

Vegetation in an altitudinal gradient along the Río Loa in the Atacama Desert of northern Chile

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Abstract

Six sites between 0 m and 4000 m were sampled for plant and soil chemical characteristics along the Río Loa, Atacama Desert, Chile. Sites located between 0 m and 1500 m showed lower species richness, higher plant cover and higher herbaceous productivity than the upper part of the altitudinal gradient. The number of species varied non-linearly with precipitation along the altitudinal gradient. Plant cover and herbaceous productivity in the lowlands is characterized by the *Pluchea absinthioides* *Distichlis spicata* association of anthropic origin. We propose that vegetation structure along the altitudinal gradient has been affected by past and present human activities, and climatic and edaphic factors.