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Long-term monitoring and experimental manipulation of a Chihuahuan Desert ecosystem near Portal, Arizona (1977 – 2013).

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Abstract. Desert ecosystems have long served as model systems in the study of ecological concepts (e.g., competition, resource pulses, top-down/bottom-up dynamics). However, the inherent variability of resource availability in deserts, and hence consumer dynamics, can also make them challenging ecosystems to understand. Study of a Chihuahuan desert ecosystem near Portal, AZ began in 1977. At this site, 24 experimental plots were established in 1977 and divided among controls and experimental manipulations. Experimental manipulations over the years include removal of all or some rodent species, all or some ants, seed additions, and various alterations of the annual plant community. This dataset includes data previously available through an older data publication and adds the latest 11 years of data. It also includes additional ant and weather data not previously available. These data have been used in a variety of publications documenting the effects of the experimental manipulations as well as the response of populations and communities to long-term changes in climate and habitat. Sampling is ongoing and additional data will be published in the future.

Key words: long-term data; rodents; ants; annual plants; precipitation; temperature; Chihuahuan Desert.

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