

CHAPTER FIVE: URGENTLY NEEDED: A NEW MANUAL

Wide-ranging variations in topography, geology, soils, and climate have made possible the abundantly rich and diverse plant life in the Carolinas. Myriads of habitats for countless species are provided by miles of sandy beaches and dunes, acres of salt and brackish marshes, sounds and inlets without number, pocosins, Carolina bays and pine savannahs, and the vast expanse of the piedmont stretching westward to the foothills of the mountains with their craggy peaks and near-sunless gorges. Many northern plants find their southern limits in the Carolinas, and a number of southern species grow no farther north. There is a touch of the Canadian zone in the Carolina mountains and a bit of the sub-tropics in the southern tip of South Carolina.

Those first botanists and scientists who came to the Carolina shores during the early Colonial days, must have been filled with amazement and excitement upon discovering so vast an array of strange and unfamiliar plants. Old World records were of little help in identifying these species, so the newcomers wrote their own lists and descriptions of their finds. In 1788 the first flora of the area, "Flora Caroliniana", was published by Thomas Walter of South Carolina. This little volume in Latin containing just over one thousand species remained the only descriptive flora of the region for the next one hundred and eighty years.

During the 18th and 19th centuries, knowledge of the plants of the Carolinas was greatly increased by the field work and publications of many dedicated botanists too numerous to mention here. We can scarcely imagine the hardships they endured as they traveled many hundreds of miles through uncharted wilderness, mostly on foot, sometimes on horseback or by boat. They had no station wagons, no interstates, no maps of well-marked roads, none of the equipment that enable botanists today to turn out well-pressed specimens of good color. Still, how we envy those pioneer botanists and explorers for what they were privileged to see: the freshness, the beauty, and the majesty of a pristine land as yet unravaged by axe or saw or plow!

It was in the early decades of the present century that W.W. Ashe and T.G. Harbison made their sizeable collections of plants from all over the Southeast. Those were also the years that W.C. Coker and H.R. Totten collected widely over the two states and beyond in preparation for their "Trees of the Southeast", first published in 1934. Many other botanists were observing, collecting, and publishing, among them H.L. Blomquist of Duke University, B.E. Smith of Coker College, and W.B. Fox, R.K. Godfrey and B.W. Wells of North Carolina State. Much of this activity was limited to the study of local floras and to special groups of interest to these botanists. Following the close of World War 11, during his early years as curator of the Herbarium, Albert collected far and wide over both states, increasing his understanding of the relationships between plants and their habitats.

The observations of all these men added immeasurably to the knowledge of the flora of both Carolinas.

The most commonly used manuals during this period were the well-known Gray's Manual and John Kunkel Small's Southeastern Flora. The former, written chiefly for plants of the northeastern states, was useful for identifying mountain and upper piedmont species of the area, but contained few of the plants found in the sandhills, coastal and maritime habitats. Here Small's Manual was of more help since it did include the Carolinas southward; but it had not been revised since 1933. There was an urgent need for a manual that would better serve our area, one with more accurate distributional data, and with illustrations. It was time, as Dr. Coker had pointed out in 1944, to conduct an intensive "field and herbarium study...to find out what we really have here." Events would validate his further observation that Chapel Hill was "an ideal location for the advancement of such studies...", studies that would lead eventually to the production of a manual for the Carolinas.

The first such event was the purchase by the University of a set of the Gray Card Index, a listing on cards of all the new names and combinations of vascular plants in the New World, with authors, places of publication, bibliographic references, etc. First issued in 1894, there was a backlog of some 200,000 cards, which arrived all at once for the Herbarium in Chapel Hill. The botanists at State and Duke were offered the use of the Index in return for their help in alphabetizing and filing the thousands of cards. So for many an afternoon over quite a few months, a group of ten to fifteen would gather in the Herbarium in Davie Hall to work for several hours. From Duke came Dr. Henry J. Oosting, Dr. Rudolph Schuster, Dr. Lewis Anderson, and Dr. H.L. Blomquist; from State, Bob Godfrey and Bill Fox; and from UNC Dr. Carroll Wood, Dr. J. Edison Adams, Dr. H.R. Totten, and Albert. Sometimes students joined in to help. In addition to being an essential reference, the Index served to get the botanists from the three schools together. They became better acquainted, learned about each other's work, made some long-time friendships, and discussed the flora of the Carolinas. After an hour or two of sorting, they were ready to break for refreshments. I like to think that I had a small part in the enterprise by furnishing home-made cookies for many of their sessions.

Dr. Blomquist was responsible for getting the group thinking and actually moving toward making a survey of the flora of the area. On January 20, 1952 I wrote in a letter home: "Dr. Blomquist was over here some weeks ago to attend a Botany seminar, and afterwards got to talking with Albert and Dr. Wood and some of the fellows from State. He thought it would be a good idea for some of the younger men interested in taxonomy in the state to get together and talk things over, so he invited about 15 from here, Duke, and State." They met at his house and enjoyed a delicious dinner prepared by Mrs. Blomquist, and afterwards talked about botany. It was such a great success that they decided to meet from time to time to continue their discussions.

During the next few years various circumstances and events began to thin out the group. Bob Godfrey left to teach in Florida, Carroll Wood returned to Harvard, and Bill Fox

died in a tragic accident. Others became involved in their own research, and some lost interest and dropped out. Thus by the beginning of 1955, only Blomquist, Adams, Totten, and Albert remained committed to the Project. They soon realized that after their teaching and research, their combined spare time efforts were not going to accomplish much very fast. There was an urgent need for an experienced, hard-working taxonomist who could devote his full time to supplementing their efforts. It would not be easy to find such an "expert" and should they succeed, they had little hope that the University would or could support another herbarium position.

The Department's decision to hire a 1949 Carolina graduate, C. Ritchie Bell, to teach and to head up the Botanical Garden, proved to be a most fortuitous turn of events for the Flora Project. Ritchie had gone to Berkeley for his Ph.D. and was presently teaching at the University of Illinois. There he met Harry Ahles, a young man who had worked as a gardener for eight years at the New York Botanical Garden. Although he had never gone beyond high school, he was a self-taught taxonomist and field man, so good that he was hired as assistant curator at the University of Illinois. After Ritchie came to UNC, it was due to his lavish praise of this "natural-born genius" (praise taken by all with quite a few grains of salt - no one could be that good) that Ahles was hired as assistant curator of the herbarium at Chapel Hill, January 1, 1956. He proved to be even more remarkable than Ritchie knew. Albert said years later, "Ahles was the best field student of plants I've ever known. His field instincts and intuition were absolutely uncanny, particularly in view of the fact that he did not have field geology, soils, or hydrology training." It is no exaggeration to say that without the coming of Harry Ahles the Flora Project most likely would have "withered on the vine". Much credit is due Ritchie for realizing that Harry was the one needed at that critical time and for persuading him to come to Chapel Hill.

With the addition of Harry Ahles and Ritchie Bell, the group now consisted of six individuals representing as many different botanical interests and backgrounds. Dr. Totten had considerable knowledge of the woody plants of the South. His speciality was conifers; he also knew a great deal about oaks and hickories. Dr. Adams was particularly interested in the Ericaceae, the heaths, but his most important contribution was his special talent for editing. He was a superior student of the English language and knew how to use it correctly and effectively. Dr. Blomquist, an authority on ferns and grasses, laid a sound foundation for those groups in the Manual, although he did not live to see the work completed. He died in 1964. Ahles was a super collector with a very keen eye for detecting anything new or different about a plant, even, it was said, when glimpsed from a fast-moving car! Although he was not too familiar with some southern plants, he was soon identifying them by the hundreds and seemingly never forgetting a single one. He was a tireless worker, completely devoted to learning all there was to know about the plants he loved, and he loved them all, beautiful and plain alike. Ritchie had worked with southern species at Coker College and also had done considerable research on the pitcher plant group. Albert had collected extensively over both Carolinas, with special attention to the graminoids and to aquatic and marsh plants. Also, he had long been interested in the relationship of plants to topography, rocks, soils and water.