

Floral Regions.—Considerable difference of opinion exists among botanists on the subject of the division of Canada and the United States into natural vegetational areas. Only four of the proposed schemes will be considered here.

So far as it applies to Canada, the scheme proposed by Merriam²⁰ consists of six zones, three of which, namely, Arctic, Hudsonian, and Canadian, are transcontinental. Next in order from north to south come the Transition Zone including the true prairie and then the Alleghanian Zone comprising part of southern Manitoba, part of southern Ontario, and parts of New Brunswick and Nova Scotia bordering on the bay of Fundy. The sixth zone, the Carolinian, includes the region in southern Ontario south of a line drawn from Hamilton to Sarnia.

Basing his subdivisions on the distribution of trees, Sargent²¹ recognizes only three areas in Canada south of the Arctic Region. The North Eastern section includes the area east of a line from Wood mountain in Saskatchewan to the mouth of the Mackenzie river. The Rocky Mountains section includes a broad belt on each side of this chain, while the North Western section comprises the Selkirk mountains and the western half of British Columbia and Yukon.

Harshberger²² recognizes seven phytogeographic areas in Canada. These are: (1) Arctic Zone; (2) Subarctic or Northern Coniferous Forest Zone; (3) St. Lawrence-Great Lake Region, which extends as far west as lake Winnipeg; (4) Prairie Region; (5) Rocky Mountain Region, extending to the northern boundary of British Columbia; (6) Sitkan Region, comprising the northwestern coastal temperate zone extending from Cook inlet to the fifty-first parallel and including the northern part of Vancouver island; (7) Columbian Region, extending in Canada from about the bend of the Fraser river to the International Boundary. Most of the above regions are subdivided further into smaller areas.

Macoun and Malte²³ in their review of the flora of Canada divide the country into the following eleven vegetational areas: Arctic Zone; Subarctic Forest Zone; Hardwood Forest Zone; Carolinian Zone; Prairie (with three subdivisions); Rocky Mountain Foothills; Rocky Mountains Proper; Selkirk Range; Coast Range; Vancouver Island; and Dry Belts of British Columbia. In this scheme the Subarctic Forest Zone included the Hudsonian and part of the Canadian Zone of Merriam, while the Prairie was approximately the same as Merriam's Transition Zone.

In the present delimitation of the boundaries of the floral regions, which is almost the same as that previously proposed by the present author,¹⁶ Canada has been divided into six regions: Arctic; Transcontinental; Eastern; Interlacustrine or Carolinian; Prairie; and Western. Several of these, particularly the Western, can be divided into smaller areas each with a distinctive flora. The boundaries of these six regions are shown on the accompanying map. As there is a certain amount of overlapping of the floras of any two regions where they meet, the above boundaries are not to be interpreted too rigidly. Characteristic features of each of the floral regions are given under the respective centre headings below. The distribution of seed-bearing plants in Canada is discussed in some detail under these six regions; for each, a brief outline is given of characteristic factors of climate or physiography which are likely to exercise a controlling influence upon the plant life within that region.