

Vegetation changes and sequential flowering after rain in the southern Atacama Desert

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We describe the changes in plant cover, species richness, and flowering after rainfall over an entire growing season (September 1989-January 1990) in a southern Atacama Desert site in Chile. One month after the rain, vegetation was dominated by annuals and geophytes which dried out after 19 weeks. Among all species, including shrubs, we found differences of 4-10 weeks in the length and peak of the flowering period. The flowering sequence of the species belonging to the families Brassicaceae, Liliaceae, Onagraceae, and Asteraceae matched closely the sequences described for temperate plant communities, suggesting that this phenological character is phylogenetically determined.