Ferns of the Southeastern United States

by Lisa Giencke, Mary McKee Felton Herbarium Intern

When I began working at the University of North Carolina Herbarium during my senior year at Carolina, I had no idea that my work-study position would prepare me for such an enjoyable and rewarding post-graduation journey: the Mary McKee Felton Herbarium Internship.

Shortly after graduating, I sat down with the curator and assistant curator of the herbarium, Alan Weakley and Carol Ann McCormick, to hear their ideas for my project. We decided that I would rearrange, database, and create distribution maps of the ferns of the southeastern United States. Almost one year later, the project was complete! In that time, approximately 9,500 fern specimens were entered into the database, from which over 200 maps were created.

Through databasing, we obtain an electronic record of the label information associated with each specimen: location, collector, date of collection, etc. These records are invaluable in making the herbarium more accessible to our users. Electronic records can be sent to researchers, and the label data will eventually be widely available to the public via the Internet. For now, the maps associated with the fern project have been posted onto the herbarium’s Web site: www.herbarium.unc.edu.

One pleasing outcome seen in many of the maps is the strength of the herbarium in collections of North and South Carolina. The distribution map of _Polystichum acrostichoides_, or Christmas fern, reprinted below, whose natural range comprises the eastern half of the United States, shows that although our records are not complete, we have a particularly well-documented collection from the Carolinas. This owes in part to the massive undertaking during the 1950s and early 1960s to collect specimens for the _Manual of the Vascular Flora of the Carolinas_ by Albert E. Radford, Harry E. Ahles, and C. Ritchie Bell.

Following each map is a cautionary clause to indicate that these maps should not be seen as the ultimate guide to fern distributions across the Southeast. Although the UNC Herbarium is widely known to contain one of the most extensive collection of specimens of the Southeast, these maps are still a work in progress. Each map will be updated when new acquisitions are added to the herbarium collection. That is, for every new fern specimen received, we will make sure that the appropriate county is shaded in on the corresponding map to mark its presence in the herbarium. The maps will also reflect any changes in nomenclature that will inevitably occur over time.

This project was in fact a pilot project for a far more ambitious goal: to database all of the approximately 456,000 UNC Herbarium specimens of the Southeast—a task we have estimated would take one person at least ten years to complete! Until that time, we will create distribution maps from other discrete datasets of interest. Notably, we have already begun databasing orchids, carnivorous plants, and rare flora of the Southeast and will post the resulting maps to the website as well.

I would like to thank everyone who has kindly donated to the Mary McKee Felton Internship Fund. I hope our friends will continue donating to ensure the longevity and quality of the internship. As the first recipient, I have been grateful for the opportunity to immerse myself into a meaningful and significant project. I am also immensely pleased to have been able to partake in this effort to honor Mary McKee Felton’s passion and commitment to the UNC Herbarium.