

Sleuthing in the UNC Herbarium

by Carol Ann McCormick

Herbaria usually remove plants from the wild and place them in museum cabinets for research. But recently, a plant has made this journey in **reverse**: from the University of North Carolina Herbarium back to the forest.

Philip Hyatt, Forest Botanist with the Kisatchie National Forest in Louisiana, contacted the University of North Carolina Herbarium with a question about Louisiana Bluestar (*Amsonia ludoviciana* Vail). This lovely wildflower is native to Louisiana, Mississippi, and Georgia. It is a rare plant throughout its range: in Louisiana it is rare (S3 rank, 21-100 occurrences); in Georgia it is imperiled (S2 rank, 6-20 occurrences); and it is probably extirpated in Mississippi. Ron Wieland of the Mississippi Natural Heritage Program is actively searching for Louisiana Bluestar in Mississippi, but to date has not found a single plant. Hyatt and Wieland are involved in not only protecting existing populations of rare plants, but also looking into restoring areas and, in some cases, re-introducing plants to appropriate locations.

While preparing a management document for the US Forest Service on rare plants, Hyatt noticed that both the United States Department Agriculture Plants Database <<http://plants.usda.gov>> and *Synthesis of the North American Flora* (by John Kartesz and Christopher Meacham) have South Carolina listed as a place where Louisiana Bluestar is found. Very curious! The *Synthesis* lists the documentation for the South Carolina occurrence as “Voucher at University of North Carolina Chapel Hill” so he called the UNC Herbarium to discover more about this puzzling specimen.

Carol Ann McCormick, Assistant Curator of the Herbarium, started by finding our South Carolina specimens for *Amsonia ludoviciana*. Sure enough, there are four collections from South Carolina: one undated, one from 1936, and two from 1945. The label of the undated one has little information – Georgetown County, South Carolina. It is probably this specimen that placed *Amsonia* in South Carolina. However, if one goes on to look at the other specimens, it is clear that the plant was not found growing wild, but instead was collected from a botanical garden in Georgetown County, namely Brookgreen Gardens! The 1936 specimen was collected by F. G. Tarbox, Jr. at Brookgreen Gardens, S. C. Its label has the intriguing note, “See letter under label.” Unfortunately, the letter is not now under the label, though there is a spot of glue where it once was affixed. The two 1945 specimens, collected by Tarbox and Coker, go into more detail, “Collected in Brookgreen Gardens, S. C. Said by Tarbox to be grown from seed sent by Small.”

In 1985 a researcher from the University of Texas Herbarium, David Lemke, examined all *Amsonia ludoviciana* that he could find in any herbarium, including the UNC Herbarium. In the article that he published about this work, Lemke states that the seeds Small (noted botanist John K. Small) sent to Tarbox (curator of Brookgreen Garden) were from the population of plants near Bay St. Louis, Mississippi. Did Lemke assume from the proximity of the dates that these specimens were from Small’s seed? Small visited Mississippi in 1926, the Brookgreen/UNC specimens are from 1936. Or, perhaps,

when Lemke examined our specimens in 1985 the now missing letter was still attached and revealed this information.

I contacted Lemke, now a professor at Southwest Texas State University. Lemke replied, “I finally found where I stashed my old *Amsonia* files. Unfortunately there was nothing in the notes to jog my memory. I’m certain that I did not just make the assumption that the Brookgreen plants were from Small’s collection and I do seem to recall that there was a short note/letter associated with one of the herbarium specimens. I cannot specifically recall its contents, however, and I did not make a copy of it.”

I contacted the USDA and Kartesz with the results of my detective work on the curious – and now discredited – South Carolina occurrence for *Amsonia ludoviciana*. Hyatt took this information one step further with surprising results. “Brookgreen still has LIVE plants of this species from the Mississippi source. With your help and the help of several others, I’ve made the contacts needed to put Brookgreen in touch with folks in Mississippi. We are planning to use this live, Brookgreen material to reintroduce the plant to Mississippi. Kinda neat!”

I’m gratified that the University of North Carolina Herbarium played a part in this puzzle – and this time, the live descendents of our herbarium specimens will be finding their way back home to the woodlands of Mississippi. According to Hyatt, the live Brookgreen plants – great-great-grandchildren of the original Mississippi seeds collected by John Small in the 1920’s -- are going to be planted on Forest Service lands in Mississippi next spring.

Lemke. 1987. Recent collections and a redescription of *Amsonia ludoviciana* (Apocynaceae) SIDA 12: 343-346.