

Lythrum thesioides: how to conserve a species with an unknown ecology?

Research -management partnership

Gazaix A.^{1;2}, Grillas G. ¹, Gauthier P. ², Pirsoul L.³,
Klesczewski M. ³ & Thompson J.D. ²

¹ Tour du Valat, Research Center for the Conservation of Mediterranean Wetlands, Le Sambuc, 13200 Arles, France.

² UMR 5175, Centre d'Ecologie Fonctionnelle et Evolutive, CNRS, 1919 Route de Mende, cedex 5, 34293 Montpellier, France

³ Conservatoire d'Espaces Naturels Languedoc-Roussillon, 26 Allée de Mycènes, 34000 Montpellier



L-Università
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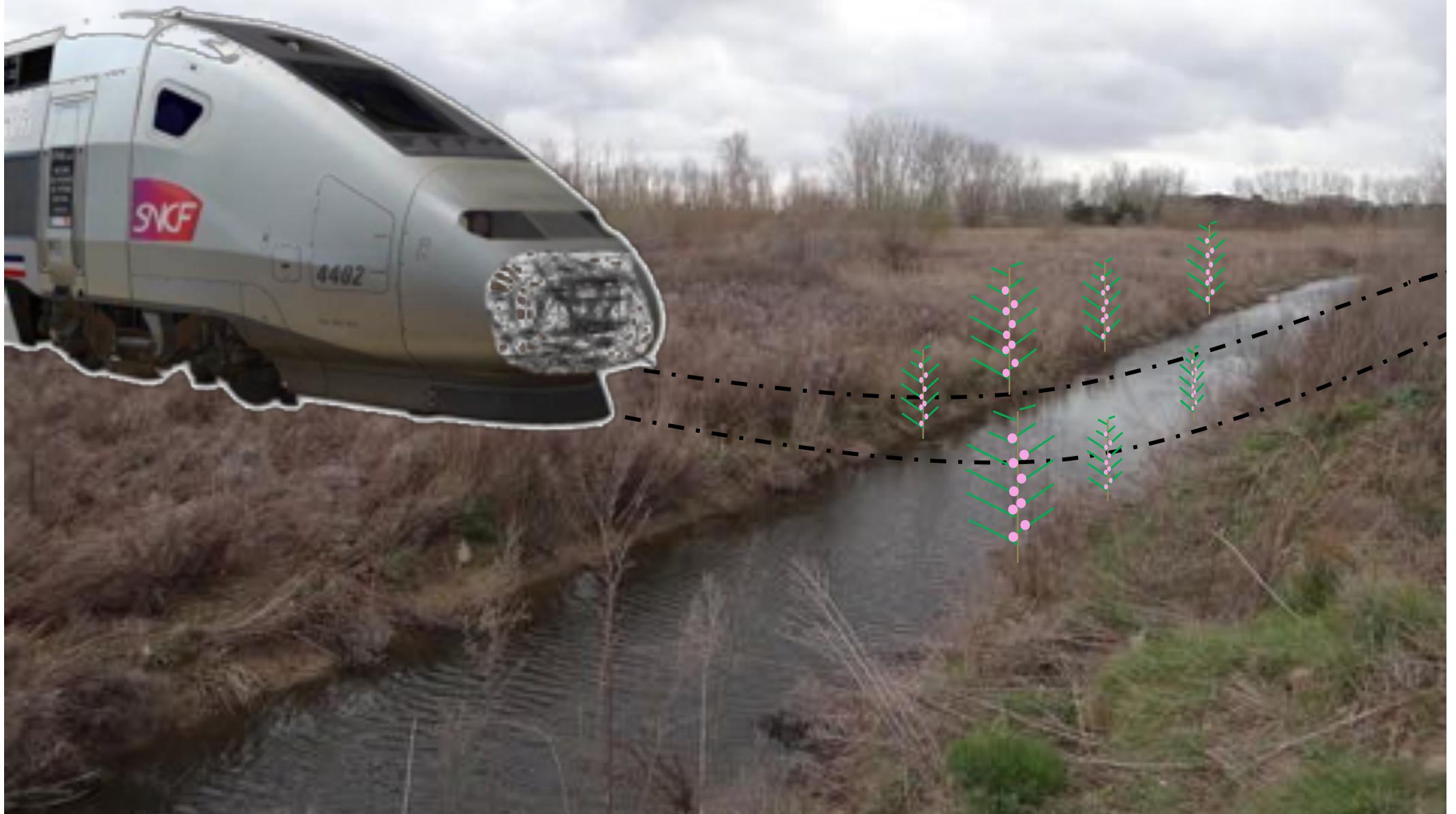
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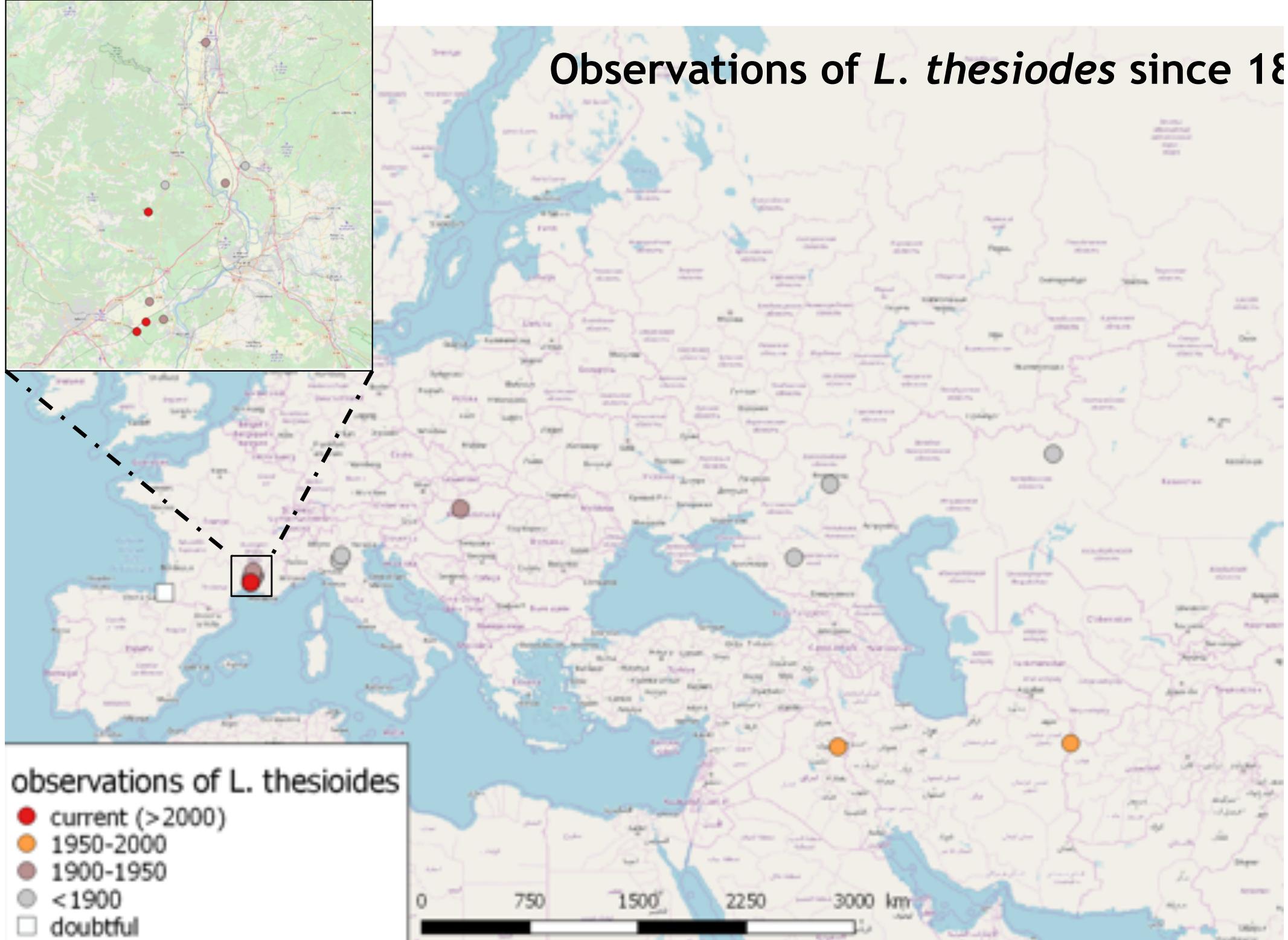
Photo : M. Charrier



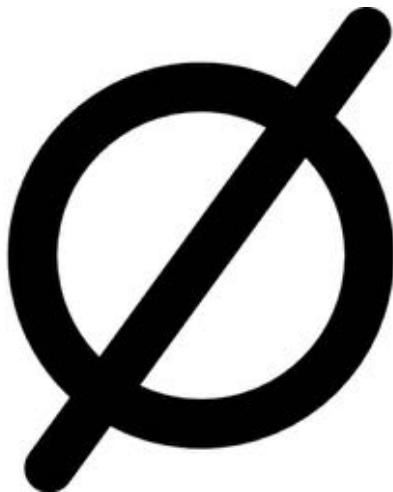




Observations of *L. thesioides* since 1800



Knowledges of *L. thesioides* ecology?



Scientific research



Tour
du
Valat



CENTRE D'ECOLOGIE
FONCTIONNELLE
& EVOLUTIVE

Management / practitioners



Conservatoire
d'espaces naturels
Languedoc-Roussillon



Conservatoire Botanique National
Méditerranéen

Research programme

Ecological niche

Germination



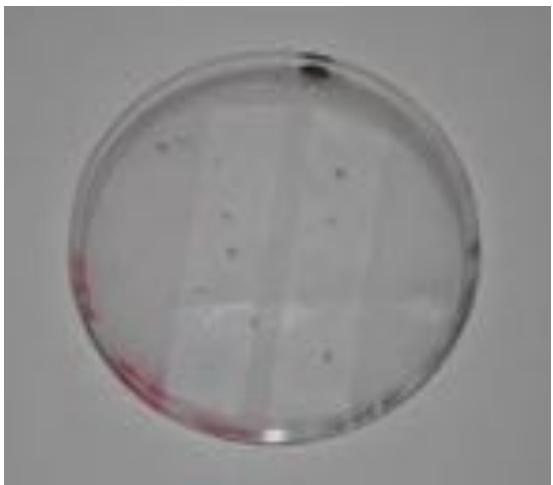
Population of Campuget (local)



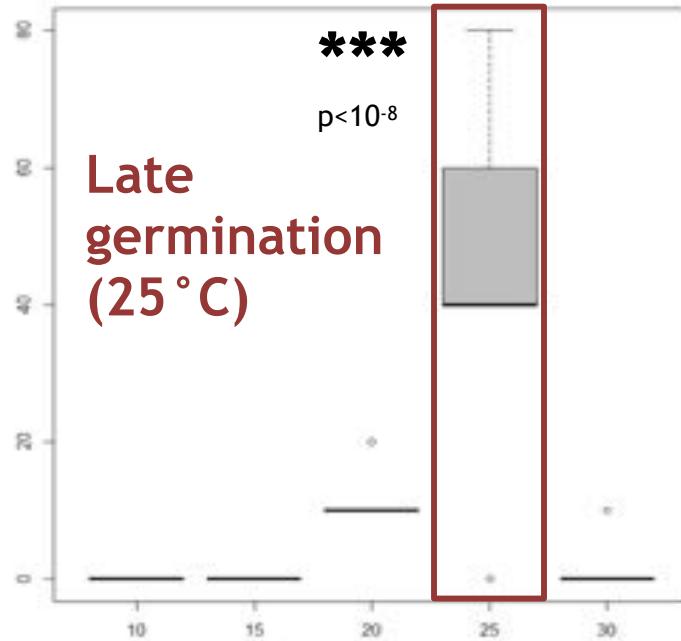
Adult plant niche



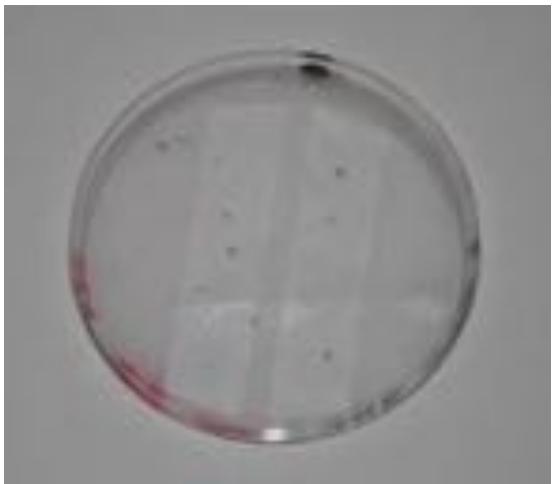
Germination



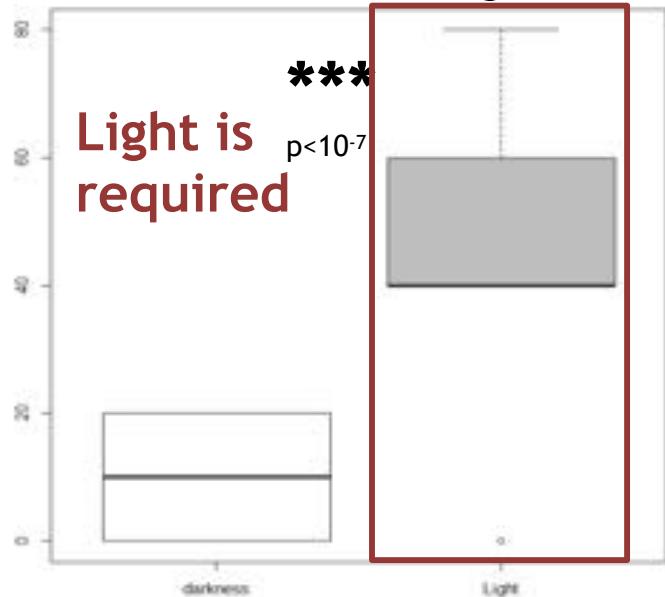
Temperature (10 to 30 °C)



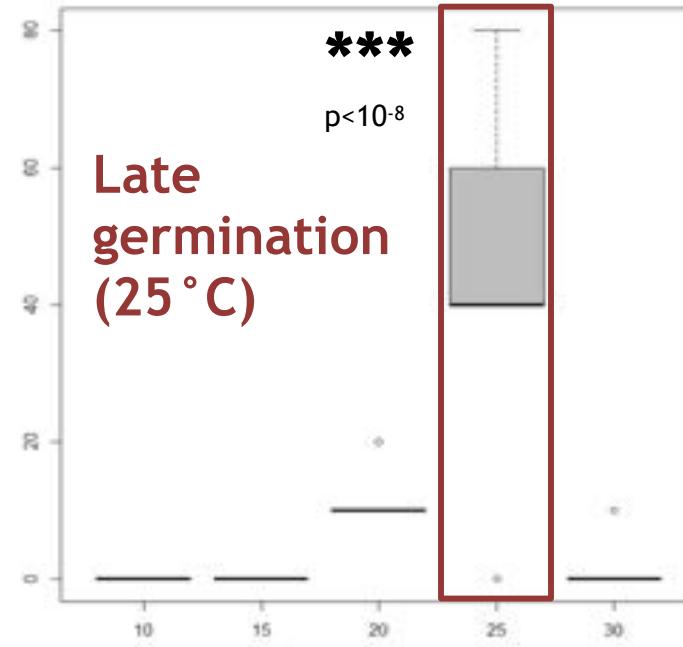
Germination



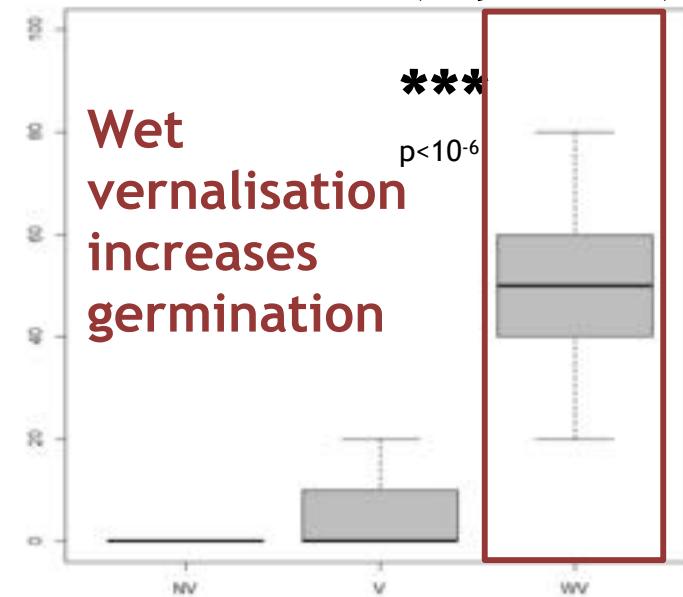
Darkness vs Light



Temperature (10 to 30 °C)



Vernalisation (dry & wet)



Light is required

$p < 10^{-7}$

Wet vernalisation increases germination

$p < 10^{-6}$

Adult plant niche



L. portula



L. thymifolia



L. borysthenicum



L. thesioides



L. tribracteatum



L. hyssopifolia

Adult plant niche



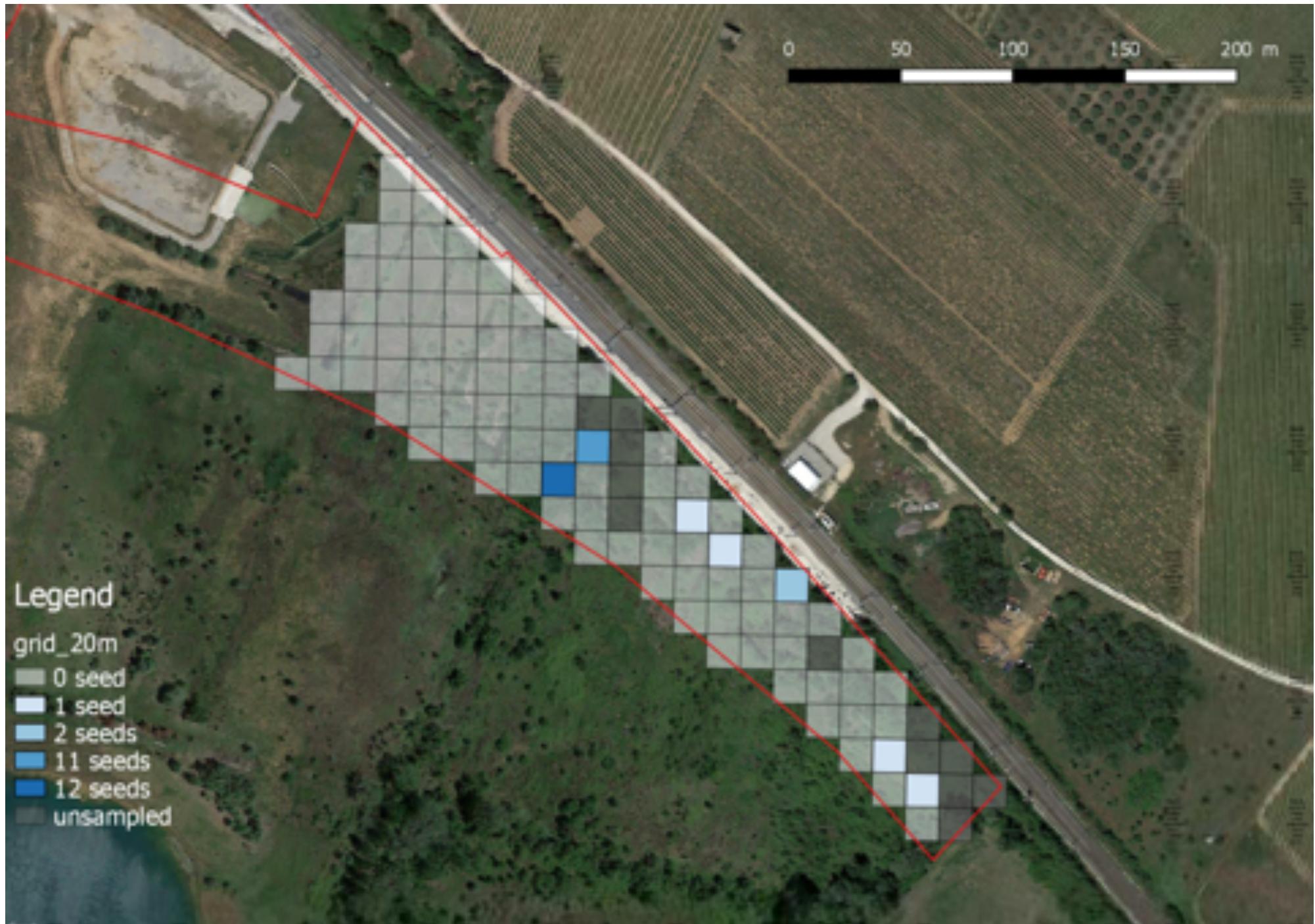
Seed bank mapping (out of the pits)



Seed bank mapping (out of the pits)



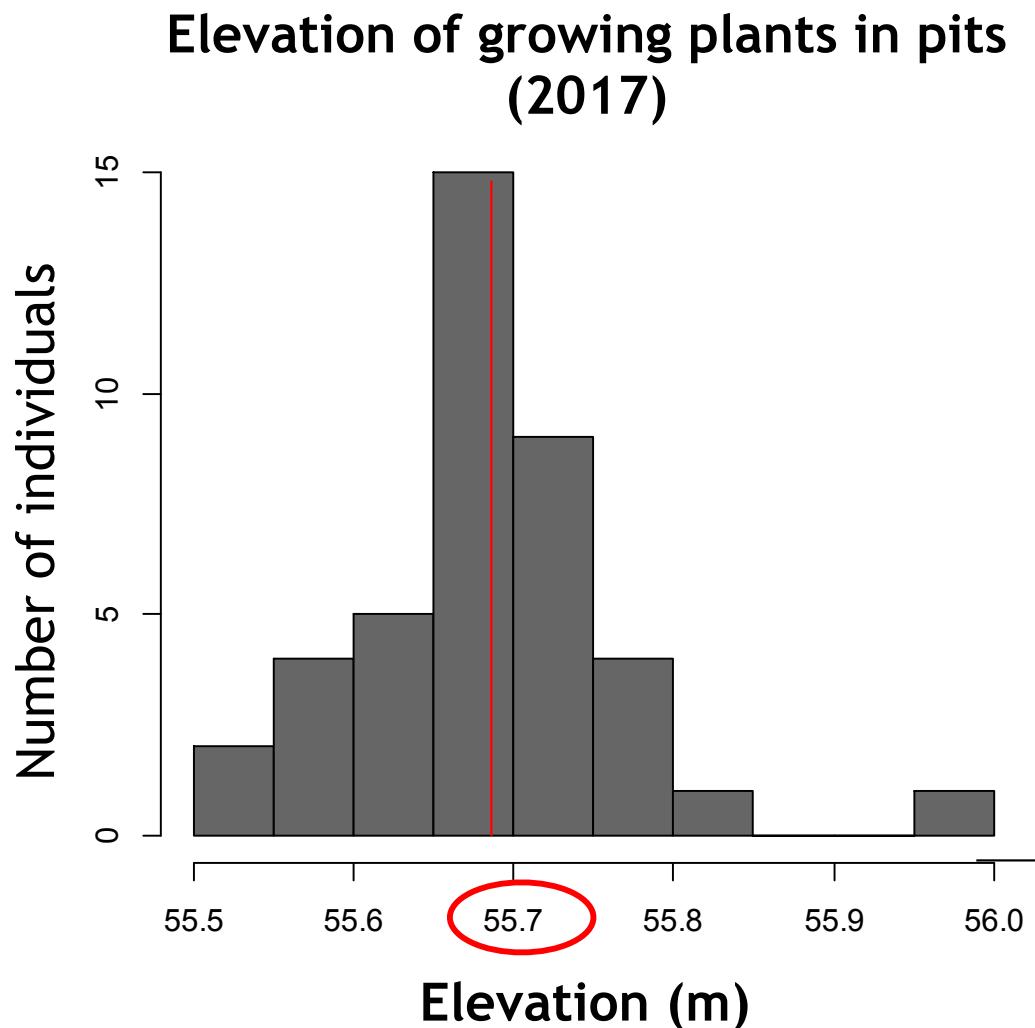
Seed bank mapping (out of the pits)





What is happening in the pits?

Seed bank mapping



Mean for seedbank
out of pits

Mismatch between seedbank and hydrology

Conclusion

Hydrology



Main factor for management/restauration



Photo : antea group



Picture : Carl Sayer

Conclusion

Hydrology



Main factor for management/restauration



Photo : antea group

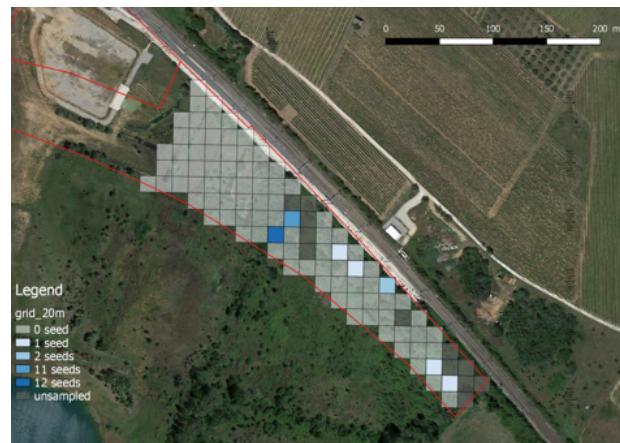


Picture : Carl Sayer

Low seed bank



Reinforcement



Conclusion

Trends in Ecology & Evolution

CellPress
REVIEWS

Opinion

What Conservation Does

Laurent Godet^{1,2,*} and Vincent Devictor^{2,3}

New agendas for conservation are regularly proposed based on the ground that existing strategies are overly pessimistic, restricted to biodiversity hotspots, and inappropriate to halt biodiversity loss. However, little empirical evidence supports such claims. Here we review the 12 971 papers published in the leading conservation journals during the last 15 years to assess what conservation actually does. Although conservation research is affected by specific bias, conservation is playing a major role in providing empirical evidence of human impacts on biodiversity. Encouraging biodiversity comebacks are also published and a wide range of conservation tools, beyond the development of protected areas in wilderness areas, are promoted. We argue that finding new

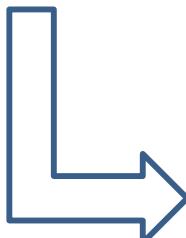
Highlights

We test how conservation documents biodiversity status, threats, and solutions.

Many threats to biodiversity are reported as well as some favorable ones.

However, biodiversity comebacks are documented as well as effective conservation tools.

Status, Threats & Solutions :
Only 24 % of « conservation » articles



Need for partnership
at the very beginning of projects