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A Re-Survey of Macrolichens in the Land between the Lakes National Recreational Area

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A RE-SURVEY OF MACROLICHENS IN THE LAND BETWEEN THE LAKES NATIONAL RECREATIONAL AREA

Susan Eyer, Biology Department, IWU, Jonathan Dey*

In 1990 various macrolichen species of the Land Between the Lakes National Recreational Area (LBLNRA), located between and including parts of Tennessee and Kentucky, were collected by J.P. Dey of Illinois Wesleyan University. His tentative identification of some specimens revealed several species not noted in a previous study by H.C. Phillips of Austin Peay State University in 1970. While this by itself warrants revision of the previous list, recent taxonomical changes have taken place in lichen studies which also affect the identification of several of Phillips' specimens. A revision of this list could be used as a tool for updating the biological inventory of the LBLNRA, as a guide for managing this inventory, as a base survey for future pollution monitoring studies, and as an updated source for revising the North American ranges populated by these lichens.

Currently I am examining Dey's LBLNRA lichen survey, and have already discovered 13 lichen species not noted by Phillips. This raises the known lichen flora to 95 species, up from Phillips' previous tally of 82 species. The preliminary identification of lichens involves examination of vegetative and reproductive morphological characteristics, with wet mount thallus sections being examined for anatomical characters as is necessary. Additionally, the chemical composition of the specimens are roughly categorized by means of chemical spot testing upon the cortex and medulla of the thallus. Also, further chemical testing will be made of some specimens by means of thin-layer chromatographic tests. My examination of the specimens on hand continues, and Dey and I plan to visit the Austin Peay State University herbarium to borrow Phillips' specimens for reexamination. We also plan to conduct further field work in the LBLNRA, with completion of the collecting and identification process by September 1992. Finally, we plan to compose a paper by May 1993 for publication.