November 2, 2007

Professor sowed the seeds of diverse oak tree collection in arboretum

By Ann Filmer

Over the last 45 years, Professor John Tucker saw acorns that he collected from around the world grow into a magnificent stand of oaks in the UC Davis Arboretum.

Recently the grove, named after UC Davis founding father Peter J. Shields, celebrated another growth spurt — this time a growth in status, with inclusion in the new Oak Group of the North American Plant Collections Consortium.

Fifteen university and institutional botanic gardens and arboretums collaborated to form the Oak Group to preserve important germplasm and to serve as repositories of oaks for international teaching and research. Emily Griswold, assistant director of horticulture for the UC Davis Arboretum, leads the new group.

UC Davis' oak collection is particularly important — and unique — because it includes 17 oak varieties that are not in any of the other collections, and it has the greatest taxonomic diversity of oaks of any of the collections. Davis’ climatic conditions allow for growth of oaks from Mediterranean, Mexican and southwestern U.S. regions.

Tucker started his career at UC Davis 60 years ago, and became an internationally recognized as an expert on oak taxonomy. Today he is a professor emeritus of botany and director emeritus of the arboretum.

The oak grove that he established in 1962 near the arboretum's west end comprises 304 trees representing 87 taxa. Tucker said planned projects in the grove include an irrigation system upgrade, path development and the addition of signs to educate the public about the value of the oaks.

The Shields trees are not the only oaks in the arboretum. It is home to 574 oaks, including such native species as the valley oak (Quercus lobata), the interior live oak (Q. wisilzenii), the blue oak (Q. douglasii) and the coast live oak (Q. agrifolia).

The arboretum also is home to species that are rare or under serious threat. Among those preserved in the arboretum are the island oak (Quercus tomentella), the rarest oak in California; and the shreve oak (Q. parvula var. shrevii), native to coastal regions where the fungal disease sudden oak death is taking a big toll.

The Oak Group of the North American Plant Collections Consortium, Tucker explained, will allow for the exchange of data, plant materials and information among the participating institutions, and development of joint research and educational programs. Oak research topics past and present include systematic botany, experimental hybridization and DNA analysis from leaves, as well as oaks as wildlife habitats

"It's a matter of great pride and satisfaction to have this recognition that we've received," Tucker said.

At an Oct. 19 luncheon, Dean Neal Van Alfen of the College of Agricultural and Environmental Sciences recognized Tucker and Griswold for their efforts in gaining the Shields Oak Grove a place in the national Oak Group. Arboretum Director Kathleen Socolofsky, who also worked on the project, joined Van Alfen in honoring her colleagues.
The Oak Group's sponsoring North American Plant Collections Consortium is a program of the American Public Gardens Association in cooperation with the U.S. Department of Agriculture and the U.S. National Arboretum, with a goal of preserving and representing plant diversity in North America.

Ann Filmer is director of communications for the College of Agricultural and Environmental Sciences.