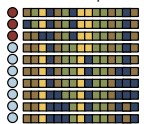
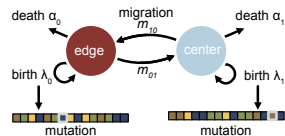


# A.

Cell state + sequences

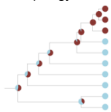


## State-Dependent Evolutionary Model (SDevo)



# Output

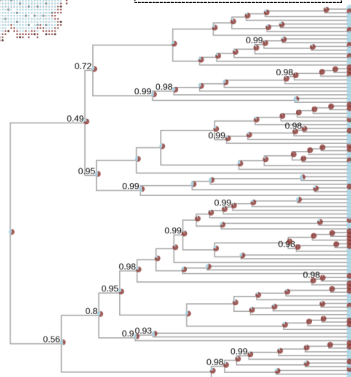
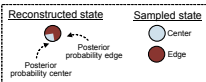
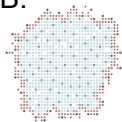
• Tree topology + timing



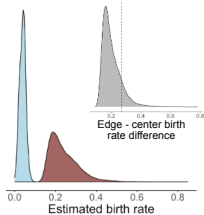
• Ancestral state reconstruction

• Parameter estimation  
 $\lambda_e, \lambda_c, \alpha_e, \alpha_c, m_{01}, m_{10}$

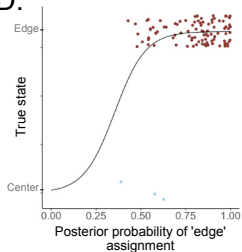
# B.



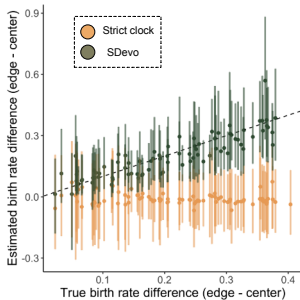
# C.



# D.



# E.



# F.

