

Phycological Trailblazer

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Jules Brunel

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Jules Brunel (1905-1986) is remembered as an important researcher on both the freshwater and marine algal flora of Canada, in particular, that of the province of Quebec. But he is also to be remembered as one of the founding members of the Phycological Society of America (Parker, 1981) as well as serving as the Society's President in 1949. Brunel was born in Montreal, Canada, on April 12th, 1905. His father passed away in October of the same year. In 1916 he entered Longueuil College, which was a boarding school run by the teaching order Brothers of the Christian Schools. It was here in his last two years that he was first exposed to botany and to the teachings of the influential Montreal botanist Brother Marie-Victorin. Less than two weeks after graduating from the College in June of 1921 (and ranked first in his class), Brunel started the next phase of his education, at the University of Montreal. Here his training in botany was greatly accelerated thanks to his working as a secretary and research assistant in the laboratory under the direction of Brother Marie-Victorin. The Brother recognized Brunel's love for accurate language and writing. Starting in 1922, Brunel began contributing poems and short texts popularizing science, especially botany, to "Le Devoir", a

Montreal newspaper, and also for CBC radio programs.

Brunel supplemented his courses in the sciences with additional courses in literature and philosophy. The first degree was earned in 1925, and this was followed with supplemental courses in botany, zoology, and geology/mineralogy, still at the University of Montreal. 1930 was an eventful year for Brunel. A degree in natural sciences was earned in May. In June he married (he and his wife would eventually have 7 children), and the months of July and August of 1930 were spent at the Marine Biological Laboratory in Woods Hole, MA, where he took the algae course taught by Wm. Randolph Taylor. Brunel returned to the University of Montreal to become a part-time lecturer in phycology, mycology, and cryptogamic botany. Five years later he was promoted to the rank of Associate Professor, and in 1943 he earned the rank of "titular pulpit of cryptogamy". In 1950 he was named full professor.



Jules Brunel. Near Stockholm, 1950. (Taken by W. R. Taylor.)

Brunel became deputy director of the Botanical Institute founded by Brother Marie-Victorin, and he also served as associate editor of the series "Contributions of the Botanical Institute". He was also involved in helping produce Marie-Victorin's (1935, 1964) *Flore laurentienne*, contributing the write-up of the genus *Crataegus* which included 45 species of hawthorns. After Brother Marie-Victorin's premature death in 1944, Brunel succeeded him as Director of the Institute and served in that position to 1955. All of this time Brunel kept occupied with his responsibilities of

teaching and in carrying out his own research projects. His Masters students included André Cardinal, Martine Villalard [Bohnsack], and Louise Venne. In 1948 in Boston, attending a

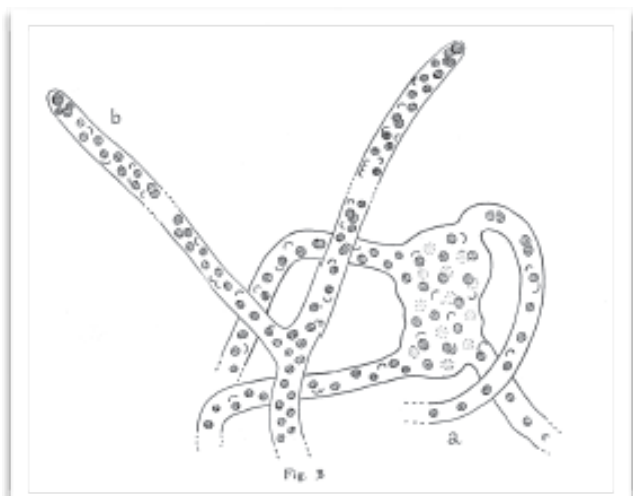


Fig. 1. *Schizochlamys delicatula* West var. *filamentosa* Brunel var. nov. [from Brunel (1932), fig. 3].
[*Schizochlamyella delicatula* (G.S. West) Korshikov]

meeting of the AAAS at the Copley Hotel, Jules Brunel was one of the eleven phycologists who signed a document leading to the founding of the Phycological Society of America. He was the only Canadian with that distinction. In 1957 Brunel was the recipient of a prestigious fellowship from the John Simon Guggenheim Memorial Foundation, thus a “Guggenheim Fellow”. This fellowship allowed him to sample and study algae of the boundary waters between Canada and the USA, from Quebec westward to the Pacific coast.

Jules Brunel’s phycological research was impressive. He spent two summers (1952, 1953) conducting intensive fieldwork at the Mont-Tremblant Biological Station in Mont Tremblant Provincial Park, where he was able to identify a total of 389 algal species from various lakes in the park. Over the years he published on the results of his investigations on desmids and diatoms. Then the direction of his research became oriented toward marine phytoplankton, and so for the summers of 1954 and 1955 he conducted research on the unicellular marine algae of the Baie des Chaleurs. Ninety-two species were recognized. He worked out of the Station de Biologie marine de Grande-Rivière on the Gaspé peninsula, receiving help from his wife

and a daughter. Research over those two summers resulted in his magnum opus, “Le phytoplancton de la baie des Chaleurs” (1962). For this publication Brunel was awarded the top prize in a literary and scientific competition in Quebec in 1963. A second printing of his treatment of the phytoplankton appeared in 1970.

Brunel also had an interest in history. In 1944 he contributed a thoughtful account of the historical stages in the development of the study of algae in North America. He regarded as major figures in marine phycology the following persons: Bachelot de la Pylaie, William Henry Harvey, William Gilson Farlow, Frank Shipley Collins, William Albert Setchell, and William Randolph Taylor. For their counterparts in the study of freshwater phycology Brunel recounted the achievements of Jacob Whitman Bailey, Horatio Charles Wood, Jr., Francis Wolle, and Gilbert Morgan Smith.

Brunel passed down to his next generation his deep interest in aquatic biology. His son Pierre pursued his own direction, namely, ecology of the marine zoobenthos and systematics of marine amphipods. Pierre became a professor in the Department of Biological Sciences at the University of Montreal and a colleague of his father. Pierre recalls how on a scheduled cruise for plankton sampling in Baie des Chaleurs in 1955, Jules to sample phytoplankton and Pierre to sample zooplankton, both father and son simultaneously experienced serious sea sickness for several hours while the boat engine was being repaired.

After more than a half-century devoted to research and the teaching of botany, Dr. Brunel took his retirement in 1981. He passed away in Montreal on March 9th, 1986 at the age of 81. Recognizing Brunel’s admirably curated and documented phycological collection, authorities at the University of Montreal funded its digitization (in a File Maker Pro data bank), under the supervision of his son Pierre and with the help of Michel Poulin. The Institut Québécois de la Biodiversité (IQBIO) was founded in 2004 by several naturalists in Quebec led by Pierre, with the long-term goal of establishing a

provincial museum of natural history, something that Jules Brunel would be pleased to see materialize.

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