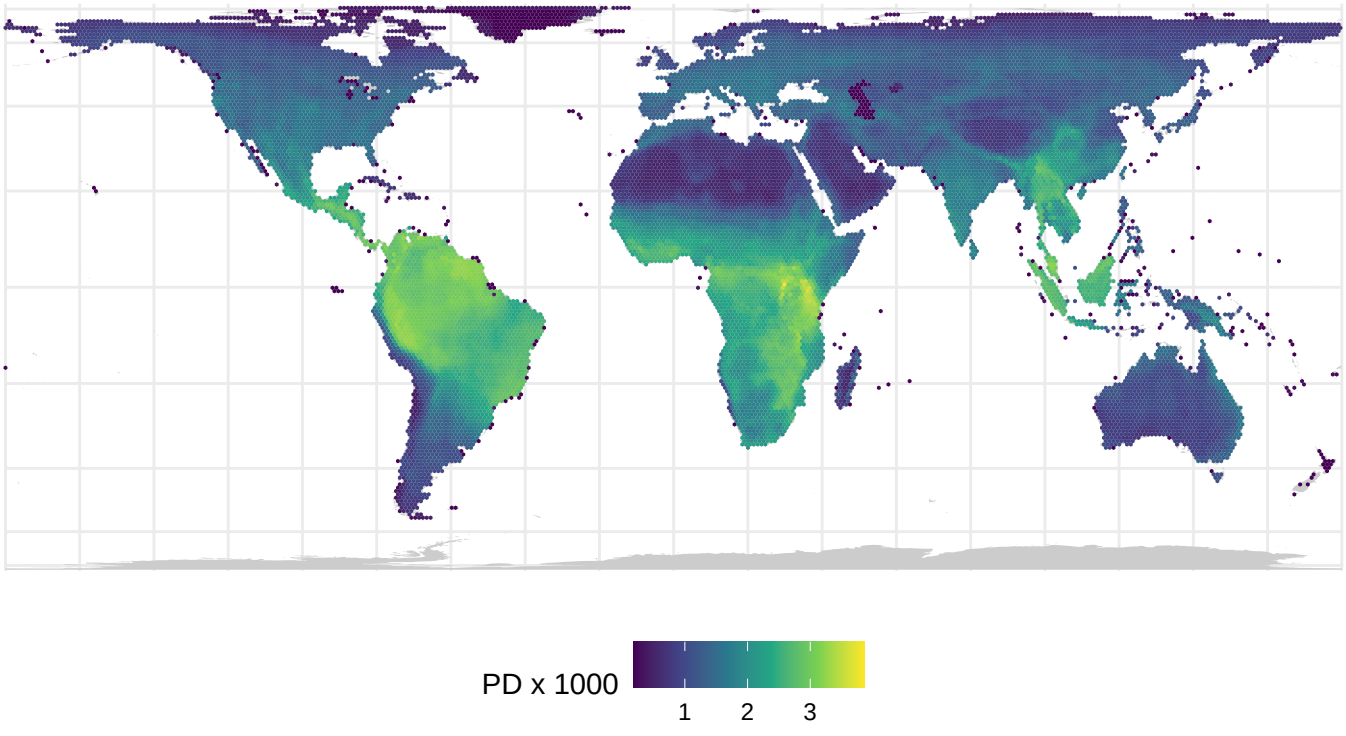MAMMAL PD