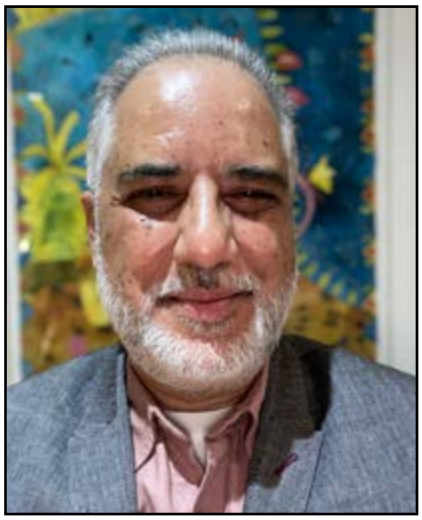
The Canadian Botanical Association Bulletin

Bulletin de l'Association Botanique du Canada

Volume 58 Number 3 - December/décembre 2025

Highlights

President's Message



Dear CBA/ABC Members,

I hope you enjoyed a wonderful summer and a vibrant, fulfilling fall term.

2026 Annual CBA/ABC Meeting in Ottawa

I am delighted to announce that our next annual meeting will take place at Carleton University in Ottawa, June 2–6, 2026. Vice President Tyler Smith, together with the Local Organizing Committee, has been working diligently to prepare an exciting program. The conference theme for this meeting is "*Supporting Diversity in All Its Forms.*" More details about the meeting can be found in this issue of the bulletin.

Nominations for 2026 CBA/ABC Major Awards

We encourage you to recognize the outstanding contributions of your colleagues by submitting nominations for our three major awards:

- Lawson Medal
- Mary E. Elliott Award
- Magister Award

The deadline for nominations is January 31, 2026. Terms of reference and nomination guidelines are available on the CBA/ABC Awards website (https://www.cba-abc.ca/awards/).

Student Paper Awards – New Updates

Each year, CBA/ABC celebrates student excellence with four paper awards:

The Canadian Botanical Association Bulletin

The CBA Bulletin is issued three times a year (March, September and December) and is freely available on the CBA website.

Information for Contributors

All members are welcome to submit texts in the form of papers, reviews, comments, essays, requests, or anything related to botany or botanists. For detailed directives on text submission please contact the Editor (see below). For general information about the CBA, go to the website: www.cba-abc.ca

Executive Editor

Dr. Erin Zimmerman

cba.abc.bulletin@gmail.com

Published in Dutton, December 5th 2025 ISSN 0008-3046 (paper) ISSN 1718-8164 (electronic)

Next issue

Texts for the next issue, 59(1), must be received by February 1, 2026

Bulletin de l'Association Botanique du Canada

Le Bulletin de l'ABC paraît trois fois par année, normalement en mars, septembre et décembre. Il est envoyé à tous les membres de I'ABC.

Soumission de textes

Tous les membres de I'Association sont invités à envoyer des textes de toute nature concernant la botanique et les botanistes (articles, revues de publication, commentaires,requêtes, essais, etc.). Tous les supports de texte sont acceptés. Pour des renseignements détaillés sur la soumission de textes, veuillez consulter le rédacteur (voir ci-dessous). Infos générales sur l'ABC à l'url suivant: www.cba-abc.ca

Rédactrice en chef

Dr. Erin Zimmerman

cba.abc.bulletin@gmail.com

Publié à Dutton, le 5 décembre 2025 ISSN 0008-3046 (papier) ISSN 1718-8164 (électronic)

Prochain numéro

La date de tombée des textes du prochain numéro, le no 59(1), est le 1 février 2026.

- Alf Erling Porsild – Laurie Consaul Award (systematics, evolution, biodiversity)
- J. Stan Rowe Award (plant ecology)
- Taylor A. Steeves Award (plant development, structure, morphology)
- Luella K. Weresub Memorial Award (fungal biology)

Following discussions at this year's Annual General Meeting, we are pleased to announce several important updates:

- Each award now carries a $1,000 prize.
- Winners will present their work at the 2026 Annual Meeting.
- Travel (within Canada) and registration costs will be covered by CBA/ABC.
- Recipients will receive a one-year complimentary membership.

The new application deadline is February 1, 2026. Full details are available on the CBA/ABC Awards website (https://www.cba-abc.ca/awards/). Please encourage your students to apply and showcase their achievements.

Renew Your Membership

As we look ahead to another exciting year, I invite you to renew your CBA/ABC membership. Sharing the benefits of membership with colleagues and students helps strengthen our Association and ensures continued growth.

Gratitude to Our Members

Finally, I want to express my heartfelt thanks to all of you for your support, engagement, and feedback throughout the year. Your dedication is what makes our Association thrive.

Wishing you and your families a safe and joyful holiday season.

Sincerely,

Santokh Singh

Chers membres de l'ABC,

J'espère que vous avez passé un bel été et une session d'automne dynamique et enrichissante.

Assemblée annuelle de l'ABC 2026 à Ottawa

J'ai le plaisir de vous annoncer que notre prochaine assemblée annuelle aura lieu à l'Université Carleton d'Ottawa, du 2 au 6 juin 2026. Le vice-président Tyler Smith et le comité organisateur local ont travaillé sans relâche à la préparation d'un programme stimulant. Le thème de cette conférence est « *Soutenir la diversité sous toutes ses formes* ». Vous trouverez plus de détails dans ce numéro du bulletin.

Candidatures aux Prix majeurs de l'ABC 2026

Nous vous encourageons à reconnaître les contributions exceptionnelles de vos collègues en soumettant des candidatures pour nos trois principaux prix :

- Médaille Lawson
- Prix Mary E. Elliott
- Prix Magister

La date limite pour soumettre les candidatures est le 31 janvier 2026. Le mandat et les directives relatives aux Prix sont disponibles sur le site Web de l'ABC (https://www.cba-abc.ca/awards/).

Prix des articles étudiants – Nouveautés

Chaque année, l'ABC célèbre l'excellence étudiante avec quatre prix:

- Prix Alf Erling Porsild – Laurie Consaul (systématique, évolution, biodiversité)
- Prix J. Stan Rowe (écologie végétale)
- Prix Taylor A. Steeves (développement, structure et morphologie des plantes)
- Prix commémoratif Luella K. Weresub Prix (biologie fongique)

Suite aux discussions tenues lors de l'assemblée générale annuelle de cette année, nous sommes heureux d'annoncer plusieurs mises à jour importantes pour ces prix:

- Chacun est maintenant récompensé de 1 000 $.
- Les lauréats présenteront leurs travaux lors de l'assemblée annuelle.
- Les frais de déplacement (seulement au Canada) et d'inscription seront couverts par l'ABC.
- Les récipiendaires recevront une adhésion gratuite à l'ABC pour un an.

La nouvelle date limite de candidature est le 1er février 2026. Tous les détails sont disponibles sur le site Web de l'ABC (https://www.cba-abc.ca/awards/).Veuillez encourager vos étudiants à postuler et à mettre en valeur leurs réalisations.

Renouvelez votre adhésion

Alors que nous nous tournons vers une autre année prometteuse, je vous invite à renouveler votre adhésion. Le fait de partager les avantages de l'adhésion avec vos collègues et étudiants contribue à renforcer notre association et à assurer sa croissance.

Merci à nos membres

Enfin, je tiens à vous remercier chaleureusement pour votre soutien, votre engagement et vos commentaires tout au long de l'année. Votre dévouement est précieux. C'est ce qui fait la force de notre association.

Nous vous souhaitons, ainsi qu'à vos familles, de joyeuses fêtes de fin d'année en toute sécurité.

Cordialement,

Santokh Singh

[*Translated into French by Frédérique Guinel*]

Lilium philadelphicum

Photo compliments of Mihai Costea.

Canadian Botanical Association / L'Association Botanique du Canada
62nd Annual Meeting and Conference
June 2-6, 2026, Carleton University, Ottawa, Canada

Supporting Diversity in all its Forms

En appui de la diversité sous toutes ses formes

Plenary

Herbaria, the foundation of botanical science

Documenting biodiversity and the impact of changing climate, training scientists, and addressing the questions we haven't learned to ask

Kathleen M. Pryer Ph. D
Herbarium Director & Professor of Biology Emeritus, Duke University
https://sites.duke.edu/pryerlab/

Public Lecture

The Flora of Ottawa and the river that shaped it

Ottawa is home to 1600 plant species in dozens of habitats, the product of 10,000 years of water carving through granite, limestone, and clay

Daniel Brunton
Research Associate
Canadian Museum of Nature

Program
Research Talks
Poster Session
Annual General Meeting

Field Trips
AAFC Central Experimental Farm
Canadian Museum of Nature
Gatineau Park
Burnt Lands Alvar
Mer Bleue Bog

Carleton University
canadian museum of nature / musée canadien de la nature
uOttawa
Agriculture et Agroalimentaire Canada / Agriculture and Agri-Food Canada

Update from *Botany*, the Official Journal of the CBA

2025 has been an exceptional year for *Botany*. As the year draws to a close, we would like to highlight some of the achievements made possible through the unwavering support of the CBA community.

Among the many excellent articles published this year was our first "Lifetime" Perspective article, which provided an overview and retrospective of the work of Yves Bergeron.

We published a special collection celebrating plant community and diversity for the UN Decade on Ecosystem Restoration while expanding our collection on Indigenous Knowledges and Approaches to Botanical Research.

Special collections on the The Intrinsic Value of Botanical Gardens and Herbariums, UN Decade of Ocean Science for Sustainable Development, and Plant Reproduction and Seed Development: New Advances Under a Changing Climate are underway.

We provided financial sponsorship and attended the annual meetings for three affiliated societies—the Canadian Botanical Association, Canadian Society of Plant Biologists, and Canadian Society of Ecology and Evolution—and gave publishing workshops at two of these. We also sponsored the CSPB East and West chapter meetings.

We're happy to say that our inaugural cohort of Early Career Editors has reached the halfway point of their term, gaining experience of the publishing process under the mentorship and guidance of the Editors-in-Chief and Associate Editors. We continue to seek new ways to support early career botanists in their careers.

Botany's impact factor is now 1.3, a marked increase on previous years. This and other metrics continue to reflect the hard work of the editorial board in support of the journal and its authors, peer reviewers, and readers.

Members of the Canadian Botanical Association continue to be among the journal's strongest supporters, and we thank you for helping make the landscape of botanical science in Canada and internationally vibrant, rigorous, and diverse. Your high quality contributions, thoughtful reviews, and contributions as editors, mentors, and community members strengthen the journal in so many ways.

Your feedback helps us be stronger and better serve the needs of the botanical community.

With best wishes,

Liette Vasseur, Co-Editor-in-Chief: lvasseur@brocku.ca

Shelley Hepworth, Co-Editor-in-Chief: shelley.hepworth@carleton.ca

Rachel Pietersma, Journal Development Specialist: rachel.pietersma@cdnsciencepub.com

Recruiting Student Members for CBA Student Council

In the past, the CBA Student Directors have led a small student council focused on providing updates from the CBA board meetings to student members. We have also broadly tried to connect students studying botany in Canada to one another. Though the student council has not been active in the last few months, we are interested in reviving it and providing more opportunities for student members to connect with each other.

We are hoping that the student council will meet 3-4 times virtually per year (and maybe in-person at the annual meeting). Through this, we can also support the proposal of any student-led initiatives to the CBA Board of Directors. Any interested students should reach out directly to Claire (Student Director – East); ceschon@uwaterloo.ca) and Amy (Student Director – West; amy.wiedenfeld@uleth.ca).

We look forward to meeting you at our first meeting soon!

~ Claire and Amy (CBA Student Directors)

Seeking a Home for the Orchid Book Collection of Jean Allen-Ikeson

We have received an inquiry from William Ikeson, who is hoping to find a suitable home for the extensive orchid book collection of his mother, the late Jean Allen-Ikeson. Jean was a prolific orchid judge, as well as writing and editing many articles on orchids. She often gave talks on orchids, either travelling to orchid societies or giving presentations remotely.

In her passion for orchids, she had gathered about 500 books on orchids, as well as decades of periodicals for various publications. Her collection contains books on orchids from around the world, and of various genera.

If any CBA members, or institutions with an interest in botanical history, horticulture, or orchid research, would be interested in receiving this collection, William would be very pleased to hear from you.

Members who wish to learn more or explore possibilities for housing the collection are invited to contact me and you will be put in touch with the family.

Shelley Hepworth
shelley.hepworth@carleton.ca

An Update from the Teaching Section

1. Summary of CBA conference actions for the Teaching Section

At the CBA 2025 conference, the Teaching Section had a Universal Design for Learning (UDL) workshop, with Laura Super presenting as part of a National Science Foundation (NSF) funded program. It focused on improving UDL in the classroom, in the research process (workplace, graduate theses, etc.) and in communication (e.g., conferences, publishing). CBA members expressed interest in continuing UDL and having more resources, so that is an area that can be built upon. Barbara Hawkins and Laura Super, as Co-Chairs, also were present for a brainstorming session regarding next steps for the Teaching Section. CBA kindly supported a general symposium talk, by Laura Super, on teaching science with the arts to preschool, K-12, and adults (see publication related to this talk: Super et al. 2025: https://acsess.onlinelibrary.wiley.com/doi/10.1002/nse2.70022).

2. Kindness Project and wish list - trying to get people together!

The Kindness Project (KP; https://blogs.ubc.ca/kindnessproject/) is still going, and currently we are looking for concerned botanists (and others from across disciplines in STEM, humanities in academia, alumni, etc.) from early, mid-, and late-career stages to help with a letter to the federal government to improve funding for early career researchers, students and alumni. KP met, in person, with a representative from the federal government in August 2025 and is working on a follow up meeting on Zoom, or in person. We all need to work together. This list is with the federal government:

(Regarding the list, below - Who can help? Where are the barriers? Who needs to work together to achieve these goals? How can we, in collaboration with others, win-win, achieve these aims?)

1. A list of organizations that help, for free, people with a graduate degree (including PhDs) in Canada.

2. A list of organizations that can help, for free, with searching for postdoctoral jobs (https://en.wikipedia.org/wiki/Postdoctoral_researcher) in Canada and internationally, and also any lists of opportunities (such as a database).

3. A list of funding sources that help people with graduate degrees (including PhDs) in Canada pursue their training and profession.

4. A list of policy organizations concerned people with graduate degrees (including PhDs) can join to improve the lack of free services for things like job support, writing support (editorial), etc. Academic papers are not easy and if the Canadian government can let us know of grants to help support open access fees for early career scientists, that would be amazing.

Laurie Consaul Northern Research Scholarship Report

Tedi Pollak, Acadia University
Supervised by Dr. Zoe Panchen & Dr. Allison Walker

Food sovereignty is a major challenge in the Canadian Arctic, and Inuit living there face some of the highest reported levels of food insecurity. Recent strategies to combat these issues include the introduction of local food production, which aims to increase access to fresh, nutrient-rich foods, and give communities more control over their food supply. Community greenhouse projects have had success with growing produce crops, and there has been emerging interest in using greenhouses to grow traditionally harvested Arctic food plants as well. This would increase the availability of these Arctic plants for longer periods of the year, making them accessible to more people, while also supporting traditional knowledge. But in order to grow these Arctic plants, we must first establish effective methods for cultivation.

P. langsdorffii subsp. *arctica* in flower growing amongst *Salix arctica.*

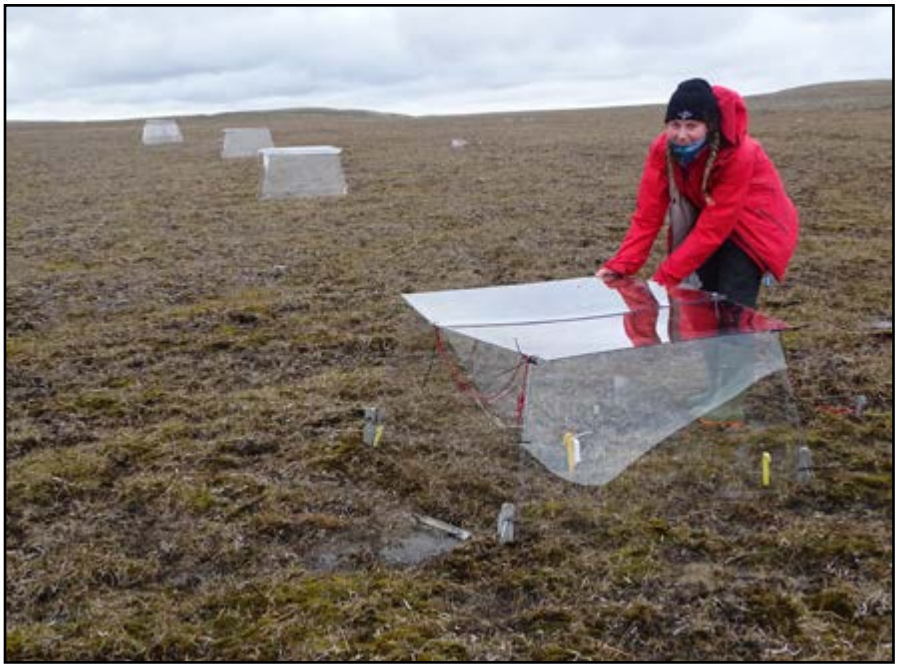
My project focuses on the species *Pedicularis langsdorffii* subsp. *arctica* or Arctic lousewort, which has an edible taproot and flowering stem, and was identified as a candidate for propagation. The challenge is that the genus *Pedicularis* is notoriously hard to germinate, so this obstacle must be overcome for successful cultivation. Since *Pedicularis* are so difficult to germinate outside of their native environment, I hypothesize that mycorrhizal associations may play an important role in the germination and survival of these plants. Mycorrhizal fungi have been observed in *Pedicularis* roots before, but their precise role in the success of *Pedicularis* is largely unknown. Further, this association is peculiar because *Pedicularis* are hemiparasites, and the coexistence of these two nutrient strategies, parasitism and mycorrhizae, in the same plant is not well understood.

P. langsdorffii subsp. *arctica* haustoria (light coloured nodules) formed on *Salix arctica* roots (darker brown roots)

With this project, I will examine *P. langsforffii* subsp. *arctica* roots for fungal structures and determine the type(s) of association present. I will extract and sequence fungal DNA from collected roots and soil to determine which fungal species are present. I will test a number of methods to germinate seeds, including the use of artificial dormancy breaking treatments, the presence of host plants, and the use of different substrates including Arctic soil, potting soil, and filter paper. Lastly, I will examine roots of nearby plants for association with *P. langsdorffii* subsp. *arctica* to better understand its parasitic habit.

With the help of the Laurie Consaul Northern Research Scholarship, I was able to travel to Nunavut this summer to conduct field work for this project. I was incredibly fortunate to spend the month of July in Cape Bounty, Melville Island with Dr. Panchen. The feeling of being one of only four people at times on this entire remote island was insane! I spent my time collecting seeds, roots, and soil samples for my experiments, taking observations, helping other researchers with their experiments, and taking in the vast and unfamiliar Arctic environment. I am so grateful for this opportunity, as I got to experience the Canadian Arctic firsthand, observe the plant community in its natural habitat, encounter amazing wildlife, and make so many great connections with people who share my interests!

The midnight sun on our campsite overlooking West Lake.



Setting up closed top chambers for ITEX research.

New Manitoba Flora Released

A book that was years in the making is finally available for all the plant lovers out there to purchase. Dr. Diana Bizecki Robson, Curator of Botany at the Manitoba Museum along with a team of volunteer botanists, have spent many years working on a new ***Manitoba Flora: A Guide to the Vascular Plants of Manitoba*** to replace the out-of-date and out-of-print *Flora of Manitoba* by Homer J. Scoggan that was published in 1957. Several hundred species of vascular plants have been scientifically documented in Manitoba since Scoggan's book was published, making it an unreliable reference for today's botanists. Although most of the "missing" species from his book are rather obscure grasses, sedges and aquatic plants, also missing were 13 ferns, 10 orchids, and 2 irises. The lack of an up-to-date, easy-to-use flora was making it difficult for botanists in the province to identify the rarer species for conservation work. It is the Museum's hope that this new publication will make it easier for students, professional botanists, landowners, ranchers, foresters, gardeners and native plant enthusiasts to identify the diverse vascular plants of the province.

The book just released will be the first of two volumes of the ***Manitoba Flora***. Manitoba Flora: Volume 1 contains a brief history of why plants have the names they do, and an illustrated guide to plant terminology for beginning botanists. As well, Dr. Robson worked with elder Shirli Ewanchuk to prepare a special foreword on Indigenous perspectives of the plant world. Descriptions and identification keys to all of the spore-producing plants (e.g. clubmosses, ferns, horsetails, quillworts, spikemosses and water-clovers), cone-producing plants (e.g. conifers), and flower-producing monocots (e.g. grasses, sedges, rushes, orchids, irises, lilies, etc.) are included. Work on Volume 2, which will contain all the dicots (e.g. broad-leaved woody plants, asters, legumes, roses, etc.), has already begun and will hopefully be published in just a few years. Additional herbarium research is required before this second volume can be completed.

The ***Manitoba Flora*** project began over two decades ago when Dr. Robson began reviewing and updating the plants in the Museum's 50,000+ herbarium to the taxonomy used in the Flora of North America (1993+) publication. Other botanists involved in the specimen review and book preparation include the late Dr. Richard Staniforth, Emeritus Professor from the University of Winnipeg, Dr. Bruce Ford, Emeritus Professor at the University of Manitoba, Jane Curtis, Jennifer Dyson, Carol Hibbert, Jackie Krindle, Karin Newman, Dawn Pond, Diana Sawatsky, Karen Sereda, and Dylan Ziegler. Field research to look for new and historic plant species throughout Manitoba was also conducted as part of this project, largely supported by the Manitoba Museum Foundation. The Museum is extremely grateful for the efforts of all the botanists who worked on this project, and all of the donors, including the CBA/ABC, for helping to cover production costs for the book.

A limited number of soft cover copies of ***Manitoba Flora: Vol. 1, Spore-producing Plants, Conifers and Monocots***, can be purchased directly from the Museum for the low price of $34.99, in person or on-line, through the Manitoba Museum Shop (https://www.manitobamuseumshop.ca/). E-books and both soft and hard cover, print-on-demand books can be purchased from certain on-line book stores, including FriesenPress (https://books.friesenpress.com/store), McNally Robinson, Barnes & Noble and Amazon. Royalties from the book will be used to help publish the ***Manitoba Flora: Volume 2, Dicots***.

This project was funded through grants from the Manitoba Museum Legacy Fund, Manitoba Government, the Canadian Botanical Association / L'Association Botanique du Canada Special Project Fund, Nature Manitoba Native Habitat Grant Program, and Helios Hernandez.

A Day in the Dominican Republic: The Bayahibe Rose and Other Observations

By Joe D. Shorthouse
School of Natural Sciences, Laurentian University
Sudbury, Ontario, P3E 2C6
Email: jmwildroses@gmail.com

Most winter visitors to the Dominican Republic pay little attention to the flower called the Bayahibe Rose that is featured on the local currency. This included my wife and I, who vacationed at a resort south of Punta Cana on the eastern side of the island, in April of 2023 and 2025. However, while reading about the country prior to our first trip, I saw reference to this 'rose' which is found only on the island of Hispaniola (Haiti is the country on the west side of the island while the Dominican Republic is on the east side) and is the national flower. I was aware that wild shrub roses are mainly north temperate plants, and I soon discovered that the Bayahibe rose is not a rose of the Family Rosaceae but a large, shrub-like cactus *Leuenbergeria quisqueyana* (Liogier) J. Lodé, of the Family Cactaceae. This unique cactus, which has leaves, is endangered and nearly extinct; only a few remain in the wild near the village of Bayahibe on the southeast coast.

The opportunity to examine a species of plant on the verge of extinction is an uncommon experience, so we decided to find and photograph this cactus. However, none of the tour buses at our resort included Bayahibe in their itinerary. After a number of inquiries, we were put in touch with a private driver who agreed to chauffeur us. The day turned out to be an adventure and by good fortune, we did find the Bayahibe rose and learned much more of interest in the process.

Dominican currency showing the Bayahibe rose.

Our driver insisted on first taking us to Santo Domingo, the capital of the Dominican Republic, to tour a national monument known as the Columbus Lighthouse, or Faro a Colón. This 'lighthouse' is a colossal concrete building 7-10 stories in height and shaped like a cross lying prone on the ground. It is about 240 metres long with two arms of the cross about 60 metres in length. Oddly, it is not a lighthouse in the conventional sense as it is more than a kilometre from shore. Its 149 lights project beams in the shape of a cross into the sky, but its location is not useful for guiding ships. The lights are not often turned on because a shortage of electricity in the city results in local blackouts.


Entrance to the Columbus Lighthouse in Santo Domingo.

The Columbus Lighthouse was designed as a monument and a museum to commemorate the 500th year of Christopher Columbus "discovering" the New World in 1492. Carved into the sides of the building are names of countries in the Americas and quotations that purport to show either the value of exploration or the existence of an unexplored hemisphere. It was opened in 1992 after years of planning, construction and controversy. The building cost about $100 million to construct, which was more than a developing country with vast numbers of poor people could afford and required

contributions from other nations.

Part of the arboretum in the National Botanical Garden in Santo Domingo. Photo by Joe Shorthouse.

We arrived mid-morning and were surprised that our driver was able to leave his vehicle directly in front of the entrance. There were no other cars or buses in the nearby parking lot. The grounds around the building appeared unkempt with dry grass and trees. We were the only ones on the wide and lengthy stairs leading to the entrance. The only guide present inside the building was leading a family from Costa Rica and speaking in English, so we followed along behind to listen.

The first thing visitors see near the entrance, where the arms of the cross intersect, is an ornate marble tomb supposedly containing some of Columbus's remains. The tomb has Latin inscriptions praising his accomplishments. Beyond the tomb is a long corridor open to the sky that bisects the building. Along the sides are rooms set up like radiating chapels containing items donated from various countries. Some objects linked to early trans-Atlantic contact whereas others display a seemingly random selection of historical artifacts with no connection to Columbus or the modern Caribbean.

Our feelings of unease after visiting the Columbus Lighthouse were confirmed in article[1] by University of Toronto historian Mairi Cowan and biologist Christoph Richter who provided a more balanced assessment of Columbus's impact on the world than was projected at the museum. Although the monument was proposed to celebrate the voyages of Christopher Columbus, it has instead become a symbol for Dominicans of ecological disruption and human suffering throughout the Americas.

No longer is Columbus seen simply a heroic discoverer. Instead, locals recognize that Indigenous people were present when Columbus arrived and many, along with peoples soon after from Africa, were enslaved to provide labour for the European colonists. This is part of the reason the 1992 opening ceremony of the Columbus Lighthouse was not successful. Invited dignitaries did not participate nor did the invited Indigenous peoples throughout the Americas. Even the site that was chosen for the building, where about 10,000 people had lived in slum dwellings and squatter settlements, had resulted in pain for they were all evicted with no replacement properties provided.

Cowan and Richter have taken University of Toronto students on field trips to Santo Domingo to learn about the impact of the so-called Columbian Exchange. They learn about the impact of the transfer of human diseases, the exchange of food crops, the treatment of people via colonialism, and knowledge between the Old World and New World following the arrival of Christopher Columbus. From the viewpoint of disease alone, it has been estimated that upwards of 80–95 percent of the Native American population was decimated by disease and mistreatment within the first 100–150 years following 1492.

Floral clock at the entrance to the National Botanical Garden in Santo Domingo. Photo by Joe Shorthouse.

After touring the Columbus Lighthouse, we had the driver take us to the National Botanical Garden located near the centre of Santo Domingo. Upon arriving, after experiencing horrendous traffic jams, we thought the Garden was closed because, like the Lighthouse, there were few cars and no tour buses in the parking lot. He bought our tickets, then left us for two hours to explore what is considered one of the best botanical gardens we have seen anywhere in the world. We do not know why the botanical garden attracts few tourists.

Created in 1976, it is also known as the Dr. Rafael María Moscoso Botanical Garden, named after the Dominican botanist who first catalogued plant life on the island. The Garden covers about 162 hectares and highlights tropical shrubs and trees. It is the largest botanical garden in Latin America with an arboretum of about 1500 species of trees. The entrance, or central square, is graced with vast cobblestone patios of colourful bricks and ponds. A living floral clock about 3.4 metres tall with a clock face of 20 metres wide stands near the Garden's entrance.

Entrance to the village of Bayahibe. A Bayahibe Rose is to the far right. Photo by Joe Shorthouse.

The garden is home to thousands of tropical species which are distributed in eight of the important ecosystems of the country. The garden is divided into distinct exhibits, one of which is a Japanese Garden provided as a gift from Japan in 1976. Traditional Japanese landscape techniques and aesthetics are employed with elements of Dominican botany and styles. The garden also houses and nurtures over 300 species of orchids, many of which are native to Hispaniola. We understood that a couple Bayahibe Roses were growing in the garden, but we did not see them.


Coral limestone along the shoreline. Habitat for the Bayahibe Rose. Photo by Joe Shorthouse.

The driver picked us up at the Botanical Garden in mid-afternoon for the drive to Bayahibe on the southeast coast of the island. An old fishing village, Bayahibe is now the site of tourist resorts. We arrived with about 90 minutes of daylight remaining. We located a volunteer guide who walked us to a large sign announcing the town and a statue of the blossom. There was a Bayahibe rose shrub growing near the sign and on it was a single blossom which was the only one we would see, as the flowering season was just beginning. He then took us to an old wooden church, referred to as Iglesia La Divina Pastora, constructed in 1925 at the end of the peninsula and showed us nearby trails along which the Bayahibe roses were growing.


First Bayahibe Rose flower of the season at Bayahibe. Photo by Joe Shorthouse.

The Bayahibe Rose, *Leuenbergeria quisqueyana* is a dioecious cactus with bright pink flowers that resemble blossoms of Canada's shrub roses. It was named the national flower of the Dominican Republic in 2011 with a specific law requiring several ministries and the National Botanical Garden to protect the species, since it is endemic to the Dominican Republic. It is now found only near Bayahibe where the locals have been steadily removing it because of its prickly stems and claiming its habitat for urban sprawl, golf courses, and resorts.

The Bayahibe Rose is one of only a few species of cactus that bears leaves. Unlike other cactuses, it looks more like a shrub or small tree commonly reaching 6 metres in height and 2 metres in width. The tree-like trunk is clothed with spines that erupt into branches which bear bright green succulent leaves. The pink, rose-like flowers are produced at the end of the branches from April to June. For its reproduction, the flowers need to be pollinated by insects. The yellow fruits are full of black seeds.

The cactus is found only at sea level on shorelines of coral limestone and sand. It was "discovered" and named in 1977 by the French botanist Alain Henry Liogier, who named it *Pereskia quisqueyana*, in honour of the Dominican Republic, which is also referred to as Quisqueya. Placed in the genus *Leuenbergeria* in 2013, this species is listed as Critically Endangered because it is only known from this one location and most of its habitat has been destroyed.

The three stops on our day-long private excursion gave us a new perspective on the culture and history of the Dominican Republic, the state of environmentalism on the island and an apparent eroding of the connection between peoples of Dominican Republic and the natural world. We realized that Columbus did not find a "New World," but he helped to create one. Starting in 1492, sustained links between the two hemispheres brought about the first truly global age, forever changing human cultures, economic organizations, and natural ecosystems. As described by Cowan and Richter, the Columbus Lighthouse looms in hulking silence on a hill overlooking the Caribbean's biggest metropolis and is neither celebrated nor protested; mostly, it is ignored.

The Botanical Garden in Santo Domingo is a delight. It should be more of a tourist attraction and play a more prominent in the lives of the local populations. Finally, although getting to Bayahibe was a challenge, the opportunity to stand among the few remaining individuals of such a magnificent shrub was a privilege; it was yet another example of the fragility of the natural world.

The meaning of the famous sentence 'Rose is a rose is a rose is a rose' by Gertrude Stein as part of her 1913 poem Sacred Emily, has fascinated fans of poetry for years. Apparently, Stein was trying to explain that the essential nature of an object is not changed by its name. There is no confusion in the case of the Bayahibe Rose. It is not a rose but rather a fascinating, endangered cactus with leathery leaves that deserves to be protected and celebrated.

[1]Cowan, Mairi and Christoph Richter. 2021. "The Faro a Colón in Santo Domingo: Reinterpreting a "More Nearly Perfect" Memorial to Christopher Columbus." *The Public Historian* 43: 63-80.

Trunk of a mature Bayahibe rose clothed with long, dense spines and succulent leaves.
Photo by Joe Shorthouse.

One of the few remaining, naturally growing, mature Bayahibe Roses near the shoreline of the village of Bayahibe in southeastern Dominican Republic.
Photo by Joe Shorthouse.

The Botanical Society of Canada – Its Successes and Demise

Frédérique Guinel[1] and Jennifer Doubt[2]

[1]Professor Emerita, Biology Department, Wilfrid Laurier University
[2]Curator, Botany, Canadian Museum of Nature

The Botanical Society of Canada (BSC), the first learned society in Upper Canada, began its journey as a rising star and then crashed like a meteorite. In past instalments on the BSC, we described the Society's creation and the context in which it was founded, emphasizing in particular the roles played by George Lawson, for whom the CBA's Lawson Medal is named. Given that little was known about their roles in the BSC, we also did our best to showcase what we could learn about the women involved. In this fourth and concluding instalment in the series, we highlight the successes of the BSC and explore the reasons for its demise.

DANCING ON A SOCIAL TIGHTROPE

The BSC was founded before Confederation, at a time when the would-be Dominion was mostly uncharted. Scientists from Canada and elsewhere strove to gain and share information about its natural resources, including its plants. BSC founder George Lawson saw here an opportunity to use the new Society to develop the Canadian economy. However, he found himself and his acolytes balancing on a tightrope: in order to succeed, the BSC needed full participation from diverse, sometimes oppositional segments of society. They needed the knowledge and methodology of dedicated scientists, as well as the influence and financial support of Kingston's high society (Guinel and Doubt, 2024).

Lawson knew that it was in the BSC's best interest to act as a truly professional society; yet, to function, it needed financial support far beyond the means available to local scientific professionals. While studying and working in Scotland, Lawson would have experienced the folding of the Botanical Society of London, in its 20th year (1856), due to poor finances (https://www.references.net/societies/history/1836bsbi.html#google_vignette). Such a trajectory for a learned society was not unique, and Lawson would have wanted the BSC to avoid a similar fate.

The BSC launched to immediate success, as celebrated by Principal Leitch at the 2nd meeting of the Society (Jan. 11th, 1861): "*Instead of passing a long minority, as scientific societies often have to do, our Society has risen at once into importance, showing that it was wanted by the country generally. All the circumstances connected with its origin are of the most encouraging kind; we have promises of cordial support and co-operation from all parts of Canada, and already the number of active paying members amounts to nearly 140. … No doubt, in time to come, many now present would rejoice that they had assisted in laying the foundation of the Botanical Society of Canada.*" (BSC Annals, pp 21-22). In an issue of the British American Journal, one could also read: "*We have thus shown, by an examination of its own proceedings, that the originators of this Society have struck a chord in the public mind which has cheerfully responded. The success so far of the Society proves that such an organization, such an association, was needed to direct individual enquiry into the proper channel. Nor need any of the other sister scientific societies fear aught from the prosperous commencement of the present one. Let each work in its own sphere, and ... We had not the slightest idea that there existed in our midst so much taste for the natural sciences, as we have seen the last few years give evidence of.*" (Article XXXV, 1861).

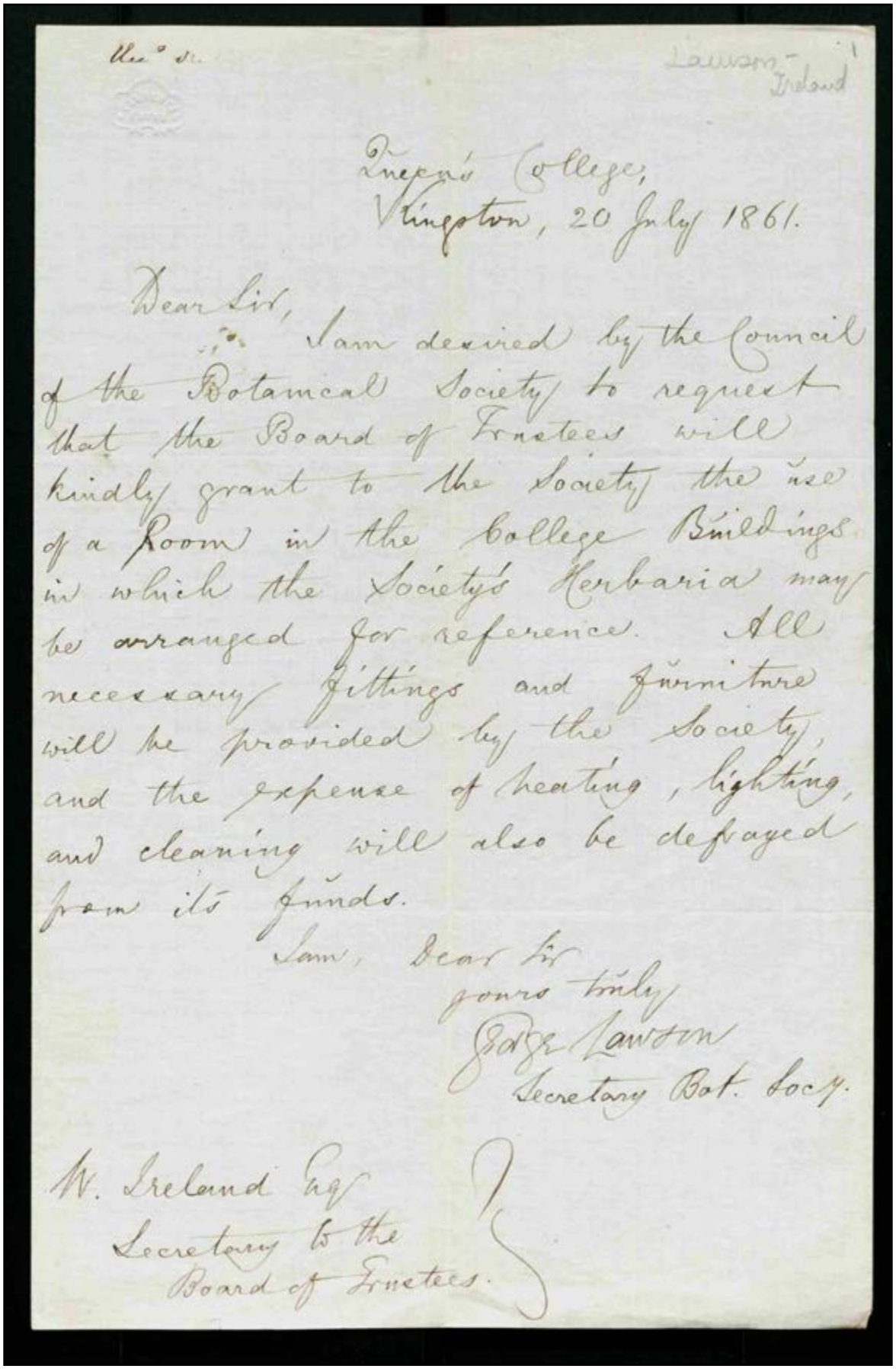
To assess the BSC's success, we must turn to Lawson's goals. As stated in his inaugural address to the Society, these were "*to place the science of Botany on a more satisfactory footing in Canada than that which it now holds;… to increase the existing stock of knowledge; … to diffuse a taste for the study, so as to add to the number of laborers now in the field; and … to place on record new observations and discoveries, as they arise*." (BSC Annals, p 5). To achieve these, Lawson proposed "*… there shall be monthly evening meetings in Kingston during the winter for*

the reading of papers, receiving botanical intelligence, examining specimens, and discussing matters of scientific interest in relation to the science; also there shall be field meetings during the summer in distant localities in Canada, as well as in the other British Provinces of North America, and occasionally also in the adjoining States, whereby our members may have an opportunity of investigating the botany of districts that have been imperfectly examined." (BSC Annals, p 6).

Internationally, the BSC was received warmly, but with reservations. In a review written in 1861 for the German botanical journal *Bonplandia*, Editor-in-chief Berthold Seemann wished a long life to the BSC. To this he added strong words of warning: "*we may expect something more than one of those ephemeral unions of local savans* [sic], *who exhaust all their strength in the production of annals which will never be read by the learned.*" He also looked negatively on such societies that acted as "*a mere inert local club,*" lending a sceptical tone to his words of encouragement: "*We in Europe will watch with interest the progress and the labors of the Canadian society, and we shall ever be curious to learn the result of each new expedition into the unknown region*." (BSC Annals, pp 174-175). A summary of the BSC's inaugural meeting appeared in *Phytologist*, another European Journal (Kingston (Canada) Botanical Society, 1861). In it, the writer, likely its editor William Pamplin, wrote forebodingly about Queen's medical professor and BSC original Fellow J.P. Litchfield:"*We hope the* [BSC] *Society, so conspicuously inaugurated on this occasion, will have a happier existence and produce more satisfactory results than a similar Society which* [Litchfield] *intimated that he aided to establish in the British metropolis. The allusion here made is to the unhappy Society of London, which perished by inanition or sheer famine. This miserable abortion never had a healthy existency* [sic], *and its foster-parents appear to have been the most inefficient of all imaginable incapables.*" Of the BSC's stature in the European scientific society, he further observed "*Our readers would not thank the "Phytologist" for a list of the members of this new co-operative association. Few, indeed, of these names are known here, although they are no doubt the very élite of the Canadian population of that part of the colony. Our readers in the colonies must increase very manifold ere we can afford to print their names in our pages, unless they will condescend to employ the humble periodical, in which these remarks appear, as a vehicle for telling the British botanists what are the vegetable productions of their colony.*" Within this context, the writer's projection that "*We anticipate for the Botanical Society of Kingston a prosperous career of usefulness for many years*" seems quite insincere.

The writer's ominous tone towards Litchfield – Professor of Midwifery and State and Forensic Medicine, and Superintendent of Kingston's Rockwood Asylum for the Criminally Insane – turned out to be well-founded. Litchfield was exposed as a fraud (e.g., Gibson, 1954) who filled a range of professional roles on several continents, often based on falsified credentials. Even if some BSC founders had inklings of Litchfield's character when they elected him to BSC leadership roles (Council member 1861-1862; Vice-President, 1863-1864), it would have difficult to keep him aside as he was holding a faculty position and appeared to be an enthusiastic participant.

These thinly-veiled warnings from overseas did not prevent the scientific elite on both sides of the Atlantic Ocean from sending Lawson congratulatory notes and offers to exchange seeds and herbarium specimens. For example, Sir Logan, Director of the Geographical Survey of Canada (GSC), donated samples collected by GSC officers during their expeditions to the Rouge River and Gaspe in Quebec and to Labrador and Newfoundland (BSC Annals, p 168). As well, Eugène Pierre Nicolas Fournier, Vice-Secretary of the Botanical Society of France, offered to exchange seeds from France for seeds from "*such interesting plants as Onagrariae, Cruciferae, and Calycanthacae, of which many kinds and species are peculiar to North America*." (BSC Annals, p 174). Trade quickly became so active that new Society regulations had to be created to govern the exchange of dried specimens (Guinel and Doubt, 2024). To house the fast-growing collection, Lawson envisioned building a public herbarium. He requested (Fig. 1) the use of a room in the College where the Society specimens could be placed, committing that the Society would provide the furniture and cover the costs of lighting, heating, and cleaning. In step with the rapid growth of the collection, the numbers of BSC curators had to be increased from four in 1861 to seven in 1864 (Guinel and Doubt, 2024).



Queen's College,
Kingston, 20 July 1861.

Dear Sir,

I am desired by the Council of the Botanical Society to request that the Board of Trustees will kindly grant to the Society the use of a Room in the College Buildings in which the Society's Herbaria may be arranged for reference. All necessary fittings and furniture will be provided by the Society, and the expense of heating, lighting, and cleaning will also be defrayed from its funds.

I am, Dear Sir
yours truly
Geo. Lawson
Secretary Bot. Socy.

W. Ireland Esq
Secretary to the
Board of Trustees.

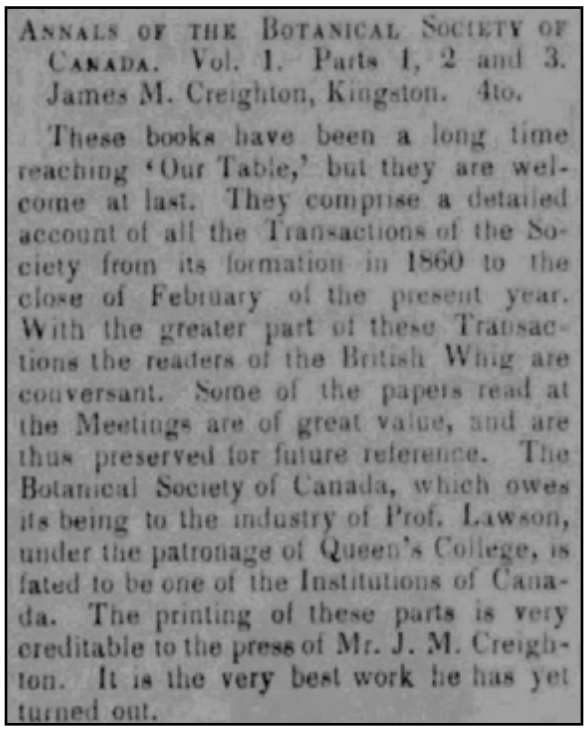
Fig. 1 – George Lawson's letter to Mr. Ireland, Secretary of the Board of Trustees, is dated July 20, 1861. In it, Lawson requests a room to hold dried specimens collected by BSC members and received from international colleagues. (Queen's University Archives.)

Soon, more room was also needed for library resources, as local and foreign donors were similarly generous in giving books, monographs, journals. These were organized by the Society Librarian, Robert V. Rogers, with new donations announced and displayed at each of the Society meetings (e.g., BSC Annals, p 169). Rogers, for example, reported in the Weekly British Whig (WBW) the addition of 12 books to the Society's library in Jan. 1863 (WBW1).

AMBITIONS ACHIEVED?

From several perspectives, Lawson's ambitious goals for the BSC were attained.

• Evening meetings took place. Over the three sessions for which proceedings were published, we counted 19 meetings (Guinel and Doubt, 2024). Once the serious work of each meeting was complete, members were able to unwind, inspect drawings and specimens, use microscopes to look at prepared specimens, and flip through the pages of newly-acquired books. Lady Members and Lady Subscribers were often asked to prepare these displays and hands-on activities (Guinel and Doubt, 2025).


ANNALS OF THE BOTANICAL SOCIETY OF CANADA. Vol. 1. Parts 1, 2 and 3. James M. Creighton, Kingston. 4to.

These books have been a long time reaching 'Our Table,' but they are welcome at last. They comprise a detailed account of all the Transactions of the Society from its formation in 1860 to the close of February of the present year. With the greater part of these Transactions the readers of the British Whig are conversant. Some of the papers read at the Meetings are of great value, and are thus preserved for future reference. The Botanical Society of Canada, which owes its being to the industry of Prof. Lawson, under the patronage of Queen's College, is fated to be one of the Institutions of Canada. The printing of these parts is very creditable to the press of Mr. J. M. Creighton. It is the very best work he has yet turned out.

Fig. 2 – A newspaper clipping (DBW1) announcing the publication of the Annals.

• The proceedings of the BSC meetings held in 1861 and 1862 were published in the Annals. As implied in a press release (Fig. 2) of the Daily British Whig (DBW), a local newspaper, their publication was welcomed by Kingston society. The proceedings of the meetings held during the third session were found with the proceedings of the Natural History Society of Montreal (NHSM).

• Papers were contributed by members. During the first and second sessions, there were 29 and 19 articles read respectively, although not all were published in the Annals. Given that the fifth meeting, held on March 28, 1861, was held uniquely "*to dispose of an accumulation of papers*" (BSC Annals, p 85), one can assume that this way of communicating one's work was popular. The articles covered a large array of topics and localities; botanical surveys were described from urban areas [e.g., "*List of plants observed growing principally within four miles of Prescott, C. W., and for the most part in 1860*" by B. Billings, Jr. (BSC Annals, pp 114-140); "*On the ferns of the Gatineau District*", by D. McGillivray (BSC Annals, p 171)] to far remote areas [e.g., "*List of plants collected on the Island of Anticosti and Coast of Labrador, in 1860*", by John Richardson, who was accompanying an exploring party of the GSC (BSC Annals, pp 58-59)].

• Some papers addressed challenges that settlers faced. For example, at the Feb. 14, 1862 meeting, Lawson read a letter by Dr. Trousdale, a Fellow and Council member from Newboro-on-the-Rideau, who reported a case of poisoning by someone who mis-identified *Aralia racemosa* (American spikenard), used to make medicinal syrup, with *Cicuta maculata*, commonly known as water-hemlock. Following the reading of the letter, Lawson went on to explain how to recognize the poisonous plant, and drew attention to the *Cicuta* specimen planted in the Botanic Garden (BSC Annals, p 181-184). At an earlier meeting (June 14, 1861), Thomas Brigg Jr., President of the Horticultural Society of Kingston, read his work on the "*Description of the Curculio, its mode of destroying fruit, and the various means employed to check its progress*". The Curculio, also known as the plum weevil, is a garden pest detrimental to fruit production. Briggs mentioned that the only way he had been able to obtain plums on his trees was by "jarring the trees", a technique he explained in some detail (BSC Annals, pp 112-114).

• A botanic garden, as it was called at the time, was created on the Queen's College premises. At the inaugural meeting in Dec. 1860, Litchfield had whetted the Kingstonians' appetite for such a garden, depicting a terrace where visitors would stroll while live music would be played from a nearby balcony (BSC Annals, p 10). Soon afterwards, donations of funds, seeds and plants started to come in (Guinel and Doubt, 2024). As reported in the meetings' proceedings, John Bell Carruthers, a Fellow member, donated $25 in Feb 1861 whereas in 1862, John Watkins donated $60 (equivalent in purchasing power to about $2000 today) (BSC Annals, p 42 and 177, respectively). Although Dore (1967) mentioned that the content of the garden other than the plants mentioned in the Annals was not known, electronic access to newspaper archives made it possible for us to find an extensive, although incomplete, list of plants, grouped by family (DBW2). The author of the report added: "I*n order to increase the utility of this list to visitors of the Garden, the common names of the plants are given in addition to the Latin names, and several points of popular interest are noticed in the case of useful species.*"

SWAMPED BY AMBITION

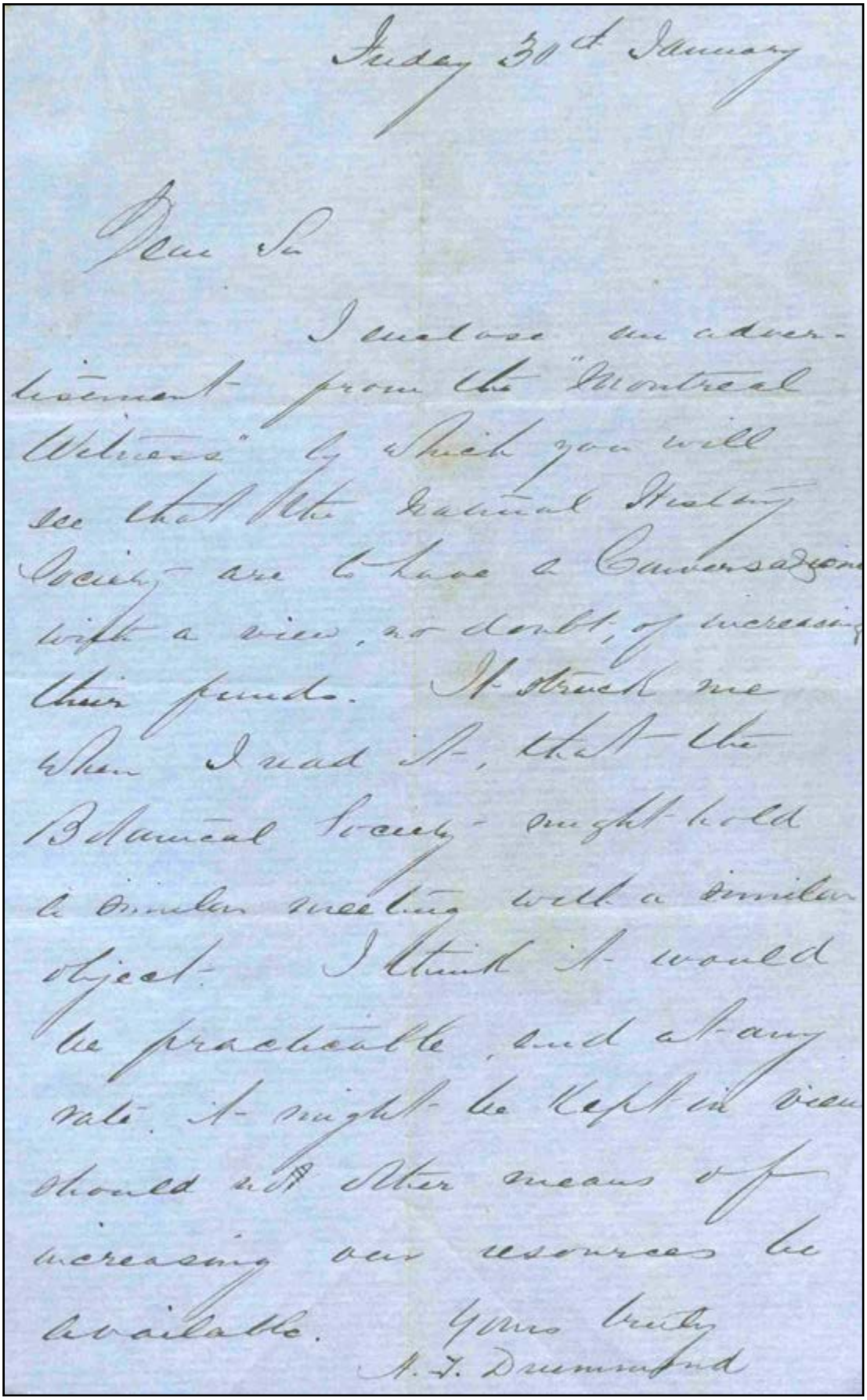
Achieving all these goals in a relatively short time was very ambitious and it came to a high cost.

Let us take as an example the annual maintenance of the garden. Pay stubs found in the Queen's University (QU) Archives show that two gardeners were employed at 75 cents per day of garden labour. About $82 (the equivalent of $2,100 today) were spent in 1862 whereas about $74 ($ 1,900 today) had to be disbursed in 1863 (Table 1).

Table 1 – Details of the 1863 costs regarding the botanic garden and paid by the BSC. The pay stubs for the two gardeners Robert Hall and John Turney were written by Lawson. (QU Archives).

1863	Robert Hall	John Turney	Unknown	Total
April 25	$8.15	$7.30		$15.35
April 29	$0.49			$0.49
May 2	$5.00	$4.50		$9.50
May 23	$7.88	$7.12		$15.00
May 30	$3.75	$2.25		$6.00
September 7	$9.38			$9.38
October 23			$17.89	
Grand Total				$73.61

To cover these kinds of costs, an appeal for funds was made in 1863 and on April 10th of the same year the members voted "*to issue tickets at one dollar, entitling non-subscribers to admission to the Garden during the Summer*" (DBW3). The Board also approached City Council to ask that they encourage Kingston citizens to contribute via subscription (DBW3). We found at the QU Archives the subscription formally described as follows: "*The* [BSC] *Council, therefore, deem it to be now their duty to bring the claims of the Society before the general public. There are willing hands at work in all parts of Canada, sending in the Society the results of laborious investigations. Contrary to previous expectations, these results flow in so freely that the only difficulty which the Society has to meet is the expense required to carry on the working affairs of the Society. The annual contributions of Members are sufficient for defraying the expenses of the monthly meetings, the publication of Annuals* [sic], *and to a certain extent the Herbarium, but the support of a Botanic Garden will require additional pecuniary means.*" In response to this solicitation, prominent Kingstonians came forward with monetary as well as in-kind donations. Not only were small donations made, such as that of $5 by Sir J.A. Macdonald (DBW3), but also quite large ones,



Friday 30th January

Dear Sir

I enclose an advertisement from the "Montreal Witness" by which you will see that the Natural History Society are to have a Conversazione with a view, no doubt, of increasing their funds. It struck me when I read it, that the Botanical Society might hold a similar meeting with a similar object. I think it would be practicable, and at any rate it might be kept in view should not other means of increasing our resources be available.

Yours truly
A. T. Drummond

Fig. 3a - Letter from Drummond dated Jan. 30 (likely 1863). It reads: "*I enclose an advertisement from the "Montreal Witness" by which you will see that the Natural History Society are [sic] to have a Conversazione in the view, no doubt, of increasing their funds. It struck me when I read it, that the Botanical Society might hold a similar meeting with a similar object.*"
(Queen's University Archives)

like that of John Watkins' contribution of $100, additional to his earlier gift (Hamilton Evening Times, Feb. 23 1863). As for G.S. Hobart, he donated a large collection of seeds to be planted in the garden (WBW2).

Besides those related to the garden, there were other large costs involved, such as publishing (the Annals, but also meeting announcements, meeting proceedings, and members' reports in local newspapers), stationary, and postage for the international exchange of specimens (Connor, 1986). Based on documents found in the QU Archives, Connor (1986) calculated that while the research-related activities amounted to 3% of the entire Society's expenses, communication-related activities accounted for over 90%! For the year 1863, even with no Annals printed, Connor (1986) mentioned the sum of $500 for printing and stationary, which represented 72% of the BSC budget. This was a huge cost for a young Society. Publishing the Annals right from the BSC's inception may have been a huge mistake. Connor (1986) made an interesting comparison between the BSC and the extant Entomological Society of Canada: while the former published the proceedings of its meeting from the first year of its creation, the latter, apparently wiser, waited five years to do so.

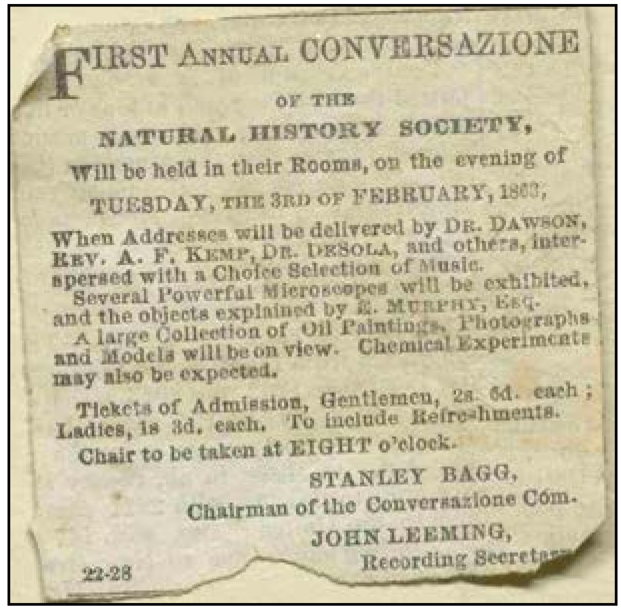

FIRST ANNUAL CONVERSAZIONE
OF THE
NATURAL HISTORY SOCIETY,
Will be held in their Rooms, on the evening of
TUESDAY, THE 3RD OF FEBRUARY, 1863;
When Addresses will be delivered by DR. DAWSON, REV. A. F. KEMP, DR. DESOLA, and others, interspersed with a Choice Selection of Music.
Several Powerful Microscopes will be exhibited, and the objects explained by E. MURPHY, Esq.
A large Collection of Oil Paintings, Photographs and Models will be on view. Chemical Experiments may also be expected.
Tickets of Admission, Gentlemen, 2s. 6d. each; Ladies, 1s 3d. each. To include Refreshments.
Chair to be taken at EIGHT o'clock.
STANLEY BAGG,
Chairman of the Conversazione Com.
JOHN LEEMING,
Recording Secretary
22-28

Fig. 3b - Advertisement for the *conversazione* held in Montreal, which was enclosed in Drummond's letter. (Queen's University Archives)

In an attempt to make ends meet, the BSC Board tried to raise money by holding a *conversazione*. Such an event, fashionable in the 1860s, offered members of a learned society the occasion to mix and to discuss arts, literature, medicine, and science in an 'agreeable atmosphere.' One organized by the NHSM in Feb. 1863 probably sparked the idea to follow suit in Kingston. BSC Secretary A.T. Drummond addressed a letter (Fig. 3a), likely to Lawson, within which he placed a newspaper advertisement for the Montreal event (Fig.3b). According to the NHSM proceedings, the evening turned out to be very successful (First annual *conversazione*, 1863). Once Prof. Dawson and Rev. A.F. Kemp had addressed the audience, Rev. De Sola invited the participants to become members of the Society. The talks were interspersed by music of Verdi and Donizetti played by the Royal Artillery. Afterwards, the attendees were invited to observe specimens through powerful microscopes (Montreal Herald and Daily Commercial Gazette, Feb. 4, 1863). Both men and women attended the event, albeit in a segregated manner, entering "through separate doors, women presenting their pink tickets and men their blue" (Stanworth, 2022).

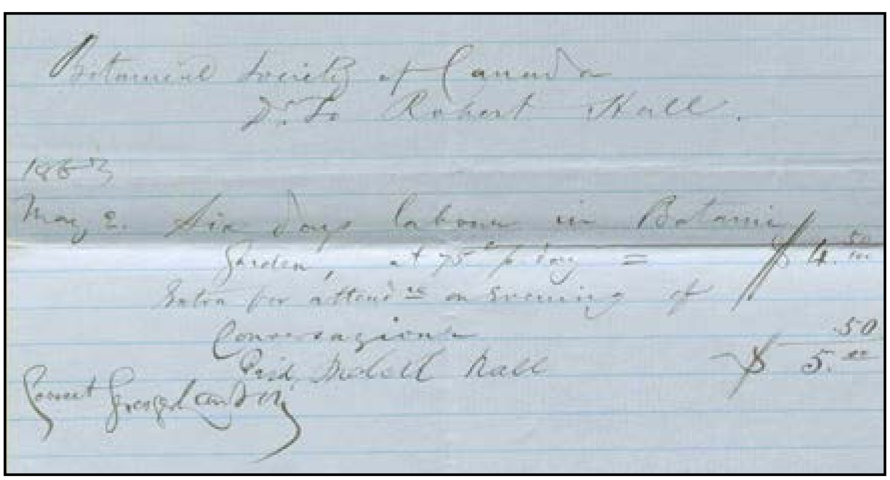

Botanical Society of Canada
To Robert Hall.
1863
May 2. Six days labour in Botanic Garden, at 75c p day = $4.50
Extra for attend. on evening of Conversazione .50
$5.00
Paid Robert Hall
Correct George Lawson

Fig. 4 - An invoice, dated May 2nd 1863, was issued to Robert Hall, one of the two gardeners of the Botanic Garden. Hall was paid 50 cents for having helped in the evening of the *conversazione*.
(Queen's University Archives)

The Botanic Garden hosted the BSC *conversazione* in May 1863 (Connor, 1986; Fig. 4). In the QU Archives, we found a list of participants who had bought tickets at $4.00 for what we like to think was this event. The list of about 70 persons includes both Fellow and Lady Members, several subscribers, and a number of Kingstonians not known to be part of the BSC. Without any report on the BSC *conversazione*, we can only speculate that it may not have been as successful as hoped, since the advertisement for the next BSC meeting (Oct. 8 1863; DBW4) closed with a grim plea: "*Members are especially expected to be present, and*

indeed should make a point of attending all Meetings of the Society, and doing all they can for its welfare."

The BSC Board went to Queen's College next, seeking help with the garden. At what we think was the last official meeting of the Society, on April 9, 1864, the BSC Board Council voted for a resolution whereby Secretary Drummond would go to the College's Board of Trustees on behalf of the Society (Fig. 5).

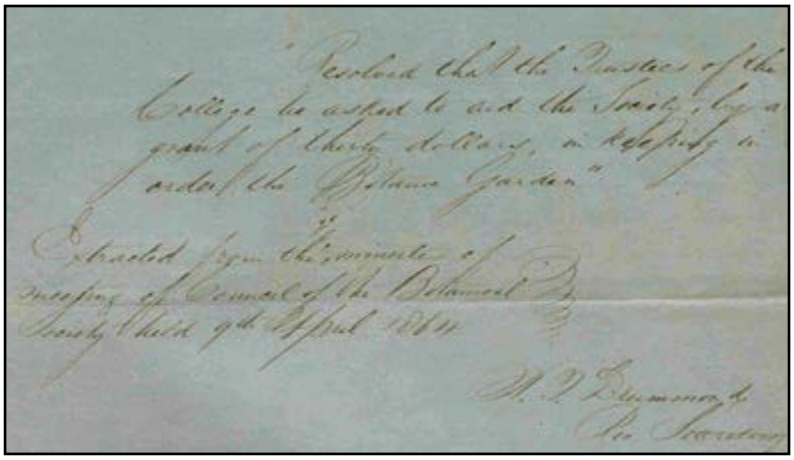
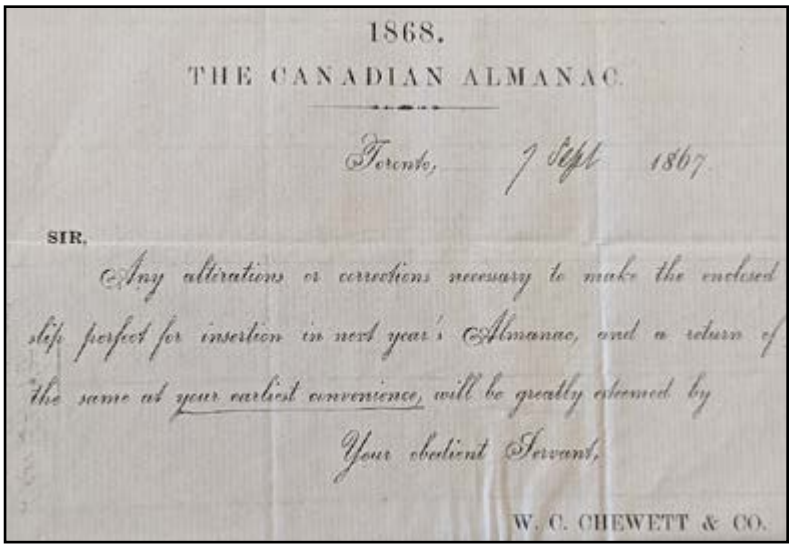


Fig. 5 - At a meeting of the Queen's Board of Trustees on April 28 1864, BSC Secretary Drummond read a resolution which was voted at a BSC earlier meeting. The motion reads "*Resolved that the Trustees of the College be asked to aid the Society by a grant of thirty dollars, in keeping in order the Botanic Garden.*" (Queen's University Archives)

To accompany the resolution, Drummond wrote a letter, dated April 27th, to Mr. Ireland, Secretary of the Board of Trustees, "*In requesting you to lay this extract before the Board of Trustees at its next meeting I may state that it was the original intention that a portion of our funds should every year be devoted toward keeping the Botanical Garden in order. We still retain the desire to carry out this intention, but this year, the Society' funds are completely exhausted, and we are accordingly not in a position to be able to accomplish the object. Very large sums have been spent in laying out the grounds and planting them with shrubs and herbaceous plants, and it would be a matter of regret that they should this summer be allowed to be over-run with weeds through a want of the necessary attention. As the College is interested in having the grounds around their buildings beautified, it was thought by the Council of the Society that they might be induced to grant a small amount towards defraying the expense of occasionally employing a man to weed the garden during the coming summer*" (QU Archives). We do not know if the request was successful or not. What we do know is that the Botanic Garden, located in front of Summerhill House, was neglected in the 1870s when complaints were made about cabbage patches, cowsheds, and a muddy stream (QU Heritage Study, 1998).



1868.

THE CANADIAN ALMANAC.

Toronto, 7 Sept 1867.

SIR,

Any alterations or corrections necessary to make the enclosed slip perfect for insertion in next year's Almanac, and a return of the same at your earliest convenience, will be greatly obliged by

Your obedient Servant,

W. C. CHEWETT & CO.

Fig. 6 – Note (Fig. 6a) received in 1867 by Robert Bell, BSC Secretary, from Mr. Chewett, requesting that he reviews the text (Fig. 6b, below) to be inserted in the 1868 Canadian Almanac.
Library and Archives Canada – Robert Bell Fonds.

BOTANICAL SOCIETY OF CANADA—Instit'd 1860.—*Patron:* His Excellency Lord Viscount Monck, Governor-General. *President:* Very Rev. Principal Snodgrass. *Vice-Presidents:* Prof. Williamson, John Carruthers, Esq. *Council:* Prof. Fowler, M.D.; Prof. H. Yates, M.D.; M. Flanagan; W. Ferguson; Prof. Lavell, M.D.; Prof. Weir, A.M.; John Duff; Prof. Octavius Yates, M.D.; Aug. Thibodo; J. Creighton; Prof. Mowat, A.M.; Jno Watkins; Rev. W. Bleasdell, A.M., Rector, Trenton; Prof. Kennedy, M.D.; B. Billings, jun., Prescott; J. Macoun, Belleville; Prof. Hincks, F.L.S., Toronto; Hon. W. Sheppard, D.C.L., Drummondville, L.C.; M. Sullivan, M.D.; Rev. H. Mulkins; Judge Logie, Hamilton. *Secretary:* Prof. Bell, C.E., F.G.S., *Auditor:* Andrew Drummond. *Treasurer:* Prof. Murray. *Librarian:* Robt. V. Rogers, B.A. *Herbarium Committee:* A. T. Drummond, B.A.; W. B. Ferguson, jun., B.A.; Jno. Bell, B.A.; Robert Jardine, B.A.; Rev. John McMorine, A.M.; J. B. Ferguson, B.A.; Josiah J. Bell, Carleton Place. All communications are to be addressed to the Secretary, Prof. Bell, Queen's College, Kingston, C. W. Remittances to Prof. Murray, Kingston. The Society meets in the Convocation Hall of Queen's College, Kingston, on the second Fridays of October, November, December, January, February, March and April. The Herbarium is open every Saturday; the Botanical Garden all summer. The Society's "Annals" contain all the more important papers read at the meetings, and are furnished to members. Annual Subscription $2. The Society is supported entirely by the annual subscriptions of members. No grant from the Government has as yet been obtained.

In an 1867 attempt to revive the Society, Lawson (then established in Nova Scotia) proposed to retain the prior terms of membership while adopting a new Society structure based on the Provinces of the Dominion, with each province having its own Secretary: John Macoun for ON, John Bell for QC, Lawson for NS, and Prof. Robert Jardine, likely a previous student of Lawson, for NB (Guinel and Doubt, 2024). Although Lawson's proposal for a new structure was not adopted, Board members were elected for an 1867-68 session (Fig. 6) as revealed by a text which had been drafted for publication

in the 1868 Canadian Almanac (Fig. 6b). Bell, the BSC Secretary at the time, was asked to review a proof (Figure 6a), apparently for entry in the Almanac's "*Literary and Scientific*" section. However, we could not find this item in the 1868 Almanac.

WHAT WENT WRONG?

In this series, we have touched on many factors that likely contributed to the demise of the BSC. In summarizing them below, our hearts go out to Prof. Lawson and the other botanists who must have felt defeated after devoting their hopes and efforts to their vision of the Society. It would be rewarding someday to find more accounts of the Society written by people who witnessed its collapse first-hand.

• The Society may have been too closely linked to Queen's College.

Connor (1986) highlighted both the benefits and the disadvantages of having the Society linked to a university. To the young BSC, Queen's provided physical facilities (library and laboratories) and a faculty body from which Society executives could be drawn. In return, the young university obtained a useful air of professionalism. Indeed, Queen's College expressed great pride in the BSC in its 1860 Calendar (https://archive.org/details/qucalendar_1860/page/n17/mode/2up?view=theater): "*a Botanical Society was formed ..., which has been accepted by the Naturalists of Canada as the Society for the Province. Although yet in its infancy, the success of this Society has been most gratifying, and the Trustees feel that they are greatly indebted to the zeal and scientific attainments of the Secretary, Professor Lawson, for this happy result. The most distinguished Botanists of Great Britain, British America and the States, have contributed papers and sought the aid of the Society in the pursuit of scientific investigations, and part of the first year's volume of transactions is now published*."

However, this interdependence created risks for both parties as the BSC quickly learned. In 1863, changes to the Queen's statutes, ordered by the Board of Governors, created internal turmoil that profoundly affected the Faculty. Tenure, formerly detained for life, was now held at the Board's pleasure (Horn, 2015). At the helm of the College, Professor Leitch unfortunately had neither the experience nor the strength to fight this change (https://www.biographi.ca/en/bio/leitch_william_9F.html?print=1). In frustration, three of the many disgruntled professors (Lawson, George and Dickson) resigned; in addition, two professors (Stewart and Weir) were dismissed. The departures of Dickson (BSC Vice-President, 1862 to 1864) and Weir (Council member, 1861-1864) from Queen's would have been detrimental to the Society; however, Lawson's exit would have struck the biggest blow.

• The pressure may have been intractable.

Kennedy (2010) does not mince words when she summarizes the expectations made by the European critics of the time: "*If Canada wanted to be considered on par with established European countries and not inferior to other colonies of "less importance" then they needed to get on the cultural bandwagon and get botanizing.*" Pressure to succeed in the European "big leagues," with a fraction of the human and financial resources, could have pushed the BSC to reach far beyond its means.

• BSC leaders may have overestimated their ability to motivate members to devote substantial attention to botany.

Most BSC members were people of prominence more interested in membership status than in participating in the progress of science (Connor, 1986; Kennedy, 2010). It would have been very difficult for Lawson and the other "true" botanists (both scientists and amateurs) to please those mostly interested in social life while also focusing on collections-based research. Once Lawson departed, it may have been even more difficult to prevent the Society to becoming "*a mere inert local club*" (as cautioned by Seemann, 1861 in BSC Annals, pp 174-175). For Bell,

who replaced Lawson as professor of chemistry and natural sciences at Queen's College while he continued summer fieldwork for the GSC (which he joined full-time in 1867, https://memoryns.ca/bell-robert-1841-1917), Lawson's shoes in the BSC may have been impossible to fill.

In Feb. 1867, BSC Treasurer Murray expressed the opinion that the BSC's narrow focus on botany was a main factor in his failure (WBW3). This opinion is substantiated by an item found in the 1868 Canadian Almanac, where the re-constituted BSC Board had planned to publish the names of its officers (Fig. 6). For that year, we noticed an entry for the Philosophical Society of Kingston (PSK), "*Instituted in 1867,*" in which Murray acted as Secretary. Probably having learned hard lessons from the BSC, the modest PSK called for no subscription fees, heard members' papers on a broad range of scientific and literary subjects, and met in members' houses. As the BSC attempted to restructure and re-launch, prospective supporters were moving on.

• The financial strain may have been insurmountable.

As described throughout this instalment, financial difficulties plagued the BSC. After the suspension of the Annals publication in 1862, the BSC lacked a communication outlet vital for membership and fundraising. To fix this, at the end of 1864, Robert Bell, Secretary of the BSC, asked that "*the editors of the Canadian Naturalist make that journal the medium of their Society, which was acceded to*" (Montreal Gazette, Dec. 31, 1864). To our knowledge, no BSC proceedings were published after that date; however, we are also unaware of any meetings having taken place beyond 1864.

In a letter dated Aug. 1866 to the Board of Trustees, Murray mentioned a "*virtually defunct*" society (QU Archives). In this letter, Murray proposed to "liquidate" the BSC by handing over its Herbarium and its Library to Queen's College, in exchange for which the University would assume the debt owed by the Society. The Board of Trustees responded positively to the request, but the agreement with the College does not appear to have been a simple matter. Indeed, close to a year later, after at least one attempt to meet as a Society (WBW3), Murray in a letter dated June 6th, 1867 mentioned that, after having sought legal guidance, he felt compelled to finalize the transaction given that he could "*find none of the former members who are willing to undertake the responsibility of regarding themselves as present members of the Society and in that capacity of transferring its property*" (QU Archives). Without more documentation, we are unable at this time to reconcile the 1866-68 events surrounding the folding of the Society.

SEEDS OF FUTURE SUCCESS

Although it did not sustain its initial vision, the BSC left significant legacies to botany in Canada. First, its younger members and leaders, such as John and Robert Bell, John Kerr McMorine, Andrew T. Drummond, John Macoun, and Braddish Billings, all of whom left lasting scientific contributions of their own and are well-known to today's Canadian taxonomists, carried forward Lawson's love of Botany and his bold, practical vision for documenting plants in Canada. Second, as highlighted by Rousseau and Dore (1966), the BSC Herbarium formed the basis of today's Queen's University's Fowler Herbarium (herbarium code QK), located at the QU Biological Station (https://biology.queensu.ca/meet-the-department/facilities/queens-university-biological-station/fowler-herbarium). Third, some of the specimens of the fieldtrip organized in June 1861 in Kingston (Guinel and Doubt, 2024) can still be seen at the National Herbarium of Canada (CAN) at the Canadian Museum of Nature, alongside many other specimens of plants, lichens and algae collected by Lawson, his contemporaries and his students. Thanks to these inheritances, future scientists and societies can carry forward and continually re-imagine the work George Lawson launched more than 160 years ago.

Sources

Article XXXV. 1861. *In* British American Journal, 2 (6): 259-261. – Found at https://www.canadiana.ca/view/oocihm.8_05183

BSC Annals (Annals of the Botanical Society of Canada) – Digital version
https://www.biodiversitylibrary.org/item/182352#page/7/mode/1up

Connor, J.T.H. 1986. To promote the cause of science – George Lawson and the Botanical Society of Canada. Scientia Canadensis: Canadian Journal of the History of Science, Technology and Medicine / Scientia Canadensis: revue canadienne d'histoire des sciences, des techniques et de la médecine, vol. 10, n° 1, (30); 3-33. DOI: 10.7202/800223ar

Daily British Whig (DBW). Obtained from newspapers.com via Queen's University Archives. Accessed Jan. 24 2024.

1. Nov. 3, 1862
2. Nov. 6, 1861
3. April 13, 1863
4. Oct. 8, 1863

Dore, W.G. 1967. Canada's first botanic garden. Greenhouse-Garden 6: 6114.

First annual *conversazione*. 1863. In The Canadian Naturalist and Geologist and Proceedings of the Natural Society History of Montreal, 8: 65-73. https://www.biodiversitylibrary.org/item/106418#page/83/mode/1up

Gibson, T. 1954. The astonishing career of John Palmer Litchfield. *Canadian Medical Association Journal*. 70: 326-330.

Guinel, F.C., Doubt, J. 2024. The Botanical Society of Canada – Its purpose, organization, and activities. *The Canadian Botanical Association Bulletin* 57(1): 38-45.

Guinel, F.C., Doubt, J. 2025. Women in the Botanical Society of Canada – The case of the missing botanists. *The Canadian Botanical Association Bulletin* 58(1): 19-28.

Horn, M. 2015. Tenure and academic freedom in Canada. *Ethics in Science and Environmental Politics* 15: 23-37.

Kennedy, K. 2010. Science culture in the nineteenth century: Women and the Botanical Society of Canada. *Resources for Feminist Research* 33(3-4).pp. 47+.

Kingston (Canada) Botanical Society. 1861. Phytologist, 5: 113-116.

Queen's University Heritage Policy: Inventory and Evaluation. 1998. Contributors: Queen's University Campus Planning and Development Commonwealth Historic Resource Management Ltd. https://www.queensu.ca/encyclopedia/h/heritage-study

Rousseau, J., Dore, W.G. 1966. L'oublié de l'histoire de la science canadienne – George Lawson, 1827-1895. *In* Pioneers of Canadian Science. G.F.G. Stanley, ed. pp.54-80

Stanworth, K. 2022. “Botany... a prominent study” – Isabella McIntosh’s ferns and natural history in 1860s Montreal. *In* Flora’s fieldworkers – Women and Botany in nineteenth-century Canada. Shteir, A., ed., Chapter 8, pp 247-278. McGill-Queen’s University Press, Montreal & Kingston.

Weekly British Whig (WBW). Obtained from newspapers.com via Queen’s University Archives. Accessed Jan. 24 2024.

1. Jan. 28, 1863
2. May 6, 1863
3. Feb. 12, 1867

Hoarfrost photos from Gatineau, compliments of Frédérique Guinel.

Season’s Greetings

&

Best Wishes for 2026!

Board of Directors CBA/ABC 2025 – 2026

President	Santokh Singh University of British Columbia
Past President	Mihai Costea Wilfred Laurier University
President Elect	Selvadurai Dayanandan Concordia University
Vice President	Tyler Smith Agriculture & Agri-Food Canada
Secretary	Jennifer Doubt Canadian Museum of Nature
Treasurer	Peter Ryser Laurentian University
Director, East	Mélanie Jean Université de Moncton
Director East	Carissa Brown Memorial University of Newfoundland
Director East	Cory Wallace Memorial University of Newfoundland
Director, West	Jenny McCune University of Lethbridge
Director, West	Mason Kulbaba St. Mary's University
Director West	Vacant
Student Director (West)	Amy Wiedenfeld University of Lethbridge
Student Director (East)	Claire Schon University of Waterloo
Bulletin Editor	Tyler Smith Agriculture and Agri-Food Canada
Webmaster	Mélissande Nagati Université du Québec en Abitibi-Témiscamingue