



**Figure S1.** Number of lizard species in each arid system under different threshold values for categorization of species into deserts: 10\_10, 10\_20, 15\_15, etc. The number before the underscore indicates the percentage of the species distribution that needs to be within a desert to be categorized into that desert, and the number after the underscore indicates the percentage of a desert’s extension that needs to be occupied by a species for the species to be categorized into that desert. If one of those criteria is met, a species is categorized into the arid system.