**Sample of languages**

**Sample of concepts**

To ensure high mutual coverage, we made sure that all languages had translations for at least 85% of the concepts in the sample (following Sagart et al.).

**Birth-Death model priors**

We set the sampled diversity prior as follows: Glottolog lists Central Tibetan as having 16 main varieties, but we are sampling some doculects classed as dialects. So we estimate there are between 20 and 30 varieties at a similar level to our doculects that we could have collected data for. We are sampling 12 of these, which suggests between 8 and 18 unsampled. So we used a beta distribution with a = 12 and b = 13.

The origin FBD parameter was set as a uniform bias between 0 and 13k, with an initial value of 13k.

The clock rate and bcov\_alpha priors were set as uniform between 0 and 100.