

André Michaux's Sumac—*Rhus michauxii* Sargent: Why Did Sargent Rename It and Where Did Michaux Find It?

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ABSTRACT

In 1794 André Michaux discovered dwarf sumac *Rhus michauxii* in Mecklenburg County, North Carolina, and in 1803 published a species description under the name *Rhus pumila*. In 1895 C.S. Sargent assigned the name *R. michauxii* to correct Michaux's use of a homonym and to honor its discoverer. The type location is now in Union County, North Carolina, which was formed from part of Mecklenburg County in 1842.

INTRODUCTION

Rhus michauxii Sargent is one of the rarest shrubs in the southeastern United States (Fleming and Ludwig 1996). It is dioecious, non-poisonous, 30–90 cm tall, and densely hairy (Amoroso 2002). André Michaux discovered the species on July 20, 1794 (Sargent 1889). Nine years later he published a description, name (*Rhus pumila*) and type location (Mecklenburg County, North Carolina) in his posthumous *Flora Boreali-Americana* (Michaux 1803). The purpose of this paper, which we prepared for presentation for the 2002 André Michaux International Symposium on the bicentennial of Michaux's death, is to answer two historical questions about *Rhus michauxii*: First, how and why did C.S. Sargent become interested in the species and change its name in 1895, after a century of scientific obscurity? Second, where exactly did Michaux collect the type specimen, which is housed at the Michaux Herbarium in Paris, France?

DISCUSSION

Why Rhus michauxii and not R. pumila?

Following Michaux's discovery of the species in 1794 and publication of the name in 1803, *Rhus pumila* attracted little scientific attention until August 17, 1895 when F.E. Boynton and F.L. Olmsted, Jr. collected fresh specimens at Farmington, Davie County, North Carolina, on their way to the Biltmore Estate in Asheville, North Carolina. On August 29, 1895, Chauncey D. Beadle, the head gardener for George Vanderbilt's Biltmore Estate, sent a letter and one of the fresh specimens of *Rhus pumila* to Charles S. Sargent at the Arnold Arboretum at Harvard University (Beadle 1895). This letter, which is enclosed in a packet on the herbarium specimen at the Gray Herbarium at Harvard, suggested that Sargent might want to publish a figure of the species in *Garden and Forest*, a contemporary (1888–1897) journal of horticulture and forestry. In the October 9, 1895 issue of that journal Sargent (1895) published a figure as Beadle had suggested and renamed the species *Rhus michauxii* in honor of its discoverer. Another specimen collected August 17, 1895 at Farmington is in the United States National Herbarium (Figure 1).

In researching the specific epithet *pumila* (Latin "dwarf") as applied to *Rhus*, Sargent (1895) found that in 1798, five years prior to Michaux's *Flora Boreali-Americana*, Meeburgh had

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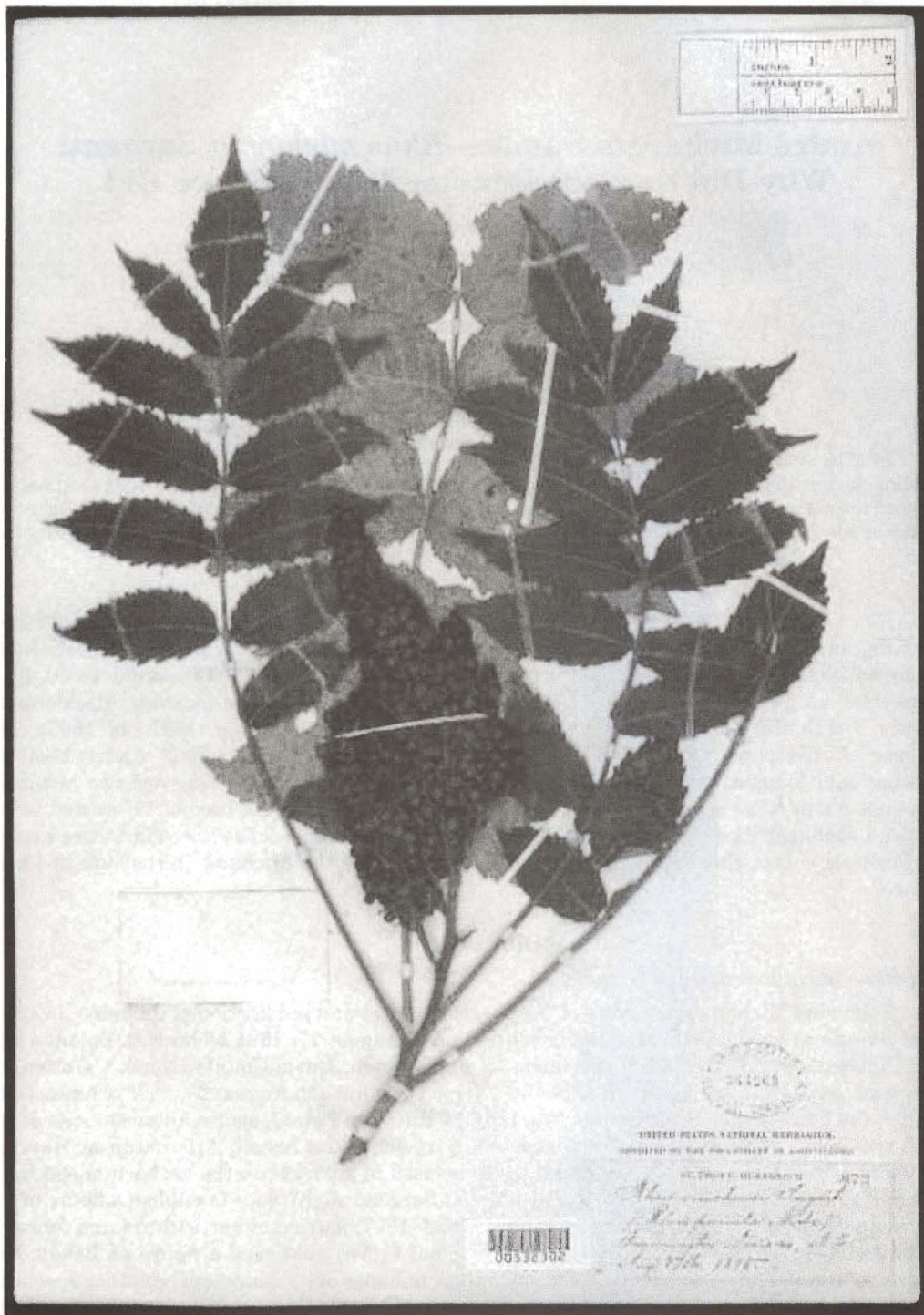


Figure 1. United States National Herbarium specimen of *Rhus michauxii* Sargent collected August 17, 1895 at Farmington, Davie County, North Carolina by R.E. Boynton and F.L. Olmstead, Jr.

used the name *Rhus pumila* for another species. Although Meeburgh's plant was likely not a *Rhus* (Sargent 1895), the name had already been taken for the genus and Michaux's name was a later homonym. Sargent (1895) also reported that

"[John] Lyon, who suffered seriously from it, and Torrey and Gray describe the plant as exceedingly poisonous, while Curtis denies its poisonous properties. From my limited experience with a partly dried specimen I am inclined to believe that it is the most poisonous of the North American species."

Beadle's (1895) letter to Sargent states categorically and correctly, "It is not poisonous."

Where is the type locality?

In Michaux's (1803) *Flora Boreali-Americana*, the type location for *Rhus pumila* is given in Latin as "*in Carolinae superioris comitatu Mecklenbourg*" (in North Carolina county Mecklenburg). However, the type specimen at the Michaux Herbarium in Paris has the notation "*in montosis Carolinae, Burke Comitatus*," (in mountains of Carolina, Burke County). Thus, there is a conflict in the type locality. The mountains of Burke County, Michaux's ultimate goal of the 1794 trip when he found the new species, are 80 miles northwest of Mecklenburg County. However, the historical distribution of *R. michauxii* is the Piedmont and upper Coastal Plain Provinces of Virginia, North and South Carolina, and Georgia, not the Mountain Province of North Carolina. Uttal (1984) compared the type localities of species published in *Flora Boreali-Americana* with locations listed on the type specimens and concluded that the notation of the Burke County locality on the type specimen was in error and the published location was correct.

We turned to Michaux's diaries to determine as closely as possible the type location for *Rhus michauxii* (Michaux 1793–1796, Sargent 1889). From his base in Charleston, South Carolina, Michaux explored the eastern United States on several trips, passing through western North Carolina in 1789, 1794, 1795, and 1796 (Williams 2002). Our focus is the trip north from Charleston in 1794 and a return trip south in 1796. The relevant parts of these two journeys can be traced on the Price-Strother Map of 1808 (Figure 2; Cumming 1966). Michaux provides mileage distances in his journals, and these are essential in solving the puzzle of the type locality. Mile markers were placed at most intersections along the primitive roads in the late 1700s. These provided travelers with distances between towns and other recognizable geographic features. For the 1794 journal (Sargent 1889), which has not been published in English, we provide both the original French and an English translation. Michaux's overnight stops are indicated by dates on Figure 2.

In 1794 Michaux left Charleston, passed through Camden, South Carolina, and on July 18 "*Couché ... six miles de Cambden*" (slept six miles from [north of] Camden) (Sargent 1889). On July 19 he "*couché chez Wm Grain 35 Miles*" (slept at the house of Wm. Grain, 35 miles), three miles north of the North Carolina state line ("7/19" on Figure 2), after traveling 35 miles that day.

On Sunday, July 20, he spent an unpleasant night at the "*maudite et detestable Tavern chez Huston*" (cursed and detestable Huston tavern). Fortunately, the location of "Huston" is noted on the Price-Strother Map (Figure 2; Cumming 1966). On July 21, "*parti de grand matin, la Pluye nous obligea d'arrêter plusi. fois. Couché chez John Spring M^d de Chevaux, homme riche, honnête homme et dont la maison est très honnête, et très décente*" (after a grand morning, the rain obliged us to stop several times. We slept at the house of John Springs, merchant of horses, a rich man, an honest man whose house is very respectable and very decent). On the same day, Michaux "*Remarqué Rhus glabrum, Rh. a. f. allées entre les folioles; [and] Rhus ...*" (Noted *Rhus glabrum* [*Rhus glabra*], *Rhus* with the wings between the leaflets [*Rhus copallina*]; [and] *Rhus ...*" Here and elsewhere in his journal, Michaux uses a genus name followed by three ellipsis points to indicate an unknown species (C. Williams, pers. comm., 2002).

On July 22 he "*passé par Charlotte en Mecklenbourg* [and] *Couché a six miles de Tuck-a-Segee ford*" (passed through Charlotte in Mecklenburg County and slept about six miles beyond Tuckaseegee Ford), a traditional crossing on the Catawba River west of Charlotte.

Two important landmarks in our search for the location where Michaux first collected "*Rhus ...*" were Huston's tavern and John Springs' home ("7/20" and "7/21" on Figure 2), which

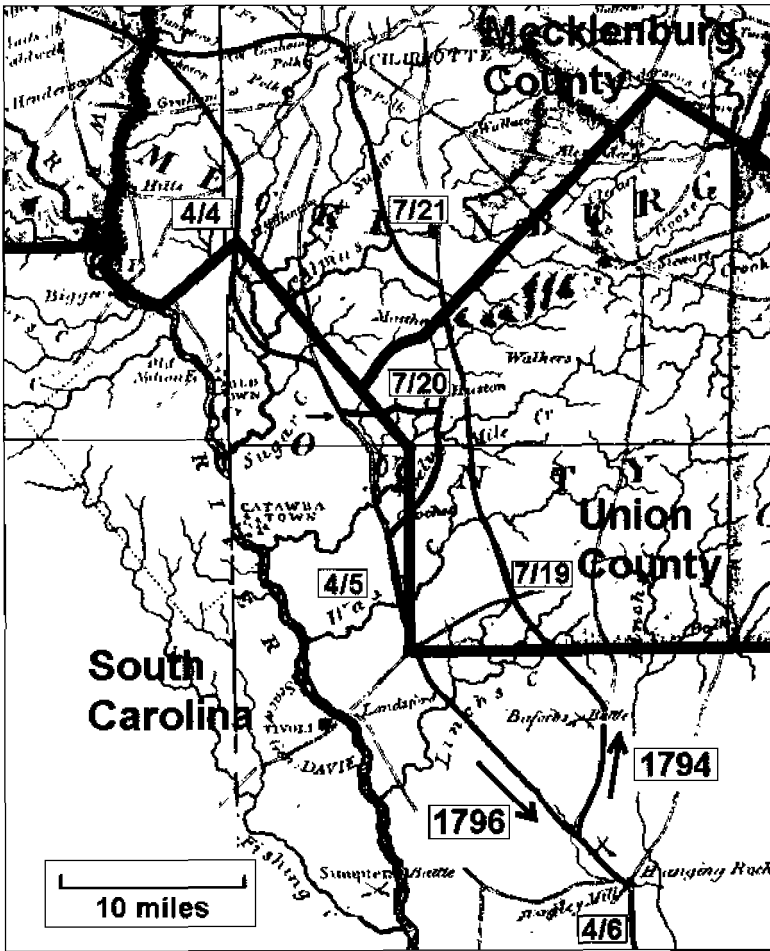


Figure 2. Detail of Price-Strother map of 1808 showing 1794 and 1796 routes and stops of Andre Michaux. Modern state and county boundaries are indicated by a heavy line.

geographically bracket Michaux's route of August 21, 1794, the day he discovered the new species. "Huston" on the 1808 Price-Strother map appears to be approximately 5 miles east of the NC-SC state line on the road that is now called New Town Road. John Springs, Jr. (1751–1818) lived on a plantation near McAlpine Creek on the road that is now called Old Providence Road (Springs 1965).

To get from Huston's tavern to John Springs' home, Michaux traveled north, possibly along Providence Road or Antioch Church Road and Tilley Morris Road to its intersection with Providence Road at the village of Providence. From there he traveled north along Providence Road and Old Providence Road to John Springs' house, a modern map distance of about 10 miles. Michaux does not report the distance traveled on August 21, 1794, but he does tell us that he had to stop several times for rain and that he collected "*Rhus* ..."

Michaux's 1796 journal of his return trip from St. Louis to Charleston provides the final information needed to locate the original collection site of *Rhus michauxii* (Michaux 1793–1796). On April 3, 1796, he arrived at Bennet Smith's home 12 miles south of Lincolnton, where he spent most of the day collecting *Magnolia macrophylla* Michaux to take to Charleston. On April 4, he crossed the Catawba River at Tuckaseegee Ford and "Took the road to the left instead of passing by Charlotte" (Michaux 1793–1796). Here, Michaux was using the time-honored

geographic indication of left and right, always going from south to north. The "road to the left" bypassed Charlotte to the west, as he explained two days later in his journal, "To go to Morganton or Burke Court house one should not pass by Charlotte, but take the road to the left 3½ miles from Hanging Rock [South Carolina]."

On April 4, 1796 Michaux slept 11 miles south of Tuckaseegee Ford in North Carolina ("4/4" on Figure 2) and on "The 5th of April 1796 at a distance of 12 miles [further south] took once more [to] the road leading from Camden to Charlotte" by turning left, probably on what is now New Town Road (arrow on Figure 2). He continued east to the vicinity of the memorable Huston tavern, which was located near the "road leading from Camden to Charlotte" that he had traveled in 1794. Here Michaux simply writes "*Rhus pumila*." From this cryptic entry we can infer two things. First, Michaux had detoured from his direct route back to Charleston to collect new specimens of "*Rhus* . . ." Second, we learn that by 1796 Michaux had chosen the name *Rhus pumila*, seven years before its formal publication in 1803 (Michaux 1803).

After collecting the specimens, Michaux traveled southwest to "Waxhaw Creek in South Carolina," probably along a road shown on the 1808 Price-Strother map (Figure 2; Cumming 1966). This road currently includes the southern end of Waxhaw-Indian Trail Road. On the night of April 5 he "Slept near Waxhaw Creek in South Carolina about 35 miles from Tuckaseegee ford" (Michaux 1793–1796). Thirty-five miles is the direct distance from Tuckaseegee Ford to Waxhaw Creek in South Carolina and does not include the extra mileage of Michaux's side trip to collect the sumac.

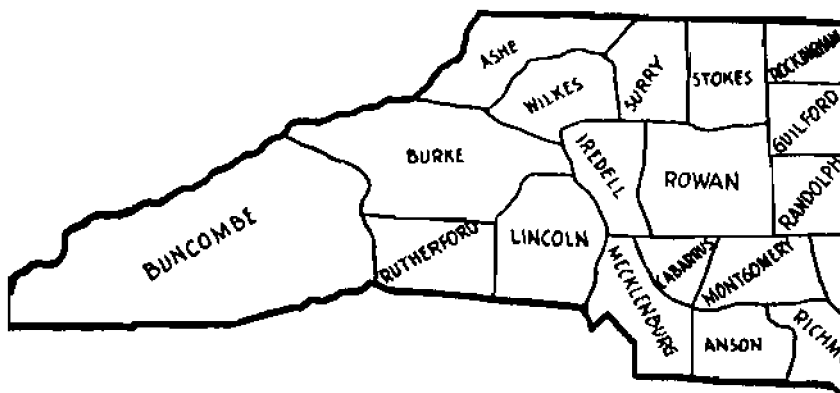
On the morning of April 6 he collected plants "at the house of Colonel Crawford near Waxhaw Creek," where he had probably spent the previous night, and then "passed by [and] slept near Hanging Rock" on April 6, 1796 (Figure 2). Hanging Rock is an outcrop of very large boulders on Hanging Rock Creek, South Carolina, where American militia defeated a British force on August 6, 1780. The site now belongs to the South Carolina Division of Parks and Recreation.

Michaux's 1794 journal indicates that he first collected "*Rhus* . . ." between Huston's tavern and John Spring's house. Michaux's 1796 journal gives the location where he turned east from the "road to the left" and detoured back to the "road from Camden to Charlotte" to collect *Rhus pumila*. From this information, we conclude that the type location for *Rhus michauxii* was near "Huston" on the 1808 Price-Strother map. On a modern map the type location would probably be no more than a mile or two north of New Town Road, probably along Providence Road or Antioch Church Road.

In 1794 the type location for *Rhus michauxii* was in Mecklenburg County (Figure 3; Corbitt 1950), but in 1842, portions of Mecklenburg and Anson Counties were combined to form Union County (Figure 4; Corbitt 1950). The consequence is that the type location of Mecklenburg County in *Flora Boreali-Americana* was correct in 1803 when it was published, but since 1842 the type location has been in Union County, North Carolina, about four miles southeast of the Mecklenburg County line.

We spent two days searching for *Rhus michauxii* along Michaux's route of July 21, 1794 when he traveled the "road from Camden to Charlotte" from Huston's Tavern to John Springs' home but have been unable to locate any populations. This part of Union County was heavily agricultural and is now being developed as a residential suburb of Charlotte, with few remaining habitats suitable for the species.

In November 2001 we transplanted a small female population of *Rhus michauxii* that was rescued from a road-widening project in Wake County, North Carolina, into two prairie restorations managed by the Division of Natural Resources of Mecklenburg County, North Carolina. While such transplanting is a last resort for endangered species, plants on the federal endangered list are not protected from destruction unless federal money is involved in the threatening development, which was not the case in Wake County. At that time, we justified this long-distance transplant on the incorrect belief that Mecklenburg County was the site where Michaux first collected the species. By June 2003, survival and asexual reproduction were excellent at Shuffletown Prairie Restoration (8 survivors of 9 transplants plus 2 new plants from rhizomes) but disappointing at Latta Plantation Prairie Restoration (2 survivors of 20 transplants and no new plants).



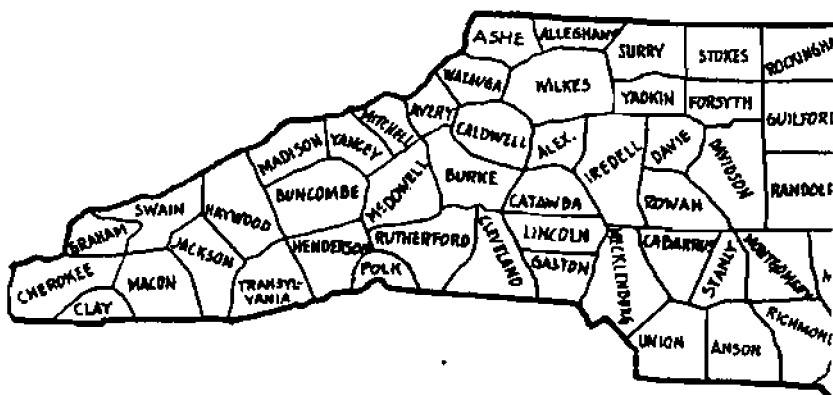
NORTH CAROLINA
 AT THE BEGINNING OF
 1800

Showing Approximate County Divisions
 within Present State Boundaries.

Map by
 L. Polk Denmark.

Figure 3. North Carolina county boundaries in 1800.

Although we now know that André Michaux actually collected the type specimen in Union County, we hope that Mecklenburg County DNR will continue its preservation of these female populations. In future, if a population of male plants is slated for destruction by another project like the one in Wake County, we hope that some of these male plants can be transplanted into



NORTH CAROLINA
 SINCE THE BEGINNING OF
 1912

Showing Approximate County Divisions
 within Present State Boundaries.

Map by
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Figure 4. North Carolina county boundaries in 1912.

the female populations in Mecklenburg County so that the species can produce viable seeds for restorations into other counties where historical populations once occurred.

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