Jane Ivy Coons* (janeivycoons@gmail.com) and Joseph Rusinko. Combinatorics of $k$-Interval Cospeciation for Cophylogeny.

We show that the cophylogenetic distance, $k$-interval cospeciation, is distinct from other metrics and accounts for global congruence between locally incongruent trees. The growth of the neighborhood of trees which satisfy the largest possible $k$-interval cospeciation with a given tree indicates that $k$-interval cospeciation is useful for analyzing simulated data. (Received August 26, 2014)