

Early Plant Collections Return to Texas¹

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A herbarium is the means by which the plant life of a large area is sampled and made conveniently accessible for study. Texas, with the largest area and one of the most varied floras of the United States, is botanically one of the most poorly known. Although its botanical exploration has been going on for more than a hundred and twenty-five years (it began in the summer of 1820, when Edwin James, surgeon of Major Long's expedition to the Rocky Mountains, collected a few plants along the Canadian River in the Texas Panhandle), the early collections were sent elsewhere, and are not readily available for study by resident botanists. Pioneer collectors were either sent out on commissions from Europe, or were patronized by botanists in the older parts of the United States. Not until the late 1890's did a Texas institution begin serious study of the flora of the state. Just fifty years ago, W. L. Bray made collections more or less incidentally to ecological studies of the vegetation. These were the earliest collections to remain permanently in Texas, and were the beginning of what is now the largest herbarium in the state, that of the University of Texas. An important addition was one of the sets distributed from the Missouri Botanical Garden in 1907, including 652 specimens collected in south-central Texas by Ferdinand Lindheimer from 1849 to 1852. Collections made by S. M. Tracy in Texas and other Gulf states in the early 1900's became the nucleus of the Tracy Herbarium of Texas A. & M. College.

The very old collections made in Texas were often fragmentary, or lack full or reliable data, or have had labels lost or mixed up (sometimes deliberately) in handling. It must be admitted that at present many are of little more than sentimental historical value. Recent intensive activity directed toward the building up of herbaria in the state has resulted in the accumulation of material for taxonomic, geographic, and morphological study far superior to what was once available. But the original collections of new

¹Invitation-paper presented before Texas Academy of Science, meeting in San Antonio, Dec. 9, 1948. [Abstract.]

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species, the "type collections," are necessary for comparison if names are to be correctly applied. Old collections record the presence of species in areas from which they have now disappeared, or may indicate the former geographic limits of native plants which have turned weedy and spread, or record the first appearance of foreign weeds. For certain purposes, old collections have a value out of all proportion to their number or quality.

During the past few years, Southern Methodist University has been fortunate enough to secure a number of early Texas plant collections, some dating as far back as 1839. The University Herbarium, though the youngest and at present the third-largest in the State—it dates from 1944, and now contains 30,000 specimens of flowering plants—thus becomes the one with the oldest specimens. These are from two sources. (a) In 1945, a lot of 633 specimens in the Herbarium of the Milwaukee Public Museum was generously made available in exchange by Albert M. Fuller, Curator of Botany. These were chiefly from the herbarium of Emil Dapprich, a German teacher who visited Texas in 1873, obtained specimens of Lindheimer and Charles Wright, later lived in Milwaukee, and ultimately left his collections to the Public Museum there. (b) In 1948, specimens in excess of 1,000 were received by special arrangement with Dr. Robert E. Woodson, Jr., Curator of the Herbarium of the Missouri Botanical Garden, St. Louis. These include both mounted and unmounted duplicates of collections made by several botanists in Texas and other Southern states during the last century. Chiefly responsible for their acquisition by the Missouri Botanical Garden were George Engelmann, whose private collections (including a large number of Lindheimer's from Texas) became an important initial part of the Garden's Herbarium, and William Trelease, the Garden's first director, who sought to make his institution the leading center of botanical study for the Southwest. In the late 1890's and early 1900's, the Garden purchased nearly all the available Texas collections (the largest being that of Julien Reverchon, first resident botanist of Dallas, very few of whose specimens have been distributed); and subsidized collectors to carry on additional exploration. As a result, there are now probably more Texas specimens to be found

at the Missouri Botanical Garden than at any one institution in Texas.

The early plant collections which have been mounted and are now available for use in the Herbarium of Southern Methodist University are tabulated below. Altogether, slightly less than 1,400 early Texas specimens are now on hand; others are still to be mounted. The plant families most amply represented are the *Gramineae*, *Leguminosae*, *Euphorbiaceae*, and *Asclepiadaceae*. There are a number of isotypes in the collections of Lindheimer, Wright, Reverchon, and Heller, whose new species were described by Engelmann, Gray, Bush, and Heller.

Collector	No. of Sheets	Dates	Counties
Ferdinand Lindheimer	ca. 330	1839-52	Austin, Comal, Galveston, Harris
Charles Wright	97	1850-52	El Paso (chiefly), Hays or Travis
Emil Dapprich	ca. 200	1873-? ³	Comal, Dallas, Mason
J. F. Joor	23	1875-84	Anderson, Cherokee, Galveston, Harris, Lampasas, Travis, Washington
F. Rauterberg	ca. 25	1888	Comal
Julien Reverchon	315	1876-1905	Brazos, Brown, Burnet, Culberson, Dallas, Frio, Kaufman, Llano, Navarro, Oldham, Palo Pinto, Potter, Smith, Van Zandt, Wood, Young
Gustav Jermy	2	1889-?	Gillespie
G. C. Nealley	1	1893	Duval
A. A. Heller	177	1894	Kerr, Nueces, San Patricio
S. M. Tracy	49	1902	Galveston, Howard, Mitchell, Parker
C. T. Brues	ca. 25	1911	Grayson, Travis

³EDITOR'S NOTE — Correspondence (1940) with Dapprich's daughter (Mrs. M. Prokosch of Rehoboth, Mass.) and with descendants of Rudolph von Creth and John O. Meusebach (Dapprich's sponsors in Texas) show him to have collected in Texas in the late summer of 1881.—SWG.