where is the species label of individual i in location l

where

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

In my Gibbs Sampler, I will sample and z jointly

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

FCD’s

* For (after integrating out z)

where

where are the number of observations for species s and location l.

Taking logs, this becomes:

We use an MH algorithm to sample

* For :
* For :

Where

* For

This implies that

* For

We can use an informative prior to force to be small (i.e., 0.01)

To make this prior have the same weight as the data, we assume that

This implies that