Updating of Historical Plant Species Records
Contained in the Natural Heritage Database

RE: Project #07-L07W Vendor: Steve Hopkins

INTRODUCTION

Ben Dolbeare provided me with element occurrence records from the Illinois Natural Heritage Database that had not been verified at the recorded location for 10 years or more and are designated historical. These EOR's were from the counties of Schuyler, Mason, Brown, Cass, Menard, Logan, Sangamon, Morgan, Scott, Christian, Greene, Jersey, and Macoupin in IDNR Region IV; the counties of Tazewell, Peoria, Fulton and McDonough in IDNR Region I; and the counties of Alexander and Union in Region 5. The purpose of this project is to provide current information and documentation using GPS coordinates and photographs wherever possible to justify protecting these areas (Illinois Natural Area Inventory Sites, Endangered Species locations, Nature Preserves and Land and Water Reserves). GPS coordinates, where possible, were recorded for future relocation and accurate spatial representation.

MATERIALS

I used the 2002 edition of Vascular Flora of Illinois by Robert H. Mohlenbrock, the 1991 edition of Manual of Vascular Plants of Northeastern United States and Adjacent Canada by Gleason and Conquist and the 1998 edition of Illustrated Companion to Gleason and Conquist's Manual by Holmgren as my references for identification of the different species. In addition, I spent several hours with Ben Dolbeare in the herbarium of the Illinois State Museum meticulously examining preserved specimens of each species I was to look for in the field so as to avoid errors in identification.

METHODS

I used the existing element occurrence records to locate as accurately as possible the previously recorded locations on various types of maps and aerial photographs before I physically tried to find any of the area. I also worked with Ben Dolbeare and some of the heritage biologists on the locations. I then drove to the areas and walked through each designated location and located as many of the plants as I could. I also recorded any additional threatened and/or endangered plants I found growing in the area. I then documented the location GPS coordinates wherever possible. I was not able to document GPS coordinates in some of the woodland locations with a closed canopy from the trees. I exceeded 150 hours searching for element occurrences in at least 50 different locations while logging at least a total of 2500 miles on my car and countless miles walking through the different areas.

RESULTS and DISCUSSION

I examined approximately 28 locations in Cass County and approximately 35 locations in Mason county for the existence of *Schoenoplectus hallii* and found 6 depauperate plants at only one location which was EOR 16.

The following pictures are sites where *Schoenoplectus hallii* has a very good chance of recovery under the proper moisture conditions. These are all photographs of either EOR database locations or sites of previous collection by Phillippe, Schwegmann or other botanists of note.

All three of the following photographs of *Hydrocotyl ranunculoides* were taken along the south shoreline of the Horseshoe Lake Nature Preserve in Alexander County. A specimen was taken to Ben Dolbeare for verification of the identification. I also observed large, healthy populations of this same species growing in LaRue Swamp in Union County during this trip.

I spent nearly all day in Sand Prairie-Scrub Oak Nature Preserve searching for the existence of both *Schoenoplectus hallii* and *Echinodorus tenellus*. This summer was way too dry for either of these plants to grow in this habitat. This area is relatively undisturbed; therefore, I would expect both species to come back with enough moisture if the seed bank is healthy.

PAYMENT

Reimbursement for the time I spent on this project should be in the form of a check for $4960.00 made out to me - Steve Hopkins. This would cover my time spent on the project of in excess of 150 hours and my having logged over 2500 miles with my personal vehicle. I began this project September 29, 2006, and I finished this project November 30, 2006.

My mailing address is:

Steve Hopkins
2439 Whittier
Springfield, IL 62704

This report is being submitted in duplicate hard copies and duplicate CD's.

I approve payment in full.
Ben L Dolbeare
Dec 4, 2006