

Annotated Nomenclatural Update to Keck (1961)

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Darwin Keck's pioneering work was one of the first detailed accounts of the lichen biota of a region in the Great Plains. This area of Oklahoma is especially interesting, since it includes several important ecoregions, including both cross timbers and Osage Plains/Flint Hills tallgrass prairie. The eastern portions of the study area have strong Ozarkian biogeographic influence. Keck's work is important from a biogeographic perspective, since it elucidates details regarding the western ranges of several species traditionally thought to be associated with eastern woodlands, while simultaneously documenting the presence of several lichen taxa more commonly associated with western and southwestern North America.

Purpose for the update

A major problem facing contemporary users of this work is the massive transition in lichen taxonomic concepts and nomenclature that have occurred since Keck's work. Additionally, extensive additional survey and research have provided a better understanding of patterns of lichen occurrence in midcontinental North America. To make Keck's work more useable to contemporary readers, I have added annotations to appropriate portions of Keck's species accounts. These annotations update the nomenclature and add comments to the extent possible without study of the actual specimens, largely following the latest North American lichen list (Esslinger 2006). Comments appear within relevant species accounts in the main checklist, directly after the name used by Keck. My comments are within brackets, rendered in a different font. These comments fall roughly into one of four categories:

1. Nomenclatural updates for names that have been changed. In some instances names used by Keck are now interpreted to include multiple taxa. In these cases, all such taxa potentially occurring in the region are included, sometimes with relative abundance information based on my field experience (see below).
2. Probable identification for cited taxa that are obviously erroneous — typically in these cases the name cited by Keck is a valid name, but more recent research has revealed that the species is restricted to regions remote from the Great Plains. Where possible, the probable actual identification is provided, based on a decade of sporadic lichen field work in the eastern portion of Keck's study area (e.g. Ladd 1997) and extensive field experience with lichens in the Ozark region just east of the study area (e.g. Ladd 1996, 2002). A good source for general North American

range information is Brodo et al. (2001).

3. Revised author citations where more recent taxonomic work has resulted in different accepted authorities for names used by Keck. These are provided not to be niggling, but because correct authorities are essential for accessing the taxonomic literature and to aid in tracking future changes in nomenclature and species concepts.
4. In a few cases, species names reported by Keck are almost certainly erroneous in modern concepts, but without examination of the specimens it is not possible to determine what the actual identification might be — these are pointed out to prevent perpetuation of errors and inaccurate range data.

Looking back 45 years, Darwin Keck's work was a rather astounding undertaking — working in a region where almost nothing was known of the lichen biota, in an era with few North American lichenologists and the concept of lichen floristic studies in its infancy, he was able to effectively produce an initial delineation of the region's lichens. This will serve as a sound foundation for continuing efforts to better understand ecological and distributional patterns of lichens and their interrelationships with other components of Oklahoma's natural heritage.

References

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