

# In Defense of the Rev. Dr. Reuben D. Nevius and the Plant Called *Neviusia*

by RICHARD A. HOWARD

In 1857 Prof. Asa Gray named *Neviusia* as a new genus of the Rose family, based on material supplied by the Rev. Dr. Reuben Denton Nevius. The plant later was grown in the Harvard Botanic Garden in Cambridge, Mass., and sent by Charles Sargent to Kew and to other European gardens; it had a limited native distribution along the Black Warrior River in Alabama near Tuscaloosa.

Although they lacked petals, the flowers were extremely showy in the spring, due to the display of bright, yellowish stamens. An enlarged calyx along with the presence of only a few 1-seeded carpels made the plant of great botanical interest and suggested a relationship with the Asiatic genera *Kerria* and *Rhodotypus* and an association with *Spiraea*.

For many years the tribute to Nevius was acknowledged by botanists, but in 1900 Charles Pollard wrote of a visit to the home of *Neviusia*. "During a recent collecting trip in the south a visit was made to Tuscaloosa for the purpose of seeing this and other rare plants of that region, and I was most fortunate in meeting Prof. W. S. Wyman, who was Dr. Nevius' companion on the trip during which the discovery was made. From his interesting account I learned that Dr. Gray erred in ascribing the discovery of the plant to Dr. Nevius; for it was first observed by Dr. Wyman, who had proceeded some distance ahead of his associate. These facts never have been made public, so far as I am aware, and it is unfortunate that the laws of botanical nomenclature forbid the substitution of *Wymania* for *Neviusia*."

This allegation of error on Gray's part and of a lack of candor on the part of Dr. Nevius have now been accepted in recent floras where the discovery of *Neviusia* is credited to both Wyman and Nevius. In an attempt to understand the true story, I read the correspondence of Dr. Nevius with Prof. Asa Gray. Regrettably, Gray's letters to Nevius on the subject are not available.

The Rev. Reuben Denton Nevius was born in Ovid, New York, in 1827 and received his D.D. from Union College in 1849. He served as rector of the Protestant Episcopal church in Tuscaloosa, Alabama, from 1855 to 1866. Subsequently he served in Mobile, Alabama, and in Portland, Oregon. He is reported to have been a general missionary in Oregon and Washington from 1873 until his death in 1913.

On May 11, 1858, Dr. Nevius wrote to Asa Gray, "I take the liberty of sending you a plant that I have been unable to determine. I cannot think it undetermined as it is not rare, though not common. I found the specimens which I send last year before I procured your valuable Manual and have not been able to procure a specimen for analysis since. Although I cannot think it unknown to you I will take this liberty to affix a description I have made."

Gray apparently replied suggesting the plant was new to science and offering some corrections for Nevius' description. On May 29, 1858, Nevius again wrote to Gray, "I hasten to tell you of my very agreeable surprise in finding that I had made a discovery and to thank you for the kind notice you have taken of the same. Had I not distrusted my own analysis of the plant attributing my failure in it to ignorance, I should have sent it a year ago. Since then I have learned something more by the study of your excellent books, Systematics and Structural Botany and the Manual, for which in my humble way a mere tyro I thank you in the name of the lovers of the herbal craft." He promised to observe whether the plant was evergreen or deciduous and continued, "Two years ago I began with Prof. Tuomey to make a register of the Flora of this neighborhood, but before we had taken our first ramble together he was lost to us and to the scientific world by death. Since then I have pursued the study alone, with many regrets for his loss both as a friend and a teacher."

Gray sent Nevius a copy of the Torrey & Gray *Flora of North America*, and on June 21, 1858, Nevius replied from the Christ Church Rectory, Tuscaloosa, "Immediately on receiving your kind note of the 8th. inst. (for which with your generous offer of assistance in my study and your valuable *Flora North America* I thank you most sincerely) I arranged an excursion to the locality of the new unknown and procured the specimens herewith enclosed. I sent them immediately as the carpels are not fully perfected and would wither in drying. . . . I send also a specimen of the wood. The shrub has the general habit of growth of the *Philadelphus* and resembles it very much except



*Nevisia alabamensis*. From: A. Gray. *Nevisia, a new genus of Rosaceae*. *Mem. Am. Acad. Arts Sci.* II. 6: pl. 30. 1858.

in foliage. In the thickets where many twigs grow from the same root . . . one twig is gracefully bent over another towards the sunny side of the cliff forming a dense mass of foliage almost impervious to the sunlight. The shrub is a very beauty and well worth cultivation. . . . I will still watch the ripening fruit and send it to you when perfected. If the plant proves to be a new genus it would be gratifying to me and to my friends and associates in this study, Prof. Wyman and Dr. Mallett of the University, to be permitted to name the genus in compliment to our old lamented friend Prof. Tuomey — Tuomeya. I have no doubt that the plant was known to him as he studied the flora of this neighborhood very thoroughly and that his sudden death cut short in this instance as in many others, a further investigation. Please inform me if this name will be agreeable to you. If it will I will leave to you if you please the site and form of publication and the pleasure (as it will be such I doubt not) of introducing it formally into the family of known plants and of making it known to science. . . . I beg you will do me the favor to write to me soon letting me know if this plant does establish a new genus and if you concur with me in the choice of a name, for really my interest in it and my desire to call it by its own name and to communicate my designed compliment to Mrs. Tuomey will hardly brook delay.”

Gray received the material Nevius mentioned and on a packet containing fruit wrote the name *Tuomeya alabamensis*. On July 12th Nevius wrote again, “Your kind letter of June is before me and hasten to thank you for your promptness in writing as well as for cordial agreement with me in naming the new genus. Your disposition to do me the unmerited honor of giving it my name was pleasing to me but far less so than my ability to honor the name of a most excellent and deserving man — my friend — in such an enduring monument. One word as to the name. Shall it be written Tuomeya or Tuomara? I think the former with the accent thus Tuo-mey-a. The name you know is Tuomey — Toomay. The name is Irish as Prof. T. was himself from Ireland.”

In this letter Dr. Nevius also refers to two other plants that had been the subject of correspondence between him and Prof. Gray. He obtained and sent material of *Croomia*, which Gray was able to grow in the Botanic Garden. Later Gray wrote a significant paper on the affinities of this unusual genus with *Roxburghia* of Asia. Nevius also wrote, “As to the Sedum, I really hope it is new that I may thus by your favor enter by



*Branch of Neviusia alabamensis in full bloom. Photo: K. Robertson.*

enrollment in a more modest way than you at first designed the honorable and gentle guild of botanists. I think, however, you have mistaken my name, as indeed all people do to whom I do not particularly say, it is Nevius not Nevins. My name you will see is already latinized. Perhaps so long ago as when written Naevius by Horace if so though I may not claim with modesty a descent so eminent. I may with reasonable pride see my name (through your works) incidentally mentioned like his upon a "Monument more lasting than brass."

Gray later was to write in a published paper: "The *Sedum* — a small, white-flowered species, with short and nearly terete leaves, which may be named *Sedum nevii* — cannot be adequately characterized until better specimens shall be obtained." By present rules of botanical nomenclature Gray may have published an illegitimate provisional name. However, Dr. Nevius has been honored by others for his work on mosses and algae, for *Chenactis nevii*, *Mnium nevii* and *Racomitrum nevii* have been published honoring him. In October 1858 Nevius reported to Gray, "I have a few more seeds of Tuomeya which I will send enclosed."

On August 12, 1858, Asa Gray read a communication to the American Academy of Arts and Sciences in which *Neviusia* was proposed as a new genus of the Rosaceae. The communication was not published until April 25, 1859.

Shortly after reading the paper, Gray must have written to Nevius that another name must be chosen for the Alabama plant. His paper on *Neviusia* as published noted, "But the publication of the third part of the *Nereis Boreali-Americana* (since the present communication was made to the Academy) shows that the name of *Tuomeya* is preoccupied, Dr. Harvey having dedicated to Professor Tuomey's memory a curious fluviatile alga discovered by the latter in Alabama, as well as by the late Professor Bailey in Virginia." On November 16, 1858, Dr. Nevius lamented to Gray, "You may know how greatly I have been disappointed by being anticipated by Prof. Harvey in choice of a name for my new genus when I say that the discovery itself scarcely gave me more pleasure than the opportunity it afforded for honoring the name of my deceased friend. Prof. Harvey's compliment has given me great pleasure, yet I cannot help wishing that he had been a few months later in publishing his book.

"I do not see what can be done but to accept your kind proposition to give the genus the less honorable name *Nevius* except it would be proper to call it *Toomara* and trust to the usual note to designate the person. I can hardly hope, however, that you will think this proper. I will leave the whole matter entirely in your hands and by your will be godfather to the new genus."

What name Gray used for the genus when he read the paper cannot be clarified. It is clear he modified the printed version to use the name *Neviusia* rather than *Tuomeya*. On February 21, 1859, Nevius wrote to Gray, "I have just received with great pleasure a sheet containing your article upon the new genus *Neviusia* and a few days before a sheet came to me by your kindness containing your notice of Harvey's *Nevius*, etc. I am greatly obliged to you for both and I take pleasure in again expressing my obligation and my thanks for your favor and kindness shown in the matter of *Neviusia* both in bringing it out and in keeping me apprised of its progress. Your kind notice of my first intention in giving it a name and your pleasing tribute to Prof. Tuomey has been peculiarly gratifying to me. Your article is quite an imposing one and it surprises me by its fullness. I am glad to know that there is an importance in its discovery aside from the discovery itself in its bearing upon the affinities of other genera."

With this, the correspondence with Gray lags, judging from the letters retained in the historical files of the Gray Herbarium. On July 11, 1868, Dr. Nevius married Margaret Mercer Tuomey, the daughter of Prof. Tuomey. Dr. Nevius is recorded as a minister in Mobile, Alabama, from 1869 until 1871; on October 22, 1870, Mrs. Nevius died.

Alone then, he moved to Portland, Oregon, and from there wrote in March, 1873, "it is long since I have done anything in botany save with the mosses. But there are so many new plants here and so many interested persons continuously applying to me that I find my old love for the phanerogams returning upon me. And so I find myself turning to you in my difficulties as I used to do. By the way, how does the *Neviusia* thrive in Cambridge? Has it come to you from any other quarter than Tuscaloosa? Can you not have a few roots sent me by mail yet this spring?" Nevius was to write to Gray on November 18, 1883, congratulating him on his birthday, and in December his correspondence with Sereno Watson began. Gray died January 30, 1888.

In the spring of 1891, Nevius asked Watson to send roots of *Neviusia* to a friend in Tacoma, Washington, and in June of 1892 he wrote, "Thank you for securing for my friend a root of *Neviusia*. It will grow very well here. I think that . . . it is not so much climatic difficulties which affects it as a want of loose acid soil. In its native place . . . under a perpendicular rock (long cliff) I could pull up perfect roots by hand by simply pulling and shaking the loose virgin soil from its roots. It spreads from the roots and makes a long hedge-like thicket — which in season is white with bloom."

The role of Wyman as the first to find the original plant cannot be verified. It is clear that Dr. Nevius was not seeking honor for himself in the naming and that the final choice of a name was that of Gray when the suggestion of *Tuomeya* could not be implemented. The material sent to Gray was on the initiative of Dr. Nevius and his acknowledgment of "friends and associates in this study, Prof. Wyman and Dr. Mallett" is in the correspondence with Gray.

The seeds in a packet with the name *Tuomeya alabamensis* in Gray's handwriting and full herbarium specimens preserved in the Gray collections are those of 1858 and 1859 from Tuscaloosa, Alabama. The oldest herbarium specimen from a cultivated plant is labeled Hort. Cantab. Anno 1864, and later specimens are dated 1871 and 1879. Such plants must have been grown from the seed Nevius sent to Gray.

Charles Sargent was the director of the Botanic Garden in Cambridge from 1872-9 as well as director of the Arnold Arboretum. An Arnold Arboretum specimen numbered 430 in our inventory was made from cuttings in the Botanic Garden, Cambridge, in 1876. One cutting from this plant was also established in Holm Lea, Sargent's residence. Other plants from this propagation must have been distributed by Sargent.

J. D. Hooker illustrated *Neviusia alabamensis* and wrote of it in the Botanical Magazine in 1885. "*Neviusia* flowered at Kew in May 1883; the plant was nailed against a wall exposed to the east and presented a very beautiful appearance from the abundance of its snow white heathery blossoms. Considering the climate and position of its native country, I should doubt its being hardy. It has been received at Kew from several contributors, notably a living plant from Prof. Sargent of Cambridge, Massachusetts, United States in 1879 and another from M. Miles, Esq. in 1881."

George Nicholson had made a specimen of a flowering plant of *Neviusia* at Kew on May 31, 1880; a specimen from Zabel at Hannover, Germany, in 1894 bears the annotation of source as Simon Louis Fr. 1882. *Neviusia* has proved to be hardy in England, although L. P. Raffill noted in the Gardener's Chronicle that in sooty London of 1907 the plants failed to achieve a brilliance of flower when grown out-of-doors. An illustration is supplied of a greenhouse plant forced into early bloom which displayed spectacular white flowers worthy of a prize in any exhibition. In the northern hemisphere the flowering is in May or June, while in Sydney, Australia, the shrubs flower in September.

*Neviusia* is reproduced readily from cuttings. Kenneth Robertson has made observations on the Rosaceae growing in the Arboretum and noted in the *Journal of the Arnold Arboretum* that "information on pollination mechanisms is lacking, but the plants are evidently partly self-compatible since the sole plant of the species in cultivation at the Arnold Arboretum produces some fruit." Our propagation records do not indicate that any propagator has tried to germinate the seeds of our plant. In fact, only one seed lot from another arboretum was tried and these seeds were infertile.

The original locale where *Neviusia* was collected has been destroyed by blasting operations, but populations still occur along both sides of the Black Warrior River in the vicinity. Originally it was thought to be restricted to Alabama, but sub-

sequently plants have been found in Arkansas and reported but unverified in Missouri. In any case all locations are on the periphery of the Mississippi embayment of the old Gulf Coastal Plain. *Neviusia* is considered by phytogeographers to be a relatively old relict species rather than a strict endemic of recent origin.

The spring of 1976 affords the opportunity of observing this interesting plant in our collections. What pollinates it? What attracts the pollinators? Do the flowers have an odor or nectar? Are fertile seeds produced? Do the seeds germinate in the same manner as the relatives *Kerria* and *Rhodotypos*?

Perhaps in the future sufficient young plants may be obtained to distribute again the material which Dr. Nevius sent to Prof. Asa Gray over a century ago.



*Close-up of Neviusia flowers. Photo: K. Robertson.*