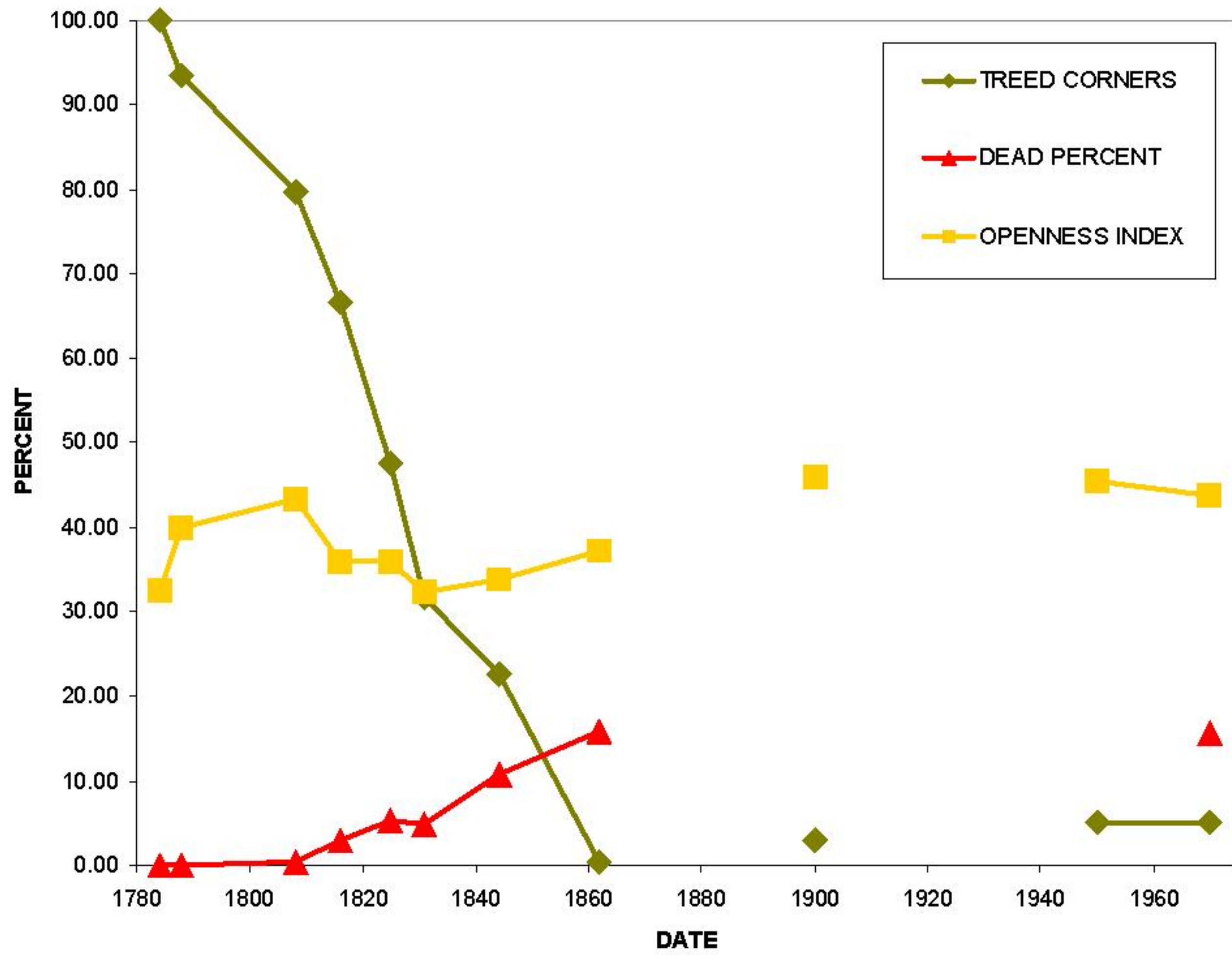


DECLINE OF FOREST AND CHANGE IN TREE COMPOSITION ON THE CENTRAL BLUEGRASS PLAINS: 1780 TO 1980

Julian Campbell, The Nature Conservancy

I analyzed deed surveys of Bourbon County from several periods between the 1780s and the 1860s, when trees became scarce at corners (<1%). I extended the record with Barton's (1919) data, averaged for Bourbon and Fayette County; and with Campbell's (1980) data, averaged across forest types C-H. This provisional examination suggests rapid deforestation during 1780-1860, leading to a release of more tolerant saplings, followed by a pulse of intolerants and then local recovery of tolerants within woodland remnants. Occasional notes of "large" or "small" trees suggest that oaks and walnuts were canopy-concentrated. These trees, as well as ashes, have relatively frequent "stumps", suggesting exploitation, but oaks, ashes, walnuts, hackberry and others tended to increase in proportion among remaining trees. Sugar tree, hickory (mostly bitternut), buckeye, ironwood and others have become much less common; ironwood has almost disappeared.

BOURBON COUNTY SURVEY CORNERS: PERCENT WITH TREES; PERCENT DEAD TREES; OPENNESS INDEX (AT TREED CORNERS) = GRADIENT FROM SUGAR TREE TO LOCUSTS



BOURBON COUNTY SURVEY CORNERS: PERCENT "SMALL TREES" OR "SAPLINGS" AMONG SPECIES GENERALLY INTOLERANT OR TOLERANT OF SHADY CONDITIONS

