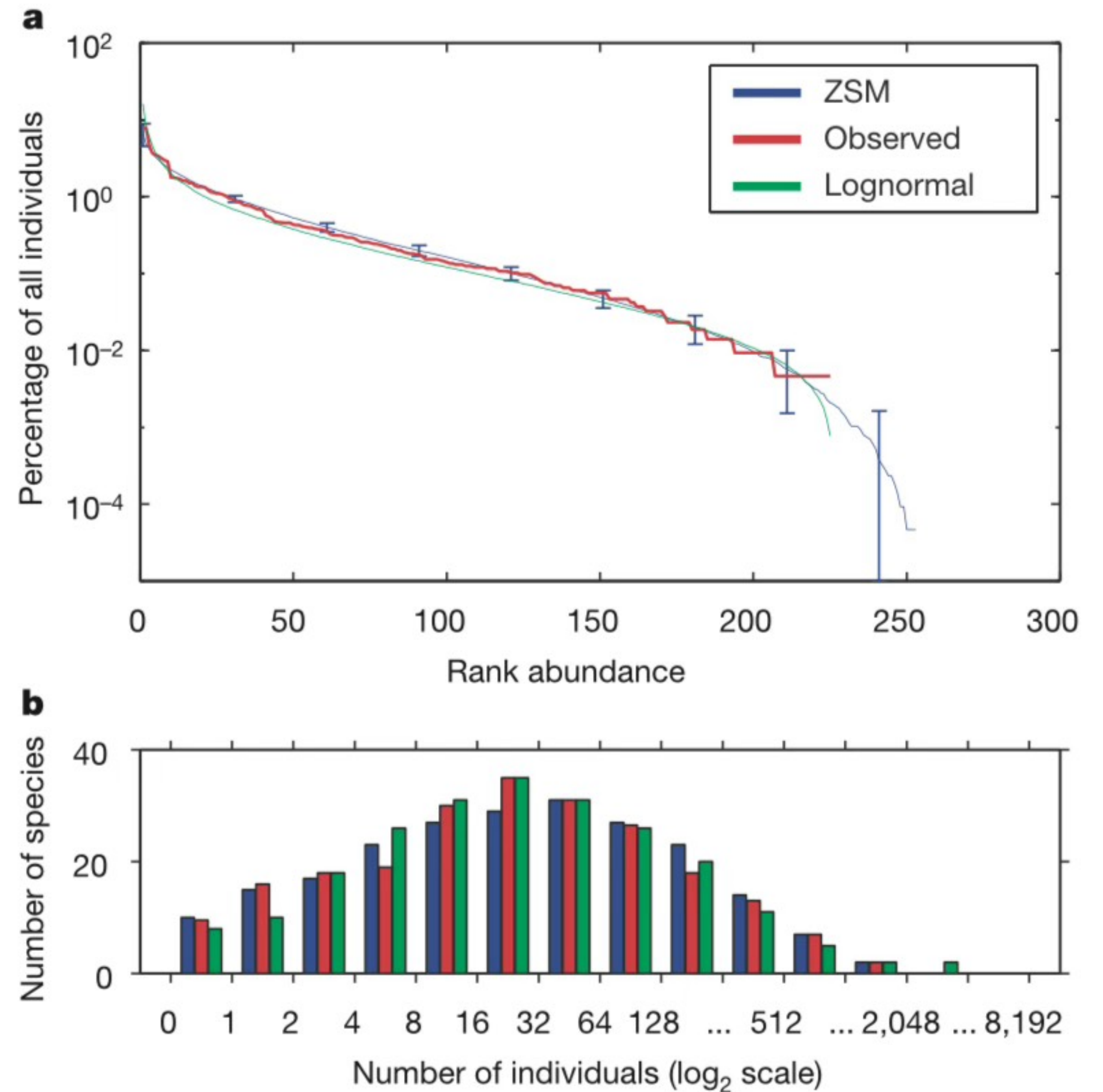


A test of the unified neutral theory of biodiversity

- Assumption that Zero-sum multinomial (ZSM) distribution fits better the data
- Comparison of neutral (ZSM) with a null assumption (Lognormal)
- ZSM fail to fit empirical data better 95% of the time



Null hypothesis and scientific models

- Null models are not unique:
 - What is a null pedigree?
 - Or a null population dynamics?
 - Null interaction network?
- Different hypothesis can lead to the same statistical models
- Kimura and Gillespie debates:
 - Kimura showed that data fit the neutral model, Gillespie came up with a selective model that showed the same prediction

