

Reflections on Women Scientists Today Drawn from Looking at Carrie Derick, Canada's First Woman University Professor

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On 14 January 2017, the [Google Doodle](#)¹ seen in Canada represented a woman examining a plant and seeing various aspects of its structure. What was that all about? It was a celebration of the 155th birthday of botanist Carrie Matilda Derick (1862–1941), the first woman to be appointed a full professor at a Canadian university. As they say, who knew? Certainly, neither of us, and quite possibly not many other members of the CBA/ABC. However, while it may appear that Professor Derick has largely been forgotten, it is worth noting that this has not been the case in Montreal², and especially at McGill University. Carrie Derick is memorialized by the McGill Alumnae with a scholarship of \$2,000 in her name for “a distinguished woman student” in the Faculty of Science. Since 1999, Graduate and Postdoctoral Studies at McGill awards the “Carrie M. Derick Award for Graduate Supervision and Teaching” to faculty who are in their first ten years as supervisors. Recent web pages on the university website recount Derick’s accomplishments³. Earlier this year, the Redpath Museum hosted a theatrical celebration of Montreal women in the arts and sciences that included a short play, “Campo San Angelo,” by Colleen Curran that imagined a 1920 encounter in Venice between Derick and the Canadian painter Emily Coonan⁴.

Derick’s story is one of considerable academic accomplishment and social activism, combined with the invidious effects of sexism. It seems worth recounting briefly here, in its own right, and as an opportunity to examine just how much progress has been made by women academics in Canada. Derick was born in Clarenceville, close to the U.S. border in Quebec’s Eastern Townships. She attended Clarenceville Academy and, at the age of 15, she began teaching there. After an interlude of teacher training in Montreal at the McGill Normal School, Derick spent 1881–1883 as the Principal of the Clarenceville Academy and then took a teaching position in Montreal. In 1884 McGill University admitted its first class of women undergraduates, following a donation by Sir Donald A. Smith (later Lord Strathcona) that was made to enable McGill to enroll female undergraduates. Derick entered McGill in 1887 and got her B.A. with first class honors in 1890, along with prizes in classics, botany, zoology, and the Logan Gold Medal in natural history.

These accomplishments led the American David Penhallow, McGill’s first Macdonald Chair of Botany, to lure Derick



Figure 1: Carrie M. Derick circa 1920. ©McGill News / McGill University Archives, PR001202

away from teaching in a girls’ school to become his assistant. She was hired in 1892 as a part-time demonstrator in botany for \$250 a year. She also enrolled as a postgraduate student, and obtained her M.A. in 1896. Penhallow recommended the new M.A. for promotion to a full-time appointment as Lecturer in Botany, but the McGill Governors chose to offer her only a demonstratorship at \$750 a year, the same salary as given to a man with only a bachelor’s degree. Derick accepted a new appointment, as “Lecturer in Botany and Demonstrator in the Botanical Laboratory”, only after Sir Donald A. Smith provided the funds needed to offer Derick a salary of \$1,000 a year.

Derick spent the summers of 1896 and 1897 at the Woods Hole Marine Biological Laboratory, where she studied holdfast development in red algae, work she completed

¹www.google.com/doodles/carrie-dericks-155th-birthday

²Curran, P. (2011). Honouring Carrie Derrick, Canada’s first female professor on International Women’s Day. *Montreal Gazette* 8 March 2011. montrealgazette.com/news/local-news/honouring-carrie-derrick-canadas-first-female-professor-on-international-womens-day accessed 10 December 2017.

³Birker, I. (2017). Carrie Derick: Pioneering Educator. publications.mcgill.ca/reporter/2017/03/carrie-derick-blazing-the-trail-for-female-professors-and-researchers/ accessed 10 December 2017.

⁴Wright, K. (2017). Women’s Work: Staged readings by Colleen Curran & Peggy Curran. Festival Bloomsday Montréal. bloomsdaymontreal.com/womens-work-staged-readings-colleen-curran-peggy-curran/ accessed 10 December 2017.



Figure 2: Sketches for one of the articles in the series “Flowers of the Field and Forest” by “C.M.D.” published in the *Family Herald and Weekly Star*, Montreal, Summer 1900, and reissued as a pamphlet in 1901. archive.org/details/cihm_78160 accessed 30 November 2017. Photo courtesy of and ©Peggy Curran 2017.

at McGill and published in 1899¹ in a paper cited as recently as 1976. During 1901 and 1902, Derick took an 18-month leave of absence to study in Germany. She visited labs and gardens at the Universities of Berlin and Munich, and studied at Bonn for two semesters. Despite the research she performed there, Derick received no recognition as the University of Bonn did not at that time grant Ph.D. degrees to women. During this time she also wrote popular essays on plants and other topics, and took part in activities in support of working women and women’s suffrage².

In 1904 Derick was appointed Assistant Professor of Botany, and in 1909 she was asked to serve as Acting Chair of the Botany Department when Penhallow became ill. He died the following year, and Derick continued as Acting Chair. In 1912, however, McGill sought to fill Penhallow’s position and advertised in Europe and the United States for suitable candidates. Derick was told she could also apply and she did, but in the end, despite support within the university and from its patrons, the American botanist Francis E. Lloyd was appointed. The situation was uncomfortable

for both Lloyd, who expected to have an assistant, and Derick, who understandably felt unappreciated. The university attempted to make amends by appointing Derick Professor of Morphological Botany, a title that grated on her as it ignored her teaching and research interest in the new science of Genetics.

In 1920, Derick was also appointed Lecturer in Social Service, and, in 1928 Professor of Comparative Morphology and Genetics. She retired in 1929 and was recognized as Professor Emerita of Comparative Morphology and Genetics. She died in Montreal in 1941. Derick’s education, appointment, and career all exemplify the difficulties and frustrations encountered by women in Canada in the early 1900s who sought higher education and endeavoured to have academic careers in their own right and on a par with men.

Unfortunately, despite the pioneering efforts of Derick and other women at McGill and elsewhere, the sexist barriers to women’s participation in Canadian science generally, and in Canadian botany in particular, were not broken down until the Second World War and the dramatic social changes that followed it. Even today, achieving equity is a work in progress that has become even more complex because it involves eliminating barriers of class, color, and culture as well. Students and young scientists may be surprised that some institutions hired their “first woman professor” only in the past 25 years. Presentation of some of the information available on Professor Derick, at the annual conference of the CBA/ABC held at Wilfrid Laurier University in July this year³, was intended to remind Canadian botanists of an important academic foremother. The presentation also included references to some of the challenges that remain, and took note of some of the efforts being made to address these challenges. It is quite encouraging to read, for example, the reports released in November 2017 by Statistics Canada. They include information on Canadian universities from 2016-2017 and reveal an increased representation of women in full-time teaching staff, (almost 40%, up from 36.6% in 2010-2011), and a continuing increase in the proportion of the median male salaries now earned by female faculty (full professors, to 95.3%; associate and assistant level staff both up to 97.7%)⁴. Although progress has been made in reducing the gap in appointments and salary in terms of gender ratio, much remains to be done. We are all concerned because at the core of a better and stronger society is an equitable, diverse, and inclusive research community.

In our Association, despite a sense of a supportive and welcoming environment regardless of gender, we still face at least a perception of imbalance. At the AGM held at Laurier this year, we all heard the concern expressed that the goal of gender parity on committees has not been truly respected. Why is this perception still there? The answer may

¹Derick, C. M. (1899) Notes on the development of the holdfasts of certain Florideae. *Bot. Gaz.* 28(4): 246-263. Plates 21-23. doi.org/10.1086/327908 accessed 30 November 2017.

²These activities are described in Gillett, M. (1990) “Carrie Derick (1862–1941) and the Chair of Botany at McGill,” pp.74-87 in *Despite the Odds*, M. Gosztanyi Ainley ed., Véhicule Press, Montreal.

³For the slides used in this presentation see the bottom of the page at labs.eeb.utoronto.ca/dickinson/NABFH-I/#Derick.

⁴“Number and salaries of full-time teaching staff at Canadian universities, 2016-2017,” *The Daily*, 28 November 2017. www.statcan.gc.ca/daily-quotidien/171128/dq171128b-eng.htm accessed 29 November 2017.

lie in numbers. While one of us thought that there was an obvious gender disparity in the CBA/ABC award recipients, the other performed a simple statistical analysis. In fact men and women get similar proportions of the three kinds of awards; there are just fewer females getting awards of any kind (18 compared to 73).

However, it is true that females tend to get proportionally more Mary E. Elliott awards, and fewer Lawson Medals. What could be the explanation? Females, because of their socialization, or because of the realities of their work situations, are perhaps more willing to devote time to service activities than to focus exclusively on achieving a brilliant career. The eligibility criteria for the CBA/ABC Lawson Medal may appear daunting to females ("outstanding", "cumulative lifetime contribution") because often females do not see themselves as excellent, and many take time off to raise children. It appears to us that there is little consideration in these criteria for gender-related accomplishments. It is time to revisit these criteria that were put in place 50 years ago, in order to better take into account the lives of scientists and academics today. No longer can anyone spend most of their time working in a lab or doing fieldwork unless it is done at the expense of one's personal life, given the many

other demands made by administrators and granting agencies. Both men and women are expected to excel in practically everything but, in reality, women often face disproportionately greater competing demands from family and society. We might instead consider stressing the novelty and value of a researcher's insights, in addition to counting up publications and students.

In conclusion, we hope that this report on Carrie Derick will lead to discussion among the members of the association, and that it will lead to positive and constructive changes. The CBA/ABC has been an excellent and respectful forum where students, the scientists of tomorrow, have always been nurtured. If we are to move forward, we should include our students in the discussion so that they are the ones who, by their open minds and behaviour, make the changes.

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