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Jason Mancini
(center) and his
ethnohistory
class visit Bolles
farm site.



teaching and **research**

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COLLEGE teaching and research have been important aspects of the Arboretum since its founding in 1931. The Botany Department faculty has included a plant ecologist, beginning with William A. Niering in 1953, and ecology and environmental studies have been primary activities since that time. This year Charles “Chad” Jones joined the faculty to teach plant ecology and plant systematics, among other courses. Chad came from the University of Washington, and his primary research examines how disturbances affect vegetation and the patterns of spread for invasive species. Professor Jones used the Arboretum almost weekly for his Systematic Botany and the local flora class during fall 2007.

In Professor Lizarralde’s Ethnobotany of Southern New England course, students scoured the Arboretum, identifying and mapping all the Arrowwood Viburnum (*Viburnum recognitum*) shrubs they could find. The stems of this shrub were used by local Native Americans to make arrow shafts for hunting. The students not only used GIS (Geographic Information Systems) techniques to explore the spatial distribution of the shrubs in relation to environmental factors, but also learned to make arrows from the plants.

Visiting Assistant Professor Jennifer Boyd’s plant physiology class used Mountain Laurel shrubs along the Arboretum Laurel Walk in an experiment comparing leaves on plants growing in dry, sunny conditions to those in shady, damp conditions.

Professor Robert Askins continued the long-term breeding bird census in the Bolleswood Natural Area, which was established in 1952. Every other year, Professor Askins and a few dedicated volunteers spend 10 weeks identifying and mapping singing, male birds in the Bolleswood. In the spring, they create maps representing all the territories of breeding bird pairs. This year, a student in Environmental Studies Lecturer Beverly Chomiak’s GIS class began to work with maps from this project to show how bird populations have changed in the second half of the 20th century.

Melinda Wells ’08 worked with Jean C. Tempel ’65 Professor of Biology Stephen Loomis on her senior project in a self-designed biological illustration major. During summer 2007, she collected samples of animals and plants from the Arboretum Pond and then drew them for her portfolio.

Visiting Lecturer Jason Mancini brought his Ethnohistory of Minority Communities in Southern New England class to view the remnants of subsistence farms in an area that included the homesteads of freed slaves. The former farms are located along Bolles Road, a dirt path that leads north from Gallows Lane through the middle of a large tract of Arboretum property. The most prominent home and farm site was established by Samuel Bolles in 1763. This was the first time faculty and students from the College studied these remnants.

In Lecturer Beverly Chomiak’s Introduction to Geographic Information Systems class, student final projects are often based on work performed in the Arboretum. The 2007 projects included a study of possible locations for wind energy turbines, locations of fox dens, Mamacoke Marsh drainage patterns, and the mapping of long-term vegetation study transect data.

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Top: Melinda Wells '08 paddling on the pond, looking for specimens to illustrate.

Middle: Botany Professor Chad Jones with students in the Arboretum

Bottom left: Meghan Lucy '07 (left) and Beverly Chomiak do field work for Mamacoke Marsh GIS project

Bottom right: Professor Manuel Lizarralde with Arrowwood arrow shafts.

Opposite page: New laser etched plant accession labels are much more legible than previous ones

