IN 1971 BILL AND GOLDIE WHEELER of Indianapolis, Indiana, donated their extensive orchid collection to Ball State University (BSU), Muncie, Indiana. That’s how the Ball State orchid collection and the Wheeler-Thanhauser Orchid Collection and Species Bank (WOCSB) began. It has since developed into a diverse educational and conservation collection, used for nature education, lessons in tropical ecology, and botany.

On May 31, 2014, after six and a half years of planning, design, and fundraising (required before construction could begin), we dedicated the Dr. Joe and Alice Rinard Orchid Greenhouse, a brand new 3400 square foot state-of-the-art computer controlled facility. Ground-breaking took place in September 2013, with basic construction completed the following March. Ball State University staff and more than 300 volunteers then began work to finish the interior. This involved interior planning, designing, digging, scraping, bench-building, and moving plants, followed by the deconstruction and re-installation of the Display conservatory—and more.

We were required to find funding from private donors, and finding these donors was a challenge. Initial funding for the new greenhouse, which houses the largest collegiate orchid collection in the United States, came as a direct result of a 2008 visit by Dr. Joe Rinard, a retired dentist and BSU alumnus from Farmland, Indiana. In 2011, he made a generous lead gift in honor of his late wife, Alice (Pursley) Rinard, also a BSU alumna, who loved nature and all things beautiful.

The new greenhouse contains three separate growing rooms: a Display Conservatory for nature interpretation; a Warm House; and a Cool House for Pleurothallidiae and other cool-growing plants. The facility also contains a separate prep room, an office, a restroom, and additional space for visitors. The new facility has 2600 square-feet of dedicated growing space.

The focus of the WOCSB collection is on orchid diversity for education and conservation. With the improved climate control of the new Rinard Orchid Greenhouse, the collection now contains representatives of over 300 orchid genera and over 2000 individual plants, of which 75% are species.

In 2016, a large donation to honor a local high-heel wearing centenarian was gifted as the “Betty Kendall Lady Slipper Species Collection,” bringing the species collection to one hundred of the over 200 slipper species found worldwide. The collection contains species from the genera Paphiopedilum, Phragmipedium, Cypripedium, Selenipedium, and Mexipedium. We intend this special slipper collection for education and conservation and are working with other slipper experts and botanical gardens to propagate these species for conservation purposes.

We provide a wide variety of interpretive information about orchids, their habitat, conservation, pollination biology, and distribution. Information and examples of tropical ecology abound in the Display Conservatory. The WOCSB collection is utilized by BSU
students and faculty from many disciplines including art, English, photography, architecture, landscape architecture, biology, natural resources, science education, and more.

Community members, school groups, and out-of-town guests from as far away as Japan and Australia regularly visit. Visitor use continues to increase, from approximately 1000 per year before completion of the new building, to 3700+ today. Visitor numbers in the Rinard Orchid Greenhouse currently average about 300 per month. Many visitors also follow the Rinard Orchid Greenhouse on Facebook and Instagram.

The Rinard Orchid Greenhouse and WOCSB are free and open throughout the year to BSu students, staff, and faculty, as well as to orchid communities and the general public. Donations and volunteers allow us to offer free admission.

A Bit of History

Ball State University has a long history with the romance and culture of orchids.

It all began with Goldie and Bill Wheeler. Goldie was an avid horticulturist who in 1948 began growing flowers and orchids (mostly cattleyas and cymbidiums) for sale as cut flowers. Goldie was a founding member of the Indiana Orchid Society and became an American Orchid Society judge.

The Wheelers decided to donate their orchids to Ball State University in 1971. This decision was influenced by one of their long-time helpers, a former BSU student. To receive the Wheeler collection, then-BSU President John Worthen allocated funds to build a new 1400 square-foot greenhouse in Christy Woods, an outdoor teaching arboretum on the BSU campus, specifically to house the Wheeler Orchid Collection. Ken Doolittle was the first curator of the WOCSB, serving from 1971-2. He was followed by Harry Russell (Russ) Vernon, an Ohio State University horticulture graduate. At that time, the collection consisted of 95% cattleyas, mostly showy hybrids. Vernon expanded the collection to include a wide variety of orchid genera and species and broadened the focus to include orchid education and conservation since many orchid habitats are facing destruction and species are under threat.

With approval from the BSU Department of Biology, in 1975, “and Species Bank” was officially added to the Wheeler Orchid Collection name. This allowed growers who donated orchid species not currently in the collection to receive credit and become eligible to request an equivalent number of divisions from the collection, when available. The donor records for 1973-1987 have been lost, but this policy is still in place and actively encouraged, with improved record-keeping now in place.

In the early 1980s, the WOCSB expanded its role again, becoming a “rescue center” for imported orchids confiscated by the U.S. Fish and Wildlife Service under the then recently instituted CITES (Congress on International Trade of Endangered Species) rules. The CITES orchids are housed at WOCSB in perpetuity; the confiscated plants cannot be shared but may be propagated for conservation purposes.

By 1987, the WOCSB contained nearly 3000 different species and varieties, many acquired through exchanges with distinguished botanical organizations: the Royal Botanical Gardens (Edinburgh, Scotland); the Royal Botanic Gardens (Hamilton, Ontario); Kew Gardens (London, UK); Longwood Gardens (Kennett Square, PA); The Missouri Botanical Gardens (St. Louis, MO); and numerous private and commercial growers, including Mr. Al Thanhauser of Stanford, Connecticut, who donated in 1984 an incredible collection of rare Cattleya alliance species (valued at $420,000), and Señor Ademar Manarini of Equilab in Sao Paulo, Brazil, donated propagations of his collection of native Brazilian Cattleya alliance species. When combined, these two donations totaled over 400 specimens!

At the invitation of plant physiology instructors, Vernon gave many lectures on the unique characteristics of the orchid family. He displayed many WOCSB specimens at meetings of the American Orchid Society and the Mid-America Orchid Congress and gave numerous lectures at local, regional, and national orchid society meetings on the cultivation of various genera and the conservation of species. These activities served
to promote both BSU and the WOCSB collection.

Locally, Mr. Vernon ensured that the WOCSB provided specimens for BSU basic biology labs, and botany and plant physiology classes. Students from Biology and Fine Arts Departments visited the greenhouse for more detailed study. A Master’s level research study on rapid propagation techniques was conducted at the WOCSB and the results published.

Over the 14 years of Vernon’s curatorship, tens of thousands of Indiana (and Ohio) elementary school children visited on field trips. Groups from several universities were visitors, and the collection was on the garden tour route for several travel companies.

As the collection grew, space became more of an issue—particularly space for visitors to view the plants in bloom—expansion efforts were made and funding sought to double the growing space. In 1976, Ball State University and the Department of Biology began the first of many efforts to locate funding for expansion.

From 1987 through 1993, the WOCSB was managed by Herbert Saxon. Under his guidance, the emphasis was on propagation, and on orchid virus resistance research. In 1990, Dr. Carolyn Vann conducted work on orchid virus pathology at BSU, funded by the Mid-America Orchid Congress and other sources.

September 1993 marked the arrival of Cheryl LeBlanc as the fourth curator of the WOCSB. A plant ecologist (MS, Biology, 1985, State University of New York [SUNY], College of Environmental Science and Forestry), Cheryl brought with her an ecological perspective, with an emphasis on “the whole ecosystem” aspect of orchid habitat and plants and animals associated therein. Within the WOCSB facility, she has created a mini “rainforest,” including tropical rainforest “mascots,” poison arrow frogs.

The wooden benches in the original greenhouse were decaying badly and needed replacement. In 1994, the entire collection was relocated to BSU’s Teaching/Research Greenhouse (TRGH) while new cedar benches were built and installed in the Orchid Greenhouse. Unfortunately, water quality and climate conditions in the TRGH were not suitable for the orchids, and many died.

The cistern for rainwater failed in 1995, and many more plants were lost due to water quality issues. A reverse osmosis water system was installed, and noticeable improvements were observed immediately.

By 2006, both the facility and its components were 35 years old and in need of frequent repair—particularly the mechanical systems for the greenhouse, and especially the plumbing and environmental control systems. This situation led to many discussions about possible options for the WOCSB—the largest university-based orchid collection in the U.S.—always keeping in mind the value of the collection, its worth as a whole, and the merits of keeping it at Ball State University.

Due to the significance of the collection, a new greenhouse became a part of Ball State University’s capital funding campaign in 2003. In 2008, Dr. Charles Bracker of Lafayette, Indiana, donated 1000 orchids to WOCSB; he also donated the photo collection of his orchids to BSU’s Bracken Library.

In 2011, BSU updated the name of the orchid collection to the Wheeler-Thanhauser Orchid Collection and Species Bank, to honor the original donors, the Wheelers, and the 1984 orchid gift from Al Thanhauser.

Although BSU’s orchid outreach and maintenance efforts have benefitted over the years from a number of gifts, both in funding and in-kind, the acronym WOCSB remains (and will remain) the same. In their new facility, plants from Wheeler and Thanhauser collections continue to thrive, emphasizing the Cattleya Alliance and the subfamily Cypripedioideae. The diversity of the orchid family continues to expand to represent orchid genera from around the world. With the addition of the Betty Kendall Lady Slipper Orchid Species Collection in 2016, the diversity and significance of the collections are notable within the orchid world. It is with great pride that Ball State University’s significant orchid collection is now available for more uses and visitors, within the new Dr. Joe and Alice Rinard Orchid Greenhouse. We invite you to visit soon.★
About the Author

Cheryl LeBlanc received her BS (1985) and MS (1988) in Plant Ecology from SUNY College of Environmental Science and Forestry, in Syracuse, New York. She “met” her first orchid in her backyard, at the age of nine. Since 1993, LeBlanc has been employed at Ball State as plant ecologist and curator of the orchid collection and species bank. Her focus is nature education and plant ecology, including plant-insect interactions, for which she uses the orchids as prime examples. She is also an artist and biological illustrator. Her work celebrates nature and nature education.

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