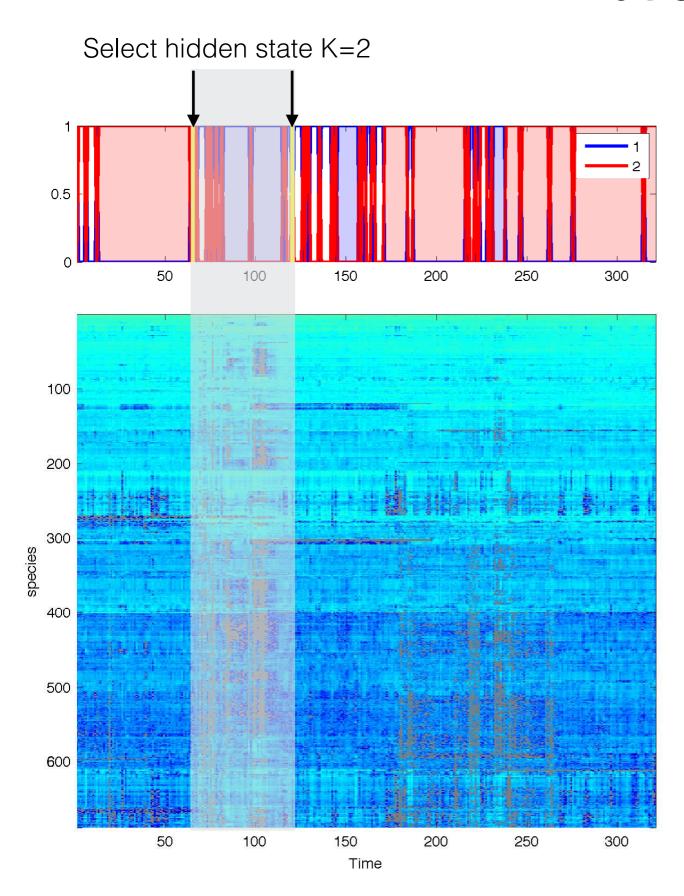
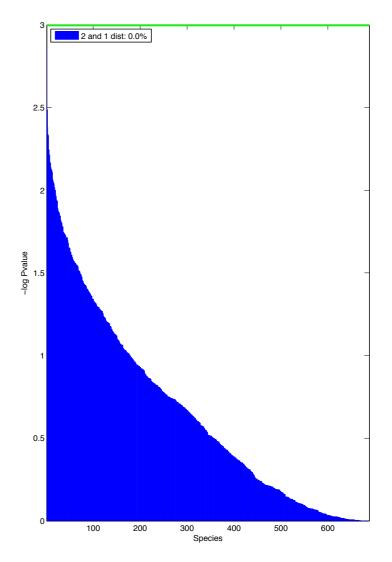
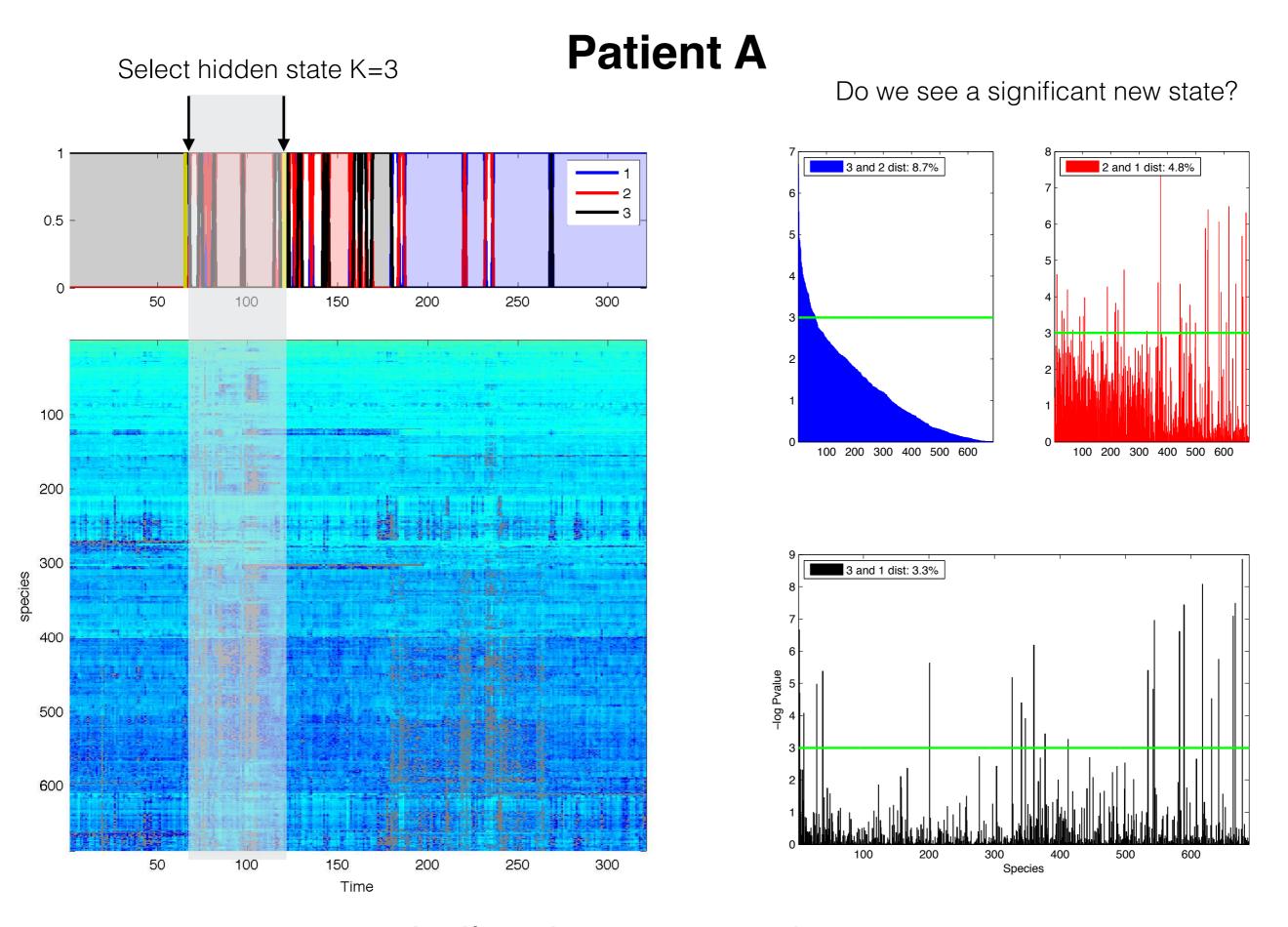
Patient A



What is the distance between those two states? The different states are not statistically significant

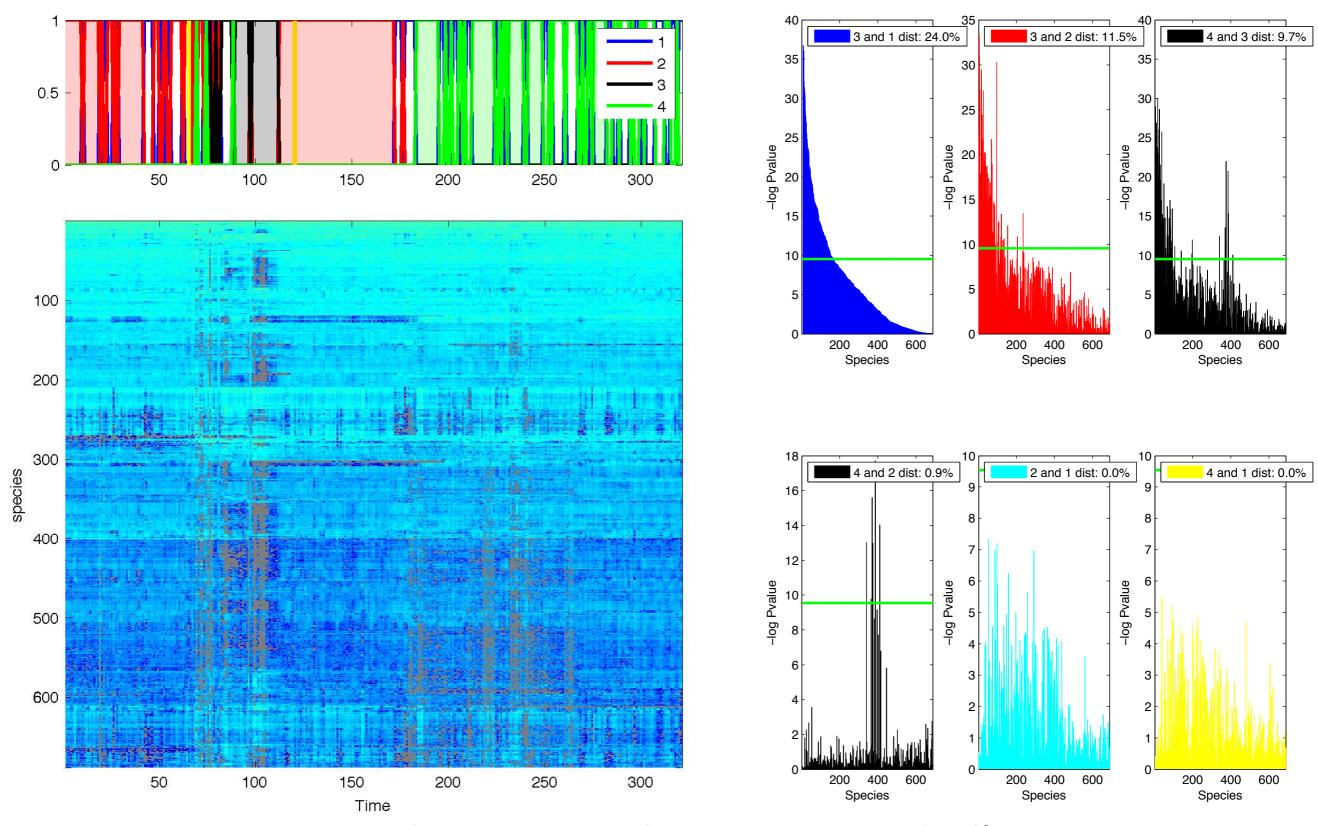


1-2 no statistical significance.



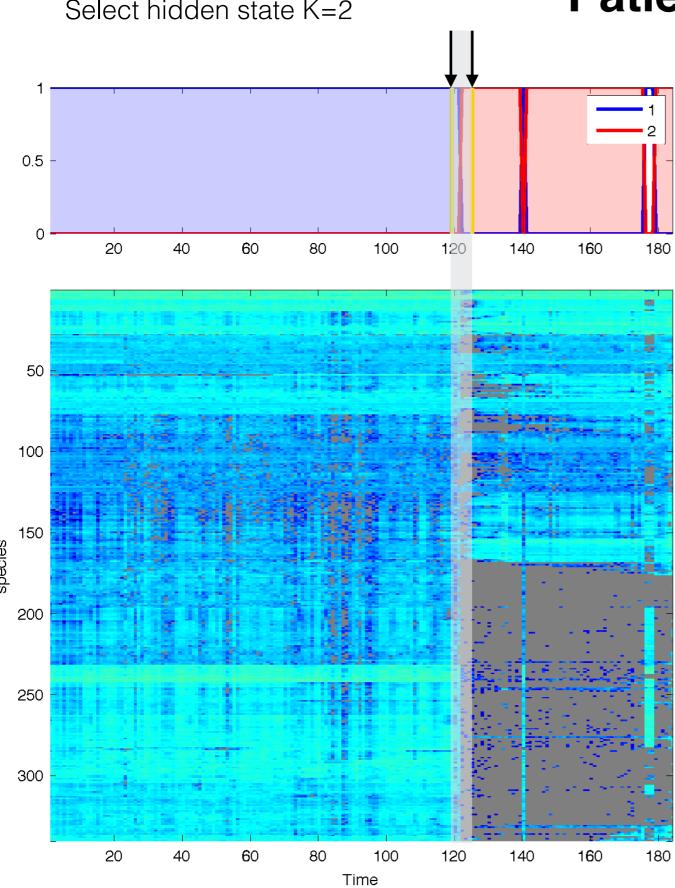
3-1 more similar than 3-2 and 1-3: recovery.

Do we see a significant new state?

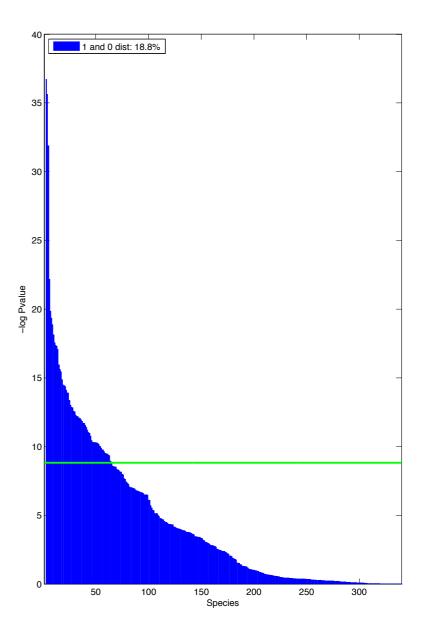


3 perturb state and 1-4-2 very similar.

Select hidden state K=2 Patient B



What is the distance between those two states? 18% of the species statistically changed



We can identify the 18% species that significantly vary: no recovery

Patient B Select hidden state K=3 Is there a "new" state? Check their distance in terms of species composition 3 and 2 dist: 37.1% 2 and 1 dist: 26.8% 0.5 30 60 120 140 160 180 50 100 150 200 250 300 100 150 species 3 and 1 dist: 0.0% 200 -log Pvalue 4 250 300 20 60 100 120 140 160 180 Time

The states 3 and 1 are no statistically different: K=2 is satisfactory: no recovery confirmed