Let be the number of subplots that species s was seen in location l (out of subplots). We assume that:

Where is a latent variable that indicates to which group location l belongs to.

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

FCD’s are given below

- for

*Existing group*

Taking logs, this becomes:

*New group*

Taking logs, this becomes

where the green part can be pre-calculated

- for

This implies that:

- for

Where is the number of locations assigned to group k

This implies that

- for

Taking the log, this becomes

we can sample this parameter using a multinomial distribution.