

## BIOMETRY, CLASS EXERCISE 6

(1) A staple in the diet of honey badgers are snakes. To escape a badger a snake will frequently climb a tree. Kleinman is a fearless honey badger living in the Kalahari Desert. Kleinman has probability of 0.85 of catching and killing the snake even if it has climbed up a tree. Kleinman chased 5 snakes up a tree within the last month. Assuming the distribution is binomial compute the probabilities that the badger will catch  $X = 0, 1, 2, 3, 4$  or 5 of these snakes.



(2) Honey badgers are mostly solitary. Assuming that there are on average 2.1 honey badgers in  $10km^2$  area in the Kalahari and that their numbers follow a Poisson distribution compute the probabilities for  $X = 0, 1, 2, 3$  and 4 honey badgers in  $10km^2$  area in the Kalahari desert.