

THE ROLE OF OHIO'S HERBARIA BEYOND THE STATE¹

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INTRODUCTION

The earlier presentations in this symposium have provided documentation on the development of herbaria in Ohio and the actual vascular and nonvascular plant resources available throughout the state. My task is to provide an insight into the role the various herbaria and their individual resources have outside the state of Ohio.

Index Herbariorum (Holmgren et al. 1981) is the primary reference resource detailing herbaria throughout the world. Most of the major herbaria in Ohio are documented in this index. However, the information presented in the symposium indicates that there are several important resource herbaria that for one reason or another are not included in this index. Beaman (1965) noted that herbaria may be logically grouped into three categories based upon rather arbitrary limits which recognize herbaria with fewer than 100,000 specimens as small, those with 100,000–500,000 specimens as medium size, and those with more than 500,000 specimens as large. If we accept these working criteria, Ohio has one large herbarium at The Ohio State University, one medium-sized herbarium at Miami University, and many small herbaria. Payne's 1974 committee report on *Systematic Botany Resources in America* recognized four National Resource Collections in the state including those of the University of Cincinnati (CINC-LLO), Kent State Univer-

sity (KE), Miami University (MU), and The Ohio State University (OS).

Such statistics and listings are by and large self-serving and may be useful when attempting to justify our herbaria at various levels of an administrative hierarchy. Nevertheless, what is of primary concern here is the role of all the state's herbaria worldwide.

An arbitrary selection of herbaria within the state (table 1) indicates that with three exceptions, the holdings in the larger collections in Ohio are dominated by local material. Large collections of non-Ohio specimens do exist at the University of Cincinnati, Miami University, and Ohio State University. Having considered the data on our collections, let us now turn to the question of their significance outside Ohio.

DISCUSSION

The primary value of Ohio herbarium collections is to form a data base for individual monographic, revisionary, and floristic studies. Loan records indicate that many institutions in the state have supplied material in support of such investigations. Nonetheless, loan records also indicate that Ohio herbaria are not perceived as primary resources by most monographers. The question arises as to how we can improve our image. Several obvious steps might be taken. We should be aggressive in building our holdings but primarily by developing special collections which will be of value to monographers. Tod Stuessy (pers. comm. 8 April 1982) has pointed out that the University of Michigan with some 1,300,000 specimens has more material than all of Ohio's herbaria put together. Some important special collections do exist in the state. For example, the fern collection at Youngstown,

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TABLE 1
Selected Ohio herbaria showing dominance of local material.

Institution	Location			
	Ohio	N. Amer.	West Hem.	East Hem.
BGSU*	19,000	1,000	—	500
CINC-LLO**	5,000	25,000	1,800	20,000
KE**	43,000	6,000	(1,000)
MU**	(131,000)
Muskingum	21,000	2,500	—	—
OC	26,066			
OS**	150,000	155,000	3,500	2,500
BHO	25,800	8,000	(700)
YUO	(20,300)	226	1,221

*Official herbarium abbreviations (Holmgren et al. 1981)

**Designated National Resource Collections

the Juan Fernandez Islands collection at Ohio State, and the material from (Parana) Brazil at Miami University to mention but a few. These special collections need to receive maximum publicity so that they become better known worldwide. Appropriate notes in *Taxon*, the *Association of Systematic Collections Newsletter*, and the newly created *Herbarium News* under the auspices of Missouri Botanical Garden would be of publicity value. The *Herbarium News* regularly lists loans made to various workers for both monographic, revisionary, floristic, and ecological studies.

One productive approach that can be taken is to write to individuals undertaking such investigations as listed in the *Herbarium News* with an offer to send your institution's specimens of the genus or species under investigation for study and annotation. The annotation of specimens will increase their value to the lending (home) institution as well as future investigators. Frederick O. Grover, the curator at Oberlin College for many years, used this approach and many of the original Oberlin specimens now bear annotations by the recognized authorities of certain taxa. Such an approach requires an aggressive curatorial program.

Another essential role for Ohio's herbaria is as data banks for information on the

distribution, phenology, ecology, etc., of Ohio taxa as well as more widely collected materials. Many institutional herbaria have been receiving requests to provide data on specific holdings of the several categories of endangered species from several states. Unfortunately, these requests have often served to show the inadequacy of our individual collections and just how shorthanded institutional herbaria are. These requests also indicate that no institution collections in the state of Ohio are entirely computerized. Thus, providing the requested data becomes a time inefficient and labor intensive process. The majority of the state's institutional collections are small and could easily lend themselves to computerization. This is a move that should be considered by all institutions. The several larger collections in the state will have to be selective in computerizing their holdings. Nonetheless, the larger institutional collections should at least computerize their Ohio holdings and special collections.

The call for information relating to our collections from various federal, state, and private agencies, e.g. The Nature Conservancy, is likely to grow more intense in the years ahead, and we will only have ourselves to blame if the response is inadequate.

I believe one of the most important roles and perhaps most neglected facets of our state's herbaria is in the public sector. We have not adequately exploited the public relations value of our collections. The resources of our herbaria should be known to the public. This requires an active public relations approach. We should remember that history and our heritage haunt the halls of the herbarium. All the state's herbaria should be involved in the exhibition of special interest collections through general tours of herbaria or institutional exhibits. Furthermore, such exhibits and tours become a major teaching device. Only through such a public relations approach will the research role of the herbarium seem justified in the public eye.

Whenever The Ohio Academy of Science meets, an exhibition of museum resources and tours should be planned to enhance the image of the herbarium. One may well ask how to most effectively exhibit our collections. I think two formats are useful. One recognizes the historic value of collections by tying the exhibit to discovery or exploration. An exhibit detailing the flora of a particular region in the last century may be of general public interest. An exhibition of the flora of an area about to be strip mined is of political interest. Another exhibition approach is linked to the research role of the herbarium. We should let the public know how our herbaria are being used. An exhibit relating to a monographic or floristic study can clearly demonstrate the dynamic aspects of herbarium research. For instance, a recently completed revision of the genus *Buckleya* by Carvell and Eshbaugh (1982) in exhibit form allows various points to be made. First, the peculiar relationship of the flora of China and the eastern United States can be documented. Second, the endangered status of *Buckleya distichophylla* can be documented. This approach makes our herbarium collections viable, relevant entities when properly publicized.

The point of these comments is to emphasize that we have done a poor public relations job and that more energy and knowledge need to be expended in this direction. Miami University has regularly taken exhibits based on herbarium collections to exhibits at institutions outside the state's boundaries including the Smithsonian Institution, Hunt Botanical Institute, Callaway Gardens, etc. The publicity regarding these exhibits has had a tangible positive effect for the herbarium.

Another quite different role of our institutional herbaria relates to functioning as informational resource centers. Most curators have served as informational resources for various professionals who have consulted on specific systematic problems. These have ranged from questions from law enforcement agencies, poison control centers, to pharmaceutical companies. This role for the herbarium serves the private and public sector and builds an important service image both within and outside the borders of the state.

In conclusion the significance of Ohio's herbaria beyond the limits of the state is dependent on both curatorial and institutional direction and aggressiveness. The state's herbaria are a priceless resource, and we are obligated to improve their image.

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