

A startling botanical conversion, totally unexpected, is the dense blanket of knee-high grass that now stands where formerly patchworks of scraggly shrubs and parched earth existed in the Chihuahuan Desert. The transformation is the result of a study begun in 1977 by James H. Brown, an ecologist at UNM in Albuquerque, to assess the ability of native kangaroo rats to compete with native ants for the area's supply of large plant seeds. It began with exclusion of these rats from small plots of shrubland in southeastern Arizona.

Eight of the original 24 small plots (2500 square meters) were surrounded by fine-mesh fences, adjusted to exclude either all rodents or at least three species of the kangaroo rats native to the sites. The finding documents for the first time, according to R. Cowen writing in **Science News**, Vol. 138, p. 391-392, "that the collective actions of several related types of animals – not just the behavior of a single species – can dramatically alter the fate of an ecosystem."

"People are only worried about the much more comprehensible and simple question of conservation – whether a species is there or not," comments marine ecologist James A. Estes of U/Cal/Santa Cruz. "But if an ecosystem is tied together by a guild rather than a single species, our emphasis ought to be on conservation of the guild rather than the species."

