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Article abstract

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Collecting with "botanical friends": Four Women in Colonial Quebec and Newfoundland

Ann Shteir and Jacques Cayouette

Abstract: Four women from the British colonial elite in Quebec and Newfoundland were among the more than 120 contributors to William Jackson Hooker's Flora Boreali-Americana (1829-40), an imperial project to assemble information about plants from across British North America. Letters that Christian Ramsay (Lady Dalhousie), Anne Mary Perceval, Harriet Sheppard, and Mary Brenton wrote to Hooker during the 1820s and 1830s show their interest in collecting Canadian plants — native orchids, ferns, weeds, bog plants — as well as their zeal for sharing knowledge and communicating their findings among friends and across borders. Along with other archival materials now available, the letters are a record of work by women in botanical discovery. By making visible the friendships, networks, and social and cultural practices that brought the women into Hooker's project, the letters enlarge and enrich the history of science in Canada.

Résumé: Parmi plus de 120 collaborateurs au projet de Flora Boreali-Americana (1829-1840) du botaniste William Jackson Hooker figurent quatre femmes de l'élite coloniale britannique de Québec et de Terre-Neuve, collaboratrices au projet de flore de l'Amérique du Nord britannique. La correspondance de Christian Ramsay (Lady Dalhousie), Anne Mary Perceval, Harriet Sheppard et Mary Brenton avec Hooker durant les années 1820 et 1830, illustre bien leur intérêt à récolter des plantes du Canada — orchidées indigènes, fougères et plantes introduites et de tourbières — et leur zèle à transmettre leurs connaissances et leurs trouvailles à leurs amis et au-delà des frontières. Ces lettres, combinées aux autres documents d'archives maintenant disponibles, témoignent de la contribution de ces femmes à la découverte botanique. Tout en révélant les amitiés, les réseaux et les pratiques sociales et culturelles de ces femmes au projet de Hooker, cette correspondance unique élargit et enrichit l'histoire des sciences au Canada.

Keywords: Botany, women, correspondence, networks, British North America, William Jackson Hooker, Lady Dalhousie, Anne Mary Perceval, Harriet Sheppard, Mary Brenton, Quebec, Newfoundland

while the history of botany has long been chronicled as knowledge gathered and organized about plants, it also reflects friendships, networks, and practices that over the centuries made it possible to study plants instrumentally by locating, assembling, and transporting them across borders, continents, and oceans. This article uses archival material to showcase four elite women in Quebec City and St. John's, Newfoundland, who collected plants for the *Flora Boreali-Americana*; or the Botany of the Northern Parts of British North America (1829-40, hereafter referred to as *Flora Boreali-Americana*), a British imperial

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publication initiated and developed by William Jackson Hooker, then professor of botany at the University of Glasgow, later to become the first Director of the Royal Botanic Gardens, Kew. Letters to Hooker from Christian Broun Ramsay (Lady Dalhousie), Anne Mary Perceval, Harriet Sheppard, and Mary Brenton in the *Director's Correspondence* at Kew abound in material for reconstructing the circumstances of their work during the 1820s and 1830s. They collected for Empire and for personal satisfactions having to do with friendship, family, curiosity, and zeal for knowledge, and in so doing participated in knowledge activities in early British colonial Canada. In relationships of mutuality, they contributed to Hooker's project, and he cultivated and rewarded them for work that had cultural cachet and public scientific value.

Compared to the iconic Canadian historical figure of Catharine Parr Traill, the emigrant naturalist and writer,1 William Hooker's four women botanical collectors have had limited visibility in Canadian histories of science and history more generally.² Reasons for this are not difficult to discern. Botany developed as a discipline in the mid-nineteenth century with university-based learning and the founding of formal societies,3 and hierarchies of knowledge as well as ideas about gender often gave women and men differential access to intellectual activities. Nor can traces of Hooker's female botanical collectors be found in histories of women in pre-Confederation Canada where scholarly emphases have been on pioneers and settlers arriving from Britain and on conditions for them as labouring women. By contrast, the women involved in Hooker's project were elite women, a social class less studied in recent years. Furthermore, only one of the four women remained in Canada and "became" Canadian; the other three left the colonies and returned "home" to Britain. Yet, their stories belong to women's history in the pre-Confederation period of Canadian history as well.

Botanical work in early nineteenth-century Canada was shaped by practices of collecting and exchanging plants, by networks that brought enthusiasts into contact with one another to share knowledge and sources of specimens, and by publications that itemized plants in a given area. William Jackson Hooker's Flora Boreali-Americana contains descriptions of approximately 5,000 plants found in locations that ranged from Newfoundland and Labrador on the far eastern coast of North America westward to Quebec, the Rockies, British Columbia, part of the western coast of the United States, and up into Hudson Bay and other locations in the Arctic. Published "Under the Authority of the Right Honourable the Secretary of State for Colonial Affairs,"5 it is expansive in geography and also in its assertions of power. Hooker did not himself collect the massive amount of material in this 500-page work, but he initiated the project, and assiduously solicited botanical specimens through his trans-Atlantic and colonial contacts. 6 Hooker cites the names of more than 120 government officials, military officers, plant hunters, and naturalists who sent him plants, or whose publications, collections, and botanical expertise he had access to. Foremost among these were John Richardson and Thomas

Drummond, who travelled on John Franklin's Arctic expeditions, and David Douglas, who collected in western Canada and northwestern parts of America under sponsorship from the Horticultural Society of London, and who are cited more than 500 times each. Another group of contributors consists of the four women who are the focus of this study and who collected plants for him in Quebec and Newfoundland. Together they are cited nearly 450 times as sources of information about specific plants. They stand out because they are the only women cited in this work. They also stand out because their citations derive from collecting work that Hooker commissioned specifically for the *Flora Boreali-Americana*.

At that time, the nature that surrounded pioneers and imperial sojourners in British North America was compelling to botanical as well as aesthetic eyes, as it had been to explorers, travellers, and settlers in Canada in earlier centuries. Writers and artists gave first-hand accounts of the thundering waters, dark woods, and rapturous expanses in the landscapes of Canada, and visitors filled scrapbooks, diaries, and albums with drawings and paintings of the novel colours of maple leaves and indigenous plants. Hooker's Flora Boreali-Americana was of a piece with other nineteenth-century ventures that aimed to "capture" these wonders visually and textually. It is no small matter, however, to collect specimens for submission to a Flora. Once found, specimens must be prepared and sent to a botanist for study and identification. Living plants are excellent for such purposes, but dried specimens work best, particularly when they are properly pressed, packaged, and shipped under conditions that do not wet and rot the parcels. Hooker provided encouragement to potential collectors as well as specific guidance for this in correspondence and publications. His *Directions* for Collecting and Preserving Plants in Foreign Countries: On Preserving Plants for a Hortus Siccus (1828), for example, sets out details about how to use papers and boards so as "to preserve specimens of plants in such a manner that the moisture may be quickly absorbed, the colours as much as possible preserved, and such a degree of pressure given to them, as that they may not curl up in the act of drying." Hooker recommends "brown paper for coarse plants, and blotting-paper for the more delicate kinds," and describes how to create a travelling press.8 Through personal correspondence and publications, William Hooker encouraged thousands of people to botanize on behalf of Empire. Writing about correspondence networks in nineteenth-century British natural history, Anne Secord has analysed the intricacies of social class that brought people together and shaped their working relationships. Personal contacts and introductions by friends were essential, she wrote, as was "the elaborate etiquette of polite society" that would "enable one to know who to trust."9 Social networks were a key bridge between botanical culture and botanical science in colonial Canada as elsewhere. Hooker was the recipient of work done on his behalf and at his invitation. In turn, he cultivated participants, conveyed a sense of their importance to his project, and taught them skills.

William Hooker dedicated the *Flora Boreali-Americana* to the expeditions by John Franklin and John Richardson to "the Polar Seas" and refers on the title page to their having collected plants "under circumstances of singular difficulties, Hardship, & Danger." Hardship was a reality of some botanical collecting, part of the experience for which some prospective collectors diligently prepared. During a visit to Hooker's family in 1817, botanist John Lindley is said to have practiced for the potential hardship of plant-collecting expeditions abroad by sleeping on the floor.¹⁰ Lindley thus exemplifies one facet of the "scientific masculinity" now being explored in gendered norms, spaces, and metaphors across the history of science.¹¹ Hooker's women contributors put a different face on this work. Their collecting activities took them at times into challenging habitats, but their field science was generally more domestic than the rigorous expeditionary exploits recorded by other contributors to Hooker's *Flora*.

At that time, Quebec City in Lower Canada was the administrative centre for the British provinces in eastern North America, a garrison community, and a place to manifest Britain's cultural and political imprint. Three of the women contributors to the Flora Boreali-Americana were sojourners on imperial assignments. Anne Mary Perceval (1790-1876) came from London as a newlywed in 1810 when her husband was appointed as His Majesty's Director of Customs for the Port of Quebec. Christian Broun Ramsay, Countess of Dalhousie (1786-1839) lived in Quebec, Sorel, and Montreal from 1820 through 1828, when her husband was Governor-General of the British Provinces in North America, following his posting in Halifax as lieutentant governor of Nova Scotia. Harriet Sheppard (1786-1858) came to Quebec as the daughter of a prosperous Loyalist family and married a gentleman-merchant; they stayed and became "Canadians." The fourth woman, Mary Brenton (1792-1884), was in Newfoundland as a sojourner from the later 1820s into the later 1830s when her father served as a judge on the newly-formed Supreme Court of the British colony.

Out of friendships and through family ties, Hooker's four female correspondents in British North America contributed to the growth and circulation of botanical knowledge. Their work is part of a larger history of women as natural-history collectors, but particularly characteristic of eighteenth- and nineteenth-century British and British colonial culture, when people across a broad range of social classes collected plants, ferns, seaweeds, insects, shells, and fossils and participated in practices of natural history. Like their British counterparts, Dalhousie, Perceval, Sheppard, and Brenton took part in forms of public and private botany that included attending sessions of a local scientific society, corresponding and conversing with others interested in science, and collecting plants on outings with family and friends. Botanical practices forged informal links in a "new" land, but at the same time anchored these women in familial and genteel activities in Britain. The letters from these "Canadian" women to Hooker demonstrate that sociability, friendship, family, intellectual activity, and links to home came together in a cultural recipe that

benefitted colonial, and imperial, science and also benefitted the women who took part. Like any recipe, however, individual differences make for special flavour.

Lady Dalhousie: "The new and the rare"

Botany was a keen interest for Christian Broun Ramsay (1786-1839), the Countess of Dalhousie, with the British Empire affording her opportunities to collect in Canada, where she was resident from 1816 to 1828, and later in India and surrounding areas. Specimens collected by Lady Dalhousie are held in botanical gardens and herbaria worldwide. Her contributions from British North America are cited in entries in Hooker's *Flora Boreali-Americana* for 48 native vascular plants, including orchids, shrubs, and a few weeds. Herbaria, plant lists, journal entries, and archival materials from the 1820s document her work for Hooker. Lady Dalhousie's letters to Hooker in the *Director's Correspondence* at Kew offer glimpses of an aristocratic woman who avidly cultivated botanical knowledge and developed field experience and botanical know-how.

Lady Dalhousie arrived in British North America in 1816 as the mother of three young sons and wife of senior colonial administrator George Ramsay (1770-1838), the Ninth Earl of Dalhousie. The patrician Lord Dalhousie stepped into a British colony on the brink of change. Unable to weather the tumultuous political climate in Lower Canada of the 1820s, he was recalled in 1828. His initiatives and patronage, however, led to the foundation of scientific and educational institutions in British North America, including the institution that became Dalhousie University, and the Literary and Historical Society of Quebec, a learned society intended to enshrine British values and cultural practices. Studious in manner, Lord Dalhousie built up a substantial personal library in Quebec, and botany books were prominent among these.

Lady Dalhousie shared Lord Dalhousie's official and intellectual life as well as opportunities that came with service to King and Country. She often travelled along on his annual tours of inspection in Upper and Lower Canada, visiting Niagara Falls in the summer of 1819, for example. As a social and cultural presence in both formal and informal ways, she entertained local elites, attended theatricals, and presided at balls and other events in the social calendars of Halifax and Quebec. In Halifax, Lord and Lady Dalhousie and family lived in Government House, described as "a recently built, stately Palladian residence boasting refined architecture, vast receiving rooms, and even a ballroom, making it similar to English country houses of that era."16 In Quebec City, their official residence was the Chateau St. Louis, in the upper town, a stately but dilapidated structure that housed government offices, public spaces, and their private family quarters. 17 Lord and Lady Dalhousie's home of choice, however, was their summer residence in Sorel, a town situated southeast of Montreal with a large English and Loyalist population dating back to the 1780s.18 There and in Quebec City they socialized with British military and administrative elites in grand houses and on the grounds of fine estates.

Moving beyond official terrains, Lady Dalhousie pursued focussed studies of the natural world. Her schooling likely had included attention to both polite accomplishments and activities in popular and fashionable sciences of the time.¹⁹ During the summer of 1818, Lord Dalhousie recorded in his journal that "Lady D." (as he called her) and a friend were happily involved in "their reading & studies in Chemistry and Mineralogy."20 Her lifelong special interest, shared with her husband, was in plants, she with an orientation to horticulture and botany, and he to horticulture and agriculture. Scholar Deborah Reid has found pages in Lady Dalhousie's journal that are "interlaced with specimens of ferns, flowers, foliage and insects."21 Lady Dalhousie's special attention went to plants that might be "new and rare," or "new and strange," meaning, that is, to her British eye. "Borders and plots for American plants" were among the features of the gardens at Dalhousie Castle, their home estate near Edinburgh, and the Dalhousies kept this in mind when collecting plants in Canada.²² They planned to develop a "botanic garden" (to be called "The King's Gardens") on an island in the St. Lawrence that would be the largest "collection of American plants (in cultivation) on this side of the Atlantic,"23 but the plan encountered political stumbling blocks and did not come to fruition.²⁴ Working on her own and with like-minded friends and family, Lady Dalhousie collected plants during the spring and summer months of the year. Her collecting sites on spacious estates differed from the perilous geographies of many other plant collectors, and family members joined in these activities. A charming entry in Lord Dalhousie's journal for June 8, 1823, tells of Lady Dalhousie collecting wildflowers with their 13-year old niece; they are, he writes, "daily out in search, and daily also return with some new treasure found, then fly to the pressing Board, or to Botanical Books to ascertain the plant found."25

Lady Dalhousie's approach to nature was empirical and material as she sought to identify, systematically arrange, and catalogue plants she collected. Their library in Quebec gave her access to key botanical publications, among them Flora Americae Septentrionalis (1813; ed. 2, 1816) by Frederick Pursh, a German botanist who collected plants in the United States and Upper and Lower Canada, and had contact with many botanists. The Dalhousies owned a copy of the second edition of Pursh's Flora, and Lady Dalhousie relied on it extensively.²⁶ She used Pursh's *Flora* to catalogue and arrange approximately 328 plants found on botanizing forays in Sorel and the Montreal area in 1823, for example; a number of plants among those were rare in Quebec at that time.27 In 1827, Lady Dalhousie gave the Literary and Historical Society of Quebec nearly 400 "Canadian plants," some collected at Sorel, and a catalogue of them was published in 1829 in the inaugural volume of the Society's Transactions.²⁸ That catalogue too followed Pursh's sequence of specimens and used most of his names. The list of plants in that publication, including ferns, orchids, introduced species, and a considerable number of plants such as grasses and sedges that are difficult to identify, are evidence of the scope of Lady Dalhousie's interests and skills as a collector. Another example of her skills is a still-extant collection of nearly 300 specimens dating from June 1826 through August 1828 that were assembled mostly by Lady Dalhousie from Sorel and locations around Quebec City, the Ottawa River, and the Gaspé area. Now housed in the herbarium of the Royal Botanical Gardens, Hamilton, this collection consists of native and naturalized species that have been mounted, identified according to Pursh's *Flora*, and labelled with locality data. According to botanist James Pringle, Lady Dalhousie's identifications are "remarkably accurate." The collection, purchased in the mid-1990s from descendants of the Dalhousie family, contains specimens of Canadian plants that are among the oldest in the Canadian herbaria, and its acquisition therefore represents a repatriation of Canadian botanical heritage. Botanists currently are scanning and curating the specimens to make them available for future generations to encounter this example of early nineteenth-century collecting and learn about plants that formed part of the Canadian landscape at that time.

Lady Dalhousie's standing as a plant collector in British North America was already established before William Jackson Hooker sought her help for the Flora Boreali-Americana. An application having been made to "her Ladyship for Canadian plants," she sent him in 1823 "some boxes well stored with botanical rarities, especially Orchidae, from the vicinity of Montreal."30 He described Lady Dalhousie to Arctic explorer John Richardson as "a very zealous botanist" and, in a major essay "On the Botany of America" published in 1825, placed her in the "first rank" of "individuals who are industriously engaged in furthering the Flora of [Canada]."32 A letter from Lady Dalhousie to Hooker from Ouebec in late 1825 is a window onto his requests and her efforts and aspirations as a collector on his behalf. The Dalhousies had returned to Quebec after a leave-ofabsence in England and Scotland, and she wrote, "I fear that I have a very small & imperfect collection of plants to send this autumn. We did not reach Canada till the end of Sept: too late to attempt drying any specimens." She would like to have had dried specimens to send to Hooker, but regrets this less because her friend "Mrs. Perceval has sent a large collection gathered by herself and her children." She is able, however, to send "the roots etc etc " of living plants, among them "various orchidaea" and "violas," and hopes that "some new or at least rare species" may be among them. 33 Lady Dalhousie's interest in sending Hooker "rare" plants is evident from the number of entries for rare plants in Quebec that are listed in the catalogues, records, and herbarium specimens associated with her. One example is the rare Ranunculus rhomboideus (prairie buttercup) that was found on Île Ste-Hélène, new to Quebec then, but now extirpated. [Fig. 1]

Lady Dalhousie's commitment to collecting plants continued after the Dalhousies left Canada in 1828 and travelled to India, where Lord Dalhousie served as governor-in-chief of the British army. She amassed hundreds of specimens of plants there, with ferns and orchids notably among them, and shipped large collections to Hooker. Her letters to Hooker have a vivacity and attention to detail that thrum with a sense of adventure, particularly when



Figure 1: Ranunculus rhomboideus, (prairie buttercup), found in herbarium of Christian Ramsay, Lady Dalhousie, and collected on Île Ste-Hélène, May 8, [? 1824], new to Quebec then, but now extirpated. Courtesy of the herbarium of The Royal Botanic Garden Edinburgh.

describing various circumstances under which she botanized. She wrote, for example: "We went into the River Ganges, 700 miles in boats & afterwards marched 800 miles thro' the great plains of India. But daily removals & being mounted 16 feet above the ground on an Elephant are not circumstances favorable for botanizing."34 Across her years in Britain's imperial colonies, Lady Dalhousie collected plants, and knew how to call upon help in her botanical work. A journal entry from her time in India lists books about botanical terminology, plant physiology, and Indian flora that she read during 1830,35 all likely books that the Dalhousies carried with them to India as part of their working library. She did not claim more botanical knowledge than she believed that she had, however. Reflecting on plants she saw in India, she wrote "You can scarcely even imagine the extreme confusion caused to a mere 'tyro' & unknowing Dabbler in Botany such as I am by being plunged at once into an extremely new & unknown vegetation — when <u>all</u> is strange it is some time before <u>one</u> tree can be distinguished from another."36 That she felt overwhelmed is not surprising; her bafflement and hesitation would have been shared with other collectors in new landscapes as they encountered dramatically unfamiliar vegetation. Yet, while she developed a considerable knowledge base, she also was aware of her own limitations and never referred to herself as a "botanist."

Lady Dalhousie's trajectory as a botanical collector went from the genteel work of an elite woman in colonial Nova Scotia and Quebec to the achievements of a botanical traveller in colonial terrains farther afield. Botanists both cultivated and acknowledged her contributions, and Hooker inscribed a volume of Curtis's Botanical Magazine to Lady Dalhousie to honour her "essential service to botany by her extensive collections, and by the introduction of many interesting species to the gardens of this country."37 In later years she is said to have found considerable "solace" in "botanical work and friendships." Still involved in collecting, still organizing specimens, still committed to botanical work, she announced her next project in a letter to Hooker from Dalhousie Castle in 1833, and invited his assistance: "When time allows, I intend to arrange all the ferns I have collected in the four quarters of the globe, in one book. I shall esteem it a most particular favor if you will permit me to send them to you & ask you to write wt. a pencil their correct specific names." She signed her letter, as she always did across the correspondence, "Believe me dear Sir very truly yrs/ CBDalhousie"39

Anne Mary Perceval: Networking, Pedagogy, and Canadian Plants

Given the dynamics of collecting, it is not surprising that William Hooker, looking for people to help on his *Flora*, wrote in early 1825 to the English gentlewoman Anne Mary Perceval in Quebec City. "Mrs. Perceval," as she was known, was both a substantial botanical collector and an enthusiastic networker on behalf of botany. She is cited more than 150 times in Hooker's *Flora Boreali-Americana* for a wide range of specimens that she collected from across Lower Canada, especially from the area of Quebec City, including familiar native plants,

plants introduced into cultivation, garden escapes, ferns, rare species, and orchids. Specimens from her plant collecting are found in American herbaria in Philadelphia, New York, West Chester, and Charleston, and internationally in herbaria in Paris and London. Specimens from her personal herbarium are in Canada, in the Vascular Plant herbarium of the Ottawa Research and Development Centre, Agriculture and Agri-Food Canada, Ottawa (DAO).⁴⁰

Anne Mary Perceval (1790-1876) lived for nearly two decades at the heart of the colonial elite in British North America. Her husband, Michael Henry Perceval, held positions in the British imperial civil service, and they named their home and estate overlooking the St. Lawrence River "Spencer Wood" for his father, British Prime Minister Spencer Perceval. A watercolour of Spencer Wood from that time shows a British villa in an English-style landscape park with grand views and a verdant and tranquil expanse of old maples, red oaks, and elms, 41 representing well what John Crowley has termed the "[v]isual appropriation of Quebec for the British global landscape."42 Anne Mary Perceval's setting was geographical, imperial, and social. The eldest daughter of a wealthy London merchant and alderman, she brought social fluency and a sense of occasion with her to Quebec City when she arrived as a newlywed in 1810.43 In Quebec the Percevals were a focal point for entertainment and cultural life, known for their elegant receptions and grand dinners as well as for informal weekly "at homes" with dancing and music. Their routines of polite and genteel sociability mirrored those of British gentlewomen in York and other colonial centres in Upper Canada, where British immigrants were establishing themselves through similar social rituals and entertainments.44 Along with such public responsibilities, Anne Mary Perceval was the mother of ten children born during her years in Quebec City, and domestic life would have been busy with their education and well-being. Contemporary accounts tell of the "highly cultivated minds" of the "accomplished" Perceval family, and Anne Mary Perceval herself, an "élégante châtelaine," was remembered for her "refined and cordial manners" and skill in languages. 45

There is every reason to expect that interest in plants and the natural world came with Anne Mary Perceval to colonial Quebec, and that engagement in botany connected her to Britain, home, and family. The grounds of the Perceval estate provided opportunity and resources for observing and studying plants that were new to British eyes. From all accounts an ebullient person who pursued her own interests, Mrs. Perceval crossed borders in her botanical practices and personal outreach, and established links to botanists in several American cities. She corresponded, for example, with botanist John Torrey in New York, requested specimens of mosses, and sent him a number of plants she collected in Canada. She and some of her botanical friends signed on as subscribers to Torrey's *Flora of the Northern and Middle States* (1824). She wrote that, as the mother of a numerous family which necessarily occupies much of her time, she smuch fears her botanical knowledge will be found too limited to be of any essential service to Dr. Torrey; but the little she possesses is

entirely at his disposal." At that time, she was giving considerable attention to Cryptogams, labouring for the most part "without either Guide or specimen," and having difficulties with the Fungi "from the circumstance of not knowing how to preserve them best." It was Torrey who recommended Mrs. Perceval to Hooker as "a lady of fortune who is an excellent botanist" who "could be of use to you in communicating dried plants," and the correspondence between Mrs. Perceval and William Hooker was soon underway. By June 1825 she was not only sending Hooker a shipment of plants, but also arranging for a shipment collected by a friend to be transported by another vessel, "in the hope that one or the other will reach you in safety."

Mrs. Perceval considered herself the pupil of Frederick Pursh, whose *Flora* Americae Septentrionalis inspired her not only as a collector but also as a teacher to her own children. Pursh had arranged the material in his *Flora* so as to facilitate the study of botany—"this lovely science"—by audiences that included "the young beginner,"50 and pedagogical dimensions of his book would have appealed to Mrs. Perceval. She would have been acquainted with popular instructional books of that time, perhaps even from her own youth, that used a family-based format of conversations between a mother and her children for early stages of learning about botany and other topics in natural history.⁵¹ Her children in turn provided specific impetus to her botanical interests. Anne Mary Perceval wrote in her first letter to Hooker that she welcomed the opportunity to give her children "the honor of contributing by their exertions (how small soever) to your very able labours," but stated that "being without aid, our advances are perhaps but slow."52 Hooker quickly, and wisely, rose to the occasion and sent Mrs. Perceval a copy of his *Botanical Illustrations* (1822), a book he had prepared to accompany his lectures to entry-level students at the University of Glasgow.53 She and her children were, she wrote several months later, "quite delighted in being thought worthy of a place in your remembrance, and very highly prize the Botanical Illustrations you so obligingly sent them: as do also many of my young botanical Friends in this part of the world."54 She went on to express interest in having six further copies of Hooker's book to pass on to others, and by so doing positioned herself as a "go-between" in the communication of knowledge. 55 Hooker and Perceval both understood that books, attention, and encouragement could shape an audience for botanical activities and promote interest within a potential workforce.

Three long letters sent to Hooker in 1825 and 1826 show Perceval to have been not only an attentive mother but also an accomplished networker and assiduous plant collector. In content and tone, the letters portray a socially skilled woman who desires knowledge and knows how to initiate and facilitate botanical work for herself and her social circle. During her time in Quebec she brought other players into work on Hooker's behalf, and became the linchpin for the Quebec end of the *Flora Boreali-Americana*. As she wrote to Hooker: "I have friends scattered about in every direction — Some I can exhort, some command, some entreat and some supplicate... Mr. and Mrs. Sheppard will

take care of Quebec, Lady Dalhousie of Sorel & Montreal, and I of all they leave." Tasks were apportioned and Hooker's inventory of plants from British North America was enlarged as a result of her labours. She would like to have offered Hooker greater geographical reach than she was able to attain, however: "I beg and solicit friends in Upper Canada to make collections for me, but alas one excuse or the other is always presented ... The fact is there is no Botanist to apply to, and without a certain portion of knowledge and a little enthusiasm, what can be expected." ⁵⁷

In 1825-26, Mrs. Perceval reported to Hooker that she had been in Philadelphia, a hub of transatlantic natural history at that time, "where, for the advantage of my children and my own health I am induced to pass the Winter."58 There she met botanist Lewis von Schweinitz (1780-1830) and gave or sent him specimens of Canadian plants, including *Pterospora andromedea* (pinedrops), a rare plant she collected under pine trees at Spencer Wood.⁵⁹ During that time she likely also met William Darlington, physician, botanical collector and correspondent, and also a member of the American Congress, who was studying the plants of his area west of Philadelphia.⁶⁰ In 1826, Mrs. Perceval gave Darlington a bulky leather-bound album entitled "Specimens of Canadian Plants," containing 189 plants collected during the summer of 1823.61 The majority of the specimens are native plants such as trilliums, violas, and anemones from around Quebec City, but the album also includes introduced plants and garden escapes, along with botanically difficult groups, ferns and fern allies, orchids, and rare species. 62 Mrs. Perceval's album opens with a specimen of Gentiana saponaria (now revised to Gentiana andrewsii, Andrew's bottle gentian) collected at Sorel by Lady Dalhousie, the ranking "first lady" of Britain's North American colonies. After that, plants in the first half of the album are arranged in a kind of chronological order by their time of flowering, with specimens dating from May 20 to October 31, 1823. A plant is affixed to the front side of each page in the album, with the botanical name and Linnaean category shown in Mrs. Perceval's handwriting on the facing page, along with the date and place of collection. The native plant Erythronium Dens Canis (now Erythronium americanum) (yellow trout lily), for example, was collected at Spencer Wood on May 20, 1823. [Fig. 2] Among the introduced plants, Vicia sativa, better identified as Vicia angustifolia (narrow-leaved vetch), is of special interest to botanists because it seems to represent the first record of this introduced species in North America, or at least in Canada.

Anne Mary Perceval's presentation of Canadian plants illustrates her participation in cultures of science and natural history at a time when plants from across the expanse of British North America were potentially "new" to botanists, and when few floristic works had been published about "Canada." The album was an initiative by an elite British woman to contribute to knowledge about nature in the British colony where she found herself by circumstances of history and empire. The album was also a call for reciprocity, perhaps an exchange, as part of a relationship between Anne Mary Perceval and Darlington



Figure 2: Facing pages from Anne Mary Perceval's Album "Specimens of Canadian Plants," 1826, showing specimen of Erythronium Dens Canis (now Erythronium americanum, yellow trout lily). The William Darlington Herbarium, West Chester, PA; photo AAFC.

and other American botanists that could well have developed into future projects for herself and others. But Mrs. Perceval's sojourn in British North America came to an end in 1828 when she was widowed unexpectedly, and the care and schooling of her children shaped her activities thereafter. While some botanical service to Hooker continued in later decades, ⁶³ there is no evidence of on-going botanical collecting. Nevertheless, Anne Mary Perceval's contributions enrich the picture of early nineteenth-century botanical practices. As a networker, she was a conduit for cross-border communication, from Pursh and on to Torrey and Hooker, in Philadelphia and likely in other locations still to be identified. As a collector, she contributed plants to herbaria that continue to be of interest to botanists. Bifurcations that developed during the 19th century between polite and specialist activities in nature study do not sufficiently capture the botanical intentions and collecting practices of Anne Mary Perceval and the other women in early nineteenth-century British North America who worked on behalf of Hooker's project.

Harriet Sheppard: "Botanical ardor" and Difficult Plants

When Anne Mary Perceval embarked on helping William Hooker, she took special pride in bringing Harriet Sheppard and her husband, William Sheppard, to his notice. Perceval, in a letter to Hooker in October 1825, wrote "I there acknowledge to have done you more real service than it is possible my offerings could but avail — He, being remarkable for his Science, She, for her extreme

patience and accuracy. To them I now resign the department of Quebec."64 During the 1820s and 30s Harriet Sheppard was a substantial collector of plants and natural history specimens. She is cited in 144 entries in the Flora Boreali-Americana and likely contributed many more specimens than those. 65 Harriet Sheppard sent Hooker specimens of wildflowers, weeds and shrubs, orchids, grasses, and ferns, as well as marine plants, lichens, and trees from locations that included Quebec City, St. Foy, Lachine, Murray Bay, Port au Persil, and the Île d'Orléans, as well as the grounds of her own home. Harriet Sheppard's overall profile as a collector is slimmer than the known collections and plant lists of Lady Dalhousie and Anne Mary Perceval, in part because she suffered "the total loss of her Books and Museum" when fire destroyed the Sheppard's house in Quebec in 1842.66 She was probably the most botanically adept of Hooker's four women contributors, however. Nearly 20% of her specimens cited in Hooker's Flora are what botanists consider "difficult plants" (such as Aster and Solidago) because of the challenges of distinguishing differences among species. Like Anne Mary Perceval, she was a significant conduit for botanical knowledge, and shared with Hooker and John Torrey plants that Frederick Pursh had collected in Lower Canada, especially in Anticosti, and perhaps other parts of Canada.⁶⁷ Furthermore, she was involved in the institutional cultures of botany and natural history that developed in colonial Quebec, and published several papers that demonstrate her research interests.

Harriet Campbell Sheppard (1786-1858) belonged to a Loyalist family that moved to Nova Scotia after the American Revolution, and then to Quebec in 1790 where her father prospered in the timber trade. She married William Sheppard (1784-1867), who arrived from England as a young man, became a businessman also involved in timber, and played important roles in civic and intellectual life in colonial Quebec. Unlike the other women in this story, Harriet Sheppard remained in Canada, and she and her husband raised their children in Quebec. Historians of women in science have developed the category of the "creative couple" to designate those who worked together— as husband and wife or father and daughter, for example—in pursuit of knowledge of nature. Harriet and William Sheppard shared interests in botany and natural history. Both sent plants to botanists, and their names appear as contributors of specimens not only to Hooker's *Flora Boreali-Americana* but also to John Torrey and Asa Gray's *Flora of North America* (1838-43). Both also communicated findings in papers and publications.

For many years the Sheppards lived in Sillery, Quebec, adjacent to Anne Mary Perceval and family, and collected plants there with botanical friends. Their estate, "Woodfield," consisted of house and grounds, a conservatory, and, in the words of a nineteenth-century Quebec local historian, "a rising lawn of good extent, interspersed with venerable oaks and pine, giving the whole a striking and pleasing aspect." Woodfield appears, for example, as a locality in Mrs. Perceval's album of "Canadian Plants" for specimens collected during the spring and summer months of 1823. Harriet Sheppard's path into Hooker's

project was, therefore, through the same elite colonial British networks that later brought Mary Brenton and plants of Newfoundland and Labrador into the history of botanical collecting in nineteenth-century Canada.

The flavour of Harriet Sheppard's botanizing can be found in her one extant letter to Hooker. Dating likely from October 1829, the letter details her knowledge, and exemplifies what she herself labelled her "botanical ardor."⁷¹ In the summer of 1829, she wrote that she and her children had spent three weeks at Murray Bay in Charlevoix, "the fashionable bathing place" that year. Their object "was not Botany (but health)," but "we made [botany] our constant amusement and employment while there." Harriet Sheppard uses vocabulary of "amusement," "strolling," and "rambling" from the polite culture of botany to describe her activities to Hooker. Yet, much like Anne Mary Perceval, she shows herself to be a pedagogically inclined botanical mother for whom plant collecting and identification were part of family practices. Their location that summer on the north side of the St. Lawrence put them on the saltwater shores of the river, and Harriet Sheppard describes the different topographies that she and the children traversed, first along the shore, then inland "up hill and down dale through swamp and over cliff," and along to the Black River. They collected swamp flowers, seaweeds, and shells, and Sheppard itemizes 18 specimens they found, along with four zoological specimens. They were disappointed, she wrote, in not being able to fill Hooker's request for Hydrastis canadensis, a perennial herb in the buttercup family now known as goldenseal, which was not to be found in Lower Canada. However, "on climbing the first hill we found the ground for a considerable space carpetted with nothing but Marchantia polymorpha (common liverwort). We afterwards found Epigaea repens (trailing arbutus), Goodyera pubescens (misidentified for Goodyera repens [dwarf rattlesnake-plantain]), Neotia cernua (misidentified for Spiranthes romanzoffiana [hooded ladies'-tresses]), and abundance of Pyrola uniflora (one-flowered wintergreen, now Moneses uniflora)." They also came upon "the pretty little Campanula rotundifolia" (harebell) and Pysum [sic] maritimum (beach pea, now Lathyrus japonicus). One finding from their collecting foray at Murray Bay in the summer of 1829 was a grass-like plant with clusters of flowers resembling lilies that she referred to as Zigadenus elegans. Now named Anticlea elegans (a poisonous plant known as "mountain death camas"), the actual specimen that Harriet Sheppard collected is extant as a piece of the material history of botany and housed in the herbarium of the Royal Botanic Gardens at Kew. [Fig. 3]

Harriet Sheppard's letter clearly demonstrates her familiarity with botanical practices of her day. She names plants with facility, principally according to the descriptions and identifications found in Pursh's *Flora Americae Septentrionalis*. She sought to preserve the plants that she and her children found, and was aware of instructions that Hooker circulated to collectors. They had gathered three specimens of algae at the shore but were "very unsuccessful" in pressing them, she explained, "perhaps owing to our not having immersed them in fresh water. We had omitted to take your 'Directions' with us and so paid for



Figure 3: Zigadenus elegans (now Anticlea elegans, mountain death camas), collected by Harriet Sheppard, June 1829, at Murray Bay. Herbarium of the Royal Botanic Gardens, Kew; photo AAFC.

our carelessness."⁷² Harriet Sheppard's letter to Hooker also reflects her interest in reporting on possible first sightings of plants. She remarks, for example, on having seen "Physalis lanceolata" (large false ground-cherry, now Leucophysalis grandiflora) and Arenaria lateriflora (grave sandwort, now Moehringia lateriflora), neither of which are to be found near Quebec." Since many of the plants she lists grow only along the saltwater shores of the St. Lawrence eastward of Quebec City, maritime specimens such as Mertensia maritima (oysterleaf), Ligusticum scoticum (Scotch lovage), and Lathyrus japonicus would indeed have been new to her. She collected at least nine species that are still considered rare, including Leucophysalis grandiflora. References to her "delight," and to being "pleased" about finding plants that were "new to us" show Harriet Sheppard's emotive connection to this work.

In addition to botanical work, Harriet Sheppard was a collector of natural history specimens, and a skilled observer of shells. The letter to Hooker reports that, returning home from their excursion via the shore, they also gathered seaweed and marine animals. She itemizes *Echinus* (sea urchin), *Buccinum* (whelk), and *Crepidula* (slipper shell, a marine gastropod), as well as "an animal which our guide called a Montre de Mer, it was, I think, a phorcymia of Dr. Lamarck." Harriet Sheppard used Lamarck's taxonomic system in a paper she presented about shells found near Quebec City, and added remarks based in her own observations. She would like to have been able to identify some species of shells as "new" or "rare," but was cautious about making such claims, it being "almost impossible to decide without figures, or very elaborate descriptions, neither of which are to be had." Scholar Karen Stanworth finds in Harriet Sheppard a strong intelligence at work on knotty matters in scientific description and classification, and a readiness to question and challenge "the accepted authority of contemporary scientists."

During the 1820s, Harriet and William Sheppard shared involvement in learned societies in Quebec that promoted new knowledge about nature. The institutional nexus of the Literary and Historical Society of Quebec, established under Lord Dalhousie's patronage in 1824, gave them each an initial forum for communicating results of their own research. William Sheppard published "Observations on the American plants described by Charlevoix" and "Notes on some of the plants of Lower Canada" in Transactions of the Literary and Historical Society of Quebec.⁷⁶ Harriet Sheppard's paper about shells appeared there as well, along with a paper she wrote about Canadian songbirds.⁷⁷ The topics of these articles were characteristic of early nineteenth-century British natural history, but the backstory to the Literary and Historical Society of Quebec as the sponsoring institution casts light on changes in Quebec at that time. William Sheppard welcomed and supported the establishment of the Literary and Historical Society of Quebec from its beginning, but disagreed with membership policies that made access possible only for wealthy English men of Quebec's British community. He affiliated more with the new professional class in Quebec, both anglophone and francophone, and in 1827 took a central

role in forming the Society for the Encouragement of Sciences and the Arts. This new group was more democratic in its membership policy, specifically welcoming women into membership, and its rules and orders were in both English and French. Harriet Sheppard presented her paper about shells to this Society, where it was awarded a silver medal. William Sheppard's role in shaping the Society for the Encouragement of Sciences and the Arts illustrates rising cultural and political tensions in Quebec from the 1820s onward. In this regard, work by the Sheppards in botany and natural history represents their political and intellectual investment in Quebec as its own entity rather than as a colony with an exclusive and exclusionary British identity.

Harriet Sheppard brought knowledge and studious habits to her work on botany and natural history. She benefitted from having friends, a supportive husband, and other excellent contacts in colonial social circles of learning and aspiration in early nineteenth-century Quebec. In 1864, William Sheppard was invited to speak at the Annual Conversazione of the Montreal Natural History Society as "one of the pioneers of Natural History in this country," and to reflect on "the state of natural history and of its progress in Canada during the previous half century."79 In the midst of citing key figures and institutions in this history, Sheppard offered poignant evidence of botanical networks in earlier decades. Addressing the "ladies" in attendance at the 1864 meeting, he encouraged them to contribute to knowledge of plants: "What will you not succeed on attaining," he declared, "when you set your hearts on its accomplishment, as the example of the Countess Dalhousie will show. This lady became an accomplished botanist, and was an indefatigable collector of plants." Sheppard praised Lady Dalhousie for her success in "imbuing her lady friends with a love of botany," and then brought Harriet Sheppard into his account—but without speaking her name. While some of Lady Dalhousie's 'lady friends" "made marked advances in this branch of natural history," there was "particularly one, who subsequently sent many specimens of Canadian plants to Sir Jackson Hooker, to assist him in the compilation of his great work the Plants of British North America, in which her name is duly recorded as a contributor."80 Sheppard's allusion to Harriet Sheppard is clear in hindsight, but what can explain the reluctance to name Harriet Sheppard directly?

Mary Brenton: Bog Mould and Material Practices in Newfoundland

When William Hooker remarked to Lady Dalhousie in late 1829 that he was looking for contributors to his flora from the eastern parts of British North America, she suggested that he "make an official application" through Lord Dalhousie, in his capacity as Governor-General, to the Governors of New Brunswick and Newfoundland.⁸¹ British Imperial networks in Quebec eventually led Hooker to Mary Brenton, a willing and zealous recruit, who became "Hooker's principal source of specimens" from Newfoundland and Labrador.⁸² Mary Brenton's work as a collector across the years 1830-1838 is recorded in letters to Hooker that, like those written by Lady Dalhousie, Anne

Mary Perceval, and Harriet Sheppard, give texture to practices in the study of nature in early nineteenth-century Canada. Her letters also detail the materiality of her work as a collector. Mary Brenton is cited in 102 entries in Hooker's Flora Boreali-Americana for ferns, sedges, grasses, and other vascular plants, both native and introduced. While most of the Brenton citations are for general plants of boreal areas, about 20% of her contributions were collected from bogs and fens; Empetrum nigrum (black crowberry), for example, is a small evergreen creeping shrub found widely in Newfoundland in bogs and on barrens and sea cliffs. Hooker also cites several rare or unknown plants that Brenton found, among them Halenia brentoniana (now Halenia deflexa subsp. brentoniana), known as American spurred gentian, a new species in the Gentian family that was named for Mary Brenton and is the type specimen for this plant. [Fig. 4] Another new species of Halenia found by Mary Brenton in Newfoundland is Halenia heterantha (no known English name; now Halenia deflexa subsp. deflexa).

Mary Brenton (1791-1884) arrived in the British colony of Newfoundland in 1827 and lived in St. John's with her parents as an elite imperial sojourner until 1838. Her father, Edward Brabazon Brenton, came from a distinguished Loyalist family and had a career as a senior colonial judge and administrator in Halifax, Quebec, and London before being named Colonial Secretary to the Governor of Newfoundland, and later a Justice of the Newfoundland Supreme Court.83 Mary Brenton's privileged world is apparent from a household inventory at their departure that included a "Grand Pianoforte" and mahogany furniture to fill many rooms, along with "a pew in the established church," and a share in the St. John's Library.84 Her life of colonial comforts was far removed from the experiences of women in Newfoundland who laboured in the fishery or other paid work in aide of family economies.85 During those years, Mary Brenton likely participated in the routines and seasonal festivities of elite circles around the governor of Newfoundland, Thomas Cochrane, who "was fond of ceremony and preferred good living."86 Her specific access to plant collecting came about when the British colonial government of Newfoundland established a system of circuit courts in 1826 to bring "greater civil authority to the outports," and judges like Edward Brenton were given authority in district affairs. Mary Brenton had opportunity to travel with her father in the course of his circuit court duties, perhaps in "the 'colonial vessel,' on which [Governor Thomas Cochrane] and the judges could coast in style through the outports."87 She collected plants for Hooker along the way.

Mary Brenton's first letter to Hooker accompanied a shipment of plants to him in September 1830. Her searches, she wrote, "have been confined to the immediate neighbourhood of St. John's," but she has no doubt, "that the interior of the Island abounds with many beautiful Plants and some very curious ones on the Coast. The summer is so short and Vegetation so rapid, that without the greatest attention many flowers bloom and die, unnoticed." With apology and self-effacement, and using the formality of a third-person reference to

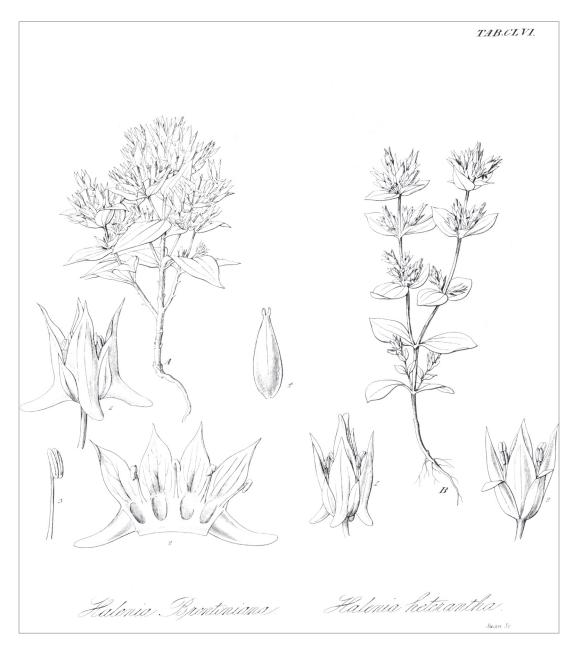


Figure 4: Halenia Brentoniana (now Halenia deflexa subsp. brentoniana. American spurred gentian), and Halenia heterantha (now Halenia deflexa subsp. deflexa). Mary Brenton discovered these new species in the Gentian family in Newfoundland, and one was named in her honour. Plate CLVI in William Jackson Hooker, Flora Boreali-Americana, 1829-1840.

herself, she explains that "[t]he Collector of these Plants regrets, that from not being a Botanist, she has been unable to give all the Botanical names and but few of the Vernacular, nor could she gain any information from the Natives of the Place."88 Many of the letters that follow have the same gendered tonality of regret for what Mary Brenton does not know and cannot send. Yet, as she writes in that opening letter, she "hopes to do better next year,"89 and her persistence echoes across the correspondence.

Mary Brenton seems to have had little involvement with plant collecting before being recruited for Hooker's project. To be sure, during her early years in Halifax, the British imprint on genteel life across the British transatlantic world would have brought plants and flowers into her activities. 90 Moreover, when her father's career took them to England during the years 1815-25, Mary Brenton was "home" at a time when British books and magazines provided a rich seedbed for learning about plants. But general cultural interest in plants does not by itself create an effective plant collector. In this case, William Hooker became Mary Brenton's mentor, and she his ready pupil. Early nineteenth-century botanists developed textual and visual ways to cultivate observational skills for plant study and popular science, 91 and Hooker embodied those motivations and strategies well. As a pedagogue and coach, he took the opportunity more than once to provide Mary Brenton with material that would facilitate her work on his behalf. For example, he sent her the first fascicles of Margaret Roscoe's Floral Illustrations of the Seasons (1829), a publication to "encourage a taste for botanical pursuits," especially among women. 92 Coloured engravings of plants in Roscoe's book are arranged by season of flowering, and information about each specimen includes how to grow "some of the most Beautiful, Hardy, and Rare Herbaceous Plants Cultivated in the Flower Garden." The illustrations feature plants introduced into England by travellers and collectors, and notable among them are Canadian wildflowers. Floral Illustrations of the Seasons shows colonial cross-fertilization in action, particularly the two-way traffic between metropolitan and colonial sites for science.

Hooker sought to pique Mary Brenton's interest and sharpen her eye by sending her an illustrated book about native Canadian plants that had been collected across British North America and introduced into England in recent decades. Soon afterwards, Hooker sent Mary Brenton his own *British Flora* (1830), a teaching text that aims "to provide the young Student with a description of our native plants, arranged according to the simplest method"; and ... to afford to the more experienced Botanist, a manual that should be useful in the field as well as in the closet."93 His gifts to Mary Brenton continued as acknowledgement and further encouragement of her work. Thus, in August 1833, when she was seeking out mosses on his behalf, Hooker sent fascicles from his writing about Cryptogams that were issued as a part of J. E. Smith's *The English Flora*.94

Nearly every year from 1830 to 1838, Mary Brenton sent Hooker specimens of plants from locations in the interior of Newfoundland and along the coasts. In addition to plants that she dried and shipped, she also arranged for Hooker to receive "a Bag of <u>living Plants</u> ... very flourishing and easily cultivated in bog mould."⁹⁵ She reports collecting in the neighbourhood of St. John's and from St. Mary's and Placentia Bays, as well as trips "upwards of two hundred miles along the Northern Coast," and the same distance "on the Southern Coast."⁹⁶ She also sent Hooker plants from Labrador, but did not collect these herself. Instead, she distributed funds sent from Hooker "to such persons as

have assisted me in my floral and other collection," some of which went, she wrote in November 1834, to "a Planter's wife ... who yesterday sent me the fruits of her summer." She continues: "I am afraid you will find nothing new among the Plants but they will serve to show what Labrador can produce. She [the Planter's wife] was unfortunately not in the Harbor when flowers are most plenty but the next season will remove to other parts of the coast and promises a further supply."97

The realities of harsh weather and rugged landscape are integral to the circumstances for plant collecting that Brenton details to Hooker. The spring and summer seasons of 1832, for example, were "such as has not been known in this Island for half a century. Winter and ice lingered till the beginning of June, and since that period cold rains and fog have hindered any flowers from coming to perfection."98 She reports the same about the summer of 1833. Getting her hands on plants was a problem in itself, whether she was collecting on her own or had others to assist her: "as the best flowering Plants usually grow in swamps, it is difficult for a lady to reach them. I can find but few persons who have enthusiasm sufficient to induce them to penetrate into a bog up to their knees in water in search of what they may not find after all, and, to those who are not accustomed to the search, many minute flowers are overlooked as not worth gathering."99 Mary Brenton was rewarded for her explorations knee-deep into those bogs, however, and Hooker cited her for the native orchids Calopogon tuberosus (tuberous grass pink orchid), Platanthera blephariglottis (white fringed orchid), and Platanthera dilatata (tall white bog orchid). She also discovered a bog species of *Solidago* (goldenrod) that was new to both Hooker and Asa Gray.

Mary Brenton's collecting was shaped by other circumstances as well. "My walks," she wrote, "are generally so limited, having but a short time to scramble about on shore [when] my father has [some time away] from his official duties to accompany me, that you cannot wonder I have not been more successful." Material circumstances for drying and transporting plants presented yet other difficulties. She apologizes that she "cannot procure more proper Paper for the Plants," and that basic conditions of travel imperilled her specimens: "the perpetual rain and [&?] fog destroyed the plants as soon as I had dried them. They were sadly knocked about in the small vessel we were cruising in during the autumn gales." She also struggles to find "a safe opportunity" for sending plants to Hooker in Scotland.

Compared to Lady Dalhousie or Harriet Sheppard, Mary Brenton was not steeped in botanical knowledge or natural history practices. She at no point includes Latin botanical names in her letters, even though Hooker's volumes (as well as Mrs. Roscoe's *Floral Illustrations of the Seasons*) would have given her vocabulary for identification. She refers to trees she has seen only in the vernacular, among them larch, pine, birch, ash, elm, poplars, "Dog Wood, White Wood, Wild cherry, wild Pear, Sloe." She would like to be able to send Hooker specimens that "I hope you have not seen before" and that "may prove a

valuable acquisition,"105 but seems not to have enough knowledge or experience to differentiate familiar plants from rare specimens. She reports, for example, on plants she thinks of as common weeds in England, "among them dandelions, chickweed, clover, dock, and nettle." Hooker was happy to report these, however, as being present in Newfoundland. Despite her assertions about how little she knew botanically, Mary Brenton in fact sent Hooker important material for his flora of British North America, and her interest and knowledge grew during the course of her collecting for him. She wrote in June 1836 of her "love of research": "I have lately heard of a flower which grows only in St Georges Bay called by Natives there the 'Salmon flower,'" [and blossoms just before the arrival of the salmon] ...it is in appearance very like the Auriculas — the same stiff leaf, the same farina on the petals of the flower growing on a stalk as high as the English cowslip. I have much curiosity to see it and have sent to obtain both the root and the flower by two different methods."106 Mary Brenton's description and the date of her letter have made it possible to identify this plant now as *Primula laurentiana* (Laurentian primrose), a native species of Primrose.

William Hooker recruited for his Flora Boreali-Americana where he could, and circumstances of geography, class, and politics brought Mary Brenton into the history of collecting. She appears to have pursued her interest on her own, without the friends, neighbours, and institutional resources of learned societies that characterized botanical work by the women collectors in Quebec. Yet Mary Brenton's circumstances took her well beyond the grounds of genteel estates, out into collecting across a larger geographical range and in more varied settings than her Quebec counterparts. There is a noticeable tension in the letters as Mary Brenton warms to praise from Hooker and is gratified by his flattery, yet acknowledges the realities of her circumstances as an inexperienced collector in difficult terrains. When the family was preparing to leave North America, she wrote to thank Hooker for encouraging her "floral researches" and adds: "I dare not say Botanical for I have not the slightest knowledge of that interesting science. Mine is a real love for flowers."107 The distinction she draws between "botany" and "flowers" would seem to describe different domains of interest for Mary Brenton herself. In her case, locating and identifying plants and using technical names and features within botanical science were less compelling to her than her "real love for flowers." At the same time, the distinction she draws is characteristic of the 1830s, when the scientific study of plants was increasingly demarcated from emotive connections to flowers.

Conclusion

Writing in 2006 in her introduction to a special issue of *Scientia Canadensis* on "Women and Gender in Canadian Science, Engineering and Medicine," Ruby Heap called for Canadian women's history and history of science to learn about women doing scientific work in English-speaking Canada by using all available resources, including analytic perspectives developed by feminist

and other interdisciplinary scholars. Essays assembled for that journal issue focussed on individuals, practices, and institutions from the late nineteenth century to the late 20th century, and aimed to "highlight the importance of considering carefully women's historical, spatial and social locations when trying to reconstitute [the] experiences of women" in the areas identified. Publications by feminist scholar Marianne Gosztonyi Ainley had done much in this direction, particularly for her own areas of expertise in women, natural history, and natural science in Canada from the nineteenth century onwards. But then, as now, much remains to be done.

Botanical collecting was a social practice that connected Lady Dalhousie, Anne Mary Perceval, Harriet Sheppard, and Mary Brenton to a British scientific project, and class privileges gave them access to networks and activities that brought them into the history of women in Canadian science culture. Their letters to botanist William Hooker during the 1820s and 1830s are records of participation by women in botanical exploration and discovery. This work predates the specialized and institutionalized practices that came to characterize the sciences and science history of the mid- and later nineteenth-century. For this reason alone, the four women who contributed plants for the Flora Boreali-Americana could well instigate study of individuals and groups yet to be identified who similarly found and made room in the New World for activities that likely would have been more restrictive in the Old. Archives and print materials from the opening decades of the nineteenth century are among the resources for locating other such women in British colonial Canada and elsewhere. Early magazines offer largely untapped materials for the media history of science. Other topics for research include the presence and absence of women in early societies, and the place of natural history in formal and informal schooling.

Attention to the four women who collected plants "with botanical friends" in British North America can in turn alert historians to other women involved in the study of plants in Canada before Confederation, and back before the British Empire, giving cognizance to botanical collecting and other work with plants by women in French and indigenous traditions. Recently, feminist historians Catherine Carstairs and Nancy Janovicek introduced their volume of new essays on women in Canada by calling for research that extends the chronological range of enquiry farther back because, they write, "[w]e need to better understand women's lives and gender relations in earlier periods in order to construct more complete portraits of recent times." In Canadian science, as elsewhere, it is the cultures that develop around enquiry into natural knowledge that shape access to the work of discovery. By looking to earlier forms of involvement by women and by men in studies of nature, we can enrich historical scholarship and understand better the social, cultural, political, and individual forces that, coming into the present day, close doors or open gates.

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Endnotes

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- 3 Suzanne Zeller, Inventing Canada: Early Victorian Science and the Idea of a Transcontinental Nation [1987] (Montreal & Kingston: McGill-Queen's University Press, 2009).
- 4 See, for example, Elizabeth Jane Errington, Wives and Mothers, Schoolmistresses and Scullery Maids: Working Women in Upper Canada 1790-1840 (Montreal & Kingston: McGill-Queen's University Press, 1995) and Gail Cuthbert Brandt, et al., "'Plenty of Work': Women's Waged and Unwaged Labour in British North America." Canadian Women: A History. Ed. 3. (Toronto: Nelson, 2011), 66-97.
- 5 Flora Boreali-Americana; or, the Botany of the Northern Parts of British North America (London: Henry G. Bohn, 1829-40). 2 vols.
- On William Jackson Hooker (1785-1865) as teacher, writer, correspondent, editor, illustrator, and shaper of botany as a discipline, see Joseph Dalton Hooker, "A Sketch of the Life and Labours of Sir William Jackson Hooker," *Annals of Botany* (1902), OS 16 (4). W.J. Hooker is not to be confused with his contemporary William Hooker, a botanical and horticultural illustrator. All references here are to William Jackson Hooker.
- James S. Pringle, "The History of the Exploration of the Vascular Flora of Canada," The Canadian Field-Naturalist, 109 (July-September 1995), 3: 303. See also Trevor H. Levere, Science and the Canadian Arctic: A Century of Exploration 1818-1918 (Cambridge: Cambridge University Press, 1993), 103-37.

- 8 "Directions for Collecting and Preserving Plants in Foreign Countries," reprinted in *Supplement to the Nautical Magazine*, 10 (December 1832), 1: 575, 576.
- 9 Anne Secord, "Corresponding interests: artisans and gentlemen in nineteenth-century natural history," *British Journal for the History of Science* 27 (1994): 389.
- 10 Joseph Dalton Hooker, "A Sketch of the Life and Labours of Sir William Jackson Hooker," xxiv. n.
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- 11 See Erika Lorraine Milam and Robert A. Nye, eds. Scientific Masculinities, Osiris, ser. 2, vol. 30, 2015.
- 12 See, for example, Beth Fowkes Tobin, *The Duchess's Shells: Natural History Collecting in the Age of Cook's Voyages* (New Haven & London: Yale University Press, 2014); Barbara T. Gates, *Kindred Nature: Women Embrace the Natural World* (Chicago: University of Chicago Press, 1998), esp. ch. 3; Ann B. Shteir, *Cultivating Women, Cultivating Science: Flora's Daughters and Botany in England 1760 to 1860* (Baltimore: The Johns Hopkins University Press, 1996); Anne Secord, "Corresponding Interests: Artisans and Gentlemen in Nineteenth-Century Natural History." *British Journal for the History of Science* 27 (1994): 383–408; David Ellison Allen, *The Naturalist in Britain: A Social History* (Princeton: Princeton University Press, 1994).
- 13 Dalhousie specimens can be seen in Canada in the Royal Botanical Gardens Hamilton, Ontario, and the herbarium of the Canadian Museum of Nature, Gatineau, Quebec; in the Royal Botanic Garden in Edinburgh, Kew, Hamilton; in collections in Geneva, Florence, and West Chester, Pennsylvania; and in the Herbarium of the Natural History Museum in Paris.
- 14 Peter Burroughs, RAMSAY, GEORGE, 9TH EARL OF DALHOUSIE, *Dictionary of Canadian Biography*, vol. 7 (Toronto: University of Toronto/ Université Laval, 1988).
- 15 Gilles Gallichan, "La bibliothèque personnelle du gouverneur Dalhousie," *Les Cahiers des dix*, no. 65 (2011), 92-3.
- 16 René Villeneuve, Lord Dalhousie: Patron and Collector (Ottawa: National Gallery of Canada 2008), 19
- 17 J.M. LeMoine, Picturesque Quebec (Montreal: Dawson Brothers, 1882), 74-5. The "old" Chateau St. Louis was destroyed by fire in January 1834.
- 18 Walter S. White, Governors Cottage (A collection of historical documents pertaining to the Governors Cottage in the Seigniory of Sorel), (no locality, no date [1967]), 119-127.
- 19 Deborah Reid, Unsung Heroines of Horticulture: Scottish Gardening Women, 1800 to 1930, (PhD dissertation, University of Edinburgh, 2015), 97-100.
- 20 Marjory Whitelaw, ed., The Dalhousie Journals (Ottawa: Oberon Press, 1978), I: 93.
- 21 Reid, Unsung Heroines, 101.
- 22 Joseph Archibald, "Dalhousie Castle & Gardens: the Botany of the Neighbourhood," Gardener's Magazine, vol. 1 (1826), 252-3.
- 23 Reid, Unsung Heroines, 108.
- 24 Had Lord and Lady Dalhousie succeeded in their plan, The King's Gardens might have been the first botanic garden in Canada, predating that established by the Botanical Society of Canada at Queen's College, Kingston, in 1861. On the Botanic Garden at Queen's College (now Queen's University), see William G. Dore, "Canada's First Botanic Garden," *Greenhouse, Garden, Grass* vol. 6, no. 2, Summer 1967, 6-14.
- 25 Marjory Whitelaw, ed. The Dalhousie Journals (Ottawa: Oberon Press, 1981), II: 144.
- 26 See Jacques Cayouette, "Pursh explore le Haut-Canada en 1816," FloraQuebeca 5 (2000), 1: 6-7; and "Pursh dans l'est du Bas-Canada et à l'île d'Anticosti, 1: la saga des spécimens d'herbier," FloraQuebeca 10 (2005), 1: 13-18.

- 27 Nova Scotia Museum, Halifax, Mss. 85.119.34 and the corresponding album at the herbarium of the Canadian Museum of Nature in Gatineau, Quebec.
- 28 "Catalogue of Canadian Plants collected in 1827 and Presented to the Literary and Historical Society, by the R. H. the Countess of Dalhousie," *Transactions of the Literary and Historical Society of Quebec* (1829) I: 255-61. The collection is believed to have been destroyed in fires at the headquarters of the Society.
- 29 James S. Pringle, "Canadian Botanical Specimens Collected 1826-1828 by the Countess of Dalhousie, Acquired by the Royal Botanical Gardens," Canadian Horticultural History (1995), 3: 15.
- 30 William Jackson Hooker, Exotic Flora, Vol. II (Edinburgh: William Blackwood, 1825), 145-6.
- 31 Cited in Levere, Science and the Canadian Arctic, 114.
- 32 "On the Botany of America," Edinburgh Journal of Science 2 (1825), 126.
- 33 Director's Correspondence, DC 44: 56, October 31st, n.d. [1825].
- 34 Director's Correspondence, DC 53: 38, Feb. 4, 1833.
- 35 Lady Dalhousie reports reading these botany books in 1830: Johann Friedrich Blumenbach, A Manual of the Elements of Natural History (London 1825), G. N. Lloyd, Botanical Terminology (Edinburgh 1826), John L. Knapp, The Journal of a Naturalist (London 1829), W. J. Hooker, Flora Scotica (London 1821), Jane Marcet, Conversations on Vegetable Physiology (London 1829), William Roxburgh, Hortus Bengalensis (Serampore 1814), and Flora Indica (Serampore 1820-24). (See Reid, Unsung Heroines, 99, n. 9).
- 36 Director's Correspondence, DC 44: 39, March 4, 1833.
- 37 Curtis's Botanical Magazine (1833), vol. 60.
- 38 Cited in Reid, Unsung Heroines, 121.
- 39 Director's Correspondence, DC 53: 38, Feb 4, 1833.
- 40 James S. Pringle, "Anne Mary Perceval" (1985), 10-11; Jacques Cayouette, "Anne Mary Perceval" (2004), 10.
- 41 René Villeneuve, Lord Dalhousie: Patron and Collector (Ottawa: National Gallery of Canada, 2008), 200
- 42 John Crowley, *Imperial Landscapes: Britain's Global Visual Culture 1745-1820*, p. 72. On Spencer Wood, see J. M. LeMoine, *Maple Leaves*, 3rd series. (Quebec: Hunter, Rose & Co., 1865), 76-81.
- 43 Anne Mary Percevel presided in 1808 as "Lady Mayoress" at the ball when her widowed father, Charles Flower, was installed as London's Lord Mayor. *National Register*, November 13, 1808, 731.
- 44 Elizabeth Jane Errington, "Suitable Diversions: Women, Gentility and Entertainment in an Imperial Outpost," *Ontario History* CII (2010), 2, esp. 177-79.
- 45 J. M. LeMoine, Picturesque Quebec, 334.
- Among plants that Mrs. Perceval sent to Torrey, now in the New York Botanical Garden Herbarium, one orchid from "around Quebec" was later named by botanist Rydberg as a new species, *Limnorchis media*, which became the hybrid *Platanthera* xmedia, now in synonymy of *Platanthera huronensis*.
- 47 Letter to John Torrey, n.d. [1824?], John Torrey Papers (PP), Archives, The New York Botanical Garden, ser. 1: 6.64.
- 48 John Torrey to Hooker, Director's Correspondence, DC 44 (175), August 20, 1824.
- 49 *Director's Correspondence*, DC 44 (116), June 13, 1825.
- 50 Frederick Pursh, Flora Americae Septentrionalis (London: White Cochrane & Co, 1814), I: xxii.
- 51 See Michele Cohen, "'Familiar Conversation,' the Role of the 'Familiar Format' in Education in Eighteenth and Nineteenth-Century England," *Educating the child in Enlightenment Britain: Beliefs, cultures, practices*, ed. Mary Hilton & Jill Shefrin (Farnham, England; Burlington, Vt.: Ashgate, 2009), 99-116.

- 52 Director's Correspondence, DC 44 (116), June 13, 1825.
- 53 On Hooker's *Botanical Illustrations* see Anne Secord, "Botany on a Plate: Pleasure and the Power of Pictures in Promoting Early Nineteenth-Century Scientific Knowledge," *Isis* 93 (2002), 28-57.
- 54 Director's Correspondence, DC 44 (117), October 23, 1825.
- 55 Simon Schaffer et al., ed. *The Brokered World: Go-betweens and Global Intelligence, 1770-1820* (Sagamore, MA: Science History Publications, 2009).
- 56 Director's Correspondence, DC 44 (117), October 23, 1825.
- 57 Director's Correspondence, DC 44 (118), October 7, 1826.
- 58 Director's Correspondence, DC 44 (117), October 23, 1825.
- 59 The Schweinitz Herbarium in the Academy of Natural Sciences, Philadelphia, contains 36 plants from Mrs. Perceval.
- 60 Joseph Ewan, "Darlington, William," Complete Dictionary of Scientific Biography (Detroit: Charles Scribner's Sons, 2008), vol. 3, 562-3.
- 61 "Specimens of Canadian Plants, Presented by the Hon. Mrs. A. M. Percival, of Spencer Wood, near Quebec, to Wm. Darlington. 1826" is part of the Herbarium of West Chester University, West Chester, Pennsylvania. Jacques Cayouette and colleagues at the herbarium of the Department of Agriculture in Ottawa are doing conservation work on the album to restore and identify specimens.
- 62 Jacques Cayouette has compiled a complete list of plants in Anne Mary Perceval's album "Specimens of Canadian Plants." See Alain Asselin, Jacques Cayouette, and Jacques Mathieu, *Curieuses histoires de plantes du Canada*, tome 3 (Quebec: Septentrion, 2017), Appendix 8.
- 63 Perceval asked Hooker in a letter dated February 14, 1865, about the "safe arrival at Kew" of plants sent to him (DC 42 [222]). Another letter acknowledges Hooker's request for "Tussock Grass" and reports that she has arranged for this to be fulfilled (DC 42 [223], n.d.)
- 64 Director's Correspondence, DC 44 (117), October 23, 1825.
- 65 For an itemized list of plants collected by Harriet Sheppard that are cited in the *Flora Boreali-Americana*, see W. G. Dore, "Specimens attributed to Mrs. Sheppard by Hooker," ms. 4 pp., Plant Research Library, Ottawa, 16 January 1970. Hooker received more material than he cited, and did not include the names of all contributors who sent him, for example, common spring plants.
- 66 William Sheppard to Hooker, Director's Correspondence, DC 63 (414), May 28, 1846.
- 67 Jacques Cayouette, "Pursh dans l'est du Bas-Canada et à l'île d'Anticosti" (2005), 16-18. Specimens in the Herbarium New York Botanical Garden and the Gray Herbarium bear the labels "Mrs Sheppard Herbarium."
- 68 Pierre Savard, SHEPPARD, WILLIAM, Dictionary of Canadian Biography, vol. 9 (Toronto: University of Toronto/Université Laval, 1976).
- 69 Helena M. Pycior, Nancy G. Slack, & Pnina Abir-Am, eds., Creative Couples in the Sciences (New Brunswick, N.J.: Rutgers University Press, 1996).
- 70 J. M. LeMoine, Maple Leaves, Quebec 1865, 3rd ser., 83.
- 71 Director's Correspondence, DC 44 (158), n.d, enclosed in letter from William Sheppard to Hooker, DC 44 (157), October 26, 1829.
- 72 *Ibid*.
- 73 *Ibid*.
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- 75 Karen Stanworth, Visibly Canadian: Imaging Collective Identities in the Canadas, 1820s-1910s (Montreal & Kingston: McGill-Queen's University Press, 2014), 59.

- 76 William Sheppard, "Observations on the American plants described by Charlevoix," *Transactions of the Literary and Historical Society of Quebec* (1829), I: 218-30; and "Notes on some of the plants of Lower Canada," *Transactions of the Literary and Historical Society of Quebec* (1831), II: 39-64; (1837), III: 83-129.
- 77 Harriet Sheppard, cited in note 71 above, and "Notes on some of the Canadian Song Birds," Transactions of the Literary and Historical Society of Quebec (1837), III: 222.
- 78 The Society for the Encouragement of the Sciences and Arts was integrated into the Literary and Historical Society of Quebec in 1830. On political issues in the history of the two learned societies, see Stanworth, 45-9.
- 79 William Sheppard, "Natural History Society Annual Conversazione," The Canadian Naturalist and Geologist (1864), new series, I: 53.
- 80 Ibid. 54-5.
- 81 Director's Correspondence, DC 44 (60), November 15 [1829?].
- 82 James S. Pringle, "Anne Mary Perceval" (1985): 304.
- 83 J. B. Cahill, BRENTON, EDWARD BRABAZON, *Dictionary of Canadian Biography*, vol. 7 (University of Toronto/ Université Laval, 1988).
- 84 Advertisements for auctions of Brenton household items appeared in issues of *The Public Ledger* and *Newfoundland General Advertiser*, e.g., July 3, 1838. I thank Jim Pringle for bringing this to my notice.
- 85 See, e.g., Willeen G. Keough, *The Slender Thread: Irish Women on the Southern Avalon, 1750-1860* (New York: Columbia University Press, 2008).
- 86 Frederic F. Thompson, COCHRANE, Sir THOMAS JOHN, *Dictionary of Canadian Biography*, vol. 10 (University of Toronto/Université Laval, 1972). See also Pam Perkins, "Thomas Cochrane and Newfoundland in the 1820s," *Newfoundland and Labrador Studies* 29.1 (Spring 2014): 117-69.
- 87 Cited in Patrick O'Flaherty, Old Newfoundland: A History to 1843 (St. John's Nfld.: Long Beach Press, 1999), 142.
- 88 Director's Correspondence, DC 61 (51), September 1830.
- 89 Ibid.
- 90 Michael Eamon, *Imprinting Britain: Newspapers, Sociability, and the Shaping of British North America* (Montreal & Kingston: McGill-Queen's University Press, 2015), ch. 4.
- 91 Anne Secord, "Botany on a Plate" (2002); and "Pressed into Service: Specimens, Space, and Seeing in Botanical Practice," *Geographies of 19th-Century Science*, ed. David N. Livingstone & Charles W. J. Withers (Chicago: University of Chicago Press, 2011), 283-310.
- 92 Mrs. Edward Roscoe, Floral Illustrations of the Seasons (London: Thomas Richardson, 1829), Preface.
- 93 British Flora (London: Longman, Orme, Brown, Green, & Longmans, 1830), vii.
- 94 Director's Correspondence, DC 61 (55), November 1, 1833. Hooker's material on Cryptogams is in The English Flora, vol. 5, part 1 (February 1833).
- 95 Director's Correspondence, DC 63 (47), March 15th [1838].
- 96 Director's Correspondence, DC 61 (52), September 10th 1831.
- 97 *Director's Correspondence*, DC 62 (48), November 28th 1834. The "Planter's wife" would have belonged to a family descended from New England colonists who migrated to maritime Canada.
- 98 Director's Correspondence, DC 61 (54), October 20th 1832.
- 99 Ibid.
- 100 Director's Correspondence, DC 61 (55), November 1, 1833.

- 101 Director's Correspondence, DC 61 (54), October 20th 1832.
- 102 Director's Correspondence, DC 61 (55), November 1, 1833.
- 103 Director's Correspondence, DC 61 (53), December 26th 1831.
- 104 Director's Correspondence, DC 61 (52), September 10th 1831.
- 105 Director's Correspondence, DC 61 (54), October 20th 1832.
- 106 Director's Correspondence, DC 62 (49), June 13 1836.
- 107 Ibid.
- 108 Ruby Heap, Scientia Canadensis 2 (2006), 8.
- 109 In addition to her essay on Catharine Parr Traill cited in note 1 above, see Marianne Gosztonyi Ainley, "Last in the Field? Canadian Women Natural Scientists, 1815-1965," *Despite the Odds: Essays on Canadian Women and Science*. (Montreal: Véhicule Press, 1990), 26-62; and "A Post-Colonial Feminist Historian looks at Gender, Science, and the Environment in Canada," *Centering Women in the Landscape*, ed. Daniela Stehlick (Rockhampton, Qld.: Centre for Social Science Research and Women in Research, Central Queensland University, 2001), 13-36.
- 110 Catherine Cartairs and Nancy Janovicek, eds., Feminist History in Canada: New Essays on Women, Gender, Work, and Nation (Vancouver: UBC Press, 2016), 13.