Where implies that

and

#------------------------------------------

Full conditional distributions

* For :

This will be sampled using a MH algorithm

* For

This implies that

* For

Where is the number of species assigned to group k (i.e., ).

Therefore

* For

Recall that if , then and therefore

This implies that

* For

We can sample this parameter from a categorical distribution with probabilities proportional to that described above

* For

Where

where . This implies that