



Vascular plant biodiversity of Dorset and Mallik islands, Nunavut, Canada: an annotated checklist of a middle Arctic flora in the Canadian Arctic Archipelago

JEFFERY M. SAARELA^{1,2}, PAUL C. SOKOLOFF^{1,3} & ROGER D. BULL^{1,4}

¹Centre for Arctic Knowledge and Exploration and Botany Section, Research and Collections, Canadian Museum of Nature, Ottawa, Ontario, Canada

²✉ jsaarela@nature.ca; <https://orcid.org/0000-0003-1790-4332>

³✉ psokoloff@nature.ca; <https://orcid.org/0000-0002-7053-8557>

⁴✉ rbull@nature.ca; <https://orcid.org/0000-0002-7991-6593>

Abstract

Establishing a baseline of current Arctic vascular plant diversity and distribution is critical, given the rapid and major environmental changes occurring in the Arctic ecozone in response to climate change. Here, we report the results of a floristic study of vascular plant diversity of Dorset and Mallik islands in the Canadian Arctic Archipelago, Nunavut, Canada. These two small islands lie off the coast of the Foxe Peninsula of southwestern Baffin Island, and they are part of the Circumpolar Arctic bioclimate Subzone C. The hamlet of Kinngait (formerly Cape Dorset) is located on Dorset Island, and Nunavut's Mallikjuaq Territorial Park encompasses all of Mallik Island. The study is based on a specimen-based dataset comprising 876 unique collections from the two islands gathered over the last century, including 268 new ones collected in 2015. Results are presented in an annotated checklist. The vascular plant flora of the study area comprises 26 families, 71 genera, 150 species and three infraspecific taxa; 139 species are recorded on Dorset Island and 102 on Mallik Island. Eleven taxa are newly recorded from the study area in six families: *Carex rupestris*, *Eriophorum scheuchzeri* subsp. *scheuchzeri*, *E. triste* (Cyperaceae); *Diapensia lapponica* (Diapensiaceae); *Equisetum arvense* subsp. *alpestre* (Equisetaceae); *Oxytropis deflexa* var. *foliolosa* (Fabaceae); *Potentilla arenosa* subsp. *arenosa*, *P. hyparctica* subsp. *hyparctica* (Rosaceae); *Antennaria friesiana* subsp. *friesiana*, *Askellia pygmaea*, and *Taraxacum phymatocarpum* (Asteraceae).

Keywords: Cape Dorset, floristics, herbarium specimens, Kinngait, Mallikjuaq Territorial Park

Introduction

Documentation of the vascular plant flora of the Canadian Arctic has been ongoing for over 150 years and collections have been made at sites across the region, as distribution maps in synthetic treatments demonstrate (Porsild & Cody 1980, Aiken *et al.* 2007, Payette 2013, 2015, 2018). Specimen-based sampling across the Canadian Arctic, however, is relatively sparse, given the size of the area (ca. 40% of Canada), and there are collection biases in time, space, taxonomy and life history in Arctic plant collections (Panchen *et al.* 2019), paralleling broader global trends in collection biases (Daru *et al.* 2018). Nevertheless, all collections-based occurrence records of Arctic vascular plants contribute to documentation of the diversity of local, regional and global Arctic floras.

Establishing a baseline of current Arctic plant diversity and distribution should be a priority, given the rapid and major environmental changes occurring in the Arctic ecozone in response to climate change (Vincent 2020). Annual Arctic air temperature is increasing at twice the rate of the global mean Arctic air temperature (Overland *et al.* 2019), and from October 2018 to August 2019 average annual land surface temperature north of 60°N was the second warmest since 1900. Change in Arctic tundra vegetation is among the key indicators of Arctic climate and ecosystem status (Box *et al.* 2019). At the biome scale, increasing vegetation biomass (“tundra greening”) has been documented via satellite monitoring for most regions of Arctic tundra during the period 1982–2018, including mainland Canada, whereas in some areas, such as parts of the Canadian Arctic Archipelago, decreasing vegetation biomass (“browning”) or no trend has been documented during the same period (Frost *et al.* 2019). Plot-based studies of tundra vegetation change through time have documented increased canopy height, increased litter abundance, increased shrub abundance and shifts in phenology associated with climate warming at some sites, and no change in some or all of these variables

at other sites, indicating that vegetation response to warming is not homogenous (Elmendorf *et al.* 2012, Bjorkman *et al.* 2018, 2020). An increase in deciduous and evergreen shrubs has been documented in many areas across the Arctic in response to warming (Myers-Smith *et al.* 2011, Myers-Smith *et al.* 2015, Vowles & Björk 2019). In addition to warming, Arctic shrub expansion is sensitive to factors such as soil moisture and temperature, active layer depth, changes in snow cover, herbivory and natural and anthropogenic disturbance (Myers-Smith *et al.* 2011, Myers-Smith *et al.* 2015, Ackerman *et al.* 2017).

Vascular plant diversity has been surveyed comprehensively in relatively few areas of the Canadian Arctic Archipelago. Local areas in the Nunavut portion of the Canadian Arctic Archipelago for which detailed collection-based inventories have been published include Akpatok Island (Polunin 1934); Resolute, Allen Bay and Assistance Bay on Cornwallis Island (Schofield & Cody 1955); the Lake Hazen region (Savile 1964, Soper & Powell 1985), Tanquary Fiord and van Husen Pass on northern Ellesmere Island (Brassard & Beschel 1968, Brassard & Longton 1970); Coburg Island (unclear if vouchered) (Müller 1977, Müller 1979); Cunningham Inlet on Somerset Island (Sokoloff 2015); Iqaluit (formerly Frobisher Bay) on Baffin Island (Calder 1951); Ogac Lake on Baffin Island (McLaren 1964); the Penny Highlands on Baffin Island (Schwarzenbach 2010); the Truelove Inlet region on Devon Island (Barrett & Teeri 1973); and the Hayes Sound region on Ellesmere Island (Bridgland & Gillett 1983). Syntheses of the floras of larger areas of the Canadian Arctic Archipelago have been published for Coats Island (Gillett 1976), Devon Island (Polunin 1940b), Somerset Island (Savile 1959), Southampton Island (Polunin 1938), the northwestern Queen Elisabeth Islands (Amund Ringnes, Borden, Brock, Ellef Ringnes, King Christian, Lougheed and Mackenzie King) (Savile 1961) and Victoria Island (Saarela *et al.* 2020). Collection-based inventories have been made in other areas of the Nunavut portion of the Canadian Arctic Archipelago, such as Expedition Fiord on Axel Heiberg Island, studied by M. Kuc in 1967, and the Fosheim Peninsula on Ellesmere Island, studied by S. Edlund in 1974 and 1988, but these were not published as stand-alone floristic contributions. More recently, inventories have been conducted in some previously unexplored or underexplored areas of southern Baffin Island that are not yet published (J.M. Saarela *et al.*, unpublished data) or for which only a subset of records has been published (Gillespie *et al.* 2015). Here, we report a floristic study of Dorset and Mallik islands, Nunavut, based on historical and contemporary collections.

Study Area

Nunavut, one of Canada's three territories, was created in 1999. Nunavut comprises more than one-fifth of Canada and includes more than two-thirds of the country's shoreline. The territory includes large mainland and island areas. Baffin Island, in the eastern Canadian Arctic Archipelago, is the largest island in Canada and the fifth-largest island in the world. The Foxe Peninsula comprises the southwestern end of Baffin Island, dividing Foxe Basin to the north and Hudson Strait to the south. The Dorset Island group lies off the southern coast of the Foxe Peninsula, separated from it by a large bay called West Inlet, and is northeast of the Tujjat Islands (Nottingham, Salisbury and Mill islands) in the western end of Hudson Strait. The Dorset Island group comprises several small, rugged islands including Dorset Island (64°13'N, 76°32'W), Mallik Island (64°15'N, 76°37'W), Ukaliqtuuq (formerly Okolli Island; 64°10'N, 76°37'W) and Saqajaa (formerly Sakkiak Island; 64°09'N, 76°33'W) (Fig. 1). The islands are part of the Kingnait Range, which extends along the Foxe Peninsula (Soper 1930b). Geologically, the area is part of the proposed Meta Incognita terrane, and exposed bedrock comprises Proterozoic plutonic rocks dominated by biotite-magnetite monzogranite (Sanborn-Barrie *et al.* 2008). Information on glacial geology of the area is given by Laymon (1992).

Dorset Island is the largest island of the Dorset Island group (6.4 km long and 3.2 km wide) and is the only inhabited one. Topographical features of Dorset Island include the mountains Kinngait (formerly Kingnait Hill; elev. 208 m above sea level, the highest point on the island), located on the northwestern part of the island; Igattaut on the southeast; Muliujaq on the northeast; and Eegatuak Hill on the southeast (Fig. 1). In most places the contours and summits of hills are generally smooth as a result of glacial action (Polunin 1948). Lowland features include raised marine beaches composed of glacial material and cobblestone beach ridges (Polunin 1948). The peninsula Aupaluktuq marks the northeastern point on the island. Cape Dorset (the cape) marks the southeastern point of the island along Hudson Strait; it was named by explorer Luke Foxe, in 1631, to honour his sponsor, Edward Sackville, 4th Earl of Dorset. The community is located on the northwest side of Dorset Island along Kinngait Ilua (formerly Cape Dorset Harbour). The hamlet developed in the 1940s and 50s around the site of a Hudson's Bay Company trading post set up in 1913 (Fig. 2). The community was traditionally known as Kingnait, and later officially as Cape Dorset. The Inuktitut word Kingnait refers to the high hills surrounding the community's harbour and people of the region refer to themselves as Kinngarmiut (Qikiqtani Inuit Association 2013). In December 2019, the hamlet voted to change its name back to Kinngait, and the change was approved by the Nunavut government in February 2020. Hereafter, we use the name Kinngait in reference to the hamlet.

Mallik Island, located immediately northwest of Dorset Island, reaches an elevation of 274 m a.s.l. Mallik and Dorset islands are separated by an arm of West Inlet (Fig. 1). In the northern part of the inlet arm Dorset and Mallik islands are joined by a sandy, bouldered flat that is exposed at low tide and can be traversed by foot. Numerous archaeological sites of the Dorset and Thule cultures are located on Mallik Island. Planning for the development of Mallik Island as a territorial park to protect the islands cultural heritage began in the early 1990s (Ward 1996), when the island was under the jurisdiction of the Northwest Territories. Mallikjuaq Territorial Park now includes all of Mallik Island. The park was given its name, Mallikjuaq, meaning “big wave” in Inuktitut because the hills and valleys of the island resemble rolling waves (Anonymous 2001).

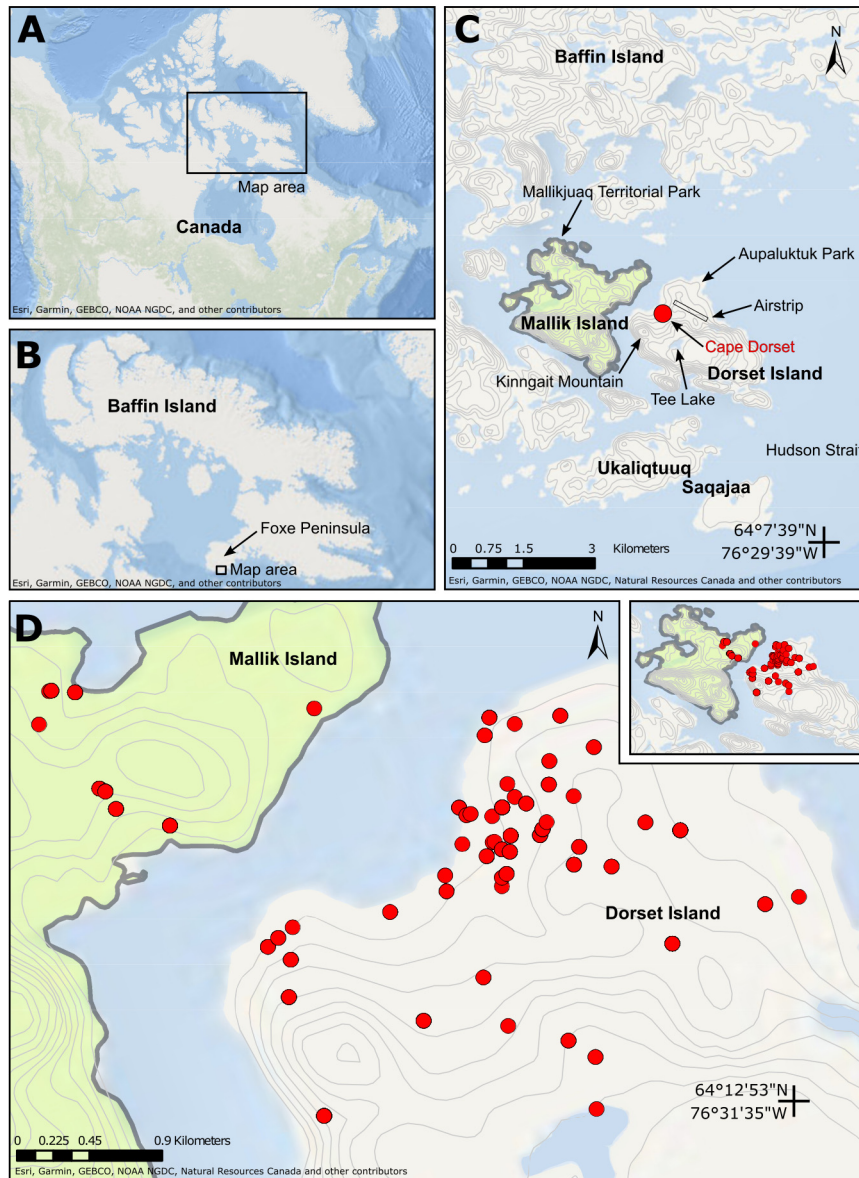


FIGURE 1. A. Map showing the location (rectangle) of Baffin Island, Nunavut, in Canada. B. Map showing the location of the Foxe Peninsula and the study area (rectangle) on Baffin Island, Nunavut. C. Map showing the locations of Mallik Island / Mallikjuaq Territorial Park, Dorset Island and nearby islands off the Foxe Peninsula of Baffin Island. Locations of major geographical features and the hamlet of Kinngait (formerly Cape Dorset) on Dorset Island are indicated. D. Locations of 2015 collecting sites on Mallik Island / Mallikjuaq Territorial Park and Dorset Island.



FIGURE 2. A. Hamlet of Kinngait, looking towards Mallik Island (background), 12 July 2015. B. Hamlet of Kinngait below Kinngait (mountain), 25 September 2010 (Wikimedia Commons CC BY-SA 3.0). C. Hudson's Bay Company's post, Cape Dorset, Baffin Island, NT, c 1929 (Library and Archives Canada MIKAN no. 3327766). D. Hamlet of Kinngait, shoreline, 25 September 2010 (Wikimedia Commons CC BY-SA 3.0). E. Inuit handling stores after ship's departure at Cape Dorset [(Kinngait), Nunavut], Baffin Island, NT, ca. 1929 (Library and Archives Canada MIKAN no. 3380137). Photos by J.M. Saarela (A), Daniel Christopher (B, D) and J. Dewey Soper (C, E).

The Circumpolar Arctic Vegetation Map divides the circumpolar Arctic into five bioclimate subzones (CAVM Team 2003, Walker *et al.* 2005), named A to E from north to south. Subzone A is restricted in Canada to the northwestern Queen Elizabeth Islands, and is the coldest and harshest zone, with a mean July temperature of 0–3°C, <5% cover of

vascular plants, vascular plant growth very low to the ground (barely exceeding the height of mosses, woody plants absent), and less than 50 species in local floras. Subzone E is restricted in Canada to the mainland, and is the warmest and least harsh zone, with a mean July temperature of 9–12°C, 80–100% cover of vascular plants, a herbaceous/dwarf-shrub layer 20–50(–80 cm) tall, and 200 to 500 species in local floras. Dorset and Mallik islands, along with the southeastern third (approximately) of the Foxe Peninsula of Baffin Island and other islands in Hudson Strait, are part of Subzone C with a mean July temperature of 5–7°C, 5–50% cover of vascular plants, herbaceous layer 5–10 cm tall, prostrate and hemiprostrate dwarf shrubs less than 15 cm tall, and 75–150 species in local floras. The remainder of southern Baffin Island, extending to ca. 67°47'N, is part of Subzone D. Climate data for Kinngait is available for station Cape Dorset A (Environment Canada 2019). Kinngait has a mean annual air temperature of $-8.9^{\circ}\text{C} \pm 4.3$ for the climate normal period of 1981–2010 and the mean temperature in July is $7.8^{\circ}\text{C} \pm 1.2$ and in February $-25.4^{\circ}\text{C} \pm 2.8$ for the same period. Mean annual rainfall in Kinngait is 158 mm, with the greatest average rainfall in July (37.8 mm), and mean annual snowfall is 290.7 cm, with the most snow falling in December (37.6 cm).

Polunin (1948) described the vegetation and plant (vascular plants, mosses, liverworts) and lichen communities in the vicinity of the Hudson Bay Post on Dorset Island, the area around which the hamlet developed, based on his observations in August 1934 and August 1936. Overall, vegetation in the area is poorly developed. Vegetation on the rocky hills, which are dark in colour, is sparse, and summits of rocky areas are generally barren. In hilly areas, vascular plants are restricted to depressions and crevices among the rock where some soil has developed, moisture is retained and there is some protection from wind. Common species in this habitat include *Empetrum nigrum* Linnaeus (1753b: 1022), *Luzula confusa* Lindeberg (1855: 9), *Anthoxanthum monticola* subsp. *alpinum* (Sw. ex Willd. in Linneì *et al.* (1806: 937)) Soreng (2003: 112) and *Cassiope tetragona* (Linnaeus 1753b: 393) Don (1834: 158) subsp. *tetragona*. Lowland areas include poorly vegetated dry gravel tundra dominated by *Dryas integrifolia* Vahl (1798: 171) subsp. *integrifolia*, *Luzula confusa* and *Saxifraga oppositifolia* Linnaeus (1753a: 402). Heath communities are present in moister lowland areas where snow accumulates. Small tarns and muddy or marshy areas are scattered throughout lowland areas. Snow accumulation and duration throughout the growing season affect lowland vegetation. Areas where deep snow accumulates, but melts relatively early, are dominated by *Cassiope tetragona* subsp. *tetragona*. Areas where snow melts late are often dominated by *Salix herbacea* Linnaeus (1753b: 1018). Woody plants tend to be absent from areas where snow remains the longest, and such habitats are dominated by herbaceous plants. Seashore communities include *Puccinellia phryganodes*-dominated areas that extend below high tide, saltmarsh communities in sheltered muddy areas dominated by *Puccinellia phryganodes* subsp. *neoarctica* (Löve & Löve 1976: 499) Elven in Elven & Murray (2008: 435) and including other typical Arctic saltmarsh species such as *Carex subspathacea* Wormsk. in Oeder (1816: 4, pl. 1530), *C. ursina* Dewey (1835: 240) and *Stellaria humifusa* Rottbøll (1770: 447), and dryer, gravelly areas above the high tide line dominated by *Leymus mollis* subsp. *villosissimus* (Scribner 1899: 236) Á.Löve & D.Löve in Löve (1950: 33), *Mertensia maritima* subsp. *tenella* (Fries 1870: 127) Elven & Skarpaas in Skarpaas *et al.* (2004: 590) and *Honckenya peploides* subsp. *diffusa* (Hornemann 1821: 501) Hultén ex V.V.Petrovsky in Tolmachev (1971: 71). Today, disturbed areas within Kinngait and vicinity are extensive and often have luxurious plant growth. In the Circumpolar Arctic Vegetation Map (CAVM Team 2003, Walker *et al.* 2005) the Foxe Peninsula, including Dorset and Mallik islands, is classified as being dominated by prostrate/hemiprostrate dwarf-shrub tundra. Images of a subset of the habitats in the study area are shown in Figs. 3 and 4.

Collecting History

Most previous collecting of vascular plants in the study area occurred in the 1920s and 1930s, after the establishment of the Hudson Bay Trading Post. The first plant collections from Kinngait were gathered in 1922 by Mr. Ralph Robinson, chief assistant to Donald Baxter MacMillan, during the 12-month MacMillan Expedition of 1921–1922, which overwintered at Schooner Harbour on southwestern Baffin Island and then circumnavigated Foxe Basin (Allen 1962). Robinson's collections from southwestern Baffin Island, housed at the Gray Herbarium, Harvard University (GH), were reported by Fernald (1923). In addition to Kinngait, Robinson made collections at "Bowdoin Harbour" [Schooner Harbour], the shore of "Cairn Lake", "Seal Harbor", "Queen's Cape" and "Cannon Inlet". Major Lachlan T. Burwash, Department of the Interior, Canada, made collections at Kinngait from 15–25 June 1924, as part of broader exploration of southwestern Baffin Island (Smith 2014). Naturalist J. Dewey Soper collected vascular plants at Kinngait in June and July 1926, having travelled there overland from Pangnirtung, Baffin Island, earlier that year, as part of an expedition undertaken on behalf of the National Museum of Canada, Ottawa (Soper 1928, 1930a, 1944). In addition to vascular plants, Soper collected liverworts and mosses (Steere 1939), birds, insects and mammals in the vicinity of Kinngait in 1926 (Soper 1928). Malte Oscar Malte, Chief Botanist, National Museum of Canada, made collections in Kinngait two years later, on 4 August 1928. Malte was travelling aboard the Hudson Bay Company supply ship *RMS*

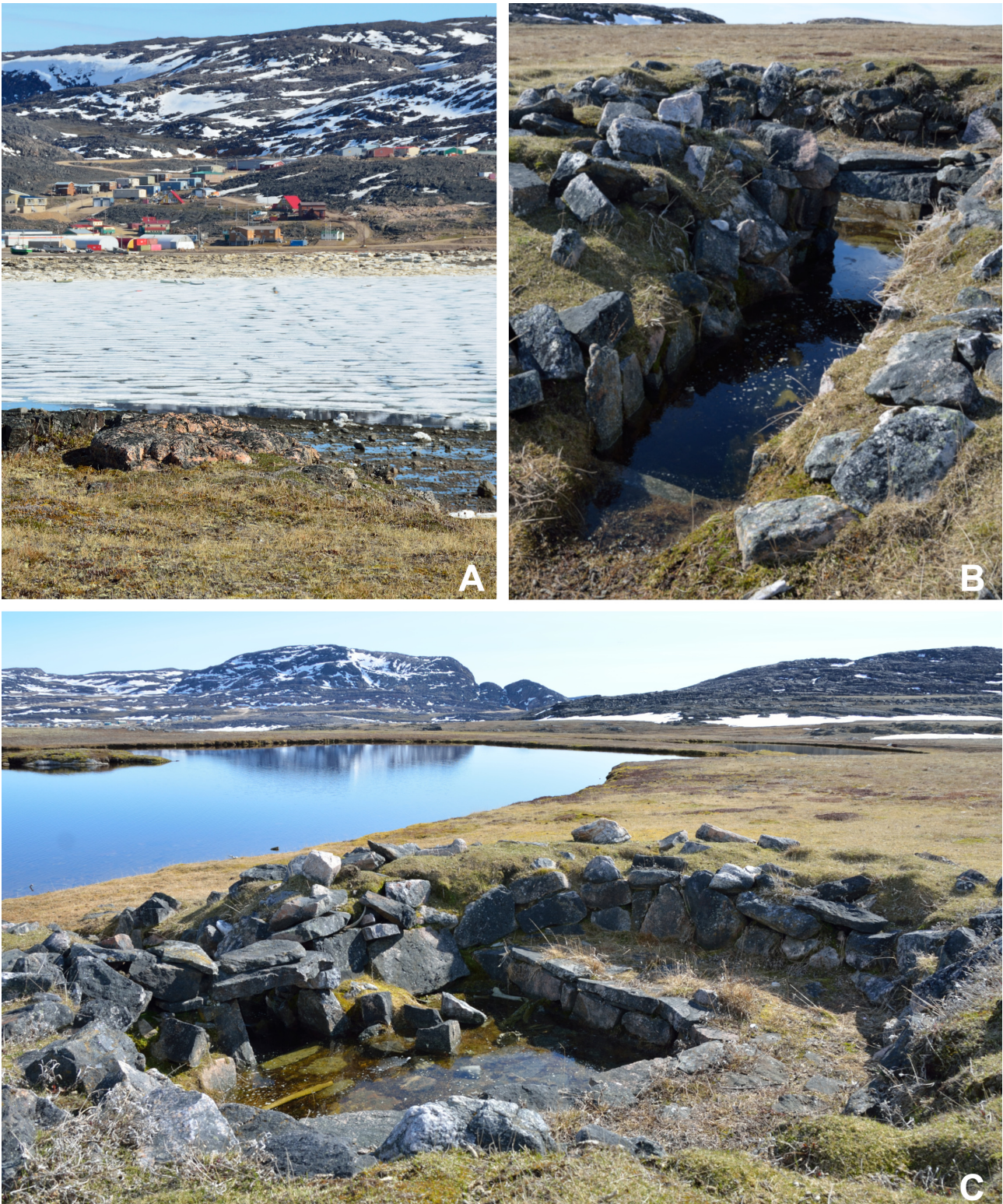


FIGURE 3. Habitats. A. A portion of Cape Dorset Harbour and the hills behind the harbour, looking south across West Inlet from the shore of Mallik Island, 4 July 2015. B. Thule house (date of occupancy unknown) and mesic tundra adjacent to small pond, looking southwest towards Kinngait on Dorset Island. West Inlet between Dorset Island and Mallik Island is not visible in the photo, 4 July 2015. C. Thule house and mesic tundra adjacent to small pond, looking northwest, on Mallik Island, 4 July 2015. Photos by R.D. Bull

Nascopie, which made numerous stops along Hudson Strait and in Hudson Bay, and he gathered botanical collections at all stops, including at Kinngait (Collins 1929). Nicholas V. Polunin, Oxford University, made collections at Kinngait on 28–29 August 1934, travelling aboard *RMS Nascopie* as part of the Eastern Arctic Patrol of 1934. Polunin and Rev. Arthème H. Dutilly, Catholic University of America, were members of the Eastern Arctic Patrol of 1936, travelling

aboard *RMS Nascopie*; they both collected, independently, at Kinngait on 25 August 1936. Roland Holroyd, La Salle College, Pennsylvania, made at least one collection in Kinngait in 1937. Thomas H. Manning collected at Kinngait in 1938, during the British-Canadian Arctic Expedition, on which he served as surveyor and zoologist (Macpherson 1999). Margaret Oldenburg, of Minnesota, made a few collections in Kinngait in 1939. Robert Hainault and R. Norman collected on Dorset and Mallik islands in 1970; their collections of vascular plants are the first ones from Mallik Island. Susan Aiken and Annie Archambault, Canadian Museum of Nature, collected plants at Kinngait in August 2005, during research associated with the Flora of the Canadian Arctic Archipelago project (Aiken *et al.* 2007).

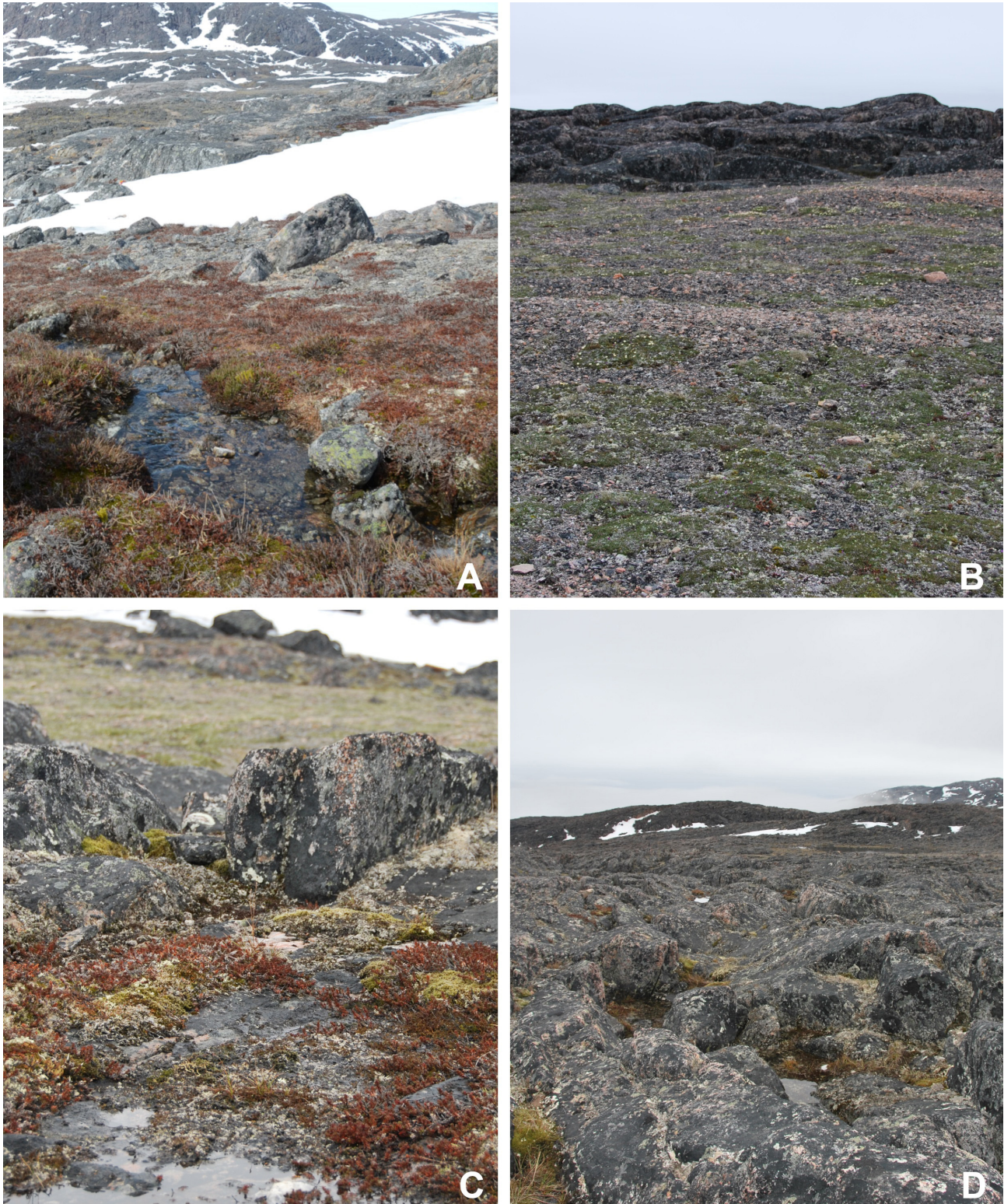


FIGURE 4. Habitats. A. Tundra community along a meltwater stream, 4 July 2015. B. Dry tundra habitat, Dorset Island. C. Sparse vegetation among rocky outcrops. The dark-reddish plant is *Empetrum nigrum*. D. Barren rocky tundra. Photos by R.D. Bull (A) and J.M. Saarela (B, C, D—all on 12 July 2015).

Materials and Methods

Field Work

From 2–14 July 2015, the first and last authors of the present manuscript explored and collected plants on Dorset and Mallik islands. Research was carried out under Nunavut Territorial Parks Use Permit 2015-08PU, Nunavut Territorial Parks Firearm Permit 2015-03FP, and Nunavut Wildlife Research Permit No. WL 2015-040. Our aim was to document all vascular plant species from the study area with at least one voucher specimen. All exploration was based out of Kinngait and all travel on the islands was by foot. We spent 13 days collecting on Dorset Island and one (4 July 2015) on Mallik Island. To access Mallik Island from Kinngait, we walked across the narrowest point of the inlet that separates the islands at low tide and returned to Kinngait later in the day at the next low tide. On Mallik Island, collections were gathered on rocky south/southeast facing slopes above West Inlet, along a narrow, southeast facing valley including a drainage system flowing downslope into West Inlet, in lowland and coastal areas on the south side of an unnamed bay on the north side of Mallik Island, and in a broad, southeast-facing valley immediately opposite Kinngait, the general area of Thule culture archaeological sites (date(s) of occupation unknown). Collecting on Dorset Island was focused on the northwestern part of the island, including numerous sites throughout developed areas of Kinngait, along the road from Kinngait to Tee Lake, the vicinity of the airstrip, the vicinity of the garbage dump, scrap metal yard and sewage retention pond, Aupaluktuk Park, and the slopes of Kinngait mountain (Fig. 1). General site descriptions and geographical coordinates for 2015 collecting sites are described in Table 1, and complete collection data are available in Supplemental File 1. Coordinate uncertainties, representing the radius of a circle that covers the whole collection site, were estimated in the field, in meters, for most sites; these are indicated in Table 1 with the plus–minus sign.

The first set of our collections is deposited in the National Herbarium of Canada (CAN), Canadian Museum of Nature. Replicate specimens have been distributed to the following herbaria, as noted in the specimen citations and Appendix 1: University of Alberta Vascular Plant Herbarium (ALTA), University of Copenhagen (C), Royal Botanical Gardens, Kew (K), Missouri Botanical Garden (MO), Marie-Victorin Herbarium, Université de Montréal (MT), New York Botanical Garden (NY), Botanical Museum, University of Oslo (O), Muséum National d'Histoire Naturelle (P), Herbarium Louis-Marie (QFA), Swedish Museum of Natural History (S), Beaty Biodiversity Museum, University of British Columbia (UBC), United States National Herbarium, National Museum of Natural History, Smithsonian Institution (US), Royal British Columbia Museum (V), Naturhistorisches Museum Wien (W), and University of Manitoba Herbarium (WIN).

TABLE 1. List of collecting localities on Dorset Island and Mallik Island, Nunavut, in 2015. For complete collection data see Appendix 1.

Site no.	Locality
DORSET ISLAND	
1	Along road to airport, 64°13'52"N, 76°32'24"W, ± 1 m, elev. 15 m.
2	Aupaluktuk Park, east side of hamlet, 64°14'2"N, 76°31'56"W, ± 10 m, elev. 52 m.
3	Beside Conservation Office building, coast along Cape Dorset Harbour, 64°13'52"N, 76°32'56"W, ± 5 m, elev. 1 m.
4	Between high school and airport, 64°13'55"N, 76°32'29"W, ± 10 m, elev. 20 m.
5	Centre of hamlet (approximate), just south of Dorset Suites Hotel along unnamed road, 64°13'48"N, 76°32'29"W, ± 15 m, elev. 14 m.
6a	East side of airstrip, 64°13'44"N, 76°31'6"W, ± 10 m, elev. 59 m.
6b	East side of airstrip, 64°13'48"N, 76°31'20"W, ± 2 m, elev. 85 m. Wet meadow. In shallow water.
6c	Along road to airport, 64°13'52"N, 76°32'24"W, ± 1 m, elev. 15 m.
7	East side of hamlet, between Northern Store and Cape Dorset Harbour, 64°14'2"N, 76°32'37"W, ± 10 m, elev. 8 m.
8	East side of hamlet, just north of weather station west of airstrip, 64°13'54"N, 76°32'6"W, ± 5 m, elev. 9 m.
9	East side of hamlet, near Northern Store, 64°14'0"N, 76°32'26"W, ± 5 m, elev. 13 m.
10	Garbage dump, disturbed south-facing gravel slope above small creek running through garbage dump down to strait between Dorset Island and Mallik Island, 64°13'40"N, 76°34'24"W, ± 10 m, elev. 59 m.
11	Immediately northwest of airstrip, east side of hamlet, 64°14'1"N, 76°32'20"W, ± 100 m, elev. 28–35 m.

.....continued on the next page

TABLE 1. (Continued)

Site no.	Locality
12	In front of Peter Pitseolak School, 64°13'53"N, 76°32'27"W, ± 15 m, elev. 15 m.
13	Just east (across street) from Peter Pitseolak School, 64°13'55"N, 76°32'21"W, ± 15 m, elev. 9 m.
14	Just east of scrap metal garbage dump, west of hamlet, 64°13'52"N, 76°34'19"W, ± 5 m, elev. 22 m.
15	Just east of scrap metal garbage dump, west of hamlet, 64°13'53"N, 76°24'11"W, ± 1 m, elev. 12 m.
16	Just north of Northern Store, along Cape Dorset Harbour, 64°14'2"N, 76°32'37"W, ± 2 m, elev. 3 m.
17	Just north of Peter Pitseolak School, 64°13'55"N, 76°32'30"W, ± 5 m, elev. 9 m.
18	Just south of town, along road to new lagoon/sewage retention pond, 64°13'26"N, 76°33'29"W, ± 10 m, elev. 80 m.
19	Just southwest of Dorset Suites Hotel, 64°13.793'N, 76°32.527'W, ± 25 m, elev. 20 m.
20	Just west of Dorset Suites Hotel, 64°13'46"N, 76°32'33"W, ± 15 m, elev. 28 m.
21	Just west of municipal yard and airport, 64°13'42"N, 76°31'42"W, ± 5 m, elev. 50 m.
22	Just west of municipal yard and airport, 64°13'45"N, 76°31'58"W, ± 10 m, elev. 56 m.
23	Near Dorset Suites Hotel (between hotel and Co-op store), 64°13.88'N, 76°32.58'W, ± 50 m, elev. 10 m.
24	North side of municipal building/yard, 64°13'48"N, 76°31'53"W, ± 20 m, elev. 55 m.
25	Northeast side of hamlet, along road from town to fuel tanks, 64°14'6.4"N, 76°31'52"W, ± 2 m, elev. 68 m.
26	Northeast side of hamlet, around fuel tanks, 64°14'14.2"N, 76°31'39.8"W, ± 10 m, elev. 38 m.
27	Northeast side of hamlet, around houses near commercial area, 64°13'56.8"N, 76°32'43.55"W, ± 100 m, elev. 11 m.
28	Northeast side of hamlet, ca. 140 m inland from coast, 64°14'15.9"N, 76°32'1"W, ± 10 m, elev. 35 m.
29	Northeast side of hamlet, coast near commercial area, 64°14'4"N, 76°32'39"W, ± 200 m, elev. 1 m.
30	Northeast side of hamlet, small pond on right sight of road from town to fuel tanks, just before fuel tank area, 64°14'5.9"N, 76°31'30.3"W, ± 15 m, elev. 63 m.
31	Northeast side of hamlet, 64°14'5"N, 76°32'14"W, ± 5 m, elev. 34 m.
32	Rocky north-facing slopes of Kinngait Mountain above garbage dump and sewage lagoon, 64°13'40"N, 76°34'24"W, ± 10 m, elev. 75 m.
33	South of hamlet along gravel road, alongside water pipeline to Tee Lake, the hamlet's water source, 64°13'12"N, 76°32'29"W, ± 10 m, elev. 122 m.
33	West side of hamlet along coast, 64°13'49"N, 76°33'26"W, ± 5 m, elev. 5 m.
34	South of hamlet along gravel road, alongside water pipeline to Tee Lake, the hamlet's water source, 64°13'19"N, 76°32'53"W, ± 5 m, elev. 83 m.
35	South of hamlet along gravel road, alongside water pipeline to Tee Lake, the hamlet's water source, 64°13'7"N, 76°32'20"W, ± 10 m, elev. 134 m.
36	South of town, just south of waterfall, 64°13'24"N, 76°30'41"W, ± 5 m, elev. 107 m.
37	South side of road just west of Co-op Store, 64°13'49"N, 76°32'58"W, ± 25 m, elev. 18 m.
38	South side of town at beginning of gravel road to Tee Lake, the hamlet's water source, 64°13'30"N, 76°32'56"W, ± 1 m, elev. 52 m.
39	South-facing upper slopes of Kinngait Mountain, southwest of hamlet and just west of new sewage retention pond, 64°13'15"N, 76°34'28"W, ± 75 m, elev. 75 m.
40	Southwest of hamlet, vicinity of waterfall, 64°13'23"N, 76°31'28"W, ± 25 m, elev. 76 m.
41	Vicinity of north end of airstrip, east side of hamlet, 64°14'0"N, 76°32'9"W, ± 10 m, elev. 40–44 m.
42	West of hamlet near scrap metal garbage dump, just above small pond, 64°13'47"N, 76°34'17"W, ± 3 m, elev. 29 m.
43	West of hamlet, just below scrap metal garbage dump, above tidal land bridge between Dorset Island and Mallik Island, 64°13'51"N, 76°34'25"W, ± 20 m, elev. 15 m.
44	West side of hamlet along coast, 64°13'49"N, 76°33'26"W, elev. 5 m.
45	East side of island, southeast of southern end of airstrip (the end of the airstrip opposite Cape Dorset), 64°13'23"N, 76°30'25"W, ± 10 m, elev. 85 m.

MALLIK ISLAND / Mallikjuaq Territorial Park

.....continued on the next page

TABLE 1. (Continued)

Site no.	Locality
46	Southeastern side of island, south-facing slope well below Thule winter houses, 64°14'33"N, 76°33'26"W, ± 5 m, elev. 7 m.
47	South-facing slope above tidal land bridge between Dorset Island and Mallik Island, about 2 km west-northwest of center of Cape Dorset, 64°14'28"N, 76°35'9"W, ± 50 m, elev. 30–50 m.
48	South-facing slope above tidal land bridge between Dorset Island and Mallik Island, about 2 km west-northwest of center of Cape Dorset, 64°14'32"N, 76°35'10.8"W, ± 20 m, elev. 51 m.
49	South-facing slope above tidal land bridge between Dorset Island and Mallik Island, about 2 km west-northwest of center of Cape Dorset, 64°14'33"N, 76°35'13"W, ± 5 m, elev. 58 m.
50	South-southwest-facing rocky slope above tidal land bridge between Dorset Island and Mallik Island, 64°14'21"N, 76°34'48"W, ± 10 m, elev. 20–60 m.
51	West side of small bay on northeast side of island, 64°14'53"N, 76°35'8"W, ± 50 m, elev. 1 m.
52	West side of small bay on northeast side of island, 64°14'55"N, 76°35'18"W, ± 10 m, elev. 9 m.

Herbarium research

In order to generate a comprehensive checklist of the vascular flora of the study area, we attempted to account for all plant collections that have been gathered therein. To locate specimens, we reviewed relevant Arctic floristic literature (Polunin 1940a, Porsild 1955, Aiken *et al.* 2007), manually searched numerous herbaria (CAN, National Collection of Vascular Plants, Agriculture and Agri-Food Canada (DAO), University of Helsinki, Finnish Museum of Natural History (H), MT, Royal Ontario Museum (TRT), University of Calgary (UAC), UBC), and consulted several online databases, including institutional ones (Gray Herbarium (GH), Harvard University & Libraries, https://kiki.huh.harvard.edu/databases/specimen_index.html) and the following aggregators: Global Biodiversity Information Facility (GBIF), Canadensys (<http://data.canadensys.net/explorer/en/search>) and Integrated Digitized Biocollections (iDigBio) portal (<https://www.idigbio.org/portal/search>). Online searches revealed relevant material from the E.C. Smith Herbarium, Acadia University (ACAD), ALTA, Field Museum (F), University of Michigan (MICH), Bell Museum, University of Minnesota (MIN), NY, O, S, UBC, US, and Utah State University (UTC). In most cases specimens found during online searches were duplicates of Hainault & Norman, Malte, or Polunin specimens we reviewed in person. For almost all collections included in the current study we have seen and confirmed the identification of at least one duplicate.

Attached to a subset of Malte's collections housed at GH are handwritten collection numbers we assume were cut from the original papers in which the collections were pressed. These numbers are not included on Malte's labels, however. In order to match up numbered collections at GH with duplicates of these collections at CAN and elsewhere, we relied on the National Museum of Canada accession number (from an older, out-of-date number series), which are identical on labels of duplicate specimens. In the annotated checklist, Malte's collection numbers, when available on GH specimens, are cited in square brackets in the specimen citations.

We amalgamated all collection data obtained from physical and online herbarium searches into a spreadsheet (Supplemental File 2). Manual cleaning of the dataset was undertaken to standardize names of collectors, date format, and locality descriptions among specimens gathered by the same collector at the same site. We combined records of duplicate specimens housed in different collections into single records, maintaining information on the disposition(s) of the duplicate specimens. A subset of the earlier collections included primary coordinates that placed collection sites in marine environments and another subset lacked coordinate information entirely. We secondarily georeferenced these sites following standard point-radius protocols, including determining estimates of coordinate uncertainty in metres. Georeferencing data are included in Supplemental File 2.

Documentation of the vascular flora of the study area is summarized in an annotated checklist. Classifications for lycophytes and monilophytes follow the Pteridophyte Phylogeny Group (2016) and for angiosperms Angiosperm Phylogeny Group IV (2016). Angiosperms in the checklist are organized according to the linear classification proposed by Angiosperm Phylogeny Group IV (2016). Within families, genera and species are listed alphabetically. Taxonomy at genus, species and infraspecific levels is based on consideration of the relevant global taxonomic literature, including Elven *et al.* (2011), treatments in the Flora of North America series (Flora of North America Editorial Committee 1993+), and recent revisions and nomenclatural updates (Wiegand *et al.* 2017, Barberá *et al.* 2019). For each species we provide important synonyms, focusing on names used in critical Canadian (Polunin 1940a, Porsild & Cody 1980, Aiken *et al.* 2007) or international (Elven *et al.* 2011) Arctic taxonomic treatments, more recent national or continental

treatments, particularly the Flora of North America, and other relevant taxonomic works. Common names in English are mostly from the Flora of North America series and Brouillet *et al.* (2010+). Global distribution summaries are those described by Elven *et al.* (2011).

All taxa reported for the study area are documented by one or more voucher specimens, and only vouchered records are included. For each collection, we list the collector(s), collection number or *s.n.* (*sine numero*) if there is no collection number, and the code(s) identifying the herbaria where the collection is housed (codes follow Thiers (continuously updated); see above). To simplify reporting, all unique localities, as recorded on herbarium specimen labels, at which collections have been made on Dorset and Mallik islands are identified by either a number or an alphanumeric code. Numbers 1–52 identify our 2015 collecting sites (nos. 1–45 on Dorset Island and 46–52 on Mallik Island) (Table 1, Supplemental File 2). Labels of most specimens collected by others include only general or vague collecting locality descriptions on Dorset and Mallik islands. As much as possible, we grouped these based on geography (Table 2). For example, collecting sites recorded as “Cape Dorset”, “Cape Dorset settlement”, “Dorset [Cape Dorset]”, “Dorset [Cape Dorset]”, “Cape Dorset, east of town”, “Cape Dorset, garbage dump” or as more specific sites within the hamlet (e.g., “yard of Anglican Church”, “near Church”, “at the beach below the Anglican church”, “near airstrip”, “vicinity of airstrip”, “near the Nascopie Building”) are all reported in the annotated checklist under the code CD-1. Some herbarium labels incorrectly refer to Dorset Island as “Cape Dorset Island”.

We indicate whether each taxon has been previously recorded in the study area. “Previously recorded” means the taxon was mapped from the study area in one or more earlier treatments (Fernald 1923, Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007). In most cases, one or all vouchers cited here are the collections on which the earlier records were based. Polunin (1940a) explicitly cited voucher material from the study area, except for common taxa that he recorded as “everywhere-numerous records from almost all localities” (e.g., *Carex membranacea* Hook. in Parry (1825 [1827]: 406)). Material from the study area collected by Burwash, Malte, Robinson and Soper was known to Polunin, in addition to his own collections gathered in 1934 and 1936. Subsequent workers did not cite specimens on which mapped records were based. In some instances, it was difficult to determine if records mapped by Porsild (Porsild 1957, 1964, Porsild & Cody 1980) in the vicinity of Kinngait were based on collections from the study area or on collections from adjacent southwestern Baffin Island, given slightly varying placements of dots on some maps. Because of this uncertainty, we note a taxon as being previously recorded from the study area by Porsild (Porsild 1957, 1964, Porsild & Cody 1980) only when we are confident that a dot on one or more of those maps is based on material from the study area.

“Newly recorded” from the study area means the current study is the first to publish an occurrence of a taxon on Dorset and/or Mallik islands. Such new records reported here include collections made during our 2015 fieldwork, older collections that were overlooked in earlier work, and new identifications of material known to previous authors that was either misidentified or for which a taxonomic circumscription has been revised. In all cases we include explicit citation of one or more voucher specimens.

TABLE 2. Codes defining groupings of general or vague collecting locality descriptions on Dorset and Mallik islands recorded on herbarium labels of previous collections. CD refers to localities on Dorset Island and MI to localities on Mallik Island. Some herbarium labels incorrectly refer to Dorset Island as “Cape Dorset Island”.

Code	Locality description(s)
CD-1	Cape Dorset Cape Dorset settlement Cape Dorset settlement, behind Hudson’s Bay Co. store Dorset [Cape Dorset] Cape Dorset, east of town Cape Dorset, garbage dump
CD-2	Cape Dorset Island Cape Dorset, 2 km S of airstrip Dorset Island
CD-3	East end of Dorset Island
CD-4	Northwest corner of Dorset Island
CD-5	South end of Dorset Island South shore of Dorset Island South side of Cape Dorset South part of Dorset Island
CD-6	Southwest corner of Dorset Island Southwest part of Dorset Island Southwest shore of Dorset Island
CD-7	West end of Dorset Island
MI-1	Mallik Island
MI-2	North side of Mallik Island
MI-3	South end of Mallik Island South part of Mallik Island South shore of Mallik Island South side of Mallik Island

Results

We compiled a dataset of 876 unique collections of vascular plants from Dorset and Mallik islands, including 268 collections gathered by us in 2015 and 608 by other collectors prior to 2015. Our 2015 collections comprise 214 gatherings on Dorset Island and 54 on Mallik Island. Of the prior collections, 491 (80.7%) were collected on Dorset Island and 117 (19.2%) on Mallik Island. The number of specimens recorded in our database gathered by each prior collector is as follows: Aiken (12), Aiken & Archambault (9) Burwash (26), Dutilly (37), Hainault & Norman (291; two of these are recorded as Norman & Hainault), Holroyd (1), Malte (87), Manning (3), Oldenburg (3), Polunin (72), Robinson (2), Soper (65).

The vascular flora of the study area comprises 26 families, 71 genera, 150 species and three infraspecific taxa (Table 3). Lycophytes comprise one species. Monilophytes comprise one genus and three species. Monocots comprise two orders, four families, 22 genera, 53 species and two infraspecific taxa. Eudicots comprise twelve orders, 19 families, 51 genera, 91 species and two infraspecific taxa.

TABLE 3. Number of genera and species in each family of vascular plants recorded from Dorset Island and Mallik Island, Nunavut. The higher-level classification for angiosperms follows Angiosperm Phylogeny Group IV (2016).

	Order	Family	Genera	Species/Taxa		
Lycophytes	Lycopodiales	Lycopodiaceae	1	1		
Monilophytes	Equisetales	Equisetaceae	1	3		
	Polypodiales	Cystopteridaceae	1	1		
Monocots	Alismatales	Tofieldiaceae	1	1		
	Poales	Cyperaceae	2	25/26		
		Juncaceae	2	6		
Poaceae		13	20/21			
Eudicots	Ranunculales	Papaveraceae	1	1		
		Ranunculaceae	1	5		
	Superrosids	Saxifragales	Saxifragaceae	3	12	
		Rosids	Fabales	Fabaceae	2	4
	Rosales		Campanulaceae	1	1	
			Rosaceae	2	4	
	Superasterids	Malpighiales	Salicaceae	1	7	
		Myrtales	Onagraceae	2	2	
		Brassicales	Brassicaceae	6	11	
			Caryophyllales	Caryophyllaceae	8	17/18
		Asterids		Montiaceae	1	1
				Plumbaginaceae	1	1
				Polygonaceae	3	3
			Ericales	Diapensiaceae	1	1
	Ericaceae			7	8	
Boraginales	Boraginaceae		1	1		
Lamiales	Orobanchaceae		1	3		
	Plantaginaceae	1	1			
	Asterales	Asteraceae	7	10		
Total	17	26	71	150/153		

Twenty-five families, 66 genera, 139 species and two infraspecific taxa are recorded from Dorset Island, and 23 families, 59 genera, 102 species and two infraspecific taxa from Mallik Island (Table 4). At the genus level, Poaceae is most diverse in the flora with 13 genera, followed by Caryophyllaceae with eight, and Asteraceae and Ericaceae with seven (Table 3). One family, Brassicaceae, comprises six genera, two families comprise three genera, five families comprise two and 14 families comprise a single genus (Table 3). Two infraspecific taxa are recorded in four species

in the study area: *Eriophorum scheuchzeri* Hoppe (1800: 104), *Poa arctica* Brown (1823: 30), *Potentilla hyparctica* Malte (1934: 177) and *Silene uralensis* (Ruprecht 1850: 30) Bocquet (1967: 25). No hybrids are recorded in the study area. More detailed information for each taxon is presented in the annotated checklist.

Eleven taxa in six families are newly recorded from the study area: *Carex rupestris* Allioni (1785: 264), *Eriophorum scheuchzeri* subsp. *scheuchzeri*, *E. triste* (Fries 1869: 135) Hadač & Á.Löve in Löve (1950: 34) (Cyperaceae); *Diapensia lapponica* Linnaeus (1753a: 141) (Diapensiaceae); *Equisetum arvense* subsp. *alpestre* (Wahlenberg 1812: 296) Schönsw. & Elven in Elven & Murray (2008: 433) (Equisetaceae); *Oxytropis deflexa* var. *foliolosa* (Hooker 1831) Barneby (1951: 111) (Fabaceae); *Potentilla arenosa* (Turczaninow 1843: 607) Juzepczuk (1941: 137) subsp. *arenosa*, *P. hyparctica* subsp. *hyparctica* (Rosaceae); *Antennaria friesiana* (Trautvetter 1879: 24) Ekman (1928: 416) subsp. *friesiana*, *Askellia pygmaea* (Ledebour 1815: 553) Sennikov in Sennikov & Illarionova (2008: 86) and *Taraxacum phymatocarpum* J.Vahl in Oeder (1840: 6, pl. 2298) (Asteraceae).

TABLE 4. Checklist of the vascular plant flora of Dorset Island and Mallik Island, Nunavut. The table records occurrence of each taxon on each island.

	Taxon	Dorset I.	Mallik I.
LYCOPHYTES			
Lycopodiaceae	<i>Huperzia arctica</i> Sipliv.	•	•
MONILOPHYTES			
Equisetales			
Equisetaceae	<i>Equisetum arvense</i> subsp. <i>alpestre</i> (Wahlenb.) Schönsw. & Elven	•	
	<i>Equisetum scirpoides</i> Michx.	•	
	<i>Equisetum variegatum</i> Schleich. ex F.Weber & D.Mohr subsp. <i>variegatum</i>	•	•
Polypodiales			
Cystopteridaceae	<i>Cystopteris fragilis</i> (L.) Bernh.	•	
MONOCOTS			
Alismatales			
Tofieldiaceae	<i>Tofieldia pusilla</i> (Michx.) Pers.	•	•
Poales			
Cyperaceae	<i>Carex aquatilis</i> subsp. <i>stans</i> (Drejer) Hultén	•	•
	<i>Carex atrofusca</i> Schkuhr	•	•
	<i>Carex bicolor</i> All.	•	
	<i>Carex bigelowii</i> Torr. ex Schwein. subsp. <i>bigelowii</i>	•	•
	<i>Carex capillaris</i> subsp. <i>fuscidula</i> (V.I.Krecz. ex T.V.Egorova) Á.Löve & D.Löve	•	
	<i>Carex fuliginosa</i> subsp. <i>misandra</i> (R.Br.) Nyman	•	•
	<i>Carex glacialis</i> Mack.	•	
	<i>Carex glareosa</i> Wahlenb. subsp. <i>glareosa</i>	•	•
	<i>Carex krausei</i> Boeckeler	•	
	<i>Carex lachenalii</i> Schkuhr	•	•
	<i>Carex marina</i> Dewey		•
	<i>Carex maritima</i> Gunnerus	•	•
	<i>Carex membranacea</i> Hook.	•	
	<i>Carex nardina</i> Fr.	•	•
	<i>Carex norvegica</i> Retz.	•	
	<i>Carex rariflora</i> (Wahlenb.) Sm.	•	•
	<i>Carex rupestris</i> All.	•	
	<i>Carex saxatilis</i> L.	•	•
	<i>Carex scirpoidea</i> Michx. subsp. <i>scirpoidea</i>	•	•

.....continued on the next page

TABLE 4. (Continued)

	Taxon	Dorset I.	Mallik I.
	<i>Carex subspathacea</i> Wormsk.	•	•
	<i>Carex ursina</i> Dewey	•	•
	<i>Eriophorum angustifolium</i> Honck.	•	
	<i>Eriophorum callitrix</i> C.A.Mey.	•	
	<i>Eriophorum scheuchzeri</i> subsp. <i>arcticum</i> M.S.Novos.	•	•
	<i>Eriophorum scheuchzeri</i> Hoppe subsp. <i>scheuchzeri</i>		•
	<i>Eriophorum triste</i> (Th.Fr.) Hadač & Á.Löve		•
Juncaceae	<i>Juncus arcticus</i> Willd. subsp. <i>arcticus</i>	•	•
	<i>Juncus biglumis</i> L.	•	
	<i>Juncus leucochlamys</i> V.J.Zinger ex V.I.Krecz.	•	
	<i>Juncus triglumis</i> subsp. <i>albescens</i> (Lange) Hultén	•	
	<i>Luzula confusa</i> Lindeb.	•	•
	<i>Luzula nivalis</i> (Laest.) Spreng.	•	•
Poaceae	<i>Alopecurus borealis</i> Trin.	•	•
	<i>Anthoxanthum arcticum</i> Veldkamp	•	
	<i>Anthoxanthum monticola</i> subsp. <i>alpinum</i> (Sw. ex Willd.) Soreng	•	
	<i>Arctagrostis latifolia</i> (R.Br.) Griseb. subsp. <i>latifolia</i>	•	•
	<i>Arctophila fulva</i> (Trin.) Andersson		•
	<i>Deschampsia sukatschewii</i> (Popl.) Roshev.	•	
	<i>Dupontia fisheri</i> R.Br.	•	•
	<i>Festuca baffinensis</i> Polunin	•	•
	<i>Festuca brachyphylla</i> Schult. & Schult.f. subsp. <i>brachyphylla</i>	•	•
	<i>Koeleria spicata</i> (L.) Barberá, A. Quintanar, Soreng & P.M. Peterson	•	•
	<i>Leymus mollis</i> subsp. <i>villosissimus</i> (Scribn.) Á.Löve & D.Löve	•	•
	<i>Phippsia algida</i> (Sol.) R.Br.	•	
	<i>Pleuropogon sabinei</i> R.Br.	•	•
	<i>Poa alpina</i> L. subsp. <i>alpina</i>	•	•
	<i>Poa arctica</i> R.Br. subsp. <i>arctica</i>	•	•
	<i>Poa arctica</i> subsp. <i>caespitans</i> Simmons ex Nannf.	•	
	<i>Poa glauca</i> Vahl subsp. <i>glauca</i>	•	
	<i>Poa pratensis</i> subsp. <i>alpigena</i> (Lindm.) Hiitonen	•	•
	<i>Puccinellia andersonii</i> Swallen	•	•
	<i>Puccinellia phryganodes</i> subsp. <i>neoarctica</i> (Á.Löve & D.Löve) Elven	•	•
	<i>Puccinellia tenella</i> subsp. <i>langeana</i> (Berlin) Tzvelev	•	
EUDICOTS			
Ranunculales			
Papaveraceae	<i>Papaver labradoricum</i> (Fedde) Solstad & Elven	•	
Ranunculaceae	<i>Ranunculus arcticus</i> Richardson	•	•
	<i>Ranunculus hyperboreus</i> Rottb. subsp. <i>hyperboreus</i>	•	
	<i>Ranunculus nivalis</i> L.	•	•
	<i>Ranunculus pygmaeus</i> Wahlenb.	•	•
	<i>Ranunculus trichophyllus</i> Chaix	•	•
Saxifragales			
Saxifragaceae	<i>Chrysosplenium tetrandrum</i> Th.Fr.	•	

.....continued on the next page

TABLE 4. (Continued)

	Taxon	Dorset I.	Mallik I.
	<i>Micranthes foliolosa</i> (R.Br.) Gornall	•	•
	<i>Micranthes nivalis</i> (L.) Small	•	
	<i>Micranthes tenuis</i> (Wahlenb.) Small	•	
	<i>Saxifraga aizoides</i> L.	•	
	<i>Saxifraga cernua</i> L.	•	•
	<i>Saxifraga cespitosa</i> L.	•	•
	<i>Saxifraga hirculus</i> L.	•	•
	<i>Saxifraga hyperborea</i> R.Br.	•	
	<i>Saxifraga oppositifolia</i> L.	•	
	<i>Saxifraga rivularis</i> L. subsp. <i>rivularis</i>	•	•
	<i>Saxifraga tricuspitata</i> Rottb.	•	•
Fabales			
Fabaceae	<i>Astragalus alpinus</i> L.	•	•
	<i>Oxytropis arctobia</i> Bunge	•	•
	<i>Oxytropis deflexa</i> var. <i>foliolosa</i> (Hooker) Barneby	•	•
	<i>Oxytropis maydelliana</i> Trautv.	•	•
Rosales			
Campanulaceae	<i>Campanula uniflora</i> L.	•	•
Rosaceae	<i>Dryas integrifolia</i> Vahl subsp. <i>integrifolia</i>	•	•
	<i>Potentilla arenosa</i> (Turcz.) Juz. subsp. <i>arenosa</i>		•
	<i>Potentilla hyparctica</i> Malte subsp. <i>hyparctica</i>		•
	<i>Potentilla hyparctica</i> subsp. <i>elatior</i> (Abrom.) Elven & D.F.Murray	•	•
Malpighiales			
Salicaceae	<i>Salix arctica</i> Pall.	•	•
	<i>Salix arctophila</i> Cockerell ex A.Heller	•	•
	<i>Salix calcicola</i> Fernald & Wiegand var. <i>calcicola</i>	•	•
	<i>Salix herbacea</i> L.	•	•
	<i>Salix reticulata</i> L.	•	•
	<i>Salix uva-ursi</i> Pursh	•	
Myrtales			
Onagraceae	<i>Chamaenerion latifolium</i> (L.) Sweet	•	•
	<i>Epilobium arcticum</i> Sam.	•	•
Brassicales			
Brassicaceae	<i>Arabidopsis arenicola</i> (Richardson) Al-Shehbaz, Elven, D.F.Murray & S.I.Warwick	•	
	<i>Braya glabella</i> subsp. <i>purpurascens</i> (R.Br.) Cody		•
	<i>Cardamine bellidifolia</i> L.	•	
	<i>Cardamine polemonioides</i> Rouy	•	•
	<i>Cochlearia groenlandica</i> L.	•	•
	<i>Draba alpina</i> L.	•	•
	<i>Draba corymbosa</i> R.Br. ex DC.	•	
	<i>Draba glabella</i> Pursh	•	•
	<i>Draba lactea</i> Adams	•	•
	<i>Draba nivalis</i> Lilj.	•	•
	<i>Eutrema edwardsii</i> R.Br.	•	•

.....continued on the next page

TABLE 4. (Continued)

	Taxon	Dorset I.	Mallik I.
Caryophyllales			
Caryophyllaceae	<i>Arenaria humifusa</i> Wahlenb.	•	•
	<i>Cerastium alpinum</i> L.	•	•
	<i>Cerastium arcticum</i> Lange	•	
	<i>Cerastium regelii</i> Ostenf.	•	
	<i>Cherleria biflora</i> (L.) A.J.Moore & Dillenb.	•	•
	<i>Honckenya peploides</i> subsp. <i>diffusa</i> (Hornem.) Hultén	•	•
	<i>Sabulina rossii</i> (R.Br. ex Richardson) Dillenb. & Kadereit	•	
	<i>Sabulina rubella</i> (Wahlenb.) Dillenb. & Kadereit	•	•
	<i>Sabulina stricta</i> (Sw.) Rchb.	•	•
	<i>Sagina nivalis</i> Fr.	•	•
	<i>Silene acaulis</i> (L.) Jacq.	•	•
	<i>Silene involucrata</i> (Cham. & Schldtl.) Bocquet subsp. <i>involucrata</i>	•	
	<i>Silene uralensis</i> subsp. <i>arctica</i> (Th.Fr.) Bocquet	•	•
	<i>Silene uralensis</i> (Rupr.) Bocquet subsp. <i>uralensis</i>	•	
	<i>Silene sorensenis</i> (B.Boivin) Bocquet	•	
	<i>Stellaria crassifolia</i> Ehrh.	•	•
	<i>Stellaria humifusa</i> Rottb.	•	•
	<i>Stellaria longipes</i> Goldie	•	•
Montiaceae	<i>Montia fontana</i> L.	•	
Plumbaginaceae	<i>Armeria scabra</i> Pall. ex Roem. & Schult.	•	•
Polygonaceae	<i>Bistorta vivipara</i> (L.) Delarbre	•	•
	<i>Koenigia islandica</i> L.	•	•
	<i>Oxyria digyna</i> (L.) Hill	•	•
Ericales			
Diapensiaceae	<i>Diapensia lapponica</i> L.	•	
Ericaceae	<i>Arctous alpina</i> (L.) Nied.	•	•
	<i>Cassiope tetragona</i> (L.) D.Don subsp. <i>tetragona</i>	•	•
	<i>Empetrum nigrum</i> L.	•	•
	<i>Harrimanella hypnoides</i> (L.) Coville	•	•
	<i>Pyrola grandiflora</i> Radius subsp. <i>grandiflora</i>	•	•
	<i>Rhododendron lapponicum</i> (L.) Wahlenb.		•
	<i>Vaccinium uliginosum</i> L.	•	•
	<i>Vaccinium vitis-idaea</i> subsp. <i>minus</i> (Lodd., G.Lodd. & W.Lodd.) Hultén	•	•
Boraginales			
Boraginaceae	<i>Mertensia maritima</i> subsp. <i>tenella</i> (Th.Fr.) Elven & Skarpaas	•	•
Lamiales			
Orobanchaceae	<i>Pedicularis flammea</i> L.	•	•
	<i>Pedicularis hirsuta</i> L.	•	
	<i>Pedicularis lanata</i> Willd. ex Cham. & Schldtl.	•	•
Plantaginaceae	<i>Hippuris lanceolata</i>		•
Asterales			
Asteraceae	<i>Antennaria friesiana</i> (Trautv.) E.Ekman subsp. <i>friesiana</i>	•	
	<i>Antennaria monocephala</i> subsp. <i>angustata</i> (Greene) Hultén	•	

.....continued on the next page

TABLE 4. (Continued)

Taxon	Dorset I.	Mallik I.
<i>Askellia pygmaea</i> (Ledeb.) Sennikov	•	
<i>Erigeron eriocephalus</i> J.Vahl	•	•
<i>Erigeron humilis</i> Graham	•	•
<i>Hulteniella integrifolia</i> (Richardson) Tzvelev	•	•
<i>Matricaria discoidea</i> DC.	•	
<i>Taraxacum ceratophorum</i> (Ledeb.) DC.	•	•
<i>Taraxacum phymatocarpum</i> J.Vahl		•
<i>Tripleurospermum maritimum</i> subsp. <i>phaeocephalum</i> (Rupr.) Hämet-Ahti	•	•

Discussion

Based on collections we made in 2015 and review of existing collections, we recorded 26 families, 71 genera, 150 species and three infraspecific taxa from Dorset and Mallik islands. All vascular plant taxa recorded from the study area are native, with the exception of *Matricaria discoidea* Candolle (1838b: 50), known from a single collection from Cape Dorset collected by Dutilly in 1936, which is the only record of the species from Nunavut and the Canadian Arctic. Although many of the taxa recorded here have been previously recorded from the study area in one or more previous treatments (see the annotated checklist), based on one or more of the specimens cited here, 11 taxa are newly recorded for the study area. These include taxa collected in the study area for the first time by us in 2015 (*Carex rupestris*, *Diapensia lapponica*, *Potentilla arenosa* subsp. *arenosa*, *P. hyparctica* subsp. *hyparctica*, *Taraxacum phymatocarpum*) and taxa collected previously but not considered in subsequent floristic works (*Equisetum arvense* subsp. *alpestre*, *Antennaria friesiana* subsp. *friesiana*—all first collected by Hainault and Norman and also by us; *Eriophorum scheuchzeri* subsp. *scheuchzeri*, *E. triste*, *Oxytropis deflexa* var. *foliolosa* and *Askellia pygmaea*—collected only by Hainault and Norman). Three of the six species first collected in the study area by us in 2015 are recorded only on Mallik Island (the two species of *Potentilla* and *Taraxacum phymatocarpum*). Of the other two species, each collected on Dorset Island, one was locally common in a turfey tundra meadow in the eastern part of the hamlet (*Carex rupestris*), and one grew in a small, localized population in the vicinity of a waterfall southwest of the hamlet (*Diapensia lapponica*).

Different collectors gathered different subsets of taxa in the study area

Our dataset indicates that different collectors gathered different subsets of taxa in the study area through time. For example, in 2015 we did not encounter 34 species (23% of the flora) previously found in the study area (*Cystopteris fragilis* (Linnaeus 1753b: 1091) Bernhardt (1805: 27), *Carex aquatilis* subsp. *stans* (Drejer 1841: 40) Hultén (1962: 74), *C. atrofusca* Schkuhr (1801: 106), *C. capillaris* subsp. *fuscidula* V.I.Krecz. ex Egorova (1964: 36) Löve & Löve (1976: 504), *C. marina* Dewey (1836: 247), *Eriophorum callitrix* Meyer (1831: 203), *E. scheuchzeri* subsp. *scheuchzeri*, *E. triste*, *Anthoxanthum arcticum* Veldkamp in Schouten & Veldkamp (1985: 349), *Arctophila fulva* (Trinius 1830: 378) Andersson (1852: 49), *Deschampsia sukatschewii* (Poplavskaja 1929: 382) Roshevitz (1934: 246), *Festuca baffinensis* Polunin (1940a: 91), *Pleuropogon sabinei* Brown (1823: 23), *Poa alpina* Linnaeus (1753a: 67), *Puccinellia tenella* subsp. *langeana* (Berlin 1884: 79) Tzvelev (1964: 190), *Ranunculus arcticus* Richardson in Franklin (1823: 741), *R. trichophyllus* Chaix in Villars (1786: 335), *Sabulina rossii* (R.Br. ex Richardson in Franklin (1823: 738)) Dillenberger & Kadereit (2014: 87), *S. stricta* (Swartz 1799: 235) Reichenbach (1832: 789), *Stellaria crassifolia* Ehrhart (1784: 116), *Pedicularis flammea* Linnaeus (1753b: 609), *Hippuris lanceolata* Retzius (1783: 7), *Oxytropis deflexa* var. *foliolosa*, *Campanula uniflora* Linnaeus (1753b: 753), *Salix uva-ursi* Pursh (1813: 610), *Epilobium arcticum* Samuelsson (1922: 260), *Braya glabella* subsp. *purpurascens* (Brown 1823: 9) Cody (1994: 93), *Cardamine polemonioides* Rouy in Rouy & Foucaud (1893: 235), *Draba corymbosa* R.Br. ex Candolle (1821: 343), *D. oblongata* R.Br. ex Candolle (1821: 342), *Askellia pygmaea*, *Erigeron humilis* Graham (1828: 175), *Hulteniella integrifolia* (Richardson in Franklin (1823: 749)) Tzvelev in Jurtzev (1987: 118), and *Taraxacum ceratophorum* (Ledebour 1829: 9) Candolle (1838a: 146). We likely missed some of these, particularly on Dorset Island where we

covered considerable ground, because of the late start to the 2015 growing season in the study area. Indeed, some habitats we visited remained snow covered or frozen (e.g., Tee Lake) into mid-July, and in many areas plant growth was just beginning for the season when we were collecting. Many of the species we did not collect in 2015 are grasses and sedges, groups that are a primary interest of the first author and to which attention in the field was given; these taxa are generally inconspicuous until flowering begins. The early-stage of the growing season may explain their absence from our collection. Some of the taxa we did not collect in 2015 are known from Dorset Island from only one (*Carex capillaris* subsp. *fuscidula*, *C. marina*, *Eriophorum scheuchzeri* subsp. *scheuchzeri*, *E. triste*, *Festuca baffinensis*, *Sabulina stricta*, *Stellaria crassifolia*, *Pedicularis flammea*, *Oxytropis deflexa* var. *foliolosa*, *Draba corymbosa*, *D. oblongata*, *Askellia pygmaea*) or two collections (*Anthoxanthum arcticum*, *Eriophorum callitrix*, *Sabulina rossii*, *Salix uva-ursi*, *Epilobium arcticum*, *Erigeron humilis*), suggesting they may be rare on the island. We may not have collected in the area(s) where they were documented previously, or they may no longer occur in the area(s) where they were documented previously. Unfortunately, locality information for the earlier collections of most of these taxa on Dorset Island is vague and of limited value for attempting to relocate the populations originally sampled. Exceptions are a collection of *Eriophorum callitrix* (Aiken 05-086) gathered along the road adjacent to the secondary water supply lake near the Nascope Building and a collection of *Salix uva-ursi* (Hainault & Norman 5704) gathered at the Anglican church-yard. Except for *E. callitrix*, most recently collected in 2005, most of these taxa have not been recorded on Dorset Island since 1970, when collected by Hainault and Norman. A few have not been documented on the island in nearly a century, prior to the establishment of the hamlet; these include *Sabulina stricta*, *Stellaria crassifolia* and *Draba oblongata*, collected by Polunin in the 1930s, *Epilobium arcticum*, collected by Dutilly in 1934 and Polunin in 1936, and *Draba corymbosa*, collected by Burwash in 1924. Further field study is needed to determine if these taxa persist on Dorset Island or if they have been extirpated locally. Two of these five taxa were collected by Hainault and Norman, in 1970, on Mallik Island: *Sabulina stricta* and *Stellaria crassifolia*.

Several species known from Dorset Island were variously collected by Hainault and Norman in 1970, Aiken in 2005, and/or us (Saarela and Bull) in 2015, but not by any of the early twentieth century botanical explorers. These species include *Juncus arcticus* Willdenow (1799: 206) subsp. *arcticus*, *Carex bicolor* Allioni (1785: 267), *C. capillaris* subsp. *fuscidula*, *C. glacialis* Mackenzie (1910: 244), *C. krausei* Boeckeler (1886: 279), *C. marina*, *Poa alpina*, *P. arctica* subsp. *caespitans* Nannfeldt (1940: 71), *Puccinellia andersonii* Swallen (1944: 21), *Micranthes tenuis* (Wahlenberg 1812: 114) Small in Britton (1905: 136), *Cerastium regelii* Ostenfeld (1910: 10), *Silene uralensis* subsp. *uralensis*, *S. sorensenis* (Boivin 1951: 6) Bocquet (1967: 21), *Oxytropis deflexa* var. *foliolosa*, *Salix arctophila* Cockerell ex Heller (1910: 89) and *Askellia pygmaea*. We do not know if some or all these were absent from the flora of the study area when the first botanists made collections therein, or if some or all were present but overlooked; the latter is more likely. Exploration time available to Dutilly, Malte, and Polunin, for example, was limited to one (Malte in 1928; Dutilly and Polunin in 1936) and two (Polunin 1934) days, respectively, and their brief (but intense) periods of collecting activity were most likely focused on the immediate vicinity of the trading post. Furthermore, almost half of these species are grasses, sedges and rushes, which may have been overlooked in favour of more conspicuous vascular plant taxa, such as eudicots. Another possibility is that some or all of these species were rarer in the parts of the study area explored in the early twentieth century than they are today. In the 1920s and 1930s, vegetation along Cape Dorset harbour, where the trading post was located, would have been mostly in a natural state compared to later in the century (in 1970) and in the early 21st century, during which the population of the hamlet grew to 1,441 (as of 2016) (Statistics Canada 2019) and much of the vegetation in low-lying and flat areas would have been transformed during development.

Overall, our results are consistent with other Arctic floristic studies that similarly demonstrated that total species diversity documented in an area increases with search effort through time, that different collectors at different times tend to document different subsets of total species diversity, and that in order to account for total vascular plant biodiversity in an area where there has been previous collecting, review of existing collections in multiple herbaria, the literature and newly collected material is necessary (Saarela *et al.* 2013a, Saarela *et al.* 2017, Saarela *et al.* 2020).

Comparison of the vascular floras of Dorset Island and Mallik Island

Nearly 40 more vascular plant taxa are known from Dorset Island (139 species and two infraspecific taxa) than from Mallik Island (101 species and one infraspecific taxon) (Table 4). By contrast, ten taxa are known from Mallik Island that are not recorded on Dorset Island (*Arctophila fulva*, *Braya glabella* subsp. *purpurascens*, *Eriophorum scheuchzeri* subsp. *scheuchzeri*, *Eriophorum triste*, *Hippuris lanceolata*, *Potentilla arenosa* subsp. *arenosa*, *P. hyparctica* subsp. *hyparctica*, *Rhododendron lapponicum* (Linnaeus 1753a: 151) Wahlenberg (1812: 104) and *Taraxacum phymatocarpum*). The difference in diversity of vascular plants recorded on the two islands likely reflects, at least in

part, collection effort to date. All collectors who have worked in the study area in five decades since the 1920s made collections on Dorset Island, whereas only two sets of collectors, Hainault and Norman in 1970 and our team (Saarela and Bull) in 2015, have attempted to document the flora of Mallik Island. Furthermore, collecting itineraries confirm that the 1970 and 2015 teams spent more time on Dorset Island than on Mallik Island. We spent only one day collecting on Mallik Island compared to 13 days on Dorset Island. Hainault and Norman spent at least five days collecting on Mallik Island in early August and the remainder of their month-long trip on Dorset Island. Additionally, more areas and habitats on Dorset Island have been explored by botanists than on Mallik Island. Dorset Island is more accessible for collecting than Mallik Island given the location of the hamlet on Dorset Island and the network of roads that has been developed as the hamlet has grown. Mallik Island is accessible only by foot (at low tide) or boat from Dorset Island, and there are no roads or other infrastructure on Mallik Island to facilitate botanical exploration.

There are some differences in the lists of species recorded on Mallik Island by researchers in 1970 and 2015. Hainault and Norman documented some 58 taxa on Mallik Island that we did not. In addition to spending more time on Mallik Island than we did, their collecting occurred late in the growing season when Arctic plants are generally well-developed and conspicuous, whereas our collecting occurred early in the growing season when new-season growth had just begun and many species were inconspicuous and/or in an uncollectable state because they lacked diagnostic characters relevant for identification. For future work that is somewhat “out-of-season”, a DNA barcoding identification approach could be employed when morphological information is not available, with the caveat that available barcode data for Canadian Arctic vascular plants do not distinguish most congeneric species and infraspecific taxa (Saarela *et al.* 2013b), sedges in the genus *Carex* being an exception (Le Clerc-Blain *et al.* 2010). Nevertheless, our collections document 11 taxa on Mallik Island that are not present among the material of Hainault and Norman from Mallik Island we have seen, including *Saxifraga oppositifolia*, *Dryas integrifolia* subsp. *integrifolia*, *Potentilla arenosa* subsp. *arenosa*, *P. hyparctica* subsp. *hyparctica*, *Silene acaulis* (Linnaeus 1753a: 415) Jacquin (1762: 78), *Taraxacum phymatocarpum*, *Arenaria humifusa*, *Cassiope tetragona* subsp. *tetragona*, *Empetrum nigrum*, *Rhododendron lapponicum* and *Salix herbacea*. Of these taxa, *S. oppositifolia* is an early-flowering species that is easy to overlook later in the season, but the others are generally conspicuous in the field, especially the heaths, and it seems unlikely that Hainault and Norman would have missed them on Mallik Island, given their extensive collecting efforts in the study area as documented here. It is possible they collected some or all these species on Mallik Island and we are unaware of the vouchers. Although recent mass digitization and imaging projects at numerous herbaria allowed us to locate many Hainault and Norman collections from the study area that were not previously available online, it is possible that a subset of relevant material has not yet been digitized. Moreover, mass digitization projects generally provide only skeletal collection data for some specimen records, given the massive task of completing databasing of herbaria, and in such cases key word searches will not locate relevant specimens. Review of Hainault’s field notebooks, if they exist and are accessible, might be helpful to determine if material not considered here was collected on Mallik Island. It is also possible that some or all of these taxa are rare on Mallik Island (we did not attempt to determine rareness of taxa during our survey) and did not occur in the areas explored by Hainault and Norman. Since locality information for Hainault and Norman’s collecting sites on Mallik Island is vague (see Table 2), we are uncertain how much overlap there is among the areas explored by them in 1970 and by us in 2015.

Given the status of Mallik Island as a territorial park, additional effort should be made to explore and document its flora, including obtaining precise location data, using a Global Position System (GPS) device, for the many species recorded at poorly described localities on the island by Hainault and Norman. In addition to clarifying locations of species known from the island, further searching may result in discovery of additional species to the flora. Additional species are most likely to be found in low-lying areas, where vegetation is well-developed according to satellite imagery (Google 2020). One such area that we did not explore, for example, is the surroundings of a series of small ponds on the northern end of the island. One additional season of surveying by experienced Arctic field botanists is likely to be sufficient to adequately document the vascular plant flora of Mallik Island, given its small size and using the results of the current study as a starting point for further exploration. Once this has been done, it will be possible to compare the Mallik Island flora with that of Dorset Island, to determine, for example, if any species are truly unique to either island, and a monitoring program could be established to track changes in the composition of the park flora through time as it responds to climate change.

Even though knowledge of the composition of the flora of Mallikjuak Territorial Park is likely incomplete, the information presented here represents a new baseline for understanding its vascular plant biodiversity. Documented diversity in the park is intermediate between diversity documented in two other Nunavut Territorial parks. For example, 207 taxa are recorded from Kugluk (Bloody Falls) Territorial Park in western Nunavut (Saarela *et al.* 2017), a small park that has been explored comprehensively. The rich diversity of vascular plants in Kugluk Territorial Park is

variously attributed to its location in bioclimate Subzone D where plant diversity in local floras is greater than in other Arctic bioclimate subzones, its location along the Coppermine River valley where several primarily boreal-distributed species reach or are near their northern limits in Nunavut, some of which are not known to extend north beyond the boundaries of the park, and considerable habitat diversity within the park boundary. Only 57 taxa are recorded from Ovaok Territorial Park in the vicinity of Cambridge Bay on Victoria Island, located in bioclimate Subzone D. Like Kugluk (Bloody Falls) Territorial Park, Ovaok is also a small park, but one for which a complete inventory of vascular plant species has not yet been attempted and where habitat diversity is poor as the park is centred on a large esker. Botanical inventories of Katannilik Territorial Park along the Soper River on southern Baffin Island and of Sylvia Grinnell Territorial Park in the vicinity of Iqaluit have been conducted, but comparisons of their floras are not yet possible because results have not yet been synthesized (J.M. Saarela *et al.*, unpublished data).

Comparison of the vascular flora of the study area and other local Arctic vascular floras

The level of vascular plant biodiversity recorded in the study area is consistent with broader patterns of vascular plant biodiversity recorded in local floras throughout Arctic bioclimate vegetation Subzone C, of which the study area is part. In fact, the count of 150 species we have confirmed for the area is at the top of the species diversity range (75–150) expected to occur in local floras within the bioclimate subzone. There are several possible explanations for why the number of species recorded in the study area is at the high end of expected diversity. Climate is likely a major factor. The study area falls along the southern and western edges of bioclimate Subzone C, where climatic conditions are more favourable than in local areas elsewhere within the subzone. This is reflected by the annual mean July temperature at Kinngait (7.8°C), which is slightly higher than the 5–7°C range that characterizes bioclimate Subzone C. The study area is immediately adjacent to bioclimate Subzone D (defined as having a 7–9°C annual mean July temperature), which encompasses the rest of southern Baffin Island. In addition to prostrate/hemiprostrate dwarf-shrub tundra, the zonal vegetation that dominates the western end of Foxe Peninsula and the study area, a greater diversity of zonal vegetation is present on the rest of southern Baffin Island, including nontussock sedge, dwarf-shrub, moss tundra, sedge, moss, dwarf-shrub wetland and erect dwarf-shrub tundra (CAVM Team 2003), and higher plant diversity is recorded in Subzone D on Baffin Island than in Subzone C (Jacobs *et al.* 1997, Aiken *et al.* 2007). Some species known primarily from the Subzone D portion of Baffin Island and vicinity are also recorded in the study area, such as *Carex bicolor*, *Equisetum scirpoides*, and *Harrimanella hypnoides*, possibly reflecting the fact that the study area is in a transition zone between the subzones. On the other hand, there are numerous species known from multiple collections from the Subzone D portion of Baffin Island that are not recorded from the study area, such as *Arabis alpina* Linnaeus (1753b: 664), *Astragalus eucosmus* Robinson (1908: 33), *Betula glandulosa* Michaux (1803: 180), *Chamaenerion angustifolium* (Linnaeus 1753a: 357) Scopoli (1771: 271) and *Kalmia procumbens* (Linnaeus 1753a: 151) (L.) Gift, Kron & P.F. Stevens ex Galasso, Banfi & F. Conti in Conti *et al.* (2005: 20). Some species that occur in the study area and elsewhere on southern Baffin Island, but which do not occur, or are rare, to the west/northwest and/or elsewhere in bioclimate Subzone C (e.g., *Harrimanella hypnoides* (Linnaeus 1753a: 393) Coville (1901: 575), *Montia fontana* Linnaeus (1753a: 81), *Salix calcicola* Fernald & Wiegand (1911: 251), *Salix uva-ursi*, *Saxifraga rivularis* Linnaeus (1753a: 404), *Pedicularis flammea*, *Tofieldia pusilla* (Michaux 1803: 209) Persoon (1805: 399), and *Arabidopsis arenicola* Richardson in Hooker (1830: 67)) may have colonized the study area from more easterly populations, contributing to rich local biodiversity. The study area is based around a community (Kinngait) that has increased in size through the last century, resulting in considerable ruderal habitat diversity and nutrient enrichment, both of which are favourable to plant growth in the Arctic and possibly contributing to high species diversity. The level of known diversity in the study area may also reflect the amount of effort expended to date on floristic exploration and documentation of the flora. Indeed, the area has been studied over a nearly one-hundred-year period, and most of the workers who have made plant collections were botanical experts rather than non-botanists making collections incidental to other work, which has been the case in many areas of the Canadian Arctic Archipelago.

Climate is a major driver of tundra vegetation dynamics, including species diversity. Rannie (1986) demonstrated a strong correlation between vascular plant diversity and mean July temperature, based on floristic inventory and weather data from numerous Canadian Arctic localities (not including the study area), and found a diversity gradient of 24–26 species per degree Celsius with a standard error of 12 species. Given the strong relationship, Rannie (1986) suggested that the regression line relating the two variables could be used to estimate vascular plant richness for areas that have not been studied botanically, and reciprocally that mean July temperature for an area can be predicted if floristic inventory data are available. Rannie's (1986) equation based on data from 19 weather stations ($N = 24.2T - 29.1$, where N = number of species and T = mean July temperature) predicts 160 species for the study area, where mean July temperature is 7.8°C. Given that we have documented 150 taxa in the study area, this level of predicted diversity

is within the standard error of 12 species established by Rannie (1986). As such, our empirical data support the established relationship between vascular plant diversity and summer temperature, as other studies have demonstrated (e.g., Bay 1997). The relationship was not as strong, however, in a recent analysis of the well-documented mainland Arctic flora of the lower Coppermine River valley and vicinity (Saarela *et al.* 2017).

Annotated Checklist

For each accepted species and infraspecific taxon we include synonyms, a common name, a summary of the global distribution, voucher information, and comments. Site numbers and alphanumeric codes in square brackets correspond to localities described in Tables 1 and 2 and Supplemental Files 1 and 2.

LYCOPHYTES

Lycopodiales

Lycopodiaceae

Huperzia arctica (Grossh. ex Tolm.) Sipliv. (*H. selago* subsp. *arctica* (Grossh. ex Tolm.) Á.Löve & D.Löve, *Lycopodium selago* subsp. *arcticum* Grossh. ex Tolm.)—Arctic fir clubmoss | Circumpolar? **Dorset Island:** [28] Saarela & Bull 4483 (CAN, MT); [CD-1] Polunin 894 (US), Soper *s.n.* (CAN). **Mallik Island:** [50] Saarela & Bull 4499 (CAN, QFA). Previously recorded from the study area by Polunin (1940a) and Porsild & Cody (1980) as *Lycopodium selago* L. and Aiken *et al.* (2007) as *Huperzia selago* (L.) Bernh. ex. Schrank & Mart. *Huperzia selago* and *H. arctica* are now recognized as distinct species (Elven *et al.* 2011), and the former is not recorded from the Canadian Arctic Archipelago. Testo *et al.* (2016) recently described the new clubmoss species *Huperzia continentalis* Testo, A.Haines & A.V.Gilman, distributed throughout northwestern and northern North America, and in northeastern Asia and northwestern Europe. In the Canadian Arctic records were mapped on the Nunavut mainland, Quebec, Labrador, as well as from Coats, Mallik and Baffin islands, and the specimen from Mallik Island was cited in the protologue (Hainault & Norman 5824 (DAO, *n.v.*). Pending review of the material, we refrain from accepting the taxon here.

MONILOPHYTES

Equisetales

Equisetaceae

Equisetum arvense subsp. *alpestre* (Wahlenb.) Schönswetter & Elven—Alpine field horsetail | Circumpolar-alpine. **Dorset Island:** [19] Saarela & Bull 4680 (ALTA, CAN, K, P); [CD-2] Hainault & Norman 5971 (DAO). Newly recorded from the study area. The nearest sites for the species (not all relevant material has been determined to subspecies) are on Nottingham Island to the south, northern Quebec, and Amadjuak Bay along southern Baffin Island to the east (Soper *s.n.*, CAN, LD, not mapped in Aiken *et al.* (2007)). A record mapped by Aiken *et al.* (2007) from King Charles Cape on southwestern Foxe Peninsula (Baldwin 1867, CAN 10005023) has been re-determined as *E. variegatum*.

Equisetum scirpoides Michx.—Dwarf scouring rush | Circumboreal-polar. **Dorset Island:** [34] Saarela & Bull 4668 (CAN, K, MO, MT, P, UBC, US); [CD-1] Hainault & Norman 5693 (DAO), 5990 (CAN, DAO). Previously recorded from the study area (Aiken *et al.* 2007). Occurrences from the study area are along the northern limit of the taxon in northeastern Canada. Elsewhere on Baffin Island known only from the Kimmirut area (Aiken *et al.* 2007).

Equisetum variegatum Schleich. subsp. *variegatum*—Variegated scouring-rush | Circumpolar-alpine. **Dorset Island:** [13] Saarela & Bull 4563 (CAN, C, S, UBC, W, WIN); [CD-1] Polunin 295 (CAN), Aiken & Archambault 05-085 (CAN); [CD-3] Hainault & Norman 5868 (DAO), 5587 (CAN, UAC). **Mallik Island:** [MI-3] Hainault & Norman 5807 (DAO). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007).

Polypodiales

Cystopteridaceae

Cystopteris fragilis (L.) Bernh.—Fragile fern | Cosmopolitan. **Dorset Island:** [CD-1] *Malte s.n.* (CAN), *Dutilly 947* (CAN), *Robinson* (GH, *n.v.*—cited in Polunin (1940a)). The only fern taxon known from the study area, where previously recorded (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007). We did not encounter this taxon in 2015; it has not been recorded from the study area since 1936, when collected by Dutilly.

MONOCOTS

Alismatales

Tofieldiaceae

Tofieldia pusilla (Michx.) Pers. (*T. borealis* (Wahlenb.) Wahlenb.)—Bog asphodel | Circumpolar–alpine. **Dorset Island:** [18] *Saarela & Bull 4614* (CAN); [CD-1] *Aiken 05-097* (CAN). **Mallik Island:** [47] *Saarela & Bull 4510* (ALTA, CAN, MO, QFA, WIN); [MI-2] *Hainault & Norman 5945* (CAN, DAO). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007). We have not seen Polunin’s 1936 collections from Kinngait cited by him (Polunin 1940a).

Poales

Cyperaceae

Carex aquatilis subsp. *stans* (Drejer) Hultén (*C. aquatilis* var. *minor* Boott, *C. stans* Drejer)—Aquatic sedge | Circumpolar–alpine. **Dorset Island:** [CD-1] *Polunin 293, 289* (CAN), *Hainault & Norman 5602* (CAN, DAO); [CD-3] *Hainault & Norman 5880* (H). **Mallik Island:** [MI-1] *Hainault & Norman 5916* (DAO). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Carex atrofusca Schkuhr—Dark brown sedge | Circumpolar–alpine. **Dorset Island:** [CD-1] *Malte s.n.* (CAN, US); [CD-3] *Hainault & Norman 5658* (CAN). **Mallik Island:** [MI-3] *Hainault & Norman 5787* (H), *5789* (DAO). Previously recorded from the study area (Polunin 1940a, Porsild & Cody 1980, Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Carex bicolor All.—Bicoloured sedge | Circumpolar–alpine. **Dorset Island:** [CD-6] *Hainault & Norman 6026* (CAN). Previously recorded from the study area (Porsild & Cody 1980, Aiken *et al.* 2007). The one documented occurrence is at the northern limit of the species’ range in the eastern Canadian Arctic, though it extends considerably further north in Greenland (Aiken *et al.* 2007). We did not encounter this taxon in 2015. Elsewhere on Baffin Island known from the Kimmirut area and Iqaluit (Aiken *et al.* 2007).

Carex bigelowii Torr. ex Schwein. subsp. *bigelowii*—Bigelow’s sedge | North American–amphi-Atlantic. **Dorset Island:** [38] *Saarela & Bull 4672* (ALTA, CAN, MT, O, S, UBC, W); [CD-1] *Polunin 294* (CAN), *Dutilly 965* (MT), *975* (US); [CD-3] *Hainault & Norman 5582* (DAO, H). **Mallik Island:** [49] *Saarela & Bull 4539* (CAN, UBC); [50] *Saarela & Bull 4503* (CAN, MT, US); [MI-1] *Hainault & Norman 5925* (CAN, DAO). Previously recorded from the study area (Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Carex capillaris subsp. *fuscidula* (V.I.Krecz. ex T.V.Egorova) Á.Löve & D.Löve—Hair sedge | Circumpolar–alpine. **Dorset Island:** [CD-3] *Hainault & Norman 5879* (CAN). Previously recorded from the study area (Aiken *et al.* 2007). We did not encounter this species in 2015.

Carex fuliginosa subsp. *misandra* (R.Br.) Nyman (*C. misandra* R.Br.)—Short leaf sedge | Circumpolar–alpine. **Dorset Island:** [39] *Saarela & Bull 4617* (ALTA, CAN, QFA); [CD-1] *Malte s.n.* (CAN, DAO, US); [CD-3] *Hainault & Norman 5663* (CAN, DAO). **Mallik Island:** [50] *Saarela & Bull 4502* (CAN, US, WIN); [MI-3] *Hainault & Norman 5789* (DAO, H). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Carex glacialis Mack.—Glacier sedge | Circumpolar–alpine. **Dorset Island:** [40] *Saarela & Bull 4685* (CAN); [CD-1] *Aiken 05-101* (CAN); [CD-3] *Hainault & Norman 5883* (DAO); [CD-6] *Hainault & Norman 6022* (CAN). Previously recorded from the study area (Aiken *et al.* 2007).

Carex glareosa Wahlenb. subsp. *glareosa* (*C. glareosa* var. *amphigena* Fernald)—Gravel sedge | Circumpolar. **Dorset Island:** [44] *Saarela & Bull 4664* (CAN, C, K, MO, NY, O, P, S, UBC, W, WIN). **Mallik Island:** [MI-3] *Hainault & Norman 5713* (H). Previously recorded from the study area by Polunin (1940a), but we have not seen the Malte or Polunin collections cited by Polunin (1940a) from Kinngait. The earlier collections were overlooked by Aiken *et al.* (2007), who did not map the species for the study area.

Carex krausei Boeckeler (*C. capillaris* subsp. *robustior* (Lange) Böcher)—Krause’s sedge | Circumpolar–alpine. **Dorset Island:** [CD-6] *Hainault & Norman 6023* (CAN). Previously recorded from the study area (Aiken *et al.* 2007). We did not encounter this species in 2015.

- Carex lachenalii* Schkuhr—Lachenal's sedge | Circumpolar-alpine. **Dorset Island:** [22] *Saarela & Bull 4586* (CAN, C, S, UBC, W, WIN); [33] *Saarela & Bull 4673* (CAN, UBC); [40] *Saarela & Bull 4688* (CAN, K, NY, O, P); [CD-1] *Malte s.n.* (ALTA, CAN, 2 sheets), *Aiken 05-082* (CAN); [CD-3] *Hainault & Norman 5870* (DAO), *5874* (CAN); [CD-7] *Hainault & Norman 5966* (CAN). **Mallik Island:** [50] *Saarela & Bull 4494* (CAN); [MI-3] *Hainault & Norman 5892* (DAO), *5797* (H). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).
- Carex marina* Dewey (*C. amblyorhyncha* V.I.Krecz.)—Sea sedge | Circumpolar-alpine. **Mallik Island:** [MI-1] *Hainault & Norman 5951* (DAO, H). Previously recorded from the study area (Porsild & Cody 1980). We did not encounter this species in 2015.
- Carex maritima* Gunnerus—Maritime sedge | Circumpolar-alpine. **Dorset Island:** [17] *Saarela & Bull 4581* (CAN, QFA); [26] *Saarela & Bull 4486* (CAN, MO, MT); [CD-1] *Polunin 269* (CAN); [CD-3] *Hainault & Norman 5878* (CAN). **Mallik Island:** *Hainault & Norman 5855* (H). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007).
- Carex membranacea* Hook.—Fragile sedge | Amphi-Beringian—North America (N). **Dorset Island:** [24] *Saarela & Bull 4593* (CAN, UBC); [CD-1] *Aiken 05-088* (CAN), *Malte s.n.* (CAN), *Dutilly 963* (DAO), *962* (US); [CD-3] *Hainault & Norman 5869* (CAN, DAO), *5882* (DAO), *5637* (ACAD, H). Previously recorded from the study area (Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).
- Carex nardina* Fr. (*C. nardina* var. *atriceps* Kuk.)—Nard sedge | Amphi-Beringian—North American—amphi-Atlantic (W). **Dorset Island:** [11] *Saarela & Bull 4441* (CAN, UBC); [21] *Saarela & Bull 4589* (ALTA, CAN, MT, QFA, UBC, WIN); [41] *Saarela & Bull 4463* (CAN, MT); [CD-1] *Dutilly 980* (CAN, US), *Malte s.n.* (CAN); [CD-3] *Hainault & Norman 5514* (DAO). **Mallik Island:** [48] *Saarela & Bull 4519* (ALTA, CAN); [MI-3] *Hainault & Norman 5727* (CAN, DAO). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).
- Carex norvegica* Retz. (*C. norvegica* subsp. *inserrulata* Kalela, *C. norvegica* subsp. *conicorostrata* Kalela)—Norway sedge | North American (NE)—amphi-Atlantic—European (N) & Asian Beringian (or amphi-Beringian?). **Dorset Island:** [CD-1] *Malte s.n.* (CAN, 2 sheets); [CD-3] *Hainault & Norman 5662* (CAN). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Aiken *et al.* 2007). We did not encounter this species in 2015. Occurrences from the study area mark the northern edge of the species' distribution in Canada (Aiken *et al.* 2007).
- Carex rariflora* (Wahlenb.) Sm.—Loose-flowered alpine sedge | Circumpolar. **Dorset Island:** [36] *Saarela & Bull 4690* (CAN, QFA, WIN); [CD-1] *Hainault & Norman 5979* (DAO). **Mallik Island:** [MI-3] *Hainault & Norman 5798* (CAN, DAO). Previously recorded from the study area (Polunin 1940a), but we have not seen a voucher for Polunin's 1936 collection. The taxon was not mapped for the study area in Aiken *et al.* (2007). Collections by Hainault and Norman and Saarela and Bull confirm occurrence of the taxon in the study area.
- Carex rupestris* All.—Rock sedge | Circumpolar-alpine. **Dorset Island:** [7] *Saarela & Bull 4734* (ALTA, CAN). Newly recorded for the study area. Our collection closes a gap in distribution. The nearest sites are Kimmirut to the east, northern Quebec to the south, Southampton Island to the southwest and sites on central Baffin Island to the north (Aiken *et al.* 2007).
- Carex saxatilis* L. (*C. saxatilis* var. *rhomalea* Fernald, *C. saxatilis* subsp. *laxa* (Trautv.) Kalela, *C. physocarpa* Presl)—Russet sedge | Circumboreal-polar. **Dorset Island:** [6b] *Saarela & Bull 4708* (CAN); [CD-5] *Hainault & Norman 6004* (CAN). **Mallik Island:** [MI-1] *Hainault & Norman 5820* (DAO); [MI-2] *Hainault & Norman 5950* (CAN, DAO). Previously recorded from the study area (Aiken *et al.* 2007).
- Carex scirpoidea* Michx. subsp. *scirpoidea*—Scirpus sedge | Amphi-Beringian—North America (N)—amphi-Atlantic (W). **Dorset Island:** [21] *Saarela & Bull 4590* (CAN, C, S, US, W); [40] *Saarela & Bull 4684* (CAN, K, O, P); [CD-1] *Soper 687* (F), *Polunin 24* (NY), *258* (CAN); [CD-3] *Hainault & Norman 5635* (CAN, DAO). **Mallik Island:** [MI-1] *Hainault & Norman 5790* (DAO, H). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).
- Carex subspathacea* Wormsk.—Hoppner's sedge | Circumpolar. **Dorset Island:** [31] *Saarela & Bull 4492* (ALTA, MT); [8] *Saarela & Bull 4565* (CAN, UBC). **Mallik Island:** [MI-2] *Hainault & Norman 5941* (CAN). Previously recorded from the study area (Polunin 1940a, Porsild & Cody 1980, Aiken *et al.* 2007). We have not seen the specimens collected by Polunin in 1934 and 1936 cited in Polunin (1940a) as *Carex salina* var. *subspathacea* (Wormsk.) Tuck.
- Carex ursina* Dewey—Bear sedge | Circumpolar. **Dorset Island:** [44] *Saarela & Bull 4663* (ALTA, CAN, K, MO, MT, NY, O, P, QFA, UBC, US, WIN); [CD-1] *Dutilly 978* (US), *Polunin 314* (CAN), *Polunin 632, 1130* (US); [CD-6] *Hainault & Norman 6028* (MICH). **Mallik Island:** [MI-2] *Hainault & Norman 5938* (H); [MI-3] *Hainault & Norman 5842* (CAN). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).
- Eriophorum angustifolium* Honck.—Narrow-leaved cottongrass | Circumboreal-polar. **Dorset Island:** [24] *Saarela & Bull 4591* (CAN, MO, QFA, UBC); [CD-1] *Dutilly 971* (US), *Soper s.n.* (CAN), *Malte s.n.* (CAN); [CD-3] *Hainault & Norman 5652* (CAN, DAO). Previously recorded from the study area (Porsild & Cody 1980, Aiken *et al.* 2007).
- Eriophorum callitrix* C.A.Mey.—Arctic cottongrass | Asian (N)—amphi-Beringian—North American (N). **Dorset Island:** [CD-1] *Aiken 05-086* (CAN), *Hainault & Norman 5601* (CAN). Previously recorded from the study area (Aiken *et al.* 2007, Fernald 1923). The collection *Robinson 56* (GH) from Kinngait reported by Fernald (1923) was placed under *E. spissum* Fernald (= *E. vaginatum* subsp. *spissum* (Fernald) Hultén) by Polunin (1940a). We have not seen the specimen.

Eriophorum scheuchzeri subsp. *arcticum* M.S.Novos.—Scheuchzer's cottongrass | Circumpolar. **Dorset Island:** [24] *Saarela & Bull 4592* (CAN, MT); [5] *Saarela & Bull 4721* (CAN, NY, QFA); [CD-1] *Burwash s.n.* (CAN, 2 sheets), *Soper s.n.* (CAN); [CD-3] *Hainault & Norman 5560* (DAO, H). **Mallik Island:** [MI-1] *Hainault & Norman 5862* (DAO). Previously recorded from the study area (Porsild & Cody 1980), as *E. scheuchzeri*.

Eriophorum scheuchzeri Hoppe subsp. *scheuchzeri*—Scheuchzer's cottongrass | Circumpolar–alpine. **Mallik Island:** [MI-3] *Hainault & Norman 5851* (DAO). Newly recorded for the study area. The nearest sites are on Prince Charles Island to the north, Coats and Southampton islands to the southwest, northern Quebec to the south and Amadjuak Bay to the east (Aiken *et al.* 2007). A key to distinguish *E. scheuchzeri* subsp. *scheuchzeri* and *E. scheuchzeri* subsp. *arcticum* is given in Cayouette (2004) and Saarela *et al.* (2020).

Eriophorum triste (Th.Fr.) Hadač & Á.Löve (*E. angustifolium* subsp. *triste* (Th.Fr.) Hultén)—Tall cottongrass | Amphi-Beringian (E)–North American (N)–amphi-Atlantic (W). **Mallik Island:** [MI-3] *Hainault & Norman 5785* (DAO). Newly recorded for the study area. The nearest sites are on Southampton Island to the southwest and the Nettilling Lake area on Baffin Island to the north (Aiken *et al.* 2007).

Juncaceae

Juncus arcticus Willd. subsp. *arcticus*—Arctic rush | North American (NE)–amphi-Atlantic–European (N)–Asian (NW). **Dorset Island:** [13] *Saarela & Bull 4594* (CAN, UBC, US, W); [CD-5] *Hainault & Norman 6027* (CAN, DAO). **Mallik Island:** [MI-2] *Hainault & Norman 5931* (DAO, H). Taxonomy follows Kirschner (2002) and Elven *et al.* (2011). Previously recorded from the study area (Aiken *et al.* 2007).

Juncus biglumis L.—Two-flowered bog rush | Circumpolar-alpine. **Dorset Island:** [33] *Saarela & Bull 4676* (CAN, MT, US). [CD-1] *Hainault & Norman 5657, 5889* (DAO), *Malte s.n.* (CAN). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007).

Juncus leucochlamys V.J.Zinger ex V.I.Krecz. (*J. castaneus* auct., *J. castaneus* subsp. *leucochlamys* (V.J.Zinger ex V.I.Krecz.) Hultén)—Chestnut rush | Asian (N/C)–amphi-Beringian–North America (N)–amphi-Atlantic (W). **Dorset Island:** [24] *Saarela & Bull 4716* (CAN); [5] *Saarela & Bull 4720* (CAN, P, QFA, US); [CD-1] *Hainault & Norman 5992* (DAO), *Malte s.n.* (CAN, 2 sheets). Previously recorded from the study area (Polunin 1940a, Porsild & Cody 1980, Aiken *et al.* 2007).

Juncus triglumis subsp. *albescens* (Lange) Hultén (*J. albescens* Lange, *J. triglumis* var. *albescens* Lange)—Northern white rush | Asian (N)–amphi-Beringian–North American (N)–amphi-Atlantic (W). **Dorset Island:** [38] *Saarela & Bull 4677* (CAN); [CD-1] *Hainault & Norman 5657A, 5978* (DAO), *Dutilly 968, 973* (CAN), *Polunin 295* (CAN); [CD-2] *Hainault & Norman 5657A* (CAN). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007).

Luzula confusa Lindeberg—Northern woodrush | Circumpolar-alpine. **Dorset Island:** [11] *Saarela & Bull 4446* (ALTA, CAN); [23] *Saarela & Bull 4601* (CAN, MO, O); [28] *Saarela & Bull 4478* (CAN, K, P); [CD-1] *Aiken 05-080* (CAN), *Hainault & Norman 5483* (DAO), *5566* (DAO, UAC), *Malte s.n.* (CAN); [CD-3] *Hainault & Norman 5467* (DAO, H). **Mallik Island:** [MI-3] *Hainault & Norman 5721* (CAN, DAO). Previously recorded from the study area (Aiken *et al.* 2007).

Luzula nivalis (Laest.) Spreng.—Arctic woodrush | Circumpolar-alpine. **Dorset Island:** [28] *Saarela & Bull 4475* (ALTA, CAN, O); [33] *Saarela & Bull 4675* (CAN, MO, NY, QFA, US, WIN); [CD-1] *Polunin 261* (CAN); [CD-3] *Hainault & Norman 5484* (DAO). **Mallik Island:** [MI-3] *Hainault & Norman 5919* (CAN, DAO). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Poaceae

Alopecurus borealis Trin. (*A. alpinus* Sm., *nom. illeg.*, *A. magellanicus* Lam. s.l.)—Alpine foxtail | Circumpolar-alpine. **Dorset Island:** [12] *Saarela & Bull 4598* (ALTA, CAN, MO, NY, P, QFA); [28] *Saarela & Bull 4472* (CAN, UBC); [CD-1] *Hainault & Norman 5466* (DAO, H), *Hainault & Norman 5888* (DAO, UAC), *Malte s.n.* (CAN), *Soper s.n.* (CAN). **Mallik Island:** [MI-3] *Hainault & Norman 5908* (CAN). Previously recorded from the study area (Porsild & Cody 1980, Aiken *et al.* 2007).

Anthoxanthum arcticum Veldkamp (*Hierochloa pauciflora* R.Br.)—Few-flowered arctic holy grass | Asian (N)–amphi-Beringian–North American (N). **Dorset Island:** [CD-1] *Hainault & Norman 5630* (CAN, H), *Polunin 248* (CAN). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007). We did not collect this taxon in 2015.

Anthoxanthum monticola subsp. *alpinum* (Sw. ex Willd.) Sorong (*Hierochloa alpina* (Sw.) Roem. & Schult.)—Alpine sweet grass | Circumpolar-alpine. **Dorset Island:** [11] *Saarela & Bull 4435* (CAN, MT); [39] *Saarela & Bull 4618* (ALTA, CAN, MT, UBC, US); [CD-1] *Hainault & Norman 5544* (CAN, DAO, H, UAC), *Polunin 247* (CAN). Previously recorded from the study area (Aiken *et al.* 2007).

Arctagrostis latifolia (R.Br.) Griseb. subsp. *latifolia*—Wide-leaved polargrass | Circumpolar-alpine. **Dorset Island:** [1] *Saarela & Bull 4711* (CAN); [19] *Saarela & Bull 4679* (CAN, UBC, US); [CD-1] *Dutilly 961* (QFA, 2 sheets), *Dutilly 964, 965* (QFA), *Hainault & Norman 5491* (UAC), *Malte s.n.* (CAN), *s.n.* (CAN, QFA), *Polunin 298* (CAN), *Soper s.n.* (CAN). **Mallik Island:** [MI-3] *Hainault*

& Norman 5786 (CAN, DAO, UAC). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Arctophila fulva (Trin.) Andersson (*Colpodium fulvum* (Trin.) Griseb.)—Pendant grass | Circumpolar. **Mallik Island:** [MI-1] Norman & Hainault R1014 (TRT); [MI-2] Hainault & Norman 5819 (CAN, DAO); [MI-3] Hainault & Norman 5861 (DAO, H). Previously recorded from the study area (Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Deschampsia sukatschewii (Popl.) Roshev. (*D. pumila* (Griseb.) Ostenf., *nom. illeg.*)—Dwarf hairgrass | Circumpolar. **Dorset Island:** [CD-1] Aiken 05-084 (CAN), Aiken & Archambault 05-091 (CAN), Polunin 2380 (CAN). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Dupontia fisheri R.Br. (*D. fisheri* subsp. *psilosantha* (Rupr.) Hultén)—Fisher's tundra grass | Circumpolar. **Dorset Island:** [9] Saarela & Bull 4728 (CAN); [CD-1] Malte *s.n.* (CAN, UBC); [CD-2] Hainault & Norman 5980 (ACAD); [CD-6] Hainault & Norman 6024 (ACAD, CAN, UAC). **Mallik Island:** [MI-2] Hainault & Norman 5942 (H). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Festuca baffinensis Polunin—Baffin Island fescue | Asian (NE)—Amphi-Beringian—North American—amphi-Atlantic. **Dorset Island:** [CD-5] Hainault & Norman 6009 (CAN, DAO, H). **Mallik Island:** [MI-3] Hainault & Norman 8560 (UAC, 2 sheets). Previously recorded from the study area (Polunin 1940a, Porsild & Cody 1980, Aiken *et al.* 2007). We have not seen the collections Polunin 318, 320 and 2552, gathered in 1934 and 1936 in Kinngait, cited by Polunin (1940a), which are part of the original material of the taxon; Polunin did not indicate where the material is housed. We did not encounter this taxon in 2015.

Festuca brachyphylla Schult. & Schult.f. subsp. *brachyphylla*—Short-leaved fescue | Circumpolar–alpine. **Dorset Island:** [11] Saarela & Bull 4456 (ALTA, CAN); [26] Saarela & Bull 4487 (CAN, K, NY, P); [37] Saarela & Bull 4634 (CAN, QFA); [CD-1] Malte *s.n.* (CAN), Hainault & Norman 5511 (CAN). **Mallik Island:** [52] Saarela & Bull 4547 (CAN, MO, US); [MI-3] Hainault & Norman 5348 (UAC), 5748 (H, UAC). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Aiken *et al.* 2007).

Koeleria spicata (L.) Barberá, A.Quintanar, Soreng & P.M.Peterson (*Trisetum spicatum* (L.) K.Richt.)—Narrow false-oat | Circumpolar–alpine. **Dorset Island:** [13] Saarela & Bull 4558 (CAN, K, MO, MT, NY); [CD-1] Malte *s.n.* (CAN); [CD-3] Hainault & Norman 5486 (DAO), 5527A (CAN, UAC); [CD-5] Hainault & Norman 6008 (DAO, H). **Mallik Island:** [48] Saarela & Bull 4525 (CAN); [MI-3] Hainault & Norman 5725 (UAC), 5893 (DAO), 5907 (H). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Aiken *et al.* 2007).

Leymus mollis subsp. *villosissimus* (Scribn.) Á.Löve & D.Löve (*Elymus arenarius* subsp. *villosissimus* (Scribner) Á.Löve)—Arctic lymegrass | Asian (NE)—amphi-Beringian—North American (N). **Dorset Island:** [29] Saarela & Bull 4719 (CAN, C, MO, NY, QFA, US, WIN); [7] Saarela & Bull 4733 (CAN, K, MO, NY, O, P, QFA, UBC, US); [CD-1] Dutilly 752 (MT), 952 (QFA), Hainault & Norman 5488 (CAN), Malte *s.n.* (CAN), *s.n.* (CAN, UBC), Soper *s.n.* (CAN). **Mallik Island:** [49] Saarela & Bull 4540 (CAN, MO, MT); [MI-1] Hainault & Norman R1006 (QFA), R1057 (TRT); [MI-3] Hainault & Norman 5771 (H). Previously recorded from the study area (Fernald 1923, Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007). We have not seen the collection Robinson 58 from Kinngait reported in Fernald (1923).

Phippsia algida (Sol.) R.Br.—Icegrass | Circumpolar–alpine. **Dorset Island:** [17] Saarela & Bull 4579 (CAN) [43] Saarela & Bull 4646 (CAN); [CD-1] Dutilly 984 (QFA, 3 sheets), Hainault & Norman 5559 (CAN), Polunin 301 (CAN). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Pleuropogon sabinei R.Br.—Sabine's semaphore grass | Circumpolar. **Dorset Island:** [CD-1] Hainault & Norman 5977 (CAN, DAO), Polunin 299 (CAN). **Mallik Island:** [MI-3] Hainault & Norman 5794 (DAO). Previously recorded from the study area (Polunin 1940a, Porsild & Cody 1980, Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Poa alpina L. subsp. *alpina*—Alpine bluegrass | Amphi-Beringian—North American—amphi-Atlantic—European—Asian (NW-C). **Dorset Island:** [CD-1] Hainault & Norman 5600 (DAO, H). **Mallik Island:** [MI-3] Hainault & Norman 5856 (DAO, 2 sheets), 5899 (CAN, DAO (2 sheets), QFA). Previously recorded from the study area (Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Poa arctica R.Br. subsp. *arctica*—Arctic bluegrass | Circumpolar–alpine. **Dorset Island:** [6a] Saarela & Bull 4699 (CAN, MT, MO); [CD-1] Malte *s.n.* (CAN, 2 sheets), *s.n.* (CAN, V). **Mallik Island:** [48] Saarela & Bull 4532 (CAN); [MI-3] Hainault & Norman 5775 (DAO). Previously recorded from the study area (Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Poa arctica subsp. *caespitans* Simmons ex Nannf.—High Arctic bluegrass | North American (NE)—amphi-Atlantic—European (N). **Dorset Island:** [CD-3] Hainault & Norman 5881 (CAN, DAO), 5468 (DAO). Previously recorded from the study area (Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Poa glauca Vahl subsp. *glauca*—Glaucous bluegrass | Circumpolar–alpine. **Dorset Island:** [1] Saarela & Bull 4714 (CAN, MO, QFA); [12] Saarela & Bull 4727 (CAN, UBC); [13] Saarela & Bull 4556 (CAN, K, NY, P, US, WIN); [37] Saarela & Bull 4633 (CAN, MT); [CD-1] Burwash *s.n.* (CAN), Hainault & Norman 5864 (QFA), Polunin 2356 (CAN), Soper *s.n.* (CAN, V); [CD-3] Hainault & Norman 5490 (CAN), 5527B, 5999 (DAO), 5580 (H). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007). An unattributed penciled annotation on the label of Polunin 2356 at CAN indicates the collection number should be 2365, without explanation. Polunin (1940a) published the collection as no. 2356, thus that number should stand. We have not seen three other collections from Kinngait cited by Polunin (1940a): Polunin 237, 318 and 305.

Poa pratensis subsp. *alpigena* (Lindm.) Hiitonen (*P. alpigena* Lindm.)—Alpine meadow bluegrass | Circumboreal-polar. **Dorset Island:** [12] *Saarela & Bull 4598b* (CAN); [13] *Saarela & Bull 4557* (ALTA, CAN, NY, O, QFA, WIN); [CD-1] *Aiken & Archambault 05-092* (CAN), *Hainault & Norman 5863–5865* (DAO, H), *Malte s.n.* (CAN, MT, QFA). **Mallik Island:** [MI-2] *Hainault & Norman 5949* (DAO); [MI-3] *Hainault & Norman 5894* (CAN, DAO). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007).

Puccinellia andersonii Swallen—Anderson’s alkaligrass | North American (N). **Dorset Island:** [29] *Saarela & Bull 4467* (CAN, UBC); [44] *Saarela & Bull 4667* (CAN, K, MT, US). **Mallik Island:** [MI-2] *Hainault & Norman 5947* (CAN), *5940* (H). Previously recorded from the study area (Aiken *et al.* 2007).

Puccinellia phryganodes subsp. *neoarctica* (Á.Löve & D.Löve) Elven—Goosegrass | North American (N). **Dorset Island:** [3] *Saarela & Bull 4635* (CAN, C, K, MO, O, P, NY, S, UBC); [CD-1] *Malte s.n.* (CAN), *s.n.* (CAN, MICH), *Polunin 1142* (F), *822, 1494* (CAN), *1277* (NY); [CD-2] *Hainault & Norman 5531* (CAN). **Mallik Island:** [MI-3] *Hainault & Norman 5710* (CAN). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Aiken *et al.* 2007).

Puccinellia tenella subsp. *langeana* (Berlin) Tzvelev (*Puccinellia langeana* Berlin)—Lange’s alkaligrass | Amphi-Beringian?–North American (N). **Dorset Island:** [CD-1] *Malte s.n.* (CAN, 3 sheets); [CD-5] *Hainault & Norman 5534* (CAN), *6010* (H); [CD-6] *Hainault & Norman 6029* (CAN, H). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007). We did not encounter this taxon in 2015.

EUDICOTS

Ranunculales

Papaveraceae

Papaver labradoricum (Fedde) Solstad & Elven—Labrador poppy | North American (NE). **Dorset Island:** [11] *Saarela & Bull 4457* (ALTA, CAN); [13] *Saarela & Bull 4736* (CAN, QFA); [4] *Saarela & Bull 4715* (CAN, UBC); [6a] *Saarela & Bull 4702* (CAN, MT); [CD-1] *Hainault & Norman 5697* (CAN), *Malte s.n. [515]* (CAN, GH), *Soper s.n.* (CAN). Poppies were previously recorded from the study area as *Papaver radicum* L. (Porsild 1957, 1964, Porsild & Cody 1980).

Ranunculaceae

Ranunculus arcticus Richardson (*R. pedatifidus* var. *affinis* (R.Br.) L.D.Benson, *R. pedatifidus* var. *leiocarpus* (Trautv.) Fernald)—Birdfoot buttercup | Circumpolar–alpine. **Dorset Island:** [CD-1] *Soper s.n.* (CAN, 3 sheets); [CD-3] *Hainault & Norman 5579* (CAN, DAO). **Mallik Island:** [MI-3] *Hainault & Norman 5899* (DAO). Previously recorded from the study area (Porsild 1957, 1964, Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Ranunculus trichophyllus Chaix (*R. aquatilis* var. *diffusus* With.)—Thread-leaved water-crowfoot. **Dorset Island:** [CD-1] *Polunin 2374* (CAN). **Mallik Island:** [MI-1] *Hainault & Norman 5924* (CAN, DAO). Taxonomy follows Wiegleb *et al.* (2017). Previously recorded from the study area by Polunin (1940a), Porsild (1957) and Porsild (1964) as *Ranunculus trichophyllus* var. *eradicatus* (Laest.) Drew [=*R. confervoides* (Fr.) Fr. sec. Wiegleb *et al.* (2017)], Porsild & Cody (1980) as *R. aquatilis* var. *eradicatus* Laest. [=*R. confervoides* (Fr.) Fr. sec. Wiegleb *et al.* (2017)], and Aiken *et al.* (2007) as *R. aquatilis* var. *diffusus*. Elven *et al.* (2011) treated the taxon under *R. confervoides*, a name now applied to a species of restricted Arctic-boreal distribution only in Northern Europe (Wiegleb *et al.* 2017).

Ranunculus hyperboreus Rottb. subsp. *hyperboreus*—Far-northern buttercup | Circumpolar–alpine. **Dorset Island:** [13] *Saarela & Bull 4564* (CAN, US, WIN); [7] *Saarela & Bull 4729* (CAN); [CD-1] *Aiken & Archambault 05-102* (CAN), *Hainault & Norman 5665* (DAO), *Polunin 265* (CAN); [CD-2] *Hainault & Norman 5561* (CAN). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Aiken *et al.* 2007).

Ranunculus nivalis L., Fig. 5A–C—Snow buttercup | Circumpolar. **Dorset Island:** [1] *Saarela & Bull 4710* (ALTA, CAN, K, NY, P); [13] *Saarela & Bull 4575* (CAN, MO, MT); [19] *Saarela & Bull 4607* (ALTA, CAN, C, K, MO, MT, NY, O, P, QFA, S, UBC, US, W, WIN); [22] *Saarela & Bull 4585* (CAN, C, O, QFA, S); [CD-1] *Hainault & Norman 5626* (ACAD), *Soper s.n.* (CAN, 2 sheets). **Mallik Island:** [46] *Saarela & Bull 4555* (CAN); [50] *Saarela & Bull 4493* (CAN, MO, P, US, WIN); [MI-1] *Hainault & Norman 5849* (DAO). Previously recorded from the study area (Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Ranunculus pygmaeus Wahlenb.—Pygmy buttercup | Circumpolar–alpine. **Dorset Island:** [CD-5] *Hainault & Norman 5538* (DAO), *Robinson 61* (GH). **Mallik Island:** [50] *Saarela & Bull 4495* (CAN); [MI-1] *Hainault & Norman 5825* (CAN, DAO). Previously recorded from the study area (Fernald 1923, Polunin 1940a, Porsild & Cody 1980, Aiken *et al.* 2007).



FIGURE 5. *Ranunculus nivalis*: A. Inflorescences. B. Habit. C. Habitat, Saarela & Bull 4710. *Saxifraga oppositifolia*: D. Inflorescences. E. Habit. F. Habitat, Saarela & Bull 4542. Photos by R.D. Bull.

Superrosids

Saxifragales

Saxifragaceae

Chryso-splenium tetrandrum Th.Fr.—Northern golden saxifrage | Circumpolar & Cordilleran. **Dorset Island:** [15] Saarela & Bull 4738 (CAN); [16] Saarela & Bull 4637 (CAN, UBC, US). [CD-1] Aiken & Archambault 05-100 (CAN), Malte s.n. [508], s.n. [516]

(CAN, GH), *Hainault & Norman 5456* (CAN, DAO). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Micranthes foliolosa (R.Br.) Gornall (*Saxifraga foliolosa* R.Br., *S. stellaris* var. *comosa* Retz.)—Leafy-stemmed saxifrage | Circumpolar. **Dorset Island:** [35] *Saarela & Bull 4670* (CAN); [CD-1] *Dutilly 936* (CAN), *Hainault & Norman 5605* (CAN, DAO), *Malte s.n.* (CAN), *s.n.* [531] (CAN, GH). **Mallik Island:** [MI-3] *Hainault & Norman 5804* (DAO). Previously recorded from the study area (Polunin 1940a, Porsild & Cody 1980, Aiken *et al.* 2007).

Micranthes nivalis (L.) Small (*Saxifraga nivalis* L.)—Snow saxifrage | Circumpolar–alpine. **Dorset Island:** [28] *Saarela & Bull 4484* (CAN, UBC); [CD-1] *Hainault & Norman 5698* (CAN), *Soper s.n.* (CAN). Previously recorded from the study area (Porsild 1957, 1964, Porsild & Cody 1980, Healy & Gillespie 2004 [2005], Aiken *et al.* 2007).

Micranthes tenuis (Wahlenb.) Small (*Saxifraga nivalis* var. *tenuis* Wahlenb., *S. tenuis* (Wahlenb.) Harry Sm. ex Lindm.)—Slender saxifrage | Circumpolar–alpine. **Dorset Island:** [11] *Saarela & Bull 4440* (CAN). A specimen (*Aiken & Archambault 05-090*, CAN 586960) mapped as this taxon in Aiken *et al.* (2007) is recorded in the CAN database as *M. nivalis*; we were not able to locate the specimen to confirm its identity. Based on images in Aiken *et al.* (2007) (under *M. tenuis*) of the population from which the collection was sampled, the collection is likely *M. nivalis*, given the robust appearance of the plants, which is characteristic of *M. nivalis* (vs. delicate in *M. tenuis*) (Healy & Gillespie 2004 [2005]).

Saxifraga aizoides L.—Yellow mountain saxifrage | North American (N)—amphi-Atlantic–European. **Dorset Island:** [6b] *Saarela & Bull 4707* (CAN, MO, MT, P, US); [CD-1] *Dutilly 934* (QFA), *Polunin 289* (CAN, GH); [CD-3] *Hainault & Norman 5660* (CAN). Previously recorded from the study area (Aiken *et al.* 2007).

Saxifraga cernua L.—Nodding saxifrage | Circumpolar–alpine. **Dorset Island:** [13] *Saarela & Bull 4562* (CAN, P, WIN); [15] *Saarela & Bull 4740* (CAN, MO); [29] *Saarela & Bull 4470* (CAN, MO, O); [CD-1] *Burwash s.n.* (CAN), *Hainault & Norman 5479* (CAN), *Malte s.n.* [493] (CAN, GH), *Soper s.n.* (CAN, 2 sheets); [CD-4] *Hainault & Norman 5528* (DAO). **Mallik Island:** [MI-3] *Hainault & Norman 5895* (DAO). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Saxifraga cespitosa L.—Tufted saxifrage | Circumpolar–alpine. **Dorset Island:** [11] *Saarela & Bull 4447* (ALTA, CAN); [29] *Saarela & Bull 4471* (CAN, QFA, US); [37] *Saarela & Bull 4629* (ALTA, CAN, C, K, MO, MT, NY, O, P, QFA, UBC, US, WIN); [CD-1] *Aiken 05-087* (CAN), *Dutilly 952* (QFA), *Malte s.n.* [492], *s.n.* [557] (CAN, GH), *Soper s.n.* (CAN, 3 sheets); [CD-2] *Hainault & Norman 5549, 6013* (CAN, DAO); [CD-3] *Hainault & Norman 5464, 5487, 6002* (DAO). **Mallik Island:** [51] *Saarela & Bull 4553* (CAN); [MI-3] *Hainault & Norman 5723, 5905* (DAO). Previously recorded from the study area (Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Saxifraga hirculus L.—Yellow marsh saxifrage | Circumboreal–polar. **Dorset Island:** *Burwash s.n.* (CAN), *Dutilly 981* (CAN), *Malte s.n.* (CAN), *s.n.* [489] (CAN, GH), *Polunin 317* (CAN), *Soper s.n.* (CAN, V); [CD-3] *Hainault & Norman 5634* (DAO), *5654* (CAN). **Mallik Island:** [MI-3] *Hainault & Norman 5795* (DAO). Previously recorded from the study area (Porsild & Cody 1980, Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Saxifraga hyperborea R.Br.—Pygmy saxifrage | Circumpolar–alpine. **Dorset Island:** [18] *Saarela & Bull 4608* (CAN, UBC, US), *Aiken 05-083* (CAN), *Aiken & Archambault 05-095* (CAN), *Dutilly 956a* (CAN); [CD-4] *Hainault & Norman 5536* (CAN, DAO). Previously recorded from the study area (Aiken *et al.* 2007).

Saxifraga oppositifolia L., Fig. 5D–F—Purple saxifrage | Circumpolar–alpine. **Dorset Island:** [11] *Saarela & Bull 4443* (CAN, C, K, O); [CD-1] *Burwash s.n.* (CAN), *Dutilly 954* (CAN), *Polunin 313* (CAN), *Soper 659* (CAN); [CD-2] *Hainault & Norman 5548* (CAN, DAO). **Mallik Island:** [47] *Saarela & Bull 4509* (CAN, MT, US); [51] *Saarela & Bull 4542* (CAN, UBC). Previously recorded from the study area (Porsild & Cody 1980, Aiken *et al.* 2007).

Saxifraga rivularis L. subsp. *rivularis*—Alpine brook saxifrage | Amphi-Atlantic–European (N)—Asian (NW). **Dorset Island:** [37] *Saarela & Bull 4632* (CAN); [43] *Saarela & Bull 4644* (CAN, MO, QFA, WIN), *4651* (CAN, MT); [CD-1] *Aiken & Archambault 05-096* (CAN), *Dutilly 956a* (CAN), *Hainault & Norman 5478* (DAO), *Polunin 259* (CAN); [CD-4] *Hainault & Norman 5535* (CAN, DAO), *5688* (DAO). **Mallik Island:** [MI-1] *Hainault & Norman 5806* (DAO). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007).

Saxifraga tricuspidata Rottb.—Prickly saxifrage | North American (N). **Dorset Island:** [11] *Saarela & Bull 4436* (CAN, MT, P, US); [37] *Saarela & Bull 4630* (CAN, C, K, MO, MT, O, QFA, S, UBC, US, W); [CD-1] *Burwash s.n.* (CAN), *Dutilly 935* (QFA), *Malte s.n.* (DAO, UTC); [CD-7] *Hainault & Norman 5505* (DAO). **Mallik Island:** [48] *Saarela & Bull 4518* (ALTA, CAN, K, MO, NY, QFA); [MI-3] *Hainault & Norman 5722* (CAN, DAO). Previously recorded from the study area (Porsild 1957, 1964, Aiken *et al.* 2007).

Rosids

Fabales

Fabaceae

Astragalus alpinus L.—Alpine milk-vetch | Circumpolar–alpine. **Dorset Island:** [11] *Saarela & Bull 4460* (CAN, MT); [12] *Saarela & Bull 4725* (CAN, QFA); [CD-1] *Dutilly 950* (GH), *958* (CAN), *Soper s.n.* (CAN), *Malte s.n.* (CAN, GH, 2 sheets). **Mallik Island:** [48] *Saarela & Bull 4526* (ALTA, CAN); [MI-3] *Hainault & Norman 5730* (DAO). Previously recorded from the study area (Polunin 1940a, Porsild & Cody 1980, Aiken *et al.* 2007).

Oxytropis arctobia Bunge (*O. nigrescens* var. *uniflora* (Hook.) Barneby), Fig. 6E—Blackish oxytrope (locoweed) | North American (N). **Dorset Island:** [14] *Saarela & Bull 4640* (ALTA, CAN, MO, UBC); [41] *Saarela & Bull 4462* (CAN, MT, US); [CD-1] *Burwash s.n.* (CAN), *Soper 744* (CAN); [CD-3] *Hainault & Norman 5465* (DAO). **Mallik Island:** [52] *Saarela & Bull 4546* (CAN); [MI-3] *Hainault & Norman 5835* (CAN, DAO). Previously recorded from the study area (Fernald 1923, Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007). We have not seen the collection *Robinson 59* from Kingait recorded by Fernald (1923).

Oxytropis deflexa var. *foliolosa* (Hook.) Barneby (*O. deflexa* subsp. *foliolosa* (Hook.) Cody)—Pendant pod oxytrope | Amphi-Beringian–North American (W). **Dorset Island:** [CD-6] *Hainault & Norman 6025* (DAO). **Mallik Island:** [MI-2] *Hainault & Norman 5934* (DAO). Newly recorded for the study area based on collections gathered in 1970. We did not encounter this taxon in 2015. The nearest known sites for the taxon are from Kimmirut and northern Quebec (Aiken *et al.* 2007) in the eastern Arctic and the Bathurst Inlet area of mainland Nunavut. On Baffin Island the taxon is also known from Iqaluit (Aiken *et al.* 2007). A site 150 km east of Iqaluit mapped in Aiken *et al.* (2007) is an error; the longitude coordinates on the specimen (CAN 10072227), gathered at Frobisher Bay [Iqaluit] by Hainault and Norman in 1970, are incorrect. Elsewhere in the Canadian Arctic Archipelago recorded only on western Victoria Island (Gillespie *et al.* 2015, Saarela *et al.* 2020).

Oxytropis maydelliana Trautv. (*O. maydelliana* subsp. *melanocephala* (Hook.) A.E.Porsild)—Maydell's locoweed | Amphi-Beringian–North American (N). **Dorset Island:** [11] *Saarela & Bull 4448* (CAN, K, NY, P); [5] *Saarela & Bull 4723* (ALTA, CAN); [CD-1] *Holroyd 5* (US), *Malte s.n.* (CAN, US), *Soper s.n.* (CAN, 2 sheets), *Dutilly 950* (CAN); [CD-3] *Hainault & Norman 5493* (DAO). **Mallik Island:** [52] *Saarela & Bull 4548* (CAN, MO, UBC); [MI-2] *Hainault & Norman 5750* (CAN, DAO). Previously recorded from the study area (Polunin 1940a, Porsild & Cody 1980, Aiken *et al.* 2007).

Rosales

Campanulaceae

Campanula uniflora L.—Arctic harebell | Amphi-Beringian–North American (N)—amphi-Atlantic. **Dorset Island:** *Malte s.n.* (CAN, 2 sheets), *Soper s.n.* (CAN); [CD-3] *Hainault & Norman 5675* (CAN, DAO). **Mallik Island:** [MI-3] *Hainault & Norman 5732* (DAO). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Rosaceae

Dryas integrifolia Vahl subsp. *integrifolia*, Fig. 7A, B—Mountain avens | Amphi-Beringian–North American (N). **Dorset Island:** [23] *Saarela & Bull 4605* (ALTA, CAN); [CD-1] *Burwash s.n.* (CAN), *Dutilly 983* (QFA), *Polunin 844* (MIN), *894*, *1411* (QFA), *249*, *288* (GH), *Soper s.n.* (CAN); [CD-7] *Hainault & Norman 5503* (CAN, DAO). **Mallik Island:** [47] *Saarela & Bull 4513* (CAN, MO, WIN). Previously recorded from the study area (Porsild & Cody 1980, Aiken *et al.* 2007).

Potentilla arenosa (Turcz.) Juz. subsp. *arenosa* (*P. hookeriana* auct., non Lehm., *P. nivea* auct., non L., *P. nivea* var. *arenosa* Turcz., *P. nivea* subsp. *hookeriana* auct., non (Lehm.) Hiitonen)—Bluff cinquefoil | Asian (N/C)—amphi-Beringian–North American (N). **Mallik Island:** [50] *Saarela & Bull 4498* (CAN, O). Newly recorded from the study area.

Potentilla hyparctica Malte subsp. *hyparctica*—Arctic cinquefoil | Circumpolar. **Mallik Island:** [52] *Saarela & Bull 4544* (ALTA, CAN, NY). Newly recorded for the study area. This is the northern race of the species. The nearest known sites are on Southampton Island to the southwest, near the coast on the mainland to the west and Amadjuak Lake to the north (Aiken *et al.* 2007). Collections from the adjacent Foxe Peninsula and along the southern coast of Baffin Island area are subsp. *elatior*, which is the common race in the study area (Aiken *et al.* 2007).

Potentilla hyparctica subsp. *elatior* (Abrom.) Elven & D.F.Murray—Tall Arctic cinquefoil | North American (N). **Dorset Island:** [11] *Saarela & Bull 4442* (CAN, NY, UBC, US); [CD-1] *Burwash s.n.* (CAN), *Malte s.n.* (CAN), *Polunin 315* (CAN), *Soper s.n.* (CAN, 2 sheets); [CD-4] *Hainault & Norman 5690*, *6015* (DAO). **Mallik Island:** [MI-3] *Hainault & Norman 5733* (DAO). Previously recorded from the study area (Polunin 1940a, Porsild & Cody 1980, Aiken *et al.* 2007).



FIGURE 6. *Silene acaulis*: A. Habit, Dorset Island, 12 July 2015. *Arctous alpina*: B. Leaves and inflorescences. C. Habitat, Saarela & Bull 4517. *Vaccinium uliginosum*: D. Habitat, Dorset Island, 12 July 2015. *Oxytropis arctobia*: E. Inflorescences. F. Habit, Dorset Island, 12 July 2015. Photos by J.M. Saarela (A, D, E, F) and R.D. Bull (B, C).

Malpighiales

Salicaceae

Salix arctica Pall., Fig. 7C—Arctic willow | Circumpolar-alpine. **Dorset Island:** [8] Saarela & Bull 4573 (CAN, UBC); [11] Saarela & Bull 4449 (CAN, C, S), 4450 (CAN, NY WIN), 4451 (CAN, C, K, O, P, S W); [36] Saarela & Bull 4691a (CAN, MT); [41] Saarela

& Bull 4464 (ALTA, CAN, MT, QFA, UBC); [CD-1] *Burwash s.n.* (CAN, 2 sheets), *Hainault & Norman 5671* (CAN), *Malte s.n.* (CAN, 5 sheets), *Polunin 2378* (CAN), *Soper s.n.* (CAN); [CD-3] *Hainault & Norman 5455* (CAN). **Mallik Island:** [MI-3] *Hainault & Norman 5724* (O); [50] *Saarela & Bull 4497* (CAN, MO, NY, US, WIN). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).



FIGURE 7. *Dryas integrifolia* subsp. *integrifolia*: A. Habit (with *Carex rupestris*). B. Habitat, with *Silene acaulis*, Dorset Island, 12 July 2015. *Salix arctica*: C. Habit, Dorset Island, 14 July 2015. *Salix calcicola*: D. Habit, Dorset Island, 4 July 2015. *Salix herbacea*: E. Habit, Dorset Island, 12 July 2015. *Draba alpina*: F. Habit, Dorset Island, 13 July 2015. Photos by J.M. Saarela (A, B, E) and R.D. Bull (C, D, F).

Salix arctophila Cockerell ex A.Heller—Northern willow | North American (N). **Dorset Island:** [10] *Saarela & Bull 4655* (CAN, MO, O); [36] *Saarela & Bull 4691b* (CAN); [6a] *Saarela & Bull 4697* (CAN, K, O, P); [8] *Saarela & Bull 4570* (CAN, MT), *4571* (ALTA, CAN); [CD-1] *Hainault & Norman 5670, 5672* (CAN); [CD-2] *Hainault & Norman 5670-2* (CAN). **Mallik Island:** [MI-3] *Hainault & Norman 5757* (CAN). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007). We have not seen the collections made by Malte and Polunin at Kinngait noted in Polunin (1940a).

Salix calcicola Fernald & Wiegand var. *calcicola* (*S. lanata* subsp. *calcicola* (Fernald & Wiegand) Hultén), Fig. 7D—Limestone willow | North American (NE). **Dorset Island:** [8] *Saarela & Bull 4566* (CAN, UBC); [11] *Saarela & Bull 4452* (CAN, MT), *4453* (ALTA, CAN); [30] *Saarela & Bull 4489* (ALTA, CAN, K, NY, P), *Polunin 285* (CAN), *Soper s.n.* (CAN); [CD-3] *Hainault & Norman 5454* (CAN); [CD-5] *Hainault & Norman 5593* (CAN). **Mallik Island:** [47] *Saarela & Bull 4507* (CAN, O, UBC, US), *4508* (CAN, QFA, US); [MI-1] *Hainault & Norman 5746* (CAN). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007).

Salix herbacea L., Fig. 7E—Snowbed willow | North American (NE)-amphi-Atlantic-European (N/C). **Dorset Island:** [11] *Saarela & Bull 4454* (CAN, NY, P); [39] *Saarela & Bull 4623* (ALTA, CAN), *4626* (CAN); [CD-1] *Hainault & Norman 5512* (CAN), *Malte s.n.* (CAN). **Mallik Island:** [47] *Saarela & Bull 4515* (CAN, WIN). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007). We have not seen the specimens collected at Kinngait by Polunin in 1934 and 1936 noted in Polunin (1940a).

Salix reticulata L.—Net-vein willow | Circumpolar–alpine. **Dorset Island:** [25] *Saarela & Bull 4490* (CAN, MT); [6a] *Saarela & Bull 4694* (CAN, MO, NY, WIN); [CD-1] *Malte s.n.* (CAN), *Oldenburg 170A* (MIN), *Polunin 2377, 244* (CAN); [CD-3] *Hainault & Norman 5575* (CAN). **Mallik Island:** [47] *Saarela & Bull 4516* (ALTA, CAN); [MI-3] *Hainault & Norman 5746* (CAN). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Salix uva-ursi Pursh—Bearberry willow | North American (NE). **Dorset Island:** [CD-1] *Hainault & Norman 5704* (CAN), *Polunin 211* (CAN). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007). The Dorset Island population marks the known northwestern limit of the taxon (Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Myrtales

Onagraceae

Chamaenerion latifolium (L.) Sweet (*Chamerion latifolium* (L.) Holub, *Epilobium latifolium* L.)—River beauty | Circumpolar–alpine. **Dorset Island:** [41] *Saarela & Bull 4461* (CAN, MO, QFA, US, WIN); [CD-1] *Burwash s.n.* (CAN), *Malte s.n. [550]* (CAN, GH, MICH), *Soper s.n.* (CAN) **Mallik Island:** [49] *Saarela & Bull 4536* (CAN); [MI-3] *Hainault & Norman 5714* (CAN, DAO). Previously recorded from the study area (Porsild & Cody 1980, Aiken *et al.* 2007).

Epilobium arcticum Sam.—Arctic willowherb | Nearly circumpolar. **Dorset Island:** *Dutilly 987* (QFA), *Polunin 302* (CAN). **Mallik Island:** [MI-2] *Hainault & Norman 5953* (CAN). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Brassicales

Brassicaceae

Arabidopsis arenicola (Richardson) Al-Shehbaz, Elven, D.F.Murray & S.I.Warwick (*Arabis arenicola* (Richardson) Gelert)—Arctic rockcress | North American (NE). **Dorset Island:** [6a] *Saarela & Bull 4704* (ALTA, CAN, MT); [7] *Saarela & Bull 4732* (CAN); [CD-1] *Burwash s.n.* (CAN), *Polunin 2363* (CAN). Previously recorded from the study area (Polunin 1940a, Porsild & Cody 1980, Aiken *et al.* 2007).

Braya glabella subsp. *purpurascens* (R.Br.) Cody (*B. purpurascens* R.Br.)—Purple rockcress | Circumpolar–Cordilleran. **Mallik Island:** [MI-2] *Hainault & Norman 5944* (CAN). Previously recorded from the study area (Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Cardamine bellidifolia L.—Alpine bittercress | Circumpolar–alpine. **Dorset Island:** [18] *Saarela & Bull 4613* (CAN); [23] *Saarela & Bull 4602* (CAN); [28] *Saarela & Bull 4480* (CAN); [39] *Saarela & Bull 4621* (CAN); [CD-1] *Hainault & Norman 5957* (DAO), *5607* (CAN, DAO), *Dutilly 953* (DAO), *955* (CAN, QFA), *960* (CAN), *Malte s.n.* (CAN). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007). We have not seen Polunin’s 1934 and 1936 collections from Kinngait noted in Polunin (1940a).

Cardamine polemonioides Rouy (*C. nymanii* Gand., *C. pratensis* subsp. *angustifolia* (Hook.) O.E.Schultz)—Cuckoo flower, Meadow bittercress | Circumpolar. **Dorset Island:** [CD-1] *Hainault & Norman 5887* (DAO), *Soper s.n.* (CAN), *Malte s.n. [495]* (CAN, GH); [CD-2] *Hainault & Norman 5629* (CAN). **Mallik Island:** [MI-1] *Hainault & Norman 5822* (DAO). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007). We did not encounter this taxon in 2015. We have not seen Polunin’s 1934 and 1936 collections from Kinngait noted in Polunin (1940a).

Cochlearia groenlandica L. (*C. officinalis* subsp. *arctica* (Schltdl.) Hultén, *C. officinalis* subsp. *groenlandica* (L.) A.E.Porsild)—Greenland scurvygrass | Circumpolar. **Dorset Island:** [29] *Saarela & Bull 4468* (CAN, QFA); [3] *Saarela & Bull 4636* (CAN); [6a] *Saarela*

& Bull 4703 (CAN); [CD-1] *Soper s.n.* (CAN). **Mallik Island:** [51] *Saarela & Bull 4554* (CAN); [MI-2] *Hainault & Norman 5939* (CAN). Previously recorded from the study area (Aiken *et al.* 2007).

Draba alpina L., Fig. 7F—Alpine draba | Amphi-Atlantic. **Dorset Island:** [12] *Saarela & Bull 4724* (CAN); [20] *Saarela & Bull 4678* (CAN, C, K, MO, NY, O, P, UBC); [23] *Saarela & Bull 4603* (CAN); [27] *Saarela & Bull 4597* (CAN, MO, MT, NY); [7] *Saarela & Bull 4730* (ALTA, CAN, MO, MT, O, QFA, UBC, US); [CD-1] *Soper s.n.* (CAN), *Burwash s.n.* (CAN), *Polunin 2371* (CAN), 2355 (US); [CD-2] *Hainault & Norman 5567* (DAO). **Mallik Island:** [MI-1] *Hainault & Norman 5810* (DAO). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Draba corymbosa R.Br. ex DC. (*D. bellii* Holm)—Flat-top draba | Circumpolar. **Dorset Island:** [CD-1] *Burwash s.n.* (CAN). Previously recorded from the study area (Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Draba glabella Pursh—Smooth draba | Circumboreal-polar. **Dorset Island:** [10] *Saarela & Bull 4654* (CAN, MO, MT, NY); [11] *Saarela & Bull 4444* (ALTA, CAN, MO, P, US); [13] *Saarela & Bull 4560* (CAN, C, K, MO, MT, O, QFA, S, UBC, W); [CD-1] *Burwash s.n.* (CAN), *Malte s.n.* [555], *s.n.* [544], *s.n.* [530], *s.n.* [540] (CAN, GH), *s.n.* (CAN, 2 sheets), *Malte 560* (GH), *Oldenburg 163* (GH), *Polunin 280* (CAN), *Soper s.n.* (CAN), *s.n.* (CAN, DAO, GH), *Hainault & Norman 5502* (DAO); [CD-3] *Hainault & Norman 5461* (DAO). **Mallik Island:** [48] *Saarela & Bull 4527* (CAN); [7] *Saarela & Bull 4731* (CAN); [MI-1] *Hainault & Norman 5926* (DAO). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Aiken *et al.* 2007).

Draba lactea Adams—Milky draba | Circumpolar. **Dorset Island:** [10] *Saarela & Bull 4653* (CAN); [18] *Saarela & Bull 4611* (CAN, MT); [2] *Saarela & Bull 4577* (CAN); [39] *Saarela & Bull 4627* (CAN); [CD-1] *Burwash s.n.* (CAN), *Malte s.n.* [530], *s.n.* [540] (CAN, GH), *s.n.* (CAN), *Polunin 261* (CAN), *Soper s.n.* (CAN), *Hainault & Norman 5608* (DAO); [CD-3] *Hainault & Norman 5462* (DAO). **Mallik Island:** [49] *Saarela & Bull 4537* (CAN); [MI-3] *Hainault & Norman 5740* (DAO). Previously recorded from the study area (Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Draba nivalis Lilj.—Snow draba | Circumpolar-alpine. **Dorset Island:** [13] *Saarela & Bull 4561* (CAN, MT); [14] *Saarela & Bull 4643* (CAN); [18] *Saarela & Bull 4612* (CAN); [CD-1] *Soper s.n.* (CAN), *Hainault & Norman 5509* (DAO); [CD-3] *Hainault & Norman 5475* (DAO). **Mallik Island:** [48] *Saarela & Bull 4528, 4529* (CAN); [MI-3] *Hainault & Norman 5719* (DAO). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Aiken *et al.* 2007).

Draba oblongata R.Br. ex DC. (*D. groenlandica* E.Ekman)—Canada arctic draba | Circumpolar? **Dorset Island:** [CD-1] *Polunin 2357* (CAN). Previously recorded from the study area (Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Eutrema edwardsii R.Br.—Edward's eutrema | Circumpolar-alpine. **Dorset Island:** [13] *Saarela & Bull 4595* (CAN); [23] *Saarela & Bull 4600* (CAN); [32] *Saarela & Bull 4657* (CAN); [39] *Saarela & Bull 4622* (CAN); [5] *Saarela & Bull 4718* (CAN); [8] *Saarela & Bull 4572* (CAN); [CD-1] *Dutilly 957a* (QFA), *Malte s.n.* (CAN, V), *Polunin 256* (CAN), *Soper s.n.* (CAN); [CD-3] *Hainault & Norman 5460* (DAO). **Mallik Island:** [MI-3] *Hainault & Norman 5805* (CAN, DAO). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Superasterids

Caryophyllales

Caryophyllaceae

Arnararia humifusa Wahlenb.—Creeping sandwort | North American (N)—amphi-Atlantic. **Dorset Island:** [8] *Saarela & Bull 4568* (CAN, MT); [23] *Saarela & Bull 4604* (ALTA, CAN); [42] *Saarela & Bull 4659* (CAN, US). **Mallik Island:** [49] *Saarela & Bull 4538* (CAN, QFA); [51] *Saarela & Bull 4552* (CAN, WIN). Previously recorded from the study area by Aiken *et al.* (2007), but the collection (*Aiken 05-081*) has been redetermined as *Cherleria biflora*. The new records reported here are thus the first confirmed ones for the study area.

Cerastium alpinum L. (*C. alpinum* subsp. *lanatum* (Lam.) Ces.)—Alpine chickweed | Amphi-Atlantic (W). **Dorset Island:** [CD-1] *Soper s.n.* (CAN), *Hainault & Norman 5506* (DAO); [CD-2] *Hainault & Norman 6016* (DAO); [CD-3] *Hainault & Norman 5472, 6001* (DAO); [CD-5] *Hainault & Norman 5597* (DAO). **Mallik Island:** [48] *Saarela & Bull 4531* (CAN); [MI-3] *Hainault & Norman 5915* (CAN), *Hainault & Norman 5720* (DAO). Previously recorded from the study area (Porsild 1957, 1964, Aiken *et al.* 2007).

Cerastium arcticum Lange—Arctic mouse-ear chickweed | North American (N)—amphi-Atlantic—European (N). **Dorset Island:** [11] *Saarela & Bull 4458* (ALTA, CAN, UBC, US); [12] *Saarela & Bull 4726* (CAN, MO, NY, P, US, WIN); [13] *Saarela & Bull 4559* (CAN, MO, NY, QFA, WIN); [28] *Saarela & Bull 4481* (CAN); [37] *Saarela & Bull 4631* (CAN, UBC); [CD-1] *Burwash s.n.* (CAN), *Soper s.n.* (CAN). Previously recorded from the study area (Aiken *et al.* 2007).

Cerastium regelii Ostenf. (*C. gorodkovianum* Schischk.)—Regel's chickweed | Circumpolar. **Dorset Island:** [CD-7] *Hainault & Norman 5989* (CAN, DAO). Previously recorded from the study area (Aiken *et al.* 2007). The occurrence on Dorset Island is near the southern limit of the taxon, which extends into northern Quebec, where a few occurrences are known (e.g., *Blondeau WB92010* [QFA0385065], *Mansion 1396* [QFA0252462]) (Blondeau 2015). We did not encounter this taxon in 2015.

- Cherleria biflora*** (L.) A.J. Moore & Dillenb. (*Minuartia biflora* (L.) Schinz & Thell.)—Mountain stitchwort | Circumpolar-alpine. **Dorset Island:** [6a] *Saarela & Bull 4706* (CAN); [CD-1] *Hainault & Norman 5481* (DAO), *Aiken 05-081* (CAN); [CD-2] *Hainault & Norman 5515* (CAN). **Mallik Island:** [MI-3] *Hainault & Norman 5760* (DAO). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007). We have not seen Polunin's 1934 and 1936 collections from Kinngait noted in Polunin (1940a).
- Honckenya peploides*** subsp. *diffusa* (Hornem.) Hultén (*Arenaria peploides* var. *diffusa* Hornem.)—Seabeach sandwort | Circumpolar. **Dorset Island:** [CD-5] *Hainault & Norman 5594* (CAN, DAO). **Mallik Island:** [51] *Saarela & Bull 4549* (CAN, UBC); [MI-3] *Hainault & Norman 5772* (DAO). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007). We have not seen Polunin's 1934 collection(s) from Kinngait noted in Polunin (1940a).
- Sabulina rossii*** (R.Br. ex Richardson) Dillenb. & Kadereit (*Minuartia rossii* R.Br. ex Richardson) Graebn.—Ross's stitchwort | Amphiberingian (E)–North American (N)–amphi-Atlantic (W). **Dorset Island:** [CD-1] *Manning 19* (CAN); [CD-6] *Hainault & Norman 6032* (CAN). Previously recorded from the study area (Aiken *et al.* 2007). We did not encounter this taxon in 2015.
- Sabulina rubella*** (Wahlenb.) Dillenb. & Kadereit (*Minuartia rubella* (Wahl.) Hiern)—Reddish stitchwort | Circumpolar–alpine. **Dorset Island:** [6a] *Saarela & Bull 4705* (CAN); [14] *Saarela & Bull 4642* (CAN, UBC); [28] *Saarela & Bull 4479* (CAN, MT); [41] *Saarela & Bull 4465* (CAN); [CD-3] *Hainault & Norman 5473* (CAN); [CD-5] *Hainault & Norman* (DAO). **Mallik Island:** [MI-3] *Hainault & Norman 5852* (DAO). Previously recorded from the study area (Aiken *et al.* 2007).
- Sabulina stricta*** (Sw.) Rehb. (*Minuartia stricta* (Sw.) Hiern)—Bog stitchwort | Circumpolar-alpine. **Dorset Island:** [CD-1] *Polunin 288* (CAN). **Mallik Island:** [MI-1] *Hainault & Norman 5814* (CAN, DAO). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007). We did not encounter this taxon in 2015.
- Sagina nivalis*** (Lindblom) Fr. (*S. intermedia* Fenzl.)—Snow pearlwort | Circumpolar. **Dorset Island:** [15] *Saarela & Bull 4743* (CAN, MT); [17] *Saarela & Bull 4580* (CAN); [11] *Saarela & Bull 4455* (CAN, UBC). **Mallik Island:** [48] *Saarela & Bull 4522* (CAN, MO, QFA); [52] *Saarela & Bull 4545* (CAN, MT); [MI-2] *Hainault & Norman 5935* (CAN). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007). We have not seen Polunin's 1934 and 1936 collections from Kinngait noted in Polunin (1940a).
- Silene acaulis*** (L.) Jacq., Fig. 6A—Moss campion | Amphiberingian–North American–amphi-Atlantic–European (N/C)–Asian (NW). **Dorset Island:** [11] *Saarela & Bull 4455* (CAN, UBC); [CD-1] *Burwash s.n.* (CAN), *Soper s.n.* (CAN), *Hainault & Norman 5504* (CAN, DAO), *Polunin 288* (GH); [CD-4] *Hainault & Norman 5840* (DAO). **Mallik Island:** [48] *Saarela & Bull 4522* (CAN, MO, QFA); [52] *Saarela & Bull 4545* (CAN, MT). Previously recorded from the study area (Porsild & Cody 1980, Aiken *et al.* 2007).
- Silene involucrata*** (Cham. & Schltl.) Bocquet subsp. *involucrata* (*Melandrium affine* (J.Vahl ex Fr.) J.Vahl)—Arctic catchfly | Circumpolar. **Dorset Island:** [2] *Saarela & Bull 4578* (CAN); [CD-1] *Malte s.n. [564], s.n. [554]* (CAN, GH); [CD-5] *Hainault & Norman 6005* (CAN, DAO). Previously recorded from the study area (as *S. involucrata*) (Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).
- Silene uralensis*** subsp. *arctica* (Th.Fr.) Bocquet (*Melandrium apetalum* subsp. *arcticum* (Fr.) Hultén)—Arctic nodding catchfly | Circumpolar. **Dorset Island:** [10] *Saarela & Bull 4652* (ALTA, CAN); [CD-1] *Malte s.n.* (CAN, 2 sheets); [CD-3] *Hainault & Norman 5655* (CAN). **Mallik Island:** [MI-3] *Hainault & Norman 5912* (DAO, 2 sheets). *Silene uralensis* has been previously recorded from the study area (Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007). Two subspecies, as circumscribed in Elven *et al.* (2011), are here recorded for the study area. The greater number of records of subsp. *arctica* suggests it is more common in the study area than is subsp. *uralensis*.
- Silene uralensis*** (Rupr.) Bocquet subsp. *uralensis* (*Melandrium apetalum* (L.) Fenzl, *M. apetalum* subsp. *arcticum* (Fr.) Hultén)—Nodding catchfly | European (NE)–Asian (N)–amphi-Beringian–North American (N). **Dorset Island:** [CD-1] *Aiken & Archambault 05-093* (CAN). We did not encounter this taxon in 2015. See comments under *Silene uralensis* subsp. *arctica*.
- Silene sorensenis*** (B.Boivin) Bocquet—Sorensen's catchfly | Amphiberingian–North American (N). **Dorset Island:** [CD-1] *Soper s.n.* (CAN). Previously recorded from the study area (Aiken *et al.* 2007). The Dorset Island occurrence is the most southern record of the species in Canada (Aiken *et al.* 2007). This collection and one from Iqaluit mark the southern edge of the species' range (Aiken *et al.* 2007). We did not encounter this taxon in 2015.
- Stellaria crassifolia*** Ehrh.—Thick-leaved starwort | Circumboreal-polar. **Dorset Island:** [CD-1] *Polunin 2361* (CAN). **Mallik Island:** [MI-3] *Hainault & Norman 5910* (DAO). Previously recorded from the study area (Porsild & Cody 1980, Aiken *et al.* 2007). We did not encounter this taxon in 2015.
- Stellaria humifusa*** Rottb.—Salt-marsh starwort | Circumpolar–amphi-Pacific. **Dorset Island:** [44] *Saarela & Bull 4666* (CAN, UBC). **Mallik Island:** [MI-2] *Hainault & Norman 5708* (CAN, DAO); [MI-3] *Hainault & Norman 5709* (DAO). Previously recorded from the study area (Polunin 1940a, Porsild & Cody 1980, Aiken *et al.* 2007). We have not seen Polunin's collections from Kinngait gathered in 1934 and 1936 noted in Polunin (1940a).
- Stellaria longipes*** Goldie (*S. arenicola* Raup, *S. stricta* Richardson, *S. subvestita* Greene, *S. crassipes* Hultén, *S. monantha* Hultén, *S. edwardsii* R.Br., *S. laeta* Richardson)—Long-stalked starwort | Circumboreal-polar. **Dorset Island:** [13] *Saarela & Bull 4737* (CAN, K, MO, MT, NY); [28] *Saarela & Bull 4474* (CAN); [CD-1] *Burwash s.n.* (CAN), *Malte s.n.* (CAN), *Polunin 656, 1870* (US), *Soper s.n.* (CAN, 3 sheets), *Hainault & Norman 5563* (ACAD, CAN), *5508* (DAO); [CD-3] *Hainault & Norman 5577* (CAN, DAO),

5572 (DAO), 5463 (CAN). **Mallik Island:** [48] *Saarela & Bull 4523* (CAN); [49] *Saarela & Bull 4535* (CAN); [MI-1] *Hainault & Norman 5801b* (CAN), 5801 (DAO); [MI-3] *Hainault & Norman 5914* (DAO). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980), but not mapped for the area in Aiken *et al.* (2007).

Montiaceae

Montia fontana L. (*M. lamprosperma* Cham.)—Water blinks | North American (NE)—amphi-Atlantic—European & amphi-Pacific/Beringian. **Dorset Island:** [13] *Saarela & Bull 4596* (ALTA, CAN, MO); [43] *Saarela & Bull 4649* (CAN, NY, QFA); [CD-1] *Polunin 281, 1505* (GH), 1870 (US), 283 (CAN). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007).

Plumbaginaceae

Armeria scabra Pall. ex Roem. & Schult. (*A. maritima* subsp. *sibirica* (Turcz. ex Boiss.) Nyman)—Sea thrift | Circumpolar. **Dorset Island:** [6c] *Saarela & Bull 4709* (CAN, MO, NY, US), *Malte s.n. [513]* (CAN, GH, US), *Soper s.n.* (CAN); [CD-5] *Hainault & Norman 5595* (DAO). **Mallik Island:** [MI-3] *Hainault & Norman 5897* (CAN, DAO). Previously recorded from the study area (Porsild & Cody 1980), but collections from the study area by Malte, Soper and Hainault & Norman housed at CAN were overlooked by Aiken *et al.* (2007).

Polygonaceae

Bistorta vivipara (L.) Delarbre (*Polygonum viviparum* L.)—Alpine bistort | Circumboreal—polar. **Dorset Island:** [1] *Saarela & Bull 4713* (CAN, MT); [23] *Saarela & Bull 4599* (ALTA, CAN); [25] *Saarela & Bull 4491* (CAN, QFA), *Malte s.n.* (CAN), *Soper s.n.* (CAN). **Mallik Island:** *Hainault & Norman 5667* (DAO), 5770 (CAN, DAO). Previously recorded from the study area (Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Koenigia islandica L.—Iceland purslane | Circumpolar-alpine. **Dorset Island:** [43] *Saarela & Bull 4648* (CAN). **Mallik Island:** [MI-3] *Hainault & Norman 5763* (CAN). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007).

Oxyria digyna (L.) Hill—Mountain-sorrel | Circumpolar—alpine. **Dorset Island:** [11] *Saarela & Bull 4437* (CAN, MT); [12] *Saarela & Bull 4583* (CAN, C, O, S, UBC, US); [23] *Saarela & Bull 4606* (CAN, K, P, UBC); [CD-1] *Malte s.n.* (CAN), *Soper s.n.* (CAN, 3 sheets); [CD-4] *Hainault & Norman 5521* (DAO). **Mallik Island:** [MI-3] *Hainault & Norman 5913* (CAN, DAO). Previously recorded from the study area (Aiken *et al.* 2007).

Asterids

Ericales

Diapensiaceae

Diapensia lapponica L.—Lapland diapensia | North American (NE)—amphi-Atlantic—European (N)—Asian (NW). **Dorset Island:** [40] *Saarela & Bull 4681* (ALTA, CAN, MO, NY). Newly recorded for the study area, closing a gap between Coats and Southampton islands to the southwest, northern Quebec and sites along southern Baffin Island to the east (Porsild & Cody 1980, Aiken *et al.* 2007).

Ericaceae

Arctous alpina (L.) Nied. (*Arctostaphylos alpina* (L.) Spreng.), Fig. 6B–D—Alpine bearberry | Circumpolar-alpine. **Dorset Island:** [15] *Saarela & Bull 4638* (ALTA, CAN, C, K, MO, MT, NY, O, P, QFA, S, UBC, US, W, WIN); [40] *Saarela & Bull 4682* (CAN, K, MO, MOT, NY, O, P, QFA, S, UBC, US); [CD-3] *Hainault & Norman 5991* (DAO). **Mallik Island:** [47] *Saarela & Bull 4517* (ALTA, CAN, C, K, MO, MT, NY, O, P, QFA, S, UBC, US, WIN); [MI-2] *Hainault & Norman 5956* (DAO). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Aiken *et al.* 2007). We have not seen collections made in Kinngait by Polunin in 1934 and 1936 noted in Polunin (1940a).

Cassiope tetragona (L.) D. Don subsp. *tetragona*—Arctic heather | Circumpolar—alpine. **Dorset Island:** [26] *Saarela & Bull 4485* (CAN); [5] *Saarela & Bull 4722* (CAN, H, K, MO, O, P, S, UBC, W); [CD-1] *Burwash s.n.* (CAN), *Malte s.n.* (CAN, S), *Polunin 239* (CAN). *Soper s.n.* (CAN), *Hainault & Norman 5986* (DAO); [CD-4] *Hainault & Norman 5552* (CAN, DAO). **Mallik Island:** [50] *Saarela & Bull 4496* (ALTA, CAN, C, MT, QFA, US, WIN). Previously recorded from the study area (Porsild 1957, 1964, Porsild & Cody 1980). Collections from the study area taken by Malte, Polunin and Soper housed at CAN were apparently overlooked in Aiken *et al.* (2007), as were the nearest sites on Salisbury Island (*Manning 31*, CAN) and King Charles Cape on southwestern Foxe Peninsula (*Baldwin 1871*, CAN).

Empetrum nigrum L.—Crowberry | Circumboreal—polar. **Dorset Island:** [11] *Saarela & Bull 4459* (CAN, C, S, W, WIN); [CD-1] *Polunin 241* (CAN), *Soper s.n.* (CAN); [CD-3] *Hainault & Norman 5555* (O). **Mallik Island:** [47] *Saarela & Bull 4511* (CAN, K, O, QFA). Previously recorded from the study area (Porsild 1957, 1964, Aiken *et al.* 2007).

Harrimanella hypnoides (L.) Coville (*Cassiope hypnoides* (L.) D. Don)—Moss heather | North American (NE)—amphi-Atlantic—European (N)—Asian (NW). **Dorset Island:** [40] *Saarela & Bull 4689* (CAN, MT, UBC, US); [CD-1] *Hainault & Norman 5970* (DAO). **Mallik Island:** [MI-3] *Hainault & Norman 5808* (CAN, DAO). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007).

Pyrola grandiflora Radius subsp. *grandiflora*—Large-flowered wintergreen | Circumpolar. **Dorset Island:** [11] *Saarela & Bull 4438* (ALTA, CAN, MO); [CD-1] *Malte s.n.* (CAN), *Manning 20* (CAN), *Dutilly 937* (QFA); [CD-3] *Hainault & Norman 5994* (CAN, DAO). **Mallik Island:** [50] *Saarela & Bull 4506* (CAN, UBC); [MI-3] *Hainault & Norman 5747* (DAO). Previously recorded from the study area (Fernald 1923, Polunin 1940a, Porsild 1957, 1964, Aiken *et al.* 2007). We have not seen the collection *Robinson 60* from Kinngait recorded by Fernald (1923).

Rhododendron lapponicum (L.) Wahlenb. (*R. lapponicum* subsp. *alpinum* (Glehn.) A.P. Khokhr.)—Lapland rosebay | Asian (NE)—amphi-Beringian—North American (N)—amphi-Atlantic (W). **Mallik Island:** [47] *Saarela & Bull 4514* (ALTA, CAN, K, P, US). Previously recorded from the study area (Polunin 1940a, Porsild & Cody 1980), based on a collection made by J.D. Soper (CAN 10076340). The site description indicates the material was gathered “a few miles east of Cape Dorset [Kinngait]”, but the east coast of the island is only ca. one mile from Kinngait. The taxon was not mapped for the study area in Aiken *et al.* (2007). Our collection from Mallik Island confirms its presence in the study area, but its occurrence on Dorset Island remains uncertain.

Vaccinium uliginosum L. (*V. uliginosum* subsp. *microphyllum* (Lange) Tolm.), Fig. 6D—Bilberry | Circumboreal—polar. **Dorset Island:** [11] *Saarela & Bull 4434* (CAN, MT, P, US); [CD-1] *Soper s.n.* (CAN); [CD-4] *Hainault & Norman 5551* (CAN). **Mallik Island:** [MI-3] *Hainault & Norman 5731* (O); [50] *Saarela & Bull 4505* (ALTA, CAN, MO, NY). Previously recorded from the study area (Porsild 1957, 1964, Porsild & Cody 1980). The Soper collection from Kinngait and the Hainault & Norman collections from Kinngait and Mallik Island were apparently overlooked in Aiken *et al.* (2007). Nearest sites are on Salisbury Island (*Burwash s.n.*, CAN; *Manning 37*, CAN 10075200) [not mapped in Aiken *et al.* (2007)]. The record mapped in Porsild & Cody (1980) on southern Foxe Peninsula is likely based on Soper’s collection from Kinngait; the record mapped in the same area by Aiken *et al.* (2007) is based on the report in Porsild & Cody (1980).

Vaccinium vitis-idaea subsp. *minus* (Lodd., G.Lodd. & W.Lodd.) Hultén—Mountain cranberry | Circumboreal—polar. **Dorset Island:** [2] *Saarela & Bull 4576* (CAN, MO, MT); [CD-1] *Polunin 296* (CAN), *Soper s.n.* (CAN), *Hainault & Norman 5982* (DAO). **Mallik Island:** [50] *Saarela & Bull 4504* (CAN, K, O, QFA); [MI-3] *Hainault & Norman 5850* (CAN, DAO, O). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964), but not mapped for the study area in Aiken *et al.* (2007).

Boraginales

Boraginaceae

Mertensia maritima subsp. *tenella* (Th. Fr.) Elven & Skarpaas—Seaside bluebells, sea-lungwort | Amphi-Beringian—North American (N)—amphi-Atlantic (W). **Dorset Island:** [29] *Saarela & Bull 4469* (ALTA, CAN); [CD-1] *Burwash s.n.* (CAN), *Malte s.n.* (CAN), *Soper s.n.* (CAN); [CD-5] *Hainault & Norman 5532* (DAO). **Mallik Island:** [51] *Saarela & Bull 4551* (CAN); [MI-3] *Hainault & Norman 5715* (DAO). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Lamiales

Orobanchaceae

Pedicularis flammea L.—Red-tipped lousewort | North American (N)—amphi-Atlantic (W). **Dorset Island:** [CD-3] *Hainault & Norman 5492* (DAO). **Mallik Island:** [MI-3] *Hainault & Norman 5782* (DAO), *5789* (CAN). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Pedicularis hirsuta L.—Hairy lousewort | Circumpolar. **Dorset Island:** [CD-1] *Malte s.n. [509]* (CAN, GH), *Polunin 239* (CAN), *526* (GH), *558, 826* (QFA), *Soper s.n.* (CAN); [CD-3] *Hainault & Norman 5576B* (DAO). **Mallik Island:** [52] *Saarela & Bull 4543* (CAN); [MI-3] *Hainault & Norman 5792* (CAN). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Aiken *et al.* 2007).

Pedicularis lanata Willd. ex Cham. & Schldl.—Woolly lousewort | Amphi-Beringian—North American (N). **Dorset Island:** [11] *Saarela & Bull 4574* (ALTA, CAN, QFA, US); [30] *Saarela & Bull 4488* (CAN, UBC); [45] *Saarela & Bull 4693* (CAN, MO, MT); [CD-1] *Polunin 238* (CAN), *Soper s.n.* (CAN, 2 sheets); [CD-3] *Hainault & Norman 5494* (DAO). **Mallik Island:** [MI-3] *Hainault & Norman 5832* (CAN, DAO). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007).

Plantaginaceae

Hippuris lanceolata Retz.—Lance-leaved mare’s-tail | Circumpolar. **Mallik Island:** [MI-1] *Hainault & Norman 5928* (CAN). Previously recorded from the study area (Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Asterales

Asteraceae

Antennaria friesiana (Trautv.) E. Ekman subsp. *friesiana* (*Antennaria ekmaniana* Porsild)—Fries’ pussy-toes | Asian (NE)—amphi-Beringian—North American (N). **Dorset Island:** [CD-3] *Hainault & Norman 5573* (ACAD); [8] *Saarela & Bull 4567* (CAN); [22] *Saarela & Bull 4587* (ALTA, CAN); [CD-1] *Aiken 05-099* (CAN). Newly recorded from the study area, where first collected in 1970. The nearest records are from northwestern Foxe Peninsula (Porsild & Cody 1980), Southampton Island and the mainland to the west, Kimmirut to the east and northwestern Nunavik to the south (Aiken *et al.* 2007).

Antennaria monocephala subsp. *angustata* (Greene) Hultén (*A. angustata* Greene)—Pygmy pussy-toes | Amphi-Beringian—North American (N): **Dorset Island:** [6a] 4700 (CAN, MT); [21] *Saarela & Bull 4717* (CAN, MO, QFA); [22] *Saarela & Bull 4588* (ALTA, CAN); [39] *Saarela & Bull 4619* (CAN, QFA); [CD-1] *Malte s.n.* (CAN, 4 sheets), *Aiken 05-098* (CAN); [CD-2] *Hainault & Norman 5522* (CAN); [CD-3] *Hainault & Norman 5998A* (CAN). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Porsild & Cody 1980, Aiken *et al.* 2007).

Askellia pygmaea (Ledeb.) Sennikov (*Crepis nana* Richardson; *Askellia nana* (Richardson) W.A. Weber)—Dwarf alpine hawks-beard | Asian (C-NE)—amphi-Beringian—North American (NW). **Dorset Island:** [CD-5] *Hainault & Norman 6006* (CAN). Newly recorded for the study area. Not otherwise recorded from southern Baffin Island, but known from Southampton Island and the mainland to the west, and Longstaff Bluff on western Baffin Island to the north. The collection, gathered in 1970 and housed at CAN, was apparently overlooked in Aiken *et al.* (2007).

Erigeron eriocephalus J.Vahl (*Erigeron uniflorus* subsp. *eriocephalus* (J.Vahl) Cronquist)—Woolly-headed fleabane | Circumpolar. **Dorset Island:** [11] *Saarela & Bull 4439* (CAN); [12] 4584 (CAN, UBC, US); [28] *Saarela & Bull 4482* (CAN); [CD-1] *Malte s.n.* (CAN, QFA), s.n. (CAN, 3 sheets), *Malte s.n.* (CAN, US), *Soper s.n.* (CAN, 2 sheets), *Dutilly 940* (CAN, QFA), *Dutilly 957* (QFA); [CD-3] *Hainault & Norman 5998B* (DAO); [CD-5] *Hainault & Norman 5998A* (DAO). **Mallik Island:** [51] *Saarela & Bull 4550* (CAN, MO, MT). [MI-3] *Hainault & Norman 5859* (CAN, DAO). Previously recorded from the study area (Polunin 1940a, Porsild 1957, 1964, Aiken *et al.* 2007).

Erigeron humilis Graham—Low fleabane | Amphi-Beringian—North American (N)—amphi-Atlantic (W). **Dorset Island:** [CD-1] *Malte s.n.* (CAN); [CD-5] *Hainault & Norman 5998A* (CAN). **Mallik Island:** [MI-3] *Hainault & Norman 5900* (DAO). Previously recorded from the study area (Aiken *et al.* 2007). We did not encounter this taxon in 2015.

Hulteniella integrifolia (Richardson) Tzvelev (*Chrysanthemum integrifolium* Richardson)—Small arctic daisy | Amphi-Beringian—North American (N). **Dorset Island:** [CD-1] *Manning 21* (CAN). **Mallik Island:** [MI-2] *Hainault & Norman 5955* (CAN, DAO). Previously recorded from the study area (Fernald 1923, Polunin 1940a, Porsild & Cody 1980, Aiken *et al.* 2007). We have not seen the collection *Robinson 62* (GH) from Kinngait recorded by Fernald (1923) and Polunin (1940a). We did not encounter this taxon in 2015.

Matricaria discoidea DC., Supplemental File 3—Pineappleweed | Native to the Pacific Northwest, naturalized across North America and Europe. **Dorset Island:** [CD-1] *Dutilly 943* (QFA). This is the only record for Dorset Island, the Canadian Arctic Archipelago and Nunavut. Boivin (1972) published the record, stating that it extends the range of the taxon to the District of Franklin (the regional administrative district of the Northwest Territories of which Cape Dorset was part until the formation of Nunavut in 1999), but his report was apparently overlooked by subsequent workers. The single collection was taken on 5 August 1936; it was likely casual and is probably extirpated in the area. The collection was originally identified, presumably by Dutilly, as *Matricaria matricarioides* auct. non (Less.) Porter ex Britton (i.e. a misapplied name), as previously recognized in North America, and that determination was confirmed by Boivin in 1962. An annotation in an unknown hand on the sheet states “Seule récolte connue dan l’arctique” [only collection known in the Arctic]. This species is introduced in most of Canada (native in British Columbia) and in Greenland (Brouillet 2006), and it is the only non-native taxon recorded from the study area.

Taraxacum ceratophorum (Ledeb.) DC. (*T. lacerum* Greene)—Horned dandelion | Circumboreal-polar. **Dorset Island:** [11] *Saarela & Bull 4445* (CAN, UBC); [12] *Saarela & Bull 4582* (ALTA, CAN, MO, NY, O); [CD-1] *Polunin 1149* (US), *Soper s.n.* (CAN), *Hainault & Norman 5653* (DAO); [CD-3] *Hainault & Norman 5993* (DAO). **Mallik Island:** [MI-3] *Hainault & Norman 5898* (CAN, DAO). Previously recorded from the study area (Polunin 1940a). Aiken *et al.* (2007), however, did not record on their maps any species of *Taraxacum* from the study area. The nearest records are from Southampton Island and the Kimmirut area (Aiken *et al.* 2007).

Taraxacum phymatocarpum J.Vahl—Northern dandelion | Circumpolar. **Mallik Island:** [48] *Saarela & Bull 4530* (CAN). Newly recorded from the study area. Our collection from Mallik Island represents a slight range extension to the south for the species. The nearest collection is a record from the northwestern Foxe Peninsula (Porsild & Cody 1980), whose identity should be confirmed. The species is otherwise recorded from Banks, northern Baffin, Devon, Emerald, Ellesmere, Melville and Prince Patrick islands, and a few northern mainland sites to the west (Porsild & Cody 1980, Aiken *et al.* 2007, Saarela *et al.* 2017).

Tripleurospermum maritimum subsp. *phaeocephalum* (Rupr.) Hämet-Ahti (*Matricaria ambigua* (Ledeb.) Krylov, *M. maritima* subsp. *phaeocephala* (Rupr.) Rauschert)—Arctic chamomile | Circumpolar. **Dorset Island:** [13] *Saarela & Bull 4735* (CAN, MO, NY, O, US); [29] *Saarela & Bull 4466* (ALTA, CAN, P, US); [43] *Saarela & Bull 4647* (CAN, UBC); [CD-1] *Hainault & Norman 5477* (DAO), *Burwash s.n.* (CAN), *Malte s.n.* (CAN), *Soper s.n.* (CAN, 2 sheets). **Mallik Island:** [MI-3] *Hainault & Norman 5726* (CAN, DAO). Previously recorded from the study area (Polunin 1940a, Aiken *et al.* 2007).

Excluded Taxa

Carex simpliciuscula subsp. *subholarctica* (T.V.Egorova) Saarela—Polunin (1940a) noted a collection of *Kobresia simpliciuscula* (Wahlenb.) Mack. made by him in 1934 in Kinngait. We have not seen a supporting voucher. The taxon was not mapped for the study area in Porsild & Cody (1980) and Aiken *et al.* (2007).

Draba cinerea Adams—Recorded for Kinngait by Polunin (1940a), based on *Polunin 2585* (US03751014). This collection requires confirmation prior to acceptance as part of the flora; an image is available, but species of *Draba* cannot be reliably determined from images.

Draba subcapitata Simmons—We have not seen a supporting voucher for a record mapped from the study area in Aiken *et al.* (2007).

Eriophorum vaginatum subsp. *spissum* (Fernald) Hultén (*E. spissum* Fernald)—The collection *Robinson 56* (GH) from Kinngait reported by Fernald (1923) as *E. callitrix* was placed under *E. spissum* by Polunin (1940a). Pending verification of the collection, we exclude *E. vaginatum* from the local flora; there are no other records of the taxon from the study region.

Festuca hyperborea Holmen ex Fred.—Mapped from the study area in Aiken *et al.* (2007), but we have not seen a supporting voucher.

Huperzia continentalis Testo, A.Haines & A.V. Gilman—See comments under *H. arctica*.

Papaver lapponicum (Tolm.) Nordh.—Specimens mapped under this name in Aiken *et al.* (2007) have been redetermined to *P. labradoricum*.

Papaver radicum Rottb. subsp. *radicum*—Kiger & Murray (1997) recognized a broadly circumscribed *P. radicum* subsp. *radicum* including *P. labradoricum*, now recognized as a distinct taxon.

Phyllodoce caerulea (L.) Bab.—We have not seen a voucher for a record mapped in Aiken *et al.* (2007) from what appears to be the study area, based on the map in Porsild & Cody (1980), in which the dot appears to be centred more on southern Foxe Peninsula than on the study area.

Trichophorum cespitosum (L.) Hartm.—Mapped from the study area in Aiken *et al.* (2007), but we have not been able to locate a voucher.

Acknowledgements

We are grateful to Nik Clyde and Grant Gilchrist for helping facilitate our work. Lynn Gillespie (CAN) and Ken Marr (RBCM) provided comments on an earlier version of the manuscript. Amie Black, Nik Clyde, Cody Dey, Frankie Jean Gagnon, Kathryn Hargan, David McGeachy, Evan Richardson and Sarah Robinson provided camaraderie and assistance in the field.

References

- Ackerman, D., Griffin, D., Hobbie, S.E. & Finlay, J.C. (2017) Arctic shrub growth trajectories differ across soil moisture levels. *Global Change Biology* 23: 4294–4302.
<https://doi.org/10.1111/gcb.13677>
- Aiken, S.G., Dallwitz, M.J., Consaul, L.L., McJannet, C.L., Boles, R.L., Argus, G.W., Gillett, J.M., Scott, P.J., Elven, R., LeBlanc, M.C., Gillespie, L.J., Brysting, A.K., Solstad, H. & Harris, J.G. (2007) Flora of the Canadian Arctic Archipelago: Descriptions, Illustrations, Identification, and Information Retrieval [CD-ROM]. NRC Research Press, National Research Council of Canada, Ottawa. [<http://nature.ca/en/research-collections/our-research/areas-expertise/botany/flora-canadian-arctic-archipelago>]
- Allen, E.S. (1962) *Arctic Odyssey: The Life of Rear Admiral Donald B. MacMillan*. New York, Dodd, Mead & Company, 340 pp.
- Allioni, C. (1785) *Flora pedemontana sive enumeratio methodica stirpium indigenarum Pedemontii* 2. Torino, J.M. Briolus, 366 pp.

- Andersson, N.J. (1852) *Plantas Scandinaviae Descriptionibus et Figuris analyticis Adumbratae. Fasciculus Secundus Gramineas Scandinaviae Complectens*. Stockholm, Zacharias Haeggstrom.
- Angiosperm Phylogeny Group IV (2016) An update of the Angiosperm Phylogeny Group classification for the orders and families of flowering plants: APG IV. *Botanical Journal of the Linnean Society* 181: 1–20.
<https://doi.org/10.1111/boj.12385>
- Anonymous (2001) *New Parks North: An annual progress report on natural and cultural heritage initiatives in Northern Canada. Newsletter 10*. Yellowknife, Northwest Territories, Parks Canada, 36 pp.
- Barberá, P., Quintanar, A., Peterson, P.M., Soreng, R.J., Romaschenko, K. & Aedo, C. (2019) New combinations, new names, typifications, and a new section, sect. *Hispanica*, in *Koeleria* (Poeae, Poaceae). *Phytoneuron* 2019-46.
- Barneby, R.C. (1951) New names in *Oxytropis*. *Leaflets of Western Botany* 6: 111.
- Barrett, P.E. & Teeri, J.A. (1973) Vascular plants of the Truelove Inlet region, Devon Island. *Arctic* 26: 58–67.
<https://doi.org/10.14430/arctic2896>
- Bay, C. (1997) Floristical and ecological characterization of the polar desert zone of Greenland. *Journal of Vegetation Science* 8: 685–696.
<https://doi.org/10.2307/3237373>
- Berlin, J.A. (1884) Kärleväxter från Grönland. *Öfversigt af Kongl. Vetenskaps-Akademiens Forhandlinga* 4: 1–89.
- Bernhardi, J.J. (1805) Dritter Versuch einer Anordnung der Farrnkäuter. *Neues Journal für die Botanik* 1: 1–50.
- Bjorkman, A.D., Garcia Criado, M., Myers-Smith, I.H., Ravolainen, V., Jonsdottir, I.S., Westergaard, K.B., Lawler, J.P., Aronsson, M., Bennett, B., Gardfjell, H., Heiethmarsson, S., Stewart, L. & Normand, S. (2020) Status and trends in Arctic vegetation: Evidence from experimental warming and long-term monitoring. *Ambio* 49: 678–692.
<https://doi.org/10.1007/s13280-019-01161-6>
- Bjorkman, A.D., Myers-Smith, I.H., Elmendorf, S.C., Normand, S., Rüger, N., Beck, P.S.A., Blach-Overgaard, A., Blok, D., Cornelissen, J.H.C., Forbes, B.C., Georges, D., Goetz, S.J., Guay, K.C., Henry, G.H.R., HilleRisLambers, J., Hollister, R.D., Karger, D.N., Kattge, J., Manning, P., Prevéy, J.S., Rixen, C., Schaepman-Strub, G., Thomas, H.J.D., Vellend, M., Wilmking, M., Wipf, S., Carbone, M., Hermanutz, L., Lévesque, E., Molau, U., Petraglia, A., Soudzilovskaia, N.A., Spasojevic, M.J., Tomaselli, M., Vowles, T., Alatalo, J.M., Alexander, H.D., Anadon-Rosell, A., Angers-Blondin, S., Beest, M.t., Berner, L., Björk, R.G., Buchwal, A., Buras, A., Christie, K., Cooper, E.J., Dullinger, S., Elberling, B., Eskelinen, A., Frei, E.R., Grau, O., Grogan, P., Hallinger, M., Harper, K.A., Heijmans, M.M.P.D., Hudson, J., Hülber, K., Iturrate-Garcia, M., Iversen, C.M., Jaroszynska, F., Johnstone, J.F., Jørgensen, R.H., Kaarlejärvi, E., Klady, R., Kuleza, S., Kulonen, A., Lamarque, L.J., Lantz, T., Little, C.J., Speed, J.D.M., Michelsen, A., Milbau, A., Nabe-Nielsen, J., Nielsen, S.S., Ninot, J.M., Oberbauer, S.F., Olofsson, J., Onipchenko, V.G., Rumpf, S.B., Semenchuk, P., Shetti, R., Collier, L.S., Street, L.E., Suding, K.N., Tape, K.D., Trant, A., Treier, U.A., Tremblay, J.-P., Tremblay, M., Venn, S., Weijers, S., Zamin, T., Boulanger-Lapointe, N., Gould, W.A., Hik, D.S., Hofgaard, A., Jónsdóttir, I.S., Jørgenson, J., Klein, J., Magnusson, B., Tweedie, C., Wookey, P.A., Bahn, M., Blonder, B., van Bodegom, P.M., Bond-Lamberty, B., Campetella, G., Cerabolini, B.E.L., Chapin, F.S., Cornwell, W.K., Craine, J., Dainese, M., de Vries, F.T., Díaz, S., Enquist, B.J., Green, W., Milla, R., Niinemets, Ü., Onoda, Y., Ordoñez, J.C., Ozinga, W.A., Penuelas, J., Poorter, H., Poschlod, P., Reich, P.B., Sandel, B., Schamp, B., Sheremetev, S. & Weiher, E. (2018) Plant functional trait change across a warming tundra biome. *Nature* 562: 57–62.
<https://doi.org/10.1038/s41586-018-0563-7>
- Blondeau, M. (2015) Caryophyllaceae. In: Payette, S. (Ed.), *Flore nordique du Québec et du Labrador 2*. Québec, Québec, Presses de l'Université Laval, pp. 123–193.
- Bocquet, G. (1967) Physolychnidium olim Gastrolychnidium nomenclaturae fundamentum includens combinationes taxaque nova nonnulla Silenes generis. *Candollea* 22: 1–38.
- Boeckeler, J.O. (1886) Neue Cyperaceen von Argentinien, Mexiko, Alaska und dem Kilimandscharo. *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 7: 273–280.
- Boivin, B. (1951) Centurie de plantes Canadiennes–II. *Canadian Field-Naturalist* 65: 1–22.
- Boivin, B. (1972) Flora of the Prairie Provinces, Part III. *Phytologia* 23: 1–140.
- Box, J.E., Colgan, W.T., Christensen, T.R., Schmidt, N.M., Lund, M., Parmentier, F.-J.W., Brown, R., Bhatt, U.S., Euskirchen, E.S., Romanovsky, V.E., Walsh, J.E., Overland, J.E., Wang, M., Corell, R.W., Meier, W.N., Wouters, B., Mernild, S., Mård, J., Pawlak, J. & Olsen, M.S. (2019) Key indicators of Arctic climate change: 1971–2017. *Environmental Research Letters*: 14.
<https://doi.org/10.1088/1748-9326/aafc1b>
- Brassard, G.R. & Longton, R.E. (1970) The flora and vegetation of Van Hauen Pass, northwestern Ellesmere Island. *Canadian Field-Naturalist* 84: 357–364.
- Brassard, J. & Beschel, R.E. (1968) The vascular flora of Tanquary Fiord, northern Ellesmere Island, N.W.T. *Canadian Field-Naturalist* 82: 103–113.
- Bridgland, J. & Gillett, J.M. (1983) Vascular plants of the Hayes Sound region, Ellesmere Island, Northwest Territories. *Canadian Field-*

- Britton, N.L. (1905) *North American Flora*. [New York], New York Botanical Garden, 193 pp.
- Brouillet, L. (2006) *Matricaria*. In: Flora of North America Editorial Committee (Org.) *Flora of North America North of Mexico 19. Magnoliophyta: Asteridae (in part): Asteraceae, part 1*. Oxford and New York, Oxford University Press, pp. 541–542.
- Brouillet, L., Coursol, F., Meades, S.J., Favreau, M., Anions, M., Bélisle, P. & Desmet, P. (2010+) VASCAN, the Database of Vascular Plants of Canada. [<http://data.canadensys.net/vscan/>]
- Brown, R. (1823) *Chloris Melvilliana: a list of plants collected in Melville Island (latitude 74-75 N. longitude 110-112 W.) in the year 1820; by the officers of the voyage of discovery under the orders of Captain Parry. With characters and descriptions of the new genera and species*. London, William Clowes, 52 pp.
<https://doi.org/10.5962/bhl.title.8114>
- Calder, J.A. (1951) Plants from the upper Frobisher Bay region, Baffin Island, N.W.T., Canada. *Canadian Field-Naturalist* 65: 47–60.
- Candolle, A.L.P.P.d. (1838a) *Prodromus systematis naturalis regni vegetabilis* 7. Paris, Treuttel et Würtz, 330 pp.
- Candolle, A.L.P.P.d. (1838b) *Prodromus systematis naturalis regni vegetabilis* 6. Paris, Treuttel et Würtz, 687 pp.
- Candolle, A.P.d. (1821) *Regni vegetabilis systema naturale, sive ordines, genera et species plantarum secundum methodi naturalis normas digestarum et descriptarum* 2. Paris, Treuttel et Würtz, 745 pp.
- CAVM Team (2003) Circumpolar Arctic Vegetation Map. (1:7,500,000 scale). *Conservation of Arctic Flora and Fauna (CAFF) Map No. 1*. U.S. Fish and Wildlife Service, Anchorage, Alaska.
- Cayouette, J. (2004) A taxonomic review of the *Eriophorum russeolum*–*E. scheuchzeri* complex (Cyperaceae) in North America. *Sida* 21: 791–814.
- Cody, W.J. (1994) Nomenclatural changes and new taxa for the Yukon flora. *Canadian Field-Naturalist* 108: 93–95.
- Collins, W.H. (1929) Annual Report for 1928. General Activities of the Museum. *National Museum of Canada Bulletin* 62: 10–18.
- Conti, F., Abbate, G., Alessandrini, A. & Blasi, C. (2005) *An annotated checklist of the Italian vascular flora*. Rome, Palombi Editori, 420 pp.
- Coville, F.V. (1901) Papers from the Harriman Alaska Expedition. XXVI. *Harrimanella*, a new genus of heathers. *Proceedings of the Washington Academy of Sciences* 3: 569–576.
- Daru, B.H., Park, D.S., Primack, R.B., Willis, C.G., Barrington, D.S., Whitfeld, T.J.S., Seidler, T.G., Sweeney, P.W., Foster, D.R., Ellison, A.M. & Davis, C.C. (2018) Widespread sampling biases in herbaria revealed from large-scale digitization. *New Phytologist* 217: 939–955.
<https://doi.org/10.1111/nph.14855>
- Dewey, C. (1835) Caricography. *American Journal of Science, and Arts* 27: 236–241.
- Dewey, C. (1836) Caricography. *American Journal of Science, and Arts* 29: 245–253.
- Dillenberger, M.S. & Kadereit, J.W. (2014) Maximum polyphyly: Multiple origins and delimitation with plesiomorphic characters require a new circumscription of *Minuartia* (Caryophyllaceae). *Taxon* 63: 64–88.
<https://doi.org/10.12705/631.5>
- Don, D. (1834) An attempt at a new arrangement of the Ericaceae. *Edinburgh New Philosophical Journal* 17: 150–160.
- Drejer, S.T.N. (1841) Revisio critica Caricum borealium in terris sub imperio Danico jacentibus inventarum. *Naturhistorisk tidsskrift* 3: 423–480.
- Egorova, T.V. (1964) De caricibus sectionis Capillares notae criticae. *Novosti Sistematiki Vysshchikh Rastenii* 1: 31–48.
- Ehrhart, F. (1784) Botanische Bemerkungen. *Hannoversches Magazin* 22: 114–143.
- Ekman, E.L. (1928) Märre Meddelanden: *Antennaria frieseana* (Trautv.). *Svensk Botanisk Tidskrift* 22: 416.
- Elmendorf, S.C., Henry, G.H.R., Hollister, R.D., Björk, R.G., Boulanger-Lapointe, N., Cooper, E.J., Cornelissen, J.H.C., Day, T.A., Dorrepaal, E., Elumeeva, T.G., Gill, M., Gould, W.A., Harte, J., Hik, D.S., Hofgaard, A., Johnson, D.R., Johnstone, J.F., Jónsdóttir, I.S., Jorgenson, J.C., Klanderud, K., Klein, J.A., Koh, S., Kudo, G., Lara, M., Lévesque, E., Magnússon, B., May, J.L., Mercado-Dy'az, J.A., Michelsen, A., Molau, U., Myers-Smith, I.H., Oberbauer, S.F., Onipchenko, V.G., Rixen, C., Martin Schmidt, N., Shaver, G.R., Spasojevic, M.J., Þórhallsdóttir, Þ.E., Tolvanen, A., Troxler, T., Tweedie, C.E., Villareal, S., Wahren, C.-H., Walker, X., Webber, P.J., Welker, J.M. & Wipf, S. (2012) Plot-scale evidence of tundra vegetation change and links to recent summer warming. *Nature Climate Change* 2: 453–457.
<https://doi.org/10.1038/nclimate1465>
- Elven, R. & Murray, D.F. (2008) New combinations in the Panarctic vascular plant flora. *Journal of the Botanical Research Institute of Texas* 2: 433–446.
- Elven, R., Murray, D.F., Razzhivin, V.Y. & Yurtsev, B.A. (2011) Annotated checklist of the Panarctic Flora (PAF): Vascular plants version 1.0. Available from: <http://nhm2.uio.no/paf> (accessed 11 February 2020)
- Environment Canada (2019) Cape Dorset A. Climate ID: 2400635. Canadian Climate Normals 1981–2010. Available from: http://climate.weather.gc.ca/climate_normals/index_e.html (accessed 8 August 2019)

- Fernald, M.L. (1923) Baffin Land plants collected by the MacMillan Expedition, 1922. *Rhodora* 25: 111–114.
- Fernald, M.L. & Wiegand, K.M. (1911) *Salix calcicola*, a little known northern willow. *Rhodora* 13: 251–253.
- Flora of North America Editorial Committee (1993+) *Flora of North America North of Mexico*. 16+ volumes. New York and Oxford, Oxford University Press.
- Franklin, J. (1823) *Narrative of a journey to the shores of the polar sea in the years 1819, 20, 21 and 22, with an appendix on various subjects relating to science and natural history*. London, John Murray, 768 pp.
<https://doi.org/10.5962/bhl.title.95923>
- Fries, T.M. (1869) Tillägg till Spetsbergens fanerogam-flora [Additions to the Phanerogamous Flora of Spitzbergen]. *Öfversigt af Förhandlingar: Kongl. Svenska Vetenskaps-Akademiens* 25: 121–144.
- Fries, T.M. (1870) Tillägg till Spetsbergens Fanerogam-Flora. *Öfversigt af Kungliga Vetenskaps-Akademiens Förhandlingar* 26: 121–144.
- Frost, G.V., Bhatt, U.S., Epstein, H.E., Walker, D.A., Reynolds, M.K., Berner, L.T., Bjerke, J.W., Breen, A.L., Forbes, B.C., Goetz, S.J., Iversen, C.M., Lara, M.J., Macander, M.J., Phoenix, G.K., Rocha, A.V., Salmon, V.G., Thornton, P.E., Tømmervik, H. & Wullschlegel, S.D. (2019) *Tundra Greenness*, pp. 48–57. Available from: <https://arctic.noaa.gov/Report-Card/Report-Card-2019> (accessed 11 February 2020)
- Gillespie, L.J., Saarela, J.M., Sokoloff, P.C. & Bull, R.D. (2015) New vascular plant records for the Canadian Arctic Archipelago. *Phytokeys* 52: 23–79.
<https://doi.org/10.3897/phytokeys.52.8721>
- Gillett, J.M. (1976) Plants of Coats Island, Hudson Bay, Keewatin District, Northwest Territories. *Canadian Field-Naturalist* 90: 390–396.
- Google. 2020. [Mallik Island]. Available from: <https://www.google.com/maps/place/Mallik+Island/@64.2554029,-76.6280341,3047m/data=!3m1!1e3!4m5!3m4!1s0x4ddc9da841554a75:0x83101988105f1aa0!8m2!3d64.2409548!4d-76.6220628> (accessed 28 February 2020).
- Graham, R. (1828) Description of several new or rare plants which have flowered in the neighbourhood of Edinburgh and chiefly in the Royal Botanic Garden, during the last three months. *Edinburgh New Philosophical Journal* 5: 169–176.
- Healy, C. & Gillespie, L.J. (2004 [2005]) A systematic analysis of the *Saxifraga nivalis* complex (Saxifragaceae) in the Canadian Arctic using morphology and chloroplast DNA data. *Canadian Field-Naturalist* 118: 326–340.
- Heller, A.A. (1910) *Catalogue of North American Plants North of Mexico, Exclusive of the Lower Cryptogams*. Edition 3. Lancaster, PA, 276 pp.
- Hooker, W.J. (1830) *Flora boreali-americana, or, the botany of the northern parts of British America: compiled principally from the plants collected by Dr. Richardson & Mr. Drummond on the late northern expeditions, under command of Captain Sir John Franklin, R.N. to which are added (by permission of the Horticultural society of London,) those of Mr. Douglas, from north-west America, and of other naturalists* 1. London, H.G. Bohn, 351 pp.
<https://doi.org/10.5962/bhl.title.691>
- Hooker, W.J. (1831) *Flora boreali-americana, or, the botany of the northern parts of British America: compiled principally from the plants collected by Dr. Richardson & Mr. Drummond on the late northern expeditions, under command of Captain Sir John Franklin, R.N. to which are added (by permission of the Horticultural society of London,) those of Mr. Douglas, from north-west America, and of other naturalists* 1. London, H.G. Bohn, 328 pp.
- Hoppe, D.H. (1800) *Botanisches Taschenbuch für die Anfänger dieser Wissenschaft und der Apothekerkunst*. Montag und Weiß.
- Hornemann, J.W. (1821) *Forsog til en Dansk Oeconomisk Plantelaere (ed. 3) I*. Kjøbenhavn, tryckt paa Hofboghhandler J. H. Schuboths Forlag, hos Hartwig Friderich Popp., 1042 pp.
- Hultén, E. (1962) The circumpolar plants. 1, Vascular cryptogams, conifers, monocotyledons. *Kungliga Svenska Vetenskapsakademiens Handlingar* 4: 1–275.
- Jacobs, J.D., Headley, A.N., Maus, L.A., Mode, W.N. & Simms, E.L. (1997) Climate and vegetation of the interior lowlands of southern Baffin Island: long-term stability at the low arctic limit. *Arctic* 50: 167–177.
<https://doi.org/10.14430/arctic1099>
- Jacquin, N.J.v. (1762) *Enumeratio Stirpium Pleraque, quae sponte crescunt in agro Vindobonensi, montibusque confinibus. Accedunt observationum centuria et appendix de paucis exoticis. Cum tabulis aeneis*. Vindobonae [Wien], impensis Joannis Pauli Kraus.
- Jurtzev, B.A. (1987) *Arkticheskaja Flora SSSR* 10. Impensis Academiae Scientiarum SSSR Institutum Botanicum Moscow and Leningrad.
- Juzepczuk, S.V. (1941) Rosaceae-Rosoideae. In: Komarov, V.L. (Ed.) *Flora URSS (Flora unionis rerumpublicarum sovieticarum socialisticarum)* 10. Leningrad, Editio Academiae scientiarum URSS, pp. 2–509.
- Kiger, R.W. & Murray, D.F. (1997) *Papaver* Linnaeus. In: Flora of North America Editorial Committee (Org.) *Flora of North America North of Mexico* 3. *Magnoliophyta: Magnoliidae and Hamamelidae*. Oxford and New York, Oxford University Press, pp. 323–333.

- Kirschner, J. (2002) *Species Plantarum: Flora of the World. Part 8. Juncaceae 3: Juncus subg. Agathryon*. Canberra, Australia, ABRIS, 192 pp.
- Laymon, C.A. (1992) Glacial geology of western Hudson Strait, Canada, with reference to Laurentide Ice Sheet dynamics. *Geological Society of America Bulletin* 104: 1169–1177.
- Le Clerc-Blain, J., Starr, J.R., Bull, R.D. & Saarela, J.M. (2010) A regional approach to plant DNA barcoding provides high species resolution of sedges (*Carex* and *Kobresia*, Cyperaceae) in the Canadian Arctic Archipelago. *Molecular Ecology Resources* 10: 69–91.
<https://doi.org/10.1111/j.1755-0998.2009.02725.x>
- Ledebour, C.F. (1815) Decades sex plantarum novarum in Imperio Rossico indeigenarum. *Mémoires de l'Académie Impériale des Sciences de St. Petersbourg. Avec l'Histoire de l'Académie. St. Petersburg* 5: 514–578.
- Ledebour, C.F.v. (1829) *Icones plantarum novarum vel imperfecte cognitarum florum Rossicam* 1. Rigae, apud I. Deubner.
<https://doi.org/10.5962/bhl.title.46626>
- Lindeberg, C.J. (1855) Resa i Norge 1854. *Botaniska notiser* 1855: 1–13.
- Linnaeus, C. (1753a) *Species plantarum: exhibentes plantas rite cognitatas, ad genera relatas, cum differentiis specificis, nominibus trivialibus, synonymis selectis, locis natalibus, secundum systema sexuale digestas. Volume 1*. Holmiæ [Stockholm], Impensis Laurentii Salvii, 560 pp.
- Linnaeus, C. (1753b) *Species plantarum: exhibentes plantas rite cognitatas, ad genera relatas, cum differentiis specificis, nominibus trivialibus, synonymis selectis, locis natalibus, secundum systema sexuale digestas. Volume 2*. Holmiæ, Impensis Laurentii Salvii, 561–1200 pp.
- Linneï, C.v., Willdenow, K.L., Link, H.F., Schwägrichen, C.F. & Nauck, G.C. (1806) *Caroli a Linneï Species plantarum: exhibentes plantas rite cognitatas, ad genera relatas, cum differentiis specificis, nominibus trivialibus, synonymis selectis, locis natalibus, secundum systema sexuale digestas* 4:pt.2.(Ed. 4., post Reichardianam quinta ed.). Berolini, Impensis G.C. Nauk.
- Löve, Á. (1950) Some innovations and nomenclatural suggestions in the Icelandic flora. *Botaniska notiser* 103: 24–60.
- Löve, Á. & Löve, D. (1976) Nomenclatural notes on Arctic plants. *Botaniska notiser* 128: 497–523.
- Mackenzie, K.K. (1910) Notes on Carex–VI. *Bulletin of the Torrey Botanical Club* 37: 231–250.
- Macpherson, A.H. (1999) Thomas Henry Manning (1911–1998). *Arctic* 52: 104–105.
<https://doi.org/10.14430/arctic913>
- Malte, M.O. (1934) Critical notes on plants of Arctic America. *Rhodora* 36: 172–193.
- McLaren, I.A. (1964) A list of vascular plants from around Ogac Lake, south coast of Frobisher Bay, N.W.T. *Canadian Field-Naturalist* 78: 70–77.
- Meyer, C.A. (1831) Cyperaceae novae descriptionibus et iconibus illustrate. *Mémoires présentés à l'Académie Impériale des Sciences de St.-Petersbourg par Divers Savans et lus dans ses assemblées* 1: 195–230.
- Michaux, A. (1803) *Flora boreali-americana: sistens caracteres plantarum quas in America septentrionali collegit et detexit*
- Müller, H. (1977) Über Pflanzen und Klima auf Coburg Island, N.W.T., Kanada. *Geogr. Helv.* 32: 213–218.
<https://doi.org/10.5194/gh-32-213-1977>
- Müller, H. (1979) Vegetation and climate on Coburg Island, N.W.T. *Polar Geography* 3: 139–147.
<https://doi.org/10.1080/10889377909377111>
- Myers-Smith, I.H., Elmendorf, S.C., Beck, P.S.A., Wilmking, M., Hallinger, M., Blok, D., Tape, K.D., Rayback, S.A., Macias-Fauria, M., Forbes, B.C., Speed, J.D.M., Boulanger-Lapointe, N., Rixen, C., Lévesque, E., Schmidt, N.M., Baittinger, C., Trant, A.J., Hermanutz, L., Collier, L.S., Dawes, M.A., Lantz, T.C., Weijers, S., Jørgensen, R.H., Buchwal, A., Buras, A., Naito, A.T., Ravolainen, V., Schaepman-Strub, G., Wheeler, J.A., Wipf, S., Guay, K.C., Hik, D.S. & Vellend, M. (2015) Climate sensitivity of shrub growth across the tundra biome. *Nature Climate Change* 5: 887–891.
<https://doi.org/10.1038/nclimate2697>
- Myers-Smith, I.H., Forbes, B.C., Wilmking, M., Hallinger, M., Lantz, T., Blok, D., Tape, K.D., Macias-Fauria, M., Sass-Klaassen, U., Lévesque, E., Boudreau, S., Ropars, P., Hermanutz, L., Trant, A., Collier, L.S., Weijers, S., Rozema, J., Rayback, S.A., Schmidt, N.M., Schaepman-Strub, G., Wipf, S., Rixen, C., Ménard, C.B., Venn, S., Goetz, S., Andreu-Hayles, L., Elmendorf, S., Ravolainen, V., Welker, J., Grogan, P., Epstein, H.E. & Hik, D.S. (2011) Shrub expansion in tundra ecosystems: dynamics, impacts and research priorities. *Environmental Research Letters* 6: 045509.
<https://doi.org/10.1088/1748-9326/6/4/045509>
- Nannfeldt, J.A.F. (1940) On the polymorphy of *Poa arctica* R. Br., with special reference to its Scandinavian forms. *Symbolae Botanicae Upsalienses* 4: 1–85.
- Oeder, G.C.v.O. (1816) [Flora danica] *Icones plantarum sponte nascentium in regnis Daniae et Norvegiae, in ducatus Slesvici et Holsaticae, et in comitatibus Oldenburgi et Delmenhorstiae; ad illustrandum opus de iisdem plantis, regio jussu exarandum, Florae danicae nomine inscriptum* 9 (26): 4, pl. 1530.

- Oeder, G.C.v.O. (1840) [Flora danica] *Icones plantarum sponte nascentium in regnis Daniae et Norvegiae, in ducatus Slesvici et Holsaticae, et in comitatibus Oldenburgi et Delmenhorstiae; ad illustrandum opus de iisdem plantis, regio jussu exarandum, Florae danicae nomine inscriptum* 3(39): 6, pl. 2298.
- Ostenfeld, C.H. (1910) Vascular plants collected in the Arctic North America by the Gjoa Expedition 1904-1906. *Skrifter Udgivne af Videnskabs-Selskabet i Christiania, Matematisk-Naturvidenskabelig Klasse* 1909 (8): 1–73.
- Overland, J.E., Hanna, E., Hanssen-Bauer, I., Kim, S.-J., Walsh, J.E., Wang, M., Bhatt, U.S., Thoman, R.L. & Ballinger, T.J. (2019) *Surface air temperature*, National Oceanic and Atmospheric Administration, pp. 5–10. Available from: <http://www.arctic.noaa.gov/report-card> (accessed 11 February 2020)
- Panchen, Z.A., Doubt, J., Kharouba, H.M. & Johnston, M.O. (2019) Patterns and biases in an Arctic herbarium specimen collection: Implications for phenological research. *Applications in Plant Sciences* 7: e01229. <https://doi.org/10.1002/aps3.1229>
- Parry, W.E. (1825 [1827]) Appendix to Captain Parry's journal of a second voyage for the discovery of a north-west passage from the Atlantic to the Pacific, performed in His Majesty's ships *Fury* and *Hecla* in the years 1821-22-23. London, John Murray. <https://doi.org/10.5962/bhl.title.48565>
- Payette, S. (Ed.) (2013) *Flore nordique du Québec et du Labrador* 1. Québec, Presses de l'Université Laval, 561 pp.
- Payette, S. (Ed.) (2015) *Flore nordique du Québec et du Labrador* 2. Québec, Presses de l'Université Laval, 711 pp.
- Payette, S. (Ed.) (2018) *Flore nordique du Québec et du Labrador* 3. Québec, Presses de l'Université Laval, 711 pp.
- Person, C.H. (1805) *Synopsis Plantarum, seu enchiridium botanicum, complectens enumerationem systematicam specierum hucusque cognitarum* 1. Parisiis Lutetiorum [Paris], Cramer, 546 pp. <https://doi.org/10.5962/bhl.title.638>
- Polunin, N. (1934) The flora of Akpatok Island, Hudson Strait. *Journal of Botany* 72: 197–204.
- Polunin, N. (1938) The flora of Southampton Island, Hudson Bay. *Journal of Botany, British and foreign* 76: 93–103.
- Polunin, N. (1940a) Botany of the Canadian Eastern Arctic. Part I. Pteridophyta and Spermatophyta. *National Museum of Canada Bulletin* 92: 1–408.
- Polunin, N. (1940b) The flora of Devon Island in arctic Canada. *Canadian Field-Naturalist* 40: 31–37.
- Polunin, N. (1948) Botany of the Canadian eastern arctic. Part III. Vegetation and ecology. *National Museum of Canada Bulletin* 104: 1–304.
- Poplavskaja, H.I. (1929) *Očerki po fitosotsiologii i fitogeografii: s portretom prof. V.N. Sukacheva i pis'mom k nemu akademika I.P. Borodina [An outline of phytosociology and phytogeography]*. Moscow, Novaya Derevnja, 394 pp.
- Porsild, A.E. (1955) The vascular plants of the western Canadian Arctic Archipelago. *National Museum of Canada Bulletin* 135: 1–226.
- Porsild, A.E. (1957) Illustrated Flora of the Canadian Arctic Archipelago. *National Museum of Canada Bulletin* 146: 1–218.
- Porsild, A.E. (1964) Illustrated Flora of the Canadian Arctic Archipelago, Second Edition. *National Museum of Canada Bulletin* 146, *Biological Series* 50: 1–218.
- Porsild, A.E. & Cody, W.J. (1980) *Vascular plants of continental Northwest Territories, Canada*. Ottawa, Canada, National Museum of Natural Sciences, National Museums of Canada, 667 pp. <https://doi.org/10.5962/bhl.title.70336>
- Pursh, F.T. (1813) *Flora Americae Septentrionalis; or, a Systematic Arrangement and Description of the Plants of North America* 2. London, James Black and Son.
- Qikiqtani Inuit Association (2013) *Qikiqtani Truth Commission. Community Histories 1950-1975. Cape Dorset*. Iqaluit, Nunavut, Inhabit Media Inc., 44 pp.
- Reichenbach, H.G.L. (1832) *Flora Germanica Excursoria* 2. Lipsiae, Carolm Cnobloch.
- Rannie, W.F. (1986) Summer air temperature and number of vascular species in Arctic Canada. *Arctic* 39: 133–137. <https://doi.org/10.14430/arctic2060>
- Retzius, A.J. (1783) *Observationes Botanicae* 3. Lipsiae [Leipzig], apud Siegfried Lebrecht Crusium.
- Robinson, B.L. (1908) Notes on the vascular plants of the north eastern United States. *Rhodora* 10: 29–35.
- Roshevitz, R.J. (Ed.) (1934) *Gramineae-Gen.* Institutum botanicum Academiae scientiarum URSS, 188–297 pp.
- Rottbøll, C.F. (1770) Afhandling om en Deel enten ganske nye eller vel forhen bekjendte, men dog for os rare Planter, som i Island og Grønland ere fundne, tilligemed en kort Indledning om Urtelærens Tilstand i Danmark. Skrifter, som udi det Kiøbenhavnske Selskab af lærdom og Elskere ere fremlagte og oplæste. *Skrifter, som udi det Kiøbenhavnske Selskab af Laerdoms og Videnskabers Elskere ere Fremlagte og oplæste* 10: 393–462.
- Rouy, G.C.C. & Foucaud, J. (1893) *Flore de France: ou, Description des plantes qui croissent spontanément en France en Corse et en Alsace-Lorraine* 1. Asnières, chez G. Rouy, 264 pp.
- Ruprecht, F.J. (1850) Flora Boreali-Uralensis: Ueber die Verbreitung der Pflanzen im nördlichen Ural. Nach den Ergebnissen der Ural-Expedition in den Jahren 1847-1848. *Beitraege zur Pflanzenkunde des Russischen Reiches* 2: 1–49.

- Saarela, J.M., Gillespie, L.J., Consaul, L.L. & Bull, R.D. (2013a) Annotated checklist to the vascular plant flora of Tuktot Nogat National Park and the Melville Hills region (Canadian Low Arctic). *Phytotaxa* 102: 1–177.
<https://doi.org/10.11646/phytotaxa.102.1.1>
- Saarela, J.M., Sokoloff, P.C. & Bull, R.D. (2017) Vascular plant biodiversity of the lower Coppermine River valley and vicinity (Nunavut, Canada): an annotated checklist of an Arctic flora. *PeerJ* 5: e2835.
<https://doi.org/10.7717/peerj.2835>
- Saarela, J.M., Sokoloff, P.C., Gillespie, L.J., Bull, R.D., Bennett, B.A. & Ponomarenko, S. (2020) Vascular plants of Victoria Island (Northwest Territories and Nunavut, Canada): a specimen-based study of an Arctic flora. *Phytokeys* 141: 1–330.
<https://doi.org/10.3897/phytokeys.141.48810>
- Saarela, J.M., Sokoloff, P.C., Gillespie, L.J., Consaul, L.L. & Bull, R.D. (2013b) DNA barcoding the Canadian Arctic flora: core plastid barcodes (*rbcL* + *matK*) for 490 vascular plant species. *PLOS ONE* 8: e77982.
<https://doi.org/10.1371/journal.pone.0077982>
- Samuelsson, G. (1922) Zwei neue *Epilobium*-Arten aus der Arktis. *Botaniska notiser* 1922: 259–267.
- Sanborn-Barrie, M., St-Onge, M., Young, M. & James, D. (2008) Bedrock geology of southwestern Baffin Island, Nunavut: expanding the tectonostratigraphic framework with relevance to mineral resources. *Geological Survey of Canada, Current Research* 6: 1–16.
- Savile, D.B.O. (1959) The botany of Somerset Island, District of Franklin. *Canadian Journal of Botany* 37: 959–1002.
<https://doi.org/10.1139/b59-080>
- Savile, D.B.O. (1961) The botany of the northwestern Queen Elizabeth Islands. *Canadian Journal of Botany* 39: 909–942.
<https://doi.org/10.1139/b61-078>
- Savile, D.B.O. (1964) General ecology and vascular plants of the Hazen Camp area. *Arctic* 17: 237–258.
<https://doi.org/10.14430/arctic3507>
- Schkuhr, C. (1801) *Beschreibung und Abbildung der Theils bekannten, Theils noch nicht beschriebenen Arten von Riedgräsern nach eigenen Beobachtungen und vergrößerter Darstellung der kleinsten Theile*. Wittenberg, zu finden bey dem Verfasser, 128 pp.
<https://doi.org/http://dx.doi.org/10.5962/bhl.title.16649>
- Schofield, W.B. & Cody, W.J. (1955) Botanical investigations on coastal southern Cornwallis Island, Franklin District, N.W.T. *Canadian Field-Naturalist* 69: 116–128.
- Schouten, Y. & Veldkamp, J.F. (1985) A revision of *Anthoxanthum* including *Hierochloe* (Gramineae) in Malesia and Thailand. *Blumea* 30: 319–351.
- Schwarzenbach, F.H. (2010) *Botanical observations on the Penny Highlands of Baffin Island*. Herstellung und Verlag, Books on Demand GmbH, Norderstedt.
- Scopoli, J.A. (1771) *Flora carniolica exhibens plantas carniolae indigenas et distributas in classes naturales cum differentiis specificis, synonymis recentiorum, locis natalibus, nominibus incolarum, observationibus selectis, viribus medicis*. Editio Secunda 1. Wien, Impensis Joannis Pauli Krauss, 448 pp.
- Scribner, F.L. (1899) American Grasses--II. (Illustrated). *Bulletin, Division of Agrostology, United States Department of Agriculture* 17: 1–349.
- Sennikov, A.N. & Illarionova, I.D. (2008) Generic delimitation of the subtribe Ixeridinae newly segregated from Crepidiinae (Asteraceae-Lactuceae). *Komarovia* 5: 57–115.
- Skarpaas, O., Elven, R. & Nordal, I. (2004) Genetic variation and biogeography of *Mertensia maritima* (Boraginaceae). *Nordic Journal of Botany* 24: 583–592.
<https://doi.org/10.1111/j.1756-1051.2004.tb01643.x>
- Smith, G.W. (2014) *A historical and legal study of sovereignty in the Canadian north: terrestrial sovereignty, 1870-1939 [Edited by P.W. Lackenbauer]*. Calgary, Alberta, University of Calgary Press.
- Sokoloff, P.C. (2015) The flora of Cunningham Inlet, Somerset Island, Nunavut: history, analysis, and new collections of vascular plants, mosses, lichens, and algae. *Canadian Field-Naturalist* 129: 24–37.
<https://doi.org/10.22621/cfn.v129i1.1664>
- Soper, J.D. (1928) A faunal investigation of southern Baffin Island. *National Museum of Canada, Bulletin* 53: 1–143.
<https://doi.org/10.4095/305999>
- Soper, J.D. (1930a) Explorations in Baffin Island. *Geographical Journal* 75: 435–443.
- Soper, J.D. (1930b) Explorations in Foxe Peninsula and along the West Coast of Baffin Island. *Geographical Review* 20: 397–424.
- Soper, J.D. (1944) The mammals of southern Baffin Island, Northwest Territories, Canada. *Journal of Mammalogy* 25: 221–254.
- Soper, J.H. & Powell, J.M. (1985) Botanical studies in the Lake Hazen region, northern Ellesmere Island, Northwest Territories, Canada. *Publications in Natural Sciences, National Museum of Natural Sciences* 5: 1–67.
- Soreng, R.J. (2003) *Anthoxanthum* L. In: R. J. Soreng, P. M. Peterson, G. Davidse, E. J. Judziewicz, F. O. Zuloaga, T. S. Filgueiras & O. Morrone (Eds), *Catalogue of New World Grasses (Poaceae): IV. Subfamily Pooideae*. Contributions from the United States National

- Herbarium, pp. 111–115.
- Statistics Canada (2019) Census of Population, 2016: Cape Dorset, Catalogue no. 98-316-X2016001. Available from: <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CSD&Code1=6204007&Geo2=CD&Code2=6204&Data=Count&SearchText=Cape%20Dorset&SearchType=Begins&SearchPR=01&B1=All&GeoLevel=PR&GeoCode=6204007&TABID=11> (accessed 27 February 2020)
- Steere, W.C. (1939) Bryophyta of Arctic America. II. Species collected by J. Dewey Soper, principally in southern Baffin Island. *American Midland Naturalist* 21: 355–367.
<https://doi.org/10.2307/2420541>
- Swallen, J.R. (1944) The Alaskan species of *Puccinellia*. *Journal of the Washington Academy of Sciences* 34: 16–24.
- Swartz, O. (1799) Botanifke Anmärkningar; samt Befkrifning på en Svenfk och hittils okänd *Spergula stricta*. *Kongl. Vetenskaps Academiens Nya Handlingar* 20: 229–238.
- Testo, W., Haines, A. & Gilman, A.V. (2016) *Huperzia continentalis* (Lycopodiaceae), a new species of gemmiferous firmoss separated from *Huperzia haleakalae*. *Systematic Botany* 41: 894–901.
<https://doi.org/10.1600/036364416x693982>
- The Pteridophyte Phylogeny Group (2016) A community-derived classification for extant lycophytes and ferns. *Journal of Systematics and Evolution* 54: 563–603.
<https://doi.org/10.1111/jse.12229>
- Thiers, B. (continuously updated) Index Herbariorum: A global directory of public herbaria and associated staff. New York Botanical Garden, New York. Available from: <http://sweetgum.nybg.org/science/ih/> (accessed 23 September 2020)
- Tolmachev, A.I. (1971) *Arkticheskaia Flora SSSR [Flora of the Russian Arctic]* 6. Impensis Academiae Scientiarum SSSR Institutum Botanicum Moscow and Leningrad, 248 pp.
- Trautvetter, E.R. (1879) Flora terrae Tschuktschorum. *Trudy Imperatorskago S.-Peterburgskago botanicheskago sada* 6: 1–40.
- Trinius, C.B. (1830) Graminum genera quaedam speciesque complures definitionibus novis. *Mémoires de l'Académie Impériale des Sciences de Saint-Petersbourg. Sixième Série. Sciences Mathématiques, Physiques et Naturelles. Seconde Partie: Sciences Naturelles* 1: 353–416.
- Turczaninow, N.S. (1843) Flora baicalensi-dahurica seu descriptio plantarum in regionibus cis-et transbaicalensibus atque in Dahuria sponte nascentium. *Bulletin de la Société Impériale des Naturalistes de Moscou* 16: 585–644.
- Tzvelev, N.N. (1964) Gramineae. In: Tolmachev, A. I. (Ed.) *Arkticheskaya Flora SSSR (Flora Arctica URSS)*, USSR Academy of Sciences, V.I. Komarov Botanical Institute.
- Vahl, M. (1798) *Stellaria gronlandica* og *Dryas integrifolia*. 4 2: 169–172.
- Villars, D. (1786) *Histoire des plantes de Dauphiné. Contenant une Préface Historique, un Dictionnaire des Termes de Botanique, les Classes, les Familles, les Genres, & les Herborisations des Environs de Grenoble, de la Grande Chartreuse, de Briançon, de Gap & de Montelimar* 1. Grenoble, chez l'auteur, 467 pp.
<https://doi.org/10.5962/bhl.title.116232>
- Vincent, W.F. (2020) Arctic Climate Change: Local Impacts, Global Consequences, and Policy Implications. In: K. S. Coates & C. Holroyd (Eds), *The Palgrave Handbook of Arctic Policy and Politics*. Cham, Springer International Publishing, pp. 507–526.
https://doi.org/10.1007/978-3-030-20557-7_31
- Vowles, T. & Björk, R.G. (2019) Implications of evergreen shrub expansion in the Arctic. *Journal of Ecology* 107: 650–655.
<https://doi.org/10.1111/1365-2745.13081>
- Wahlenberg, G. (1812) *Flora lapponica exhibens plantas geographice et botanice consideratas, in Lapponiis suecicis scilicet Umensi, Pitensi, Lulensi, Tornensi et Kemensi nec non Lapponiis norvegicis scilicet Nordlandia et Finmarkia utraque indigenas, et itineribus annorum 1800, 1802, 1807 et 1810 denuo investigatas*. Berlin, in Taberna Libraria Scholae realis, 550 pp.
<https://doi.org/10.5962/bhl.title.41432>
- Walker, D.A., Raynolds, M.K., Daniëls, F.J.A., Einarsson, E., Elvebakk, A., Gould, W.A., Katenin, A.E., Kholod, S.S., Markon, C.J. & Melnikov, E.S. (2005) The circumpolar Arctic vegetation map. *Journal of Vegetation Science* 16: 267–282.
[https://doi.org/10.1658/1100-9233\(2005\)016\[0267:tcavm\]2.0.co;2](https://doi.org/10.1658/1100-9233(2005)016[0267:tcavm]2.0.co;2)
- Ward, S.E. (1996) Collaborative research in Nunavut: the case of the Mallik Island Park Study, Cape Dorset, NT. Master of Natural Resources Management practicum, Natural Resources Institute, University of Manitoba, Winnipeg, MB, 235 pp.
- Wiegleb, G., Bobrov, A.A. & Zalewska-Galosz, J. (2017) A taxonomic account of *Ranunculus* section *Batrachium* (Ranunculaceae). *Phytotaxa* 319 (1): 1–55.
<https://doi.org/10.11646/phytotaxa.319.1.1>
- Willdenow, C.L. (1799) *Species plantarum. Editio quarta* 2(1). Berolini [Berlin], G.C. Nauk, 823 pp.

SUPPLEMENTAL FILE 1. Dataset of herbarium specimens collected by J.M. Saarela and R.D. Bull in 2015 documenting vascular plant diversity on Dorset and Mallik islands, Nunavut, Canada.

SUPPLEMENTAL FILE 2. Dataset of herbarium specimens collected prior to 2015 documenting vascular plant diversity on Dorset and Mallik islands, Nunavut, Canada.

SUPPLEMENTAL FILE 3. *Matricaria discoidea* à l'Herbier Louis-Marie (QFA), Université Laval, Québec, Québec, Canada. The specimen was collected in Cape Dorset on 25 August 1936 by A. Dutilly (*Dutilly 943*, QFA0063466 barcode). Image: Herbier Louis-Marie, Université Laval, <http://media.qfa.herbier.ulaval.ca/QFA0063466.jpg>, CC BY-NC 4.0 (<http://creativecommons.org/licenses/by-nc/4.0/>).