Commission of Conservation
CANADA

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CONSERVATION is published monthly. Its object is the dissemination of information relative to the natural resources of Canada, their development and proper conservation, and the publication of timely articles on housing and townplanning.

The newspaper edition is printed on one side of the paper only, for convenience in clipping for reproduction.

The Commission of Conservation was created in 1909, by Act of Parliament, to promote the economic use of Canada's natural resources. Authentic information respecting the character and extent of such resources, and with reference to the problems associated with their efficient development and their conservation, is freely available on request to the Commission

OTTAWA, MAY, 1921

Study Your Country and be Prepared

To be Proud of Canada Intimate Knowledge of Her Resources is Necessary

A knowledge of one's country is one of the first essentials of an education, even of those who are unable to proceed to the higher courses. With the amount of literature available on Canada and its natural resources, there is little reason for Canadians not being fully conversant with the many advantages Canada possesses.

A review of current literature on such subjects as the water-powers on our rivers, the protection and development of our forests, and our mineral deposits only whets the appetite for more detailed information. To those desirous of knowing more fully what Canada's heritage really represents, the Commission of Conservation can supply a number of reports on water-powers, on forests and on mines and minerals. These have been produced in a form to give them permanent value, and are generously illustrated.

The school teacher, with limited library and often of limited means, will find in the Commission's reports much information that will be of assistance in teaching, apart from providing the opportunity of acquiring knowledge of Canada and her resources at a minimum of expense.

Work for the Birds

Value Equal to One-third Canada's Budget Destroyed Annually by Insects

"The annual loss in Canada to field, orchard and garden crops, due to destructive insects, is, on a conservative estimate, upwards of $200,000,000. To this huge devastation must be added the enormous annual destruction caused by forest insects, stored produce insects, etc. It is certain that these losses would be much greater if it were not for our insectivorous birds."—*Arthur Gibson, Dominion Entomologist, in Agricultural Gazette.*

Care of Municipal Property

In our towns and cities one cannot go far without observing conditions of neglect and carelessness due entirely to the lack of interest of the people themselves.

Unfortunately, the average citizen feels that once he has paid his taxes he has fulfilled his duty, and the city can do the rest. He overlooks the fact that the city is but an aggregation of units, of which he is one; that any improvements or maintenance charges must be paid for by these units, and he must bear his share.

It is a well-known axiom that a careless employer is reflected in a careless employee, which largely accounts for the fact that in altogether too many cases the cost of municipal public works is largely in excess of the cost of such works when privately carried out.

Many instances might be cited of losses due to either wilful damage or carelessness by the people themselves. In an eastern city during the past month a sewer became blocked by the depositing of material which could not be carried away. Many cellars were flooded and a cost of $30,000 entailed. These losses are reflected in the tax rate, and just so long as so much of the public revenue must be utilized to replace or repair the effects of neglect or disregard of public property, just so long will the tax rate continue to increase.

Must We Continue to Pay This Heavy Cost?

The Constantly Mounting Fire Losses Are a Great Drain Upon Our Resources

The fire loss on buildings and contents for first quarter of 1921, amounted to $7,085,600, equal to $55 per minute, or $872,000 more than for the same period of 1920.

Canada is passing through a season of business depression; the demand on all sides is for the exercise of economy, not only in private life but in public affairs. Parliament is critically surveying every item of the national budget for possible reductions. The estimates call for the largest sum Canada has ever been required to raise, over $565,000,000, and yet, large as this sum is, the Minister of Finance could go into the open market and borrow the money at approxinmately the same cost for interest as is represented in our annual fire waste.

Unfortunately, there is little indication of a reduction in the fire loss; to much the larger portion of fire sufferers the loss is made easy by the fact that it is covered by insurance, while this same condition tends to make the general public callous of the fire danger.

During the present period of receding values, there is a temptation to unload property on to the insurance companies by cashing insurance policies, and the greatest vigilance should be exercised by insurance companies, fire marshals and fire departments to guard against this danger.

May is usually a prolific month for fires among the smaller risks, due to cleaning-up fires, removal of stoves to summer kitchens, use of wood for temporary heating, etc. Rubbish fires may easily get beyond control, consequently they should never be left alone or in care of children. Stove-pipes and chimneys should be cleaned and, where pipes go through walls or partitions, they should be protected by metal thimbles with air-spaces. It requires but ordinary precaution to overcome any of the above causes, and a little care may avert a conflagration.

Protected Forest Areas

In the Province of Quebec, nearly 90 per cent of the licensed Crown timber area is comprised within the boundaries of the four co-operative Forest Protective Associations, the St, Maurice, the Ottawa River, the Laurentian and the Southern St. Lawrence. These Associations are maintained primarily by the limit-holders and timber owners, but the Provincial Government co-operates financially and otherwise, and the officers of the Associations hold appointments as officers of the Crown. The Provincial Forest Service administers fire protection direct on areas outside Association boundaries, including a large territory north of the Transcontinental railway.

The total area in the four Associations is 40,123,083 acres. During 1920, fires reported totalled 947, of which 634 were extinguished by the rangers without extra labour, 313 requiring the employment of extra men for this purpose. The total cost of extinguishing fires, amounted to $56,714, aside from the regular staff. Total assessed income for the four Associations was $290,055.

The total area burned over within Association territory was 252,795 acres, of which 67,886 acres, or 27 per cent, was merchantable timber. Young growth comprises 12 per cent, cut-over land 24 per cent, and old burns 37 per cent.

The total number of men on regular patrol was 450, and these men issued 7,652 permits for the regulated burning of settlers' clearing operations.—*Clyde Leavitt.*

The Batiscan River

Attractive Power Sites, with Many Lakes Available for Conservation Storage.

Owing to their situation, near the central portion of Quebec province, the water-powers of the Batiscan river are destined to become of much importance in the near future. Rising in the Laurentian mountains, the Batiscan is an important tributary of the St. Lawrence, entering that river at Batiscan. Its drainage basin lies immediately east of that of the St. Maurice river, and covers an area of 1,800 square miles, including over 200 lakes, a number of which could be used for conservation storage. The largest of these, Lake Edward, has an area of 26 square miles, and is situated at an elevation of 1,186 feet above the mouth of the river. Among its other lakes are Batiscan, Little Batiscan, Clair, Des Iles, Algonquin, Three Caribous, Sable and Turtle, each covering an area of from 1 to 3 square miles.

Railways are conveniently situated along the greater portion of its course, affording transportation facilities in connection with the future utilization of the power.

Although the Batiscan offers many attractive power possibilities, as may be seen from the list below, the only site at present in use on the river is at the Grand fall of St. Narcisse, where a 1,350-h.p. hydro-electric plant is in operation. This plant, which supplies electric energy to Three Rivers, is of historical interest. It was the first long distance transmission line in the British Empire, being constructed about 1893, with a length of 18 miles.

Some of the more important power possibilities of the Batiscan, in the order in which they are met in ascending the river from the mouth, are as follows. Most of the information was obtained by the Quebec Department of Lands and Forests:

Power Site	Head in feet	Possible h.p.
Chimney fall and below, 12 mi. from mouth	50	4,000
Grand fall, St. Narcisse	50	Utilized to operate a 1,350 h.p. hydro-electric plant.
Flat fall	27	2,000
Islets fall	28	2,100
Price or Murphy fall, 15½ mi. from mouth	15	1,200
St. Stanislas fall, 16 mi. from mouth	13½	1,000
Grand Manitou fall and above, 24 mi. from mouth	10	830
33 mi. from mouth	12	800
36½ mi. from mouth	10	700
36½ mi. from mouth	15½	1,025
39 mi. from mouth	10½	700
43 mi. from mouth	12½	850
N. D. des Anges, 46 mi. from mouth	69	4,600
Just below Jeannotte river	17	1,000
Rickaby rapid, on Little Batiscan	19	500

The power shown for the various sites could doubtless be greatly increased by proper use of the numerous conservation storage possibilities which the basin offers. The minimum power of the adjacent St. Maurice river has been doubled by the operation of the Gouin and Manuan storage reservoirs.—*L. G. Denis.*