

Monitoring the impacts of global change in Sierra Nevada LTER platform: preliminary results



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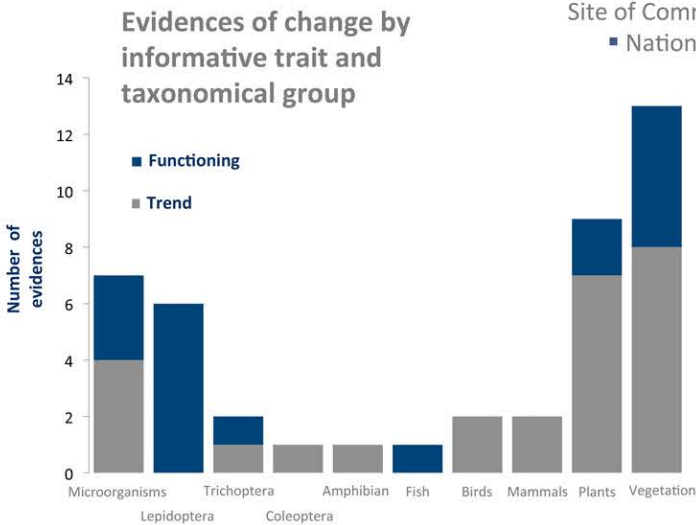
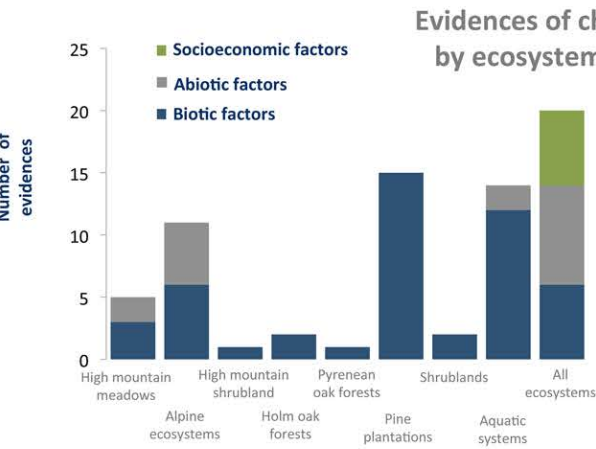
ECOPOTENTIAL
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Sierra Nevada Global Change Observatory is a long term monitoring program to assess the effects of global change in **Sierra Nevada LTER platform**.

The basic objective is to collect information to identify the impacts of global change and design management actions that minimize them. To achieve this objective, a solid monitoring programme has been designed to evaluate the effects of global change on Sierra Nevada. This monitoring programme, initiated in 2007, is based on thematic areas proposed by GLOCHAMORE Research Initiative (GLObal CHange in MOuntain REgions).

We summarize some **preliminary results** of this monitoring program after 7 years:

A total of 84 evidences of change were identified



Sierra Nevada is a high mountain range (reaching 3482 m. a. s. l.) located in Southern Spain. It's considered one of the most important biodiversity hotspot in the Mediterranean region.



1 *Papaver lapeyrousianum* 2 *Artemisia granatensis* 3 *Erinacea anthyllis* 4 *Viola crasiuscula* 5 *Plantago nivalis* 6 *Genista versicolor* 7 *Acer opalus* subsp. *granatense* 8 *Juniperus sabina* 9 *Quercus pyrenaica* 10 *Prunella collarismisia* 11 *Turdus torquatus* 12 *Capra pyrenaica* 13 *Picus viridis* 14 *Locusta lepida* 15 *Parnassius apollo* subsp. *nevadensis* 16 *Genetta genetta* 17 *Monticola saxatilis* 18 *Aquila chrysaetos*

Global Change drivers

Land-use changes
42% of the area has suffered changes in land use since 1956 mainly located in mid-mountain elevations (Cropland abandonment, Densification of natural forest, etc.)

Significant reduction in rainfall in the last 50 years.
A positive trend was observed for annual temperature, especially significant for minimum temperatures in the last 30 years

