

follows: after 7 years, about one-half of all nests in trembling aspen (*Populus tremuloides*) and three-quarters of those in Douglas fir (*Pseudotsuga menziesii*) were still usable, whereas after 15 years about one-third of aspen nests and one-half of Douglas fir nests were usable. Compared to the earlier summary, the figures are similar up to 7 years (Table 1), but some nests were much more durable than had been thought. Possibly some trees were weakened by having been cut open or climbed during the intensive studies, and thus tended to fall soon afterwards, suggesting that sites were less durable

than they actually were. Nevertheless, aspens are not long-lived trees, and the Douglas firs that contained nest holes were mostly already dead or broken off, so these data may be representative. Only four previously known trees with nest holes that were no longer present in 1975 had evidently been felled or cleared away deliberately (during cottage or resort development); the rest were judged to have fallen from more natural causes.

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Range Extensions to the Flora of the Eastern Canadian Arctic

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The annual sovereignty mission by Maritime Command into the Arctic has afforded the staff and students of the E. C. Smith Herbarium an unparalleled opportunity to explore botanically unknown areas in the eastern Canadian Arctic. Although most of our interest has focussed on clarifying biosystematics of the polymorphic *Vaccinium uliginosum*, we have nevertheless accumulated distributional data of species associated with that species, some of which represent significant range extensions. Occasionally we visited a site where *V. uliginosum* was absent, in which case a general collection was made. A total of 146 species of vascular plants was collected over a 4-year period, 1972-1975. Specimen vouchers have been deposited in ACAD.*

Collections from some sites, such as Coburg Island (75°49'N, 79°27'W), Makinson Inlet (three sites: 77°19'N, 82°14'W; 77°16.5'N, 81°13'W; and 77°10.5'N, 81°35'W) are the first for these locations. No major extensions were noted at these sites. The specimens collected from Coburg Island were *Salix arctica*, *Cerastium alpinum*, *Draba bellii*, and *Cassiope tetragona*. Plants from the Makinson Inlet sites were *Carex rupestris*, *Carex misandra*, *Salix arctica*, *Polygonum viviparum*, *Papaver radiculatum*, *Cochlearia officinalis*, *Draba bellii*, *Braya purpurascens*, *Saxifraga cernua*, *Saxifraga oppositifolia*, *Dryas integrifolia*, *Cassiope tetragona*, and *Pedicularis lanata*.

In addition, some species were collected from areas for which there seems to be no previous record, and range extensions are indicated for at least three species. These extensions are based primarily on distribution maps in Porsild (1964) and Hultén (1968), and from annotations on specimens deposited at CAN and DAO.

Poa alpigena var. *colpodea* — Occasional in wet gravel by river (Strathcona Sound, 73°07'N, 84°25'W; 1975).

This collection is on the eastern fringe of the known range for the Canadian Arctic. The variety also occurs in northern Greenland (Porsild 1964).

Dupontia fisheri ssp. *psilosantha* — Common in mesic gravel by river (Strathcona Sound, 1975).

This collection would be on the northern fringe of the range as indicated by distribution maps. CAN, however, has one collection from Expedition Fjord, Axel Heiberg Island (Beschel, CAN #293413). Our collection helps fill in the known distribution for this subspecies.

Juncus arcticus — Common in wet sand by river (Strathcona Sound, 1975).

Distribution maps for this species indicate a northern limit about 300 km farther south, near River Clyde on Baffin Island (Porsild 1964). CAN has one collection from Tanquary Fjord, Ellesmere Island, considerably to the north (G. R. Brassard, CAN #296268). Our collection helps to fill in this distributional gap.

Luzula spicata — Associated with *Vaccinium uliginosum* on exposed granitic soil (Pond Inlet, 72°38'N, 77°50'W; 1973).

This collection is a range extension of over 400 km to the north from previous collection sites at Cumberland Sound,

*Acronyms follow Index Herbariorum, Holmgren & Keuken (1974).

Baffin Island (Porsild 1964). This species is found at similar latitudes in Greenland (Porsild 1964).

Braya humilis ssp. *arctica* — Rare, on exposed gravel slopes (Strathcona Sound, 1975).

This collection is an extension to the south-east of the known range. Porsild (1964) shows collection points on Axel Heiberg Island and on Victoria Island. In addition, CAN has one collection from Irene Bay, Ellesmere Island, 72°02'N, 81°50'W (Irene Waterson #106/72).

Arctostaphylos rubra — Common on exposed rocky slopes (Strathcona Sound, 1975).

This collection is a range extension of over 400 km to the north. Porsild (1964) shows a collection site on West Baffin Island, just east of Prince Charles Island.

A complete species list of the plants collected is available and may be obtained by contacting the authors. It will be updated regularly with data from ongoing and future expeditions by Acadia University in conjunction with Maritime Command.

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Literature Cited

- Holmgren, P. K. and W. Keuken. 1974. Index Herbariorum. Part I. The herbaria of the world. 6th edition. Oosthoek, Scheltema, S. Holkema, Utrecht, Netherlands.
- Hultén, E. 1968. Flora of Alaska and neighboring territories. Stanford University Press, Stanford, California. 1008 pp.
- Porsild, A. E. 1964. Illustrated flora of the Canadian Arctic Archipelago. 2nd edition, revised. National Museum of Canada Bulletin 146: 1–218.

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