

The present research staff includes 39 university-trained wildlife biologists stationed at various centres throughout Canada. Ornithologists are located at Vancouver, Edmonton, Saskatoon, Winnipeg, Ottawa, Maple, Ont., Quebec City, Sackville, N.B., and St. John's, Nfld. Mammalogists are stationed in the Northwest Territories at Yellowknife, Fort Smith and Aklavik, at Whitehorse in the Yukon Territory and at Edmonton and Ottawa. Two limnologists are located at Edmonton and a range specialist and a pathologist at Edmonton and Ottawa, respectively. A number of university graduates and undergraduates are engaged annually to assist in summer field work. The Ottawa headquarters includes an administrative staff of about 30 in addition to supervisory research officers. About 25 part-time migratory bird wardens and sanctuary caretakers are employed.

PART IV.—CLIMATE AND TIME ZONES

Section 1.—Climate

The 1959 Year Book carried at pp. 23-51 a comprehensive study on The Climate of Canada, specially prepared by the Meteorological Branch of the Department of Transport. Because of space limitations it was not possible to include in that edition the detailed tabulations of climatic factors for individual meteorological stations. Such tables for 45 stations across Canada are carried on the following pages and a separate reprint is available containing complete textual and tabular data.*

CLIMATIC TABLES

The following tables contain climatic data from a selection of 45 Meteorological Observing Stations throughout Canada. They consist primarily of monthly temperature and precipitation data along with supplementary data on humidity, wind, sunshine, etc. The information listed is intended to give the reader a general knowledge of the basic climatic features of the different sections of the country. Tables are shown for many of the well-known populous cities and also for locations that are representative of large, sparsely populated areas.

Air Temperature.—To obtain representative observations, all temperature stations are equipped with standard shelters in which the thermometers are housed. The thermometers are self-registering mercury maximum and spirit minimum thermometers which are read usually two or four times daily. The shelter is located in the best representative location possible and is installed over level grassy terrain in a spot well away from the sheltering influence of trees and buildings. The thermometers in the shelter are fixed so that the bulbs are approximately four feet above the surface of the ground.

The mean air temperature data have been derived mainly from records for the thirty-year period 1921-50 except for the far northern stations where only shorter records are available. The mean daily maximum temperature for any month is the mean of all the daily maximum temperatures recorded in that particular month for the period of record used. The mean daily minimum temperature is similarly derived from all daily minimum temperature observations. The mean daily temperature is the average of the mean daily maximum and mean daily minimum temperatures. The mean monthly maximum temperature for January is the average of the highest temperature in each January for the period of record and similarly the mean monthly minimum is the average of the lowest temperature for each January. The "highest recorded" and "lowest recorded" temperatures refer to the absolute extremes for the entire period of observations at each station.

Heating Factor.—The degree-day is a unit based upon temperature difference and time, used mainly in estimating fuel consumption and determining the heating load of a building in winter. For any day when the mean temperature is less than 65°F. there are as many degree-days as there are Fahrenheit degrees difference in temperature between 65°F. and the mean temperature for the day. The total degree-days for the month is the sum of the daily deficits of outside temperature below 65°F.

* Reprint *The Climate of Canada* available from the Meteorological Branch, Department of Transport, Toronto, Ontario.