

# Phycological Trailblazer No. 2 Anna A. Weber-van Bosse

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The Dutch phycologist Anna Antoinette Weber-van Bosse (1852- 1942) certainly demonstrated the spirit of adventure that qualifies her to be counted in the ranks of "phycological trailblazers." She can be regarded as an adventurer in that she went on scientific expeditions to the Dutch East Indies, the first one being in 1888-1889 and the second (the well-known "Siboga Expedition") in 1899-1900. Her husband was the German zoologist Max Weber, who was both leader of the Siboga Expedition as well as editor of the monumental series "Resultats des Explorations Zoologiques, Botaniques, Oceanographiques et Geologiques ....". It was Weber-van Bosse's "Liste des algues de Siboga," published over a period of several years (1901, 1913a, 1921, 1923, 1928; Fig. 1), that has to be regarded as her primary and long-lasting contribution to phycology. She also wrote a semi-popular account of her year aboard the H. M. Siboga that was published in 1903. [Unfortunately for most of us, it is in Dutch; a German translation appeared in 1905]. It is undoubtedly owing to the fact that Weber-van Bosse was the first to collect in scattered and remote tropical regions and that she made use of dredging to obtain sublittoral collections that enabled her to describe a significant number of new genera and species. Examples of new

genera for which Weber-van Bosse is responsible are the following: *Periphykon*, *Exophyllum*, *Chalicostroma*, *Microphyllum*, *Corallophila*, *Aneuria* [later changed to *Lenormandiopsis* by Papenfuss (1967)], *Ethelia*, *Perinema*, and *Tapeinodasya* (Rhodophyta); *Mesospora* (Phaeophyta); and *Bryobesia* and *Tydemanina* (Chlorophyta). *Tydemanina expeditionis*, named for G. F. Tydeman, Commander of the Siboga, is a distinctive tropical species now known to be widely distributed in the Indo-Pacific. *Exophyllum* was

thought by Weber-van Bosse to belong to the Rhodymeniaceae, and indeed its foliose aspect and succulent texture can easily cause that impression. But discovery of male plants allowed Hollenberg (1968) to assign it the Rhodomelaceae. Weber-van Bosse's *Corallophila* has recently been re-vitalized by Norris (1993), who transferred into it nine species from *Ceramium* and *Centroceras*.

Weber-van Bosse also traveled to South Africa in 1894-1895 and made algal collections, resulting in the description of a new genus of green algae,

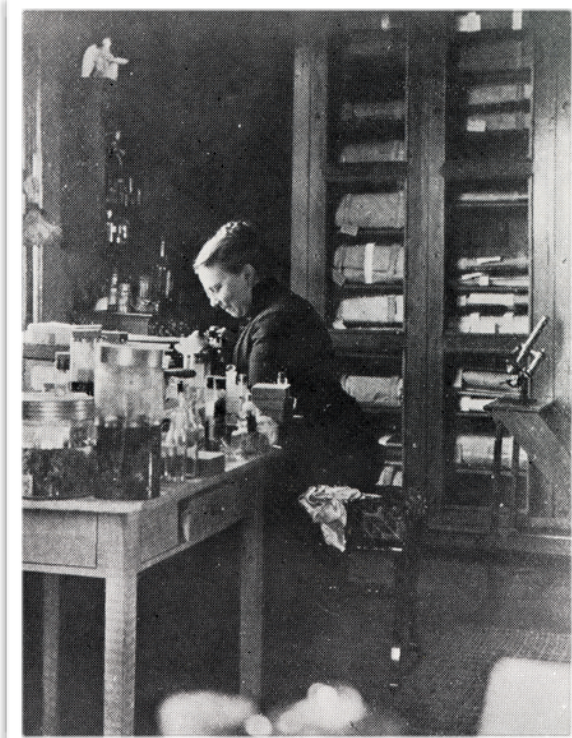
*Pseudocodium* (1896a). The

specific epithet *devriesii* was in honor of the eminent botanist Hugo de Vries, in whose lab in Amsterdam Anna received her scientific training. This trip to South Africa also resulted in her account (1896b) of the reproductive stages of *Sarcomenia miniata*, now known as *Platysiphonia delicata*. I collected this same species from the very same site, Plettenberg Bay, some 89 years later, and thus I can appreciate the way in which she described the scene (which was exactly the same in 1983):



Fig. 1. Pl. V in Weber-van Bosse (1921).

"It was collected on rocks a little above low-water mark, where the sea was coming in with heavy rollers, and big waves were breaking on the rocks continually. I mention this because I think that agents of this kind have a great influence on the external habit of seaweeds, and should not be passed over in silence."



Portrait of Madame Weber-van Bosse in her laboratory in Eerbeek in 113. [From *Blumea*, Suppl. 2 (1942).]

She was also entrusted with the algal collections of other expeditions, such as those collected by J. Stanley Gardiner during the Percy Sladen Trust (or "Sealark") Expedition to the Indian Ocean in 1905 (1913b) and the Danish Expedition of 1914-1916 to the Kei Islands (1926). Her interests were wide-ranging and included studies of algae living in the hairs of sloths (1887) as well as symbiotic associations between algae and sponges (1910). Another notable accomplishment was her monograph of the large tropical genus *Caulerpa* (1898).

The phycological holdings of the Rijksherbarium were greatly enriched in 1934

when Weber-van Bosse's algal herbarium (some 73,000 specimens) was acquired (Koster, 1936; Steenis-Kruseman, 1979). This herbarium contained not only her own extensive collections but others acquired over the years, including Hauck's 'Phycotheca universalis' (with most of his types) and Suringar's algal collection, which in turn contained Kützing's Herbarium.

In 1942 on the occasion of her reaching her 90th birthday Anna Weber-van Bosse was honored with the publication of a "Jubilee Volume" of *Blumea*, in which her colleagues, including Kylin, Børgesen, Frémy, Hamel, Svedelius, and Koster, paid her tribute with their papers on algae. Not only have a large number of algal taxa been named in her honor, but several animals species, representing Mollusca, Vermes, Aves, and Pisces, from the Siboga Expedition also commemorate her name (Koster & Benthem Jutting 1942). Having a hyphenated name seems to have given her an extra eponymic advantage: *Bossea* [later changed to *Bossiella*], *Weberella* [now placed in synonymy with *Halichrysis*], and *Webervanbossea* [still good]. In 1910 the University of Utrecht awarded Anna Weber-van Bosse an honorary "Dr. phil." degree for her scientific achievements. Additional biographical and bibliographical information on this remarkable individual can be found in Stafleu and Cowan (1988).

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