FLOYD BARTLEY'S CONTRIBUTION TO BOTANY
Ronald L. Stuckey
Associate Professor of Botany and Curator of the Herbarium
The Ohio State University

Knowledge of the distribution of plants comes from people who search for them in the wild, make collections with associated location, habitat, abundance, and phenology data, and place them in publicly or privately supported institutions, or herbaria. Floyd Bartley, now a retired farmer of rural route #4, Circleville, Ohio, has contributed to the science of Botany, particularly through his efforts as a collector of plants. He has placed thousands of plants in herbaria in the United States where they could and are used by botanists and others in the special studies of floristics, taxonomy, morphology, and phytogeography. The Ohio State University Herbarium contains hundreds of plants he has collected. These records, as well as some of the published notes that have appeared in the literature concerning these collections, form the basis for this tribute to Floyd Bartley's contribution to Botany.

Additions to the Ohio Flora; Rare Species

Floyd Bartley apparently became seriously interested in collecting plants about 1928, for it was in that year when Professor John H. Schaffner, then curator of the Ohio State University Herbarium, first reported in his published annual additions to the catalog of Ohio vascular plants 17 species contributed by Floyd Bartley and Edward S. Thomas (Schaffner 1929). These plants came from the Highby Prairie, the Jackson Road at the Scioto River, a place three miles east of Kingston, and at Rock Hill in Ross County and from Kibler's Prairie and Salt Creek Township in Pickaway County. In the additions for the following year, Schaffner (1930) credited 54 species to Bartley and Pontius and 12 to Bartley alone. These plants were collected in south-central Ohio in the counties of Fairfield, Hocking, Jackson, Pickaway, Ross, and Vinton. By this time Floyd had teamed with his older postmaster friend, Leslie L. Pontius in the pursuit of collecting plants. Mr. Pontius (1867-1950) was with the postal service in Circleville for more than 30 years, but aside from his work became, according to Bartley (1950), one of Ohio's "outstanding field naturalists," who could "recognize without a moment's hesitation many of the plants that grow in the state."

In the additions to the Ohio vascular plants published from 1932 to 1934 (Schaffner, 1932, 1933, 1934), the records of Bartley and Pontius expanded beyond south-central Ohio, with plants noted from Ashland, Clark, Highland, Pike, Portage, Scioto, Summit, and Williams Counties. In one report, Schaffner (1932) gave special acknowledgment to the additions by Bartley and Pontius.

As has been the case for a number of years past, a considerable number of new records have again been added to the Ohio state plant list. . . Mr. Floyd Bartley and Mr. Leslie L. Pontius deserve special credit for a number of these interesting discoveries, some of which advance the geographic boundaries of several species several hundred miles beyond their supposed limits.

In a later publication, Schaffner (1937) singled out two species whose ranges were considerably extended by their field work.

Apparently the most interesting of these is Scirpus saximontanus Fern. Collected by Bartley and Pontius in Pickaway County, here-tofore not known east of the Black Hills and central Nebraska.
Echinodorus cordifolius (L) Griseb. and its variety lanceolatus (Engelm.) Mack & Bush [Both reported as E. rostratus (Nutt.) Engelm. in Braun (1967)], from Ross and Pickaway Counties respectively, are also far east of their supposed natural range.

Citations of plants collected by Bartley and Pontius appeared in the annual additions to the vascular plants of Ohio from 1930 through 1939 by John H. Schaffner and from 1939 to 1942 by Clyde H. Jones, all of which were published in the Ohio Journal of Science. Floyd Bartley's name appears alone in the additions published from 1943 through 1945, after which no more additions were published. His major field work with Mr. Pontius apparently terminated in the early 1940's.

In the Ohio State University Herbarium are collections of a number of plants, of which all of the specimens of each particular species were obtained by Bartley, Bartley and Pontius, or Bartley and another field companion. Thirty of these species of vascular plants are listed in table 1. The list is probably incomplete. Furthermore, Mr. Bartley, or he and his field companions, have obtained the first record of many other species of the rarer Ohio plants, or have collected most of the specimens that are in the Ohio State University Herbarium of these rare southern Ohio species.

Flora of Liberty Township, Jackson County

One of the special projects of Bartley and Pontius was to concentrate on the flora of Liberty Township, Jackson County. From this field study over 1,100 species were collected within the 42-square mile area of Liberty Township, a number approaching one-half of the flora known for more than 41,000 square miles in the State of Ohio. A checklist of the vascular plants from Jackson and Vinton counties was prepared by Bartley (1959) and published as an appendix to the definitive work on the primeval forests of Vinton and Jackson Counties, Ohio, by Janice C. Beatley. A number of the species in this checklist were new for the flora of Ohio.

New--A Genus, Two Species, and a Subspecies

Floyd's keen eye for recognizing variation in plants, not only brought to our attention a number of species new to the Ohio flora, but also contributed to a few special records. At Rock Run in Liberty Township, Jackson County, Bartley and Pontius found plants of the genus Gratiola (Hedge-hyssop), which was described by Dr. Francis Pennell (1935) as Gratiola viscidula subsp. shortii. The specimens were brought to Professor Schaffner, and he sent a duplicate collection to Dr. Pennell at the Academy of Natural Sciences in Philadelphia. Pennell (1932) replied to Schaffner saying,

"...In mapping the ranges of the species I noticed that G. viscidula occurred only east of the Appalachian Valley, but that the Academy's herbarium contained an old collection by C. W. Short credited to Kentucky, ...It was in every way a larger plant than G. viscidula and on the basis of this collection alone, I have had it in manuscript as G. viscidula shortii. Pontius and Bartley have collected again Short's plant and have supplied us for the first time with a definite locality at which it may be found."

The subspecies, according to Pennell (1935), is known only from Short's collection in Kentucky and Bartley and Pontius' collections in Jackson County, Ohio. Since then Floyd has found it in Gallia County and in several places in Jackson County.
In 1934, Bartley and Pontius obtained a grass from Ofer Hollow in Jackson County. This time Professor Schaffner sent specimens to the United States National Museum (Smithsonian Institution) and the reply came from Dr. A. S. Hitchcock (1935), the American authority on grasses.

... I am enclosing a list of identifications of the grasses with your letter of April 29. One of the specimens... proves to be a new species of Calamagrostis which Mr. Swallen is proposing to describe...

It is quite a surprise to find a new species in that region.

Swallen (1935) described this grass as a species new to science under the name Calamagrostis insperata, with the specimen of Bartley and Pontius as the type. This species has since been collected in 1957 in Vinton County by Floyd Bartley.

More recently, Harold Robinson (1966) of the United States National Museum described Bartleya ohioensis, a new genus and a new species of moss. The type material in the United States National Museum came from a wet ledge along a stream 3 miles south of Buckeye Furnace in Jackson County, where it was obtained on 7 November 1964 by Floyd Bartley. Robinson suggests that Bartleya ohioensis is "likely... a relict surviving in an isolated ravine" in southern Ohio. The species is known elsewhere only from Boone County, West Virginia.

Field Trips, Herbaria, and Membership in Societies

Among other field companions not noted above, but whose names appear on herbarium specimens, are Mr. E. L. Crist for 1941 and Dr. Lawrence E. Hicks for 1954 and 1955. Doubtless there are others. After the death of Mr. Pontius, Floyd's collecting activities continued with many other friends and botanists, particularly Dr. Hicks. He has taken many botanists in the field to search for the rare plants of southern Ohio, including leading field expeditions in southern Ohio for the American Fern Society in 1950 (Ewan, 1951) and 1968 (Montgomery, 1969). During the years 1950-1967 while Dr. Clara G. Weishaupt was Curator of the Ohio State University Herbarium, Floyd would bring a large collection of plants at least once a year, or sometimes more frequently. He has continued to bring plants to the herbarium as late as the past fall. His plants from the past three years have been obtained in Adams, Brown, Gallia, Jackson, Lawrence, Pickaway, Pike, Ross, Scioto and Vinton counties. This list attests to his continued, current, wide travels in south-central Ohio in search of plants.

The personal herbarium of Floyd Bartley and Leslie L. Pontius resides at Ohio University, Athens. In addition to the large number of specimens in the Ohio State University Herbarium, Bartley and Pontius have deposited specimens in the herbaria of the New York Botanical Garden, the United States National Museum, and perhaps others. Floyd has collected fossil plants for Dr. Arthur Bickle of Ohio University.

In 1930, Floyd joined the Ohio Academy of Science and affiliated with Section B, Plant Sciences. He was elected a fellow of the Academy in 1944 and was presented with an honorary life membership at the 75th Annual Meeting of the Academy in 1966.

Floyd Bartley truly represents one of those complete, now rare, all-round naturalists. Probably nobody else in Ohio knows more Ohio plants by sight in the field than Floyd Bartley. His contributions will always play a significant part in the knowledge and understanding of the flora of Ohio.
Table 1. List of 30 Ohio vascular plants known only from the collections of Floyd Bartley as represented in the Ohio State University Herbarium. Names listed according to Weishaupt (1968).

**ALISMACEAE**
Echinodorus rostratus (Nutt.) Engelm.

**AMARANTHACEAE**
Froelichia floridana (Nutt.) Moq.

**CHENOPODIACEAE**
Coriospermum nitidum L. Bugseed

**CRUCIFERAE**
Chorispora tenella (Pall.) DC
Draba brachycarpa Nutt. Whitlow-grass
Thlaspi alleaceum L. Penny-cress

**COMPOSITAE**
Ambrosia bidentata Michx. Ragweed

**CYPERACEAE**
Carex baileyi Britt.
Carex nigro-marginata Schwein.
Carex debilis Michx. var. debilis
Cyperus acuminatus Torr. & Hook.
Cyperus Lancastriensis Porter
Cyperus refractus Engelm.
Cyperus retrofractus (L.) Torr. var. dipsaciformis (Fern.) Kukenth.
Scirpus saximontanus Fern.

**ELATINACEAE**
Elatine brachysperma Gray Waterwort

**GRAMINEAE**
Agropyron desertorum (Fisch.) Schult. Quack Grass
Calamagrostis insperata Swallen Reed Grass
Eriochloa contracta Hitchc. Prairie cup-grass
Muhlenbergia capillaris (Lam.) Trin.
Paspalum fluitans (Ell.) Kunth.
Stipa avenacea L. Black oat grass

**JUNCACEAE**
Juncus diffusissimus Buckl.
Juncus greenei Oakes & Tuckerm.
Juncus subcaudatus (Engelm.) Cov. & Blake

**LILIACEAE**
Allium ampeloprasum L. Wild onion

**PRIMULACEAE**
Centunculus minimus L. Chaffweed

**UMBELLIFERAE**
Ligusticum canadense (L.) Britt.

**VIOACEAE**
Viola missouriensis Greene Violet

**VITACEAE**
Vitis baileyana Munson Grape
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References Cited


