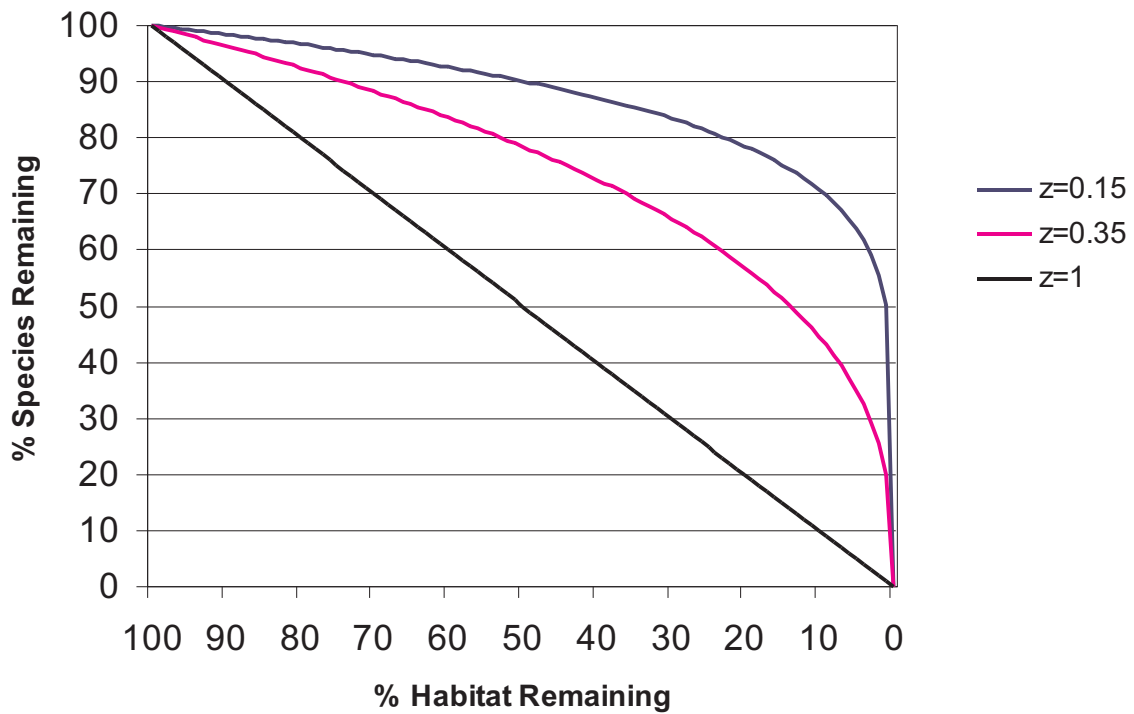


Figure 4-26

Relationship Between Habitat Area and Number of Species*



*The graph plots the species-area relationship, $S = cA^z$, where S is the number of species, A is equal to area, and c and z are constants fitted to the data (Meffe and Carroll 1997). The constant z represents the rate at which new species will be encountered, or added to the sample, as more area is surveyed or, from a reserve design perspective, as the value of z increases, a higher percentage of the total habitat area is required to capture a higher proportion of the total species diversity of an area.