

The plant-parasitic nematodes include a grass nematode, *Anguina agrostis* (Steinbuch), which was found parasitizing the seed heads of *Arctagrostis latifolia*. A stem nematode, *Ditylenchus* sp., was found attacking the leaves of *Dryas integrifolia*.

Acknowledgements

For the Canadian Arctic Expedition collection of 1915-16 I am indebted to various members of the National Museum of Canada, Ottawa, who made this collection available. Thanks also go to the Defence Research Board, Ottawa, and to Dr. G. Hattersley-Smith, the leader of Operation Hazen, for making available the facilities at Hazen Camp.

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¹Cobb, N. A. 1921. Nematodes collected by the Canadian Arctic Expedition under Stefansson. (Read before Helminthol. Soc. Wash., D.C., Jan. 1921). *J. Parasitol.* 7:195-196.

The Friends of Polar Research, University of Wisconsin

The Friends of Polar Research have concluded their first year of meetings at the Geophysical and Polar Research Center, University of Wisconsin. *The Friends* are an informal organization of university staff and students interested in the broad field of polar studies. Membership in the organization is drawn from sixteen departments ranging from Anthropology to Zoology and meeting attendances range from 20 to 35 persons. At each meeting a lecture is given followed by a lively and stimulating discussion among the group. The evening concludes with coffee and convivial comradeship. The speakers and topics during the past year have been: Prof. Osmund Holm-Hansen (Biology), "Laboratory studies on organisms isolated from the Antarctic"; Prof. Kirk Stone (Geography), "Norden to Alcan — a transfer of settlement experience"; Prof. Robert Black (Geology), "Pat-

terned ground in Antarctica"; Prof. William S. Laughlin (Anthropology), "Origin of Eskimos and Aleuts"; Prof. Robert Ragotzkie (Meteorology), "Antarctic Lakes"; and Mr. Mario Giovinetto (Geophysical and Polar Research Center), "Antarctic Glaciology". A similar, full and stimulating program is planned for the 1963-4 academic year.

A NOTE ON ICE ISLAND WH-5†

As reported by Hattersley-Smith¹ Ice Island WH-5, the easternmost and largest (approximately 20 by 9 km.) of the islands resulting from the massive calving of the Ward Hunt Ice Shelf during the winter 1961-2, drifted eastward, whereas the other four islands drifted westward. WH-5, tracked through radar photography by the U.S. Navy "Birds-eye" ice reconnaissance flights, continued its eastward movement during the winter 1962-3. It entered the Lincoln Sea, moved south through Robeson Channel and between February 24 and 28, 1963 became lodged across Kennedy Channel, with one end resting against the shore of Ellesmere Island and the other end held by mid-channel Hans Island. In this position the ice island formed an effective barrier to the southward movement of sea-ice from the Arctic Ocean. Open water soon appeared south of the obstruction and by May extended well into Kane Basin.

In a study of WH-5 during the summer of 1963 emphasis was placed on physical oceanography, both to observe the local influence of the ice island and to take advantage of the unusual presence of open water in an area where ice normally restricts ship operations. The study was directed by D. C. Nutt and L. K. Coachman and was sponsored by the Arctic Institute with support from the U.S. Office of Naval Research and the U.S. Coast Guard and the collaboration of the Woods Hole Ocea-

†This brief note, based only on data immediately available, is being published to provide timely information on the recent drift and break-up of ice island WH-5. A more comprehensive report will follow.

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nographic Institution, the U.S. Naval Oceanographic Office, the U.S. Military Sea Transportation Service and the U.S. Air Force at Thule, Greenland.

Oceanographic observations were made from the USCGC *Evergreen* between July 27 and August 4. Under the direction of R. Snyder of the Woods Hole Oceanographic Institution ten Richardson current meters suspended from three buoys recorded currents for a period of nearly 3 days in the narrow part of Smith Sound. These are the first direct current measurements ever made in this channel connecting the Arctic Ocean with Baffin Bay. The U.S. Coast Guard oceanographic team, under the leadership of A. Franceschetti and R. O'Hagen, occupied 44 oceanographic stations. Detailed cross-sections of the channel, consisting of serial observations of temperature, salinity, dissolved oxygen, nitrate, phosphate, and silicate, were obtained just south of Kennedy Channel, across the middle of Kane Basin, across the narrow part of Smith Sound, and from southern Ellesmere Island to Greenland just south of Thule. Other stations were made between the sections and to the south in northern Baffin Bay, with emphasis placed on closely spaced sampling near the bottom.

Preliminary examination of the data immediately available indicated that the obstruction in Kennedy Channel had a pronounced effect on the surface water to the south of it. Because pack-ice was prevented from drifting south, the open water that appeared in Kennedy Channel and Kane Basin apparently became subject to much greater than normal solar heating during May, June, and July. Surface temperatures in the area of open water were as high as 5 to 6°C. and temperatures at 10-metre depth were occasionally as high as 4°C. Normally Kane Basin remains ice covered during the summer and the surface water remains cold. After the breaking of the ice dam both pack-ice and ice island drifted south and were subject to severe erosion by this comparatively warm surface water. Only the heaviest of the pack-ice survived

the journey across Kane Basin and the pieces of the ice island suffered severe attrition.

Data on the break-up of WH-5 and the movement of the pieces were obtained as frequently as possible through aerial reconnaissance and surveillance from the USCGC *Westwind* when operating in the area. Our first reconnaissance out of Thule on July 24 showed that the island, still as a single piece, had moved away from the western side of the channel and was located east of Hans Island and north of Franklin Island, with its axis parallel to that of the channel. It had evidently passed to the north of Hans Island and rotated 90 degrees. From observations of the initial southward drift of sea-ice from northern Kennedy Channel after the removal of the obstruction it was possible to calculate with confidence that the date of release was July 22. On July 26 the island lay between Hans and Franklin islands and had broken into three major pieces and many small fragments. By July 30 the pieces were located in northern Kane Basin, having moved south at the rate of 18 to 24 km. per day. From July 30 to August 5 the major pieces continued south across Kane Basin to Smith Sound at an accelerated rate of 24 to 30 km. per day. However, when next observed on August 10/11 the rapid southward movement had abruptly stopped and a slow northward movement had set in, which continued until August 13, when the last observations were made.

At present no simple explanation can be offered for the irregular movement. Southerly winds, which prevailed in Smith Sound from July 30 to August 3 and again from August 9 to 11, may have interrupted the rapid southerly movement. Alternatively, the sudden change in speed and direction suggests that the Arctic Ocean-Baffin Bay exchange may take place in pulses; this view is supported by the fact that in the initial freeing of the ice island from Kennedy Channel there must have been some northerly movement of the water to free the island and allow it to move, intact, out of the main channel.

The three major pieces of the ice island, still of considerable size and with comparatively uniform underwater aspect, are excellent indicators of the integrated movement of the upper 40 metres of the water. To permit further tracking in the immediate future by ships and aircraft that may be in the northern Baffin Bay-Smith Sound area the three pieces have been identified, instrumented and marked as detailed below. At that time no trace was found of the four radar reflectors placed on WH-5 by the Canadian Polar Continental Shelf Project in 1962. Three of these were in or close to major fracture zones of the break-up in 1963. On August 13 the pieces were located in the positions given below, but their edges are being eroded rapidly and further break-up may alter their size and shape.

Piece A: approximately 11 by 7.5 km.; location at 2000 hrs. on August 13 78°52'N. 72°10'W.;

radio beacon, 10-ft. steel tripod painted orange, 2-watt radio transmitter, emitting one CW pulse every 3.5 seconds on 2398 Kc/s, mounted near centre of island;

markings, two orange trail flags on 10-ft. poles close to beacon, six orange barrels with similar flags near each placed in a circle 2 km. in diameter around beacon.

Piece B. approximately 10 by 2 km.; location at 2000 hrs. on August 13, 78°48'N. 72°25'W.;

radio beacon, similar type beacon emitting a CW pulse every 7

seconds on the same frequency; markings, four orange trail flags close to beacon; six dark olive barrels with black trail flags near each placed in line about 4 km. long on the axis of island with beacon in centre.

Piece C: approximately 5.5 by 4 km.; location at 2300 hrs. on August 13, 78°17'N. 74°30'W.;

description, no beacon or marking was placed on this piece, but one corner appears to be composed of ice that is much thinner and bluer in colour than the remainder of the piece.

The present battery-powered transmitters have a life of about 2 months, or until the weather becomes too cold. Plans are being made to provide the beacons with long-life cold-weather batteries, and to install radar reflectors, so that the pieces may be tracked during the winter and possibly identified next year off Labrador or Newfoundland. The pieces may survive for some time and duplicate the historic drift of the party from the *Polaris*, which was cast adrift on an ice floe in Smith Sound in October 1872 and rescued the following April off the coast of Labrador.

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¹ J. Glaciol. 4:415-24.

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Institute News

Election of Fellows

At the meeting of the Board of Governors on May 25, 1963 the following were elected Fellows of the Institute:

Dr. Roland Beschel, Queen's University, Kingston, Ontario.

Dr. Henry B. Bigelow, Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts.