils themselves. These various discussions are supplemented with over 130 quarter-page colour plates and some 20 line drawings. The appendix includes soil profile descriptions of over 30 major soil subgroups.

A major criticism of the publication is that the soil classification system used is to a large extent out of date. The main reason for this is that the major push to produce the publication, that of the forthcoming 12th International Congress of Soil Science meeting in Edmonton in June 1978, has also prompted a major effort by the Canadian Soil Classification Committee to update and refine the present soil taxonomic system. Although there is a small comment at the beginning of the publication pointing out that there were some changes expected in the system I think the authors themselves were not aware of the full extent of the impending changes at the time of going to press.

Although the publication contains a wealth of information on Canadian Soils there are so very few references that it is difficult to locate the original source of much of it. For instance the section describing the characteristics and use of soils does not contain a single reference to any published paper on Canadian soils. This certainly limits the usefulness of the publication for student teaching and for the researcher. The usefulness of the appendix is also lessened somewhat by a number of errors in classification, particularly in the chernozemic order.

In spite of these criticisms this is still the only major source of reference for Canadian soils and as such is a milestone in Canadian pedology. The publication will be of great value to the informed layman and to researchers in other disciplines who want a general overview of Canadian soils. The serious shortcomings of the book will be most noticed by pedologists themselves.

MS received December 13, 1977