

NORTHERN NEWS

Hydrographic expedition to the Beaufort Sea

The Canadian Defence Research Board's vessel C.G.M.V. *Cancolim II* left Vancouver on July 26 to carry out hydrographic and oceanographic work in the Canadian Western Arctic. The area of operation will be in the Beaufort Sea north of the Canadian mainland, extending eastward into Amundsen Gulf.

The leader of the expedition is Mr. T. H. Manning, Vice-Chairman of the Arctic Institute. The other members of the party are: Dr. W. M. Cameron, in charge of hydrographic and oceanographic work; Mr. F. G. Barber, hydrographer; Mr. A. J. Dodimead, hydrographic and oceanographic technician; Mr. A. H. Lawrie, biologist; Mr. C. L. Merrill, geographer, also the ship's engineer; Mr. G. F. Hattersley-Smith, geologist and glaciologist; Mr. A. H. Macpherson, biological technician; and Mr. C. MacDonald, cook.

The C.G.M.V. *Cancolim II* is an 80-foot vessel of 82 gross tons built in Vancouver in 1940 for fisheries inspection work. She was requisitioned during the war by the Royal Canadian Navy, in which service she was renamed H.M.C.S. *Flores*. Her diesel engines develop 232 h.p., giving her a speed of 11 knots. She has been refitted for scientific work and provided with additional iron bark sheathing as protection against ice.

As well as the hydrographic and oceanographic program the expedition hopes to carry out fisheries investigations for the Fisheries Research Board, collect birds and mammals for the National Museum and ectoparasites for the Department of Agriculture, gather information on game and fur-bearing mammals, and make astronomical fixes for the Geodetic Survey. At the end of the season it is planned that the party will return south by air, leaving the vessel to winter in the Arctic, ready for further work next year.

Some relationships of plant communities to the physical environment in Alaska

During the summers of 1949 and 1950 I carried out studies on the plant communities in various parts of western Alaska with the aid of a research grant from the Arctic Institute¹. Particular studies were made of the floristic composition and relationships of the communities to the substratum. Soil profiles were examined and the working and maximum depths of the root systems were determined for a large number of communities from trenches dug in the substratum.

The major communities, such as the several kinds of forest and shrub, strand zones, marsh and bog communities, grasslands, and the tundra complex, are readily recognized. The minor and micro communities present greater difficulties. During the past two summers a number of minor communities have been identified and studied. It was found that stands in widely separated areas often show striking similarities, not only to one another, but also to those in Norway, described by Nordhagen in his monograph on Sikilsdalen.² For example, the hummocky marsh complex near sea level at Kotzebue, consisting of dwarf shrubs, sphagnum, mosses, and lichens on the hummocks, and sedges in the depressions, is similar to the stand beside Wonder Lake at 2,000 feet in Mount McKinley National Park, and to the *Oxycoccus microcarpus-Empetrum hermaphroditum-Sphagnum* association at 4,000 feet in Sikilsdalen, Norway. At Kotzebue, in this community, the ground was frozen on 10 August 1949 at 15 to 20 inches below the surface; but at

¹From funds provided by the U.S. Office of Naval Research.

²Nordhagen, Rolf. "Sikilsdalen og Norges Fjellbeiter, en Plantesosiologisk Monografi". *Bergens Museums Skrifter*, Vol. 22 (1943) pp. 1-607.

Wonder Lake no frozen ground was found to a depth of 43 inches (roots to 40 inches) on August 25. Near Nome in similar communities the frozen ground was 10 to 14 inches below the surface.

The dwarf-heath shrub-lichen communities on hillsides northeast of Nome and on slopes at Shungnak near the Kobuk River, are similar to Nordhagen's *Betula nana*-*Empetrum hermaphroditum*-*Cetraria nivalis* association. This community is of great economic importance, both in Alaska and in Norway, because of the large amount of winter forage it produces for reindeer, as well as for caribou in Alaska.

Most interesting is the *Kobresia myosuroides* - *Dryas octopetala* - *Hedysarum alpinum americanum* community studied in Mount McKinley National Park. According to Dr. Adolph Murie this community is a favourite feeding ground for mountain sheep during the winter. The lime content of the soil was high, the pH ranging from 7.8 near the surface to 7.2 at a depth of 3 feet. The ground was frozen below 38 inches; the roots were numerous to the working depth at 26 inches, with a maximum root depth of 37.5 inches; and snail shells (*Succinea strigata* Pfeiffer) were found to a depth of 35.5 inches. This community is similar to the *Kobresia myosuroides* association in Norway.

Much research is needed on the composition, characteristics, and environmental relations of plant communities in many parts of Alaska in order that they may be classified, related to communities elsewhere in arctic, subarctic, and alpine regions, and used as an aid in land management.

HERBERT C. HANSON

Arctic Dog Disease¹

In 1947 Dr. P. J. G. Plummer showed that rabies existed in the Canadian Arctic and that there appeared to be a definite connection between rabies and arctic dog disease (*Arctic Circular*, Vol. 1 (1948) pp. 37-8 and 55-6). It is gener-

¹Reprinted from the *Arctic Circular*, Vol. 4, No. 3 (1951) pp. 47-8.

ally accepted that there are at least two distinct types of arctic dog disease, one resembling distemper and the other rabies. In outbreaks of the disease a diagnosis is possible only by examination of specimens, which should be sent to the Animal Diseases Research Institute, Hull, P.Q.

There are certain precautions which must be taken when shipping both carcasses and sick dogs. If the animal has died of rabies the saliva and urine will be dangerous. The head should therefore be chopped off and placed in a tin, a lard pail is a convenient size, and shipped in such a manner that it cannot leak. The body should be wrapped in sacking and frozen if possible. If rabies is suspected the head alone is required for diagnosis. Live animals must always be treated with the greatest caution.

Before dogs can be moved from the Northwest Territories permission must be obtained from an inspector under the Animal Contagious Diseases Act or a member of the R.C.M.P. This regulation was published in a Ministerial Order of the Department of Agriculture of 11 March 1949.

As a protective measure vaccine against rabies has been sent to R.C.M.P. posts in the Northwest Territories and the Labrador, and as many dogs as possible have been inoculated. As the vaccine affords protection for a limited time only, the inoculation must be repeated, which will be done without charge. All dogs must be inoculated before permission to leave the Northwest Territories can be granted. Distemper vaccine is not supplied free of charge.

Arrangements to ship dogs or carcasses to the Animal Diseases Research Institute, should, if possible, be made through the R.C.M.P.

Uranium prospecting in Alaska

Several field parties of the U.S. Geological Survey are making reconnaissance studies in Alaska this summer as part of a joint Geological Survey-United States Atomic Energy Commission program to appraise the potentialities for uranium

production in Alaska. This work was initiated during the Second World War.

To aid uranium prospectors the Geological Survey has opened a laboratory, at present housed in the University of Alaska, near Fairbanks, where samples will be examined free of charge. The radioactivity of samples will be determined and if uranium is present in sufficient quantity the nature of the uranium minerals will be investigated. Samples should be addressed to: Alaskan Trace Elements Unit, Geological Survey, P.O. Box 1088, Fairbanks, Alaska. In addition Geological Survey field offices at Fairbanks and Juneau will carry out preliminary radiometric tests on samples submitted by prospectors and will forward those of interest to the new laboratory for further study.

Microfilms of M'Clintock journals

The Northern Administration Branch of the Canadian Department of Resources and Development has received a set of three microfilms from Mr. H. F. M'Clintock of journals relating to expeditions made by his father the late Admiral Sir F. L. M'Clintock. The three microfilms are as follows:

- (1) Arctic Journal kept by Dr. Scott, R.N. while serving in H.M.S. *Intrepid* under Cdr. F. L. M'Clintock, R.N., 1852-4.
- (2) Journal kept on sledge journey by Lieut. F. L. M'Clintock, H.M.S. *Assistance*, 1850-1.
- (3) Arctic Journals of Admiral Sir F. L. M'Clintock in
 - (i) H.M.S. *Enterprise* 1848-9;
 - (ii) H.M.S. *Assistance* 1850-1;
 - (iii) H.M.S. *Intrepid* 1852-4;
 - (iv) Yacht *Fox* 1857-9, with reports by Lieut. Hobson of journey in 1859 and finding of the Franklin Record, and by Capt. Allen Young of journey in 1859 to Prince of Wales Land.

Further copies of these microfilms can be obtained at a small cost from the Director of the National Library, Kildare Street, Dublin, Eire.

Tuberculosis Survey: James and Hudson bays, 1950¹

In the summer of 1950 an X-ray survey of the natives living in the area to be served by the new hospital at Moose Factory was carried out by the Indian Health Services of the Department of National Health and Welfare. The area covered included the west coast of James Bay and the east coasts of James and Hudson bays as far north as Cape Smith. Dr. R. N. Simpson was in charge of the Survey and the party included Dr. D. S. Davis, dentist, and Mr. K. Wedderspoon, technician.

The party arrived at Moosonee on June 12 and, after having held clinics at Albany, Attawapiskat, Moose Factory, and Moosonee proceeded to Rupert House by R.C.M.P. Peterhead boat. Clinics were held at Rupert House and Nemiscau, which was reached by aircraft, and the party then went on to Eastmain. There, as at Rupert House, the natives seemed to have many minor complaints which were thought to be the result of poor living conditions prior to the beaver quota. On the way north the party stopped at the Cape Hope Islands and arranged for the Eskimo there to go to Old Factory. At Old Factory the living conditions of the Eskimo were found to be poor since they had had little or no trapping. A beaver quota which has now been arranged should improve their economy. At Fort George, the largest settlement in the James Bay area, 680 X-rays were taken. At this post there are two distinct groups of Indians and a small group of migrant Eskimo. The larger group of Indians, known as Inlanders because they travel inland for great distances to their trapping grounds, are prosperous and healthy, while the smaller group, known as Coasters as they stay near the post when the trapping is poor, as well as the Eskimo, have a lower standard of health.

The party left Fort George on August 1 and, after calling at an Eskimo camp

¹Reprinted from the *Arctic Circular*, Vol. 4, No. 3 (1951) pp. 45-7.

on the way, reached Great Whale River the following day. The Eskimo there were found to be lazy, shiftless, and poorly nourished as they preferred to hang around the post rather than hunt for food.

After leaving Great Whale River, the party visited the Belcher Islands where three clinics were held: at the trading post on Tukarak Island, at Eskimo Harbour, and at a camp in Omarolluk Sound to the southwest. The Belcher Eskimo are isolated nearly the entire year because of fog and storms in the summer and ice in the winter. The islands are bleak but native food is plentiful and the islanders were by far the healthiest group visited. Apart from the old and crippled there was no sickness and no complaints and the only things the natives were anxious for were tea and tobacco.

After leaving the Belcher Islands, clinics were held at Richmond Gulf, a camp near Taylor Island, Port Harrison, a camp near Povungnituk, and Povungnituk. Eskimo from a camp near the Hazard were taken to Richmond Gulf by the party as the sea was too rough to unload the equipment at the camp. Cape Smith was not visited as the post manager was away and there was no radio communication. The party therefore returned to Port Harrison and left by air for Moose Factory on September 10, having completed 3474 X-rays in the course of the Survey.

At all places visited general health was examined, arrangements were made for the sick to be evacuated to hospital, and dental work was carried out. The following table gives a summary of the results of the X-ray survey:

	Indian	Eskimo	White
Number of X-rays	2419	850	205
Active disease	106	57	8
%	4.38	6.71	3.80
Repeat X-rays %	4.517	5.65	5.37

	No. of X-rays	% Active disease	% Repeat X-rays
Moosonee	143	4.9	9.1
Albany	240	4.2	5.4
Attawapiskat	312	2.2	6.4
Moose Factory	363	2.8	6.6
Rupert House	326	3.4	2.8
Eastmain	142	6.3	4.9
Old Factory	313	4.5	3.2
Fort George	680	4.7	3.4
Great Whale River	190	13.7	8.4
Belcher Islands	159	1.3	3.15
Richmond Gulf	107	10.1	8.2
Port Harrison and Povungnituk	499	5.4	4.4

The following list is taken from the Survey carried out from the *C.D. Howe*:

Fort Chimo	341	3.5
Baffin Island	598	11.4