Limonium perplexum: an example of a taxon with an achieved Recovery Plan

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Limonium perplexum

Limonium perplexum (Sáez, L.&Rosselló) is an herbaceous (perennial to annual) species which only lives on two small sites of a low coastal cliff in Serra d'Irta (Peníscola, Valencian Community, Spain). It is part of the permanent chasmophyte communities exposed to salt-laden sea spray (*Crithmo-Staticetea*). Population size has been observed to fluctuate between 30 and 690 individuals. The sites are affected by collapse risk caused by marine storms. Sea level rise due to climate change is also a threat.

Since 2015 has a Recovery Plan published by Order 1/2015 (DOCV no. 7451, 27/1/2015). Works to achieve this Plan carried out by the Wildlife Service and Natura 2000 Network (Generalitat Valenciana).

Location

Germination test

OBJECTIVE → *downgrade the threat category*

REQUERIMENTS →
- *at least a total of 250 individuals*
- *a minimum of 6 populations*
- *at least 6 UTM grid 1x1km*
- *at least for 5 consecutive years*

HOW TO GET IT ? → *creating new populations by propaging, cultivating and planting in the natural environment*

Nursery propagation

31 new locations have been planted throughout 2005–2023 along de mediterranean sea coast beetween 40.16; 0.18 and 40.33; 0.37 (EPSG: 4326). Propagation and cultivation tasks were carried out in the nursery of the Center for Forestry Research and Experimentation (CIEF, Generalitat Valenciana). All translocations took place in Natura 2000 Network.

Translocation

Monitoring

CENTRE PER A LA INVESTIGACIÓ I L'EXPERIMENTACIÓ FORESTAL

Unión Europea
Fondo Europeo Agrícola de Desarrollo Rural
Europa invierte en las zonas rurales

RESULTS

Figure 1. Demography of L. perplexum. The black line indicates the minimum population size.

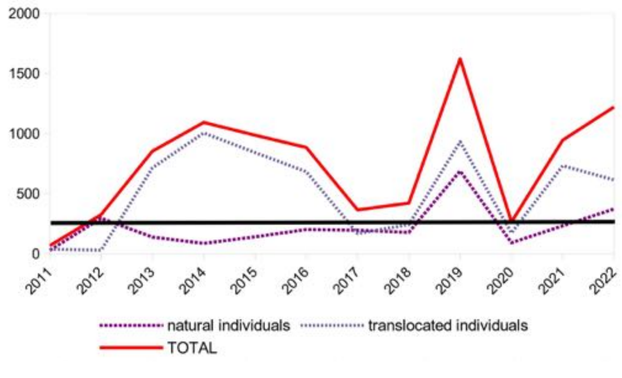

Figure 1 shows that since 2016 the total population size exceeds 250 individuals for at least 5 consecutive years and until 2022.

Figure 2. Evolution of the number of populations. The black line indicates the minimum number.

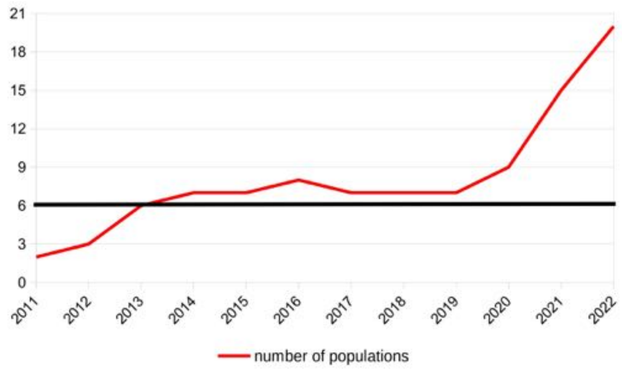

Figure 2 shows that since 2017 the number of populations is at least 6 for at least 5 consecutive years and until 2022.

Figure 3. Evolution of the 1x1km grid number. The black line indicates the minimum number.

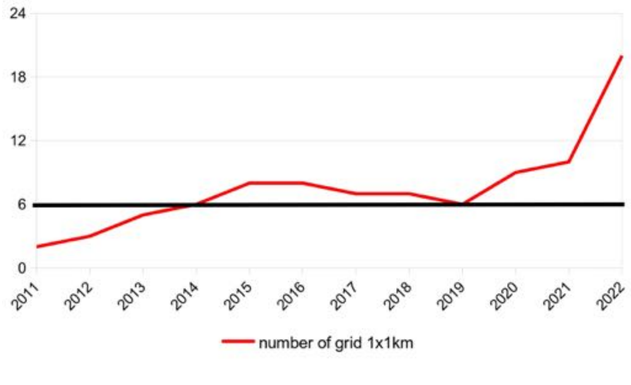

Figure 3 shows that since 2018 the number of 1x1km grids is at least 6 for at least 5 consecutive years and until 2022.

CONCLUSIONS

Effects of maritime storms

- *Limonium perplexum* meets all the requirements of the recovery plan since 2018 to 2022.
- Thus, the species reaches the conditions of lowering the threat category both under the Valencian regional legislation and in the legislation of the Spanish state.
- However, in the context of global climate change, the progressive rise in sea level and the chronification of extreme meteorological events, such as maritime storms or prolonged droughts, are expected. This could greatly affect our species. The habitat and the species could migrate inland but this would be prevented by crops, urbanizations, infrastructures, etc. that human society has been establishing along the Mediterranean coast.

So, we have to keep working!!!