

Phycological Trailblazer

No. 30

A. B. Joly

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It is fitting that Aylthon Brandão Joly (1924-1975) be included in this series of “Phycological Trailblazers” because during an exemplary if abbreviated professional career he singlehandedly spearheaded a strong phycological tradition in Brazil and South America. His efforts and contributions are worth recounting. Joly grew up in the coastal city of Santos in the state of São Paulo and early on was drawn to natural history. He earned his undergraduate degree (in 1945) as well as his PhD (in 1950) from the University of São Paulo. His PhD research was on systematics of flowering plants, in fact, on the vascular flora of the new campus of University of São Paulo, then located on the outskirts of the city. The botanist Felix K. Rawitscher had escaped war-torn Germany and was hired to establish a program in botany at the new university (Oliveira, 1996). Rawitscher was responsible for turning out the next generation of Brazilian botanists. He realized that no one in Brazil was working on the algae, and so he persuaded the young Joly to abandon (at least for awhile) his research on angiosperms and turn his attention to marine algae. So starting in 1950, Joly began collecting and studying seaweeds in southeastern Brazil, and a steady flow of publications commenced.



Fig. 1. A.B. Joly at the MBL, Woods Hole, August 1952
(photo taken by W. R. Taylor)

Fortunately, a fellowship from the Rockefeller Foundation allowed Joly to travel to the USA and spend the period 1951-1952 working with Dr. Wm. Randolph Taylor at the University of Michigan in Ann Arbor to receive training on the finer points of marine algae. He also spent the summer of 1952 at the Marine Biological Laboratory in Woods Hole, Mass., where he immersed himself in the seaweed flora of New England (Fig. 1). While in the U.S., Joly made great use of the libraries of the University of Michigan, the New York Botanical Garden, and the Marine Biological Laboratory to compile the literature dealing with the algal flora of Brazil and thus well prepared himself to embark in this

new direction for his research (Joly, 1952).

Over the ensuing years, Joly kept Taylor informed about his research, such as his progress in working on the marine algal flora of the northern part of the state of São Paulo, admitting that progress was slow at times. But he was excited when he discovered “a couple of new things to describe”. Joly had a knack for detecting algae that represented

new records for Brazil or in some cases entirely undescribed species or genera. He usually involved his many doctoral students as co-authors in his papers. New genera included *Diplothamnion* and *Heterodasya* and the parasites *Dawsoniocolax* and *Centrocerocolax*. New species included *Periphykon delesserioides*, *Jania prolifera*, *Cryptonemia delicatula*, *Tylopus* [later to *Gracilaria*] *cearensis*, *Champia minuscula*, *Leptofaucha brasiliensis* [now *Archestenogramma brasiliense*], *Lomentaria rawitscheri*, *Pseudogloiophloea* [later to *Scinaia*] *brasiliensis*, *Aristothamnion* [later to *Callithamnion*] *callithamnioides*, *Ceramiella*

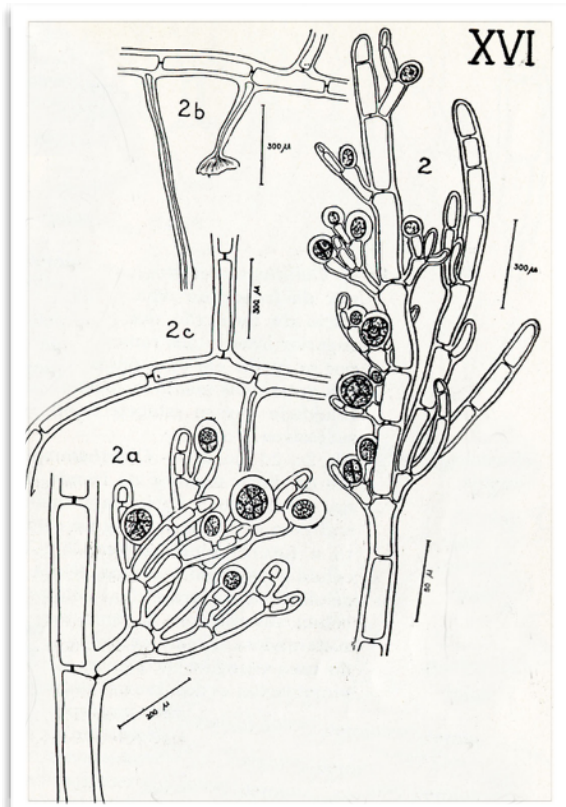


Fig. 2. *Spermothamnion nonatoi* A.B. Joly (from Joly, 1957, pl. XVI, fig 2).

[later to *Corallophila*] *atlantica*, *Mesothamnion* [later to *Pleonosporium*] *boergesenii*, *Spermothamnion nonatoi* (Fig. 2), *Chondria platyramea*, *Caulerpa kempfii*, *Rhipilia fungiformis*, and *Acetabularia myriospora*.

Joly added two new species to some genera in Brazil. For *Anadyomene*, *A. saldanhae* (Fig. 3) and *A. rhizoidifera* were described; for *Acrochaetium*, *A. epispiculum* and *A. agardhiellae*, for *Ceramium*, *C. brasiliensis* and *C. dawsonii*, and for *Laminaria*, *L. abyssalis* and *L. brasiliensis*. The *Laminaria* species were found from significant depths (70 m) off Brazil (Joly & Oliveira, 1967). Joly and his students recorded for the Brazilian flora algal species previously known from the Pacific Ocean, such as *Rhipilia orientalis* (Joly & Sazima, 1971) and *Microdictyon vanbosseae* (Joly & Yoneshigue Braga, 1974).

There were numerous publications reporting species for Brazil for the first time, often expanding the distributions in a southerly direction. These papers by Joly and his co-authors demonstrated that many species that

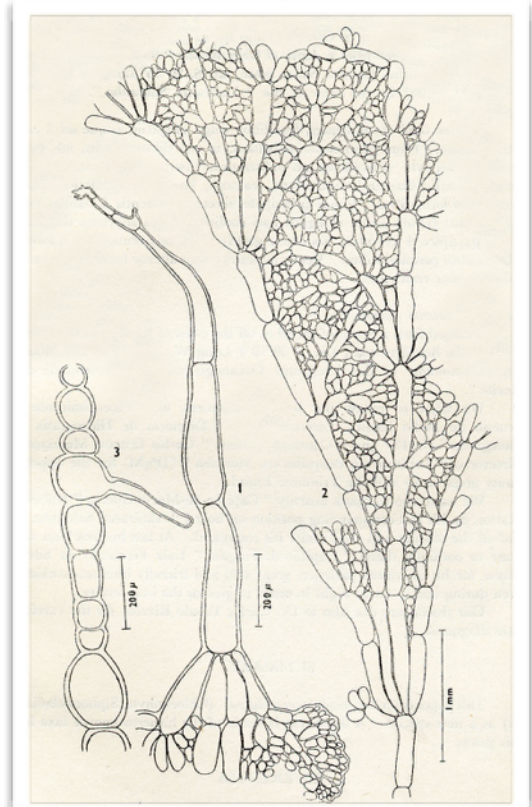


Fig. 3. *Anadyomene saldanhae* A.B. Joly & E.C. Oliveira. (figs. 1-3 in Joly & Oliveira, 1969)

had formerly been thought to be restricted to the Caribbean had ranges extending to various states of the Brazilian coastline (Joly, 1964, 1965).

In late 1961- early 1962, Joly spent a successful two and a half months giving a summer course in Argentina, dividing the time between the marine station at Puerto Deseado (Lat. 48° S.) "not very far from the Strait of Magellan" with its very rich marine flora, and the rest of the time at Mar del Plata. For that course he had students from Argentina, Uruguay, Chile, and Brazil. He was enthusiastic about the pressed and wet-preserved collections that he was able to make in Argentina.

Joly and his family spent the summer of 1971 at Friday Harbor Laboratories on San Juan Island, Washington, where he co-taught the algae course with Dr. Richard Norris. Joly wrote to Taylor how he and his family had a wonderful vacation on their way to Friday Harbor. They flew from South America to Los Angeles, where they rented a car and drove over to check out Sequoia

National Park. Next they drove from Los Angeles on Highway 1 along the coast, to visit Hopkins Marine Station on the Monterey Peninsula. From San Francisco they were able to check out Muir Woods in Marin County, then inland to Yosemite National Park, and then UC Berkeley, where they visited Drs. George Papenfuss and Paul Silva. Joly had earlier met Silva at Woods Hole in 1952. Joly related how the flight from SFO to Seattle was “superb” and how they observed the snow-covered mountains such as Mount Shasta and others. After teaching the algae course that summer, Joly had a circuitous route homeward making stops in Ann Arbor, Washington DC, Miami, and Caracas, Venezuela.

Joly’s major contributions on algae were publications on genera of freshwater algal genera of São Paulo (Joly, 1963), his marine flora of the littoral of the northern part of the state of São Paulo (Joly, 1965a), and his treatment of the genera of marine algae for the Atlantic coast of Latin America (Joly, 1967). Joly’s research interest was certainly not limited to the algae. Late in his career his research returned to the flowering plants, and he directed his attention to the rupicolous flora of the mountains in the state of Minas Gerais, central Brazil. He also took leave from the University of São Paulo to become Chair of the Dept. of Botany at a new university in the city of Campinas (Oliveira, 1996). General books on botany and a popular textbook on botany were published (Joly, 1970, 1975) as well as a posthumous book on economic botany (Joly & Leitão, 1979).

At the time of his untimely death from cancer (at only 50 years of age) he was Full Professor as well as serving as Chairman of the Department of Botany at the University of São Paulo. His legacy was not only his own numerous publications but that he trained the next generation of students, a cadre of students that were in Brazil, Chile, Argentina, and Mexico. He was responsible for training a whole new generation of phycologists, including Eurico Oliveira, Marilza Cordeiro-Marino, Yumiko Ugadim, Noemy Yamagushi-Tomita, Krisler Alveal, Sonia M. P. Pereira, Maria Laura Mendoza, Isabel Kreibohm de Paternoster, and

Elza Lacoste Díaz. He also trained Yocie Yoneshigue-Valentin, Carlos Bicudo, Silvia de B. Guimarães, and M. M. Ferreira in their studies. Joly has been remembered in tributes by Bicudo (1976) and Oliveira (1975, 1996). The names of some algae also pay him tribute: the brown algal genus *Jolyna* by Guimarães (Guimarães et al., 1986), *Ceramiella joly* by Diaz-Piferrer (1969) [later to *Ceramium*], *Calliblepharis jolyi* by Oliveria (1969) [later to *Craspedocarpus*], *Arthrodesmus jolyanus* by C. Bicudo & Azevedo (1977), *Diplothamnion jolyi* by van den Hoek (1978), and *Dictyopteris jolyana* by Oliveira & Furtado (1978).

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