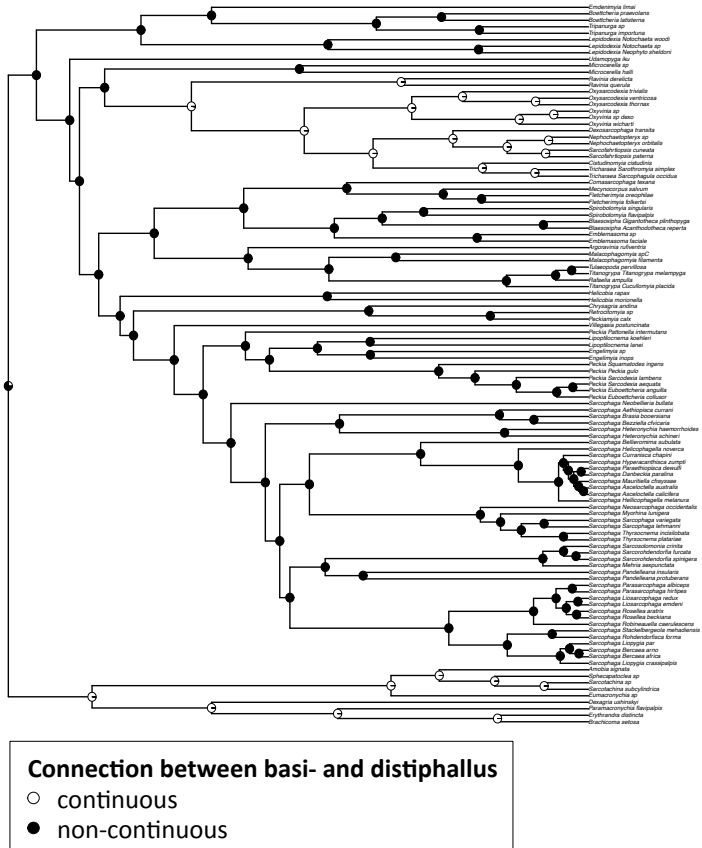Additional file 6. Evolution of the connection between basi- and distiphallus in Sarcophagidae. Ancestral character state reconstruction for connection between basi- and distiphallus using maximum likelihood and the *rayDISC* function in the R package *corHMM*. Only reconstruction of the best fitting model (ER) is shown. Pie proportions represent state probabilities estimated for each internal node. Character states are indicated in insets at the bottom.