

Linear Infrastructures Networks with Ecological Solutions





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Can power line pole bases be used as habitat promotion?

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Negative effects - especially for birds |



Negligible agricultural or livestock use of the pole bases

Wide distribution in **agricultural**, **livestock**

and semi-natural landscapes

To **promote habitat patches** in the landscape

- Refuge for plants and animals
- Feeding habitat for fauna





Study area



5 mg





Study aimed

To analyse the **potential of power line pythons (pole bases)** to become **suitable habitat patches** according to **different management actions**:







Without intervention: maintenance of cattle grazing



Fenced: natural regeneration 3

Fenced and sown: native species promotion











Assessment of flora species

- Abundance
- Diversity
- Vegetation structure (height, cover and vegetation overlap)

Before : 2017 Spring



After: 2018 and 2019 Springs





2017 - Before Intervention







2017 - Before Intervention





Open area without storks
Open area with storks
Montado (with storks)



Species richness





In general

1st year (2018):

- Fenced: stable or increase
- Fenced and sown: increase
- Reference: stable

2nd year (2019):

Reference

Fenced and sown

Fenced

- Fenced: decrease or increase
- Fenced and sown: stable or increase
- Reference: stable or increase



Species richness and stork density















In general

1st year (2018):

- Fenced: stable or increase
- Fenced and sown: increase
- Reference: stable or decrease

2nd year (2019):

Fenced and sown

- Fenced: stable or decrease
- Fenced and sown: stable or decrease
- Reference: stable or decrease



Vegetation overlap





In general

1st year (2018):

- Fenced: increase
- Fenced and sown: increase
- Reference: variable between groups

2nd year (2019):

Reference

Fenced and sown

Fenced

- Fenced: decrease, but it is higher than in the references
- Fenced and sown: decrease, but it is higher than in the references
- **Reference:** variable between groups



Vegetation height





Higher vegetation in fenced poles (with or without the sown seed mixture)

More refuge areas for small mammals

Vegetation height and Grazing







Upper vegetation cover on poles fenced (with or without the sown seed mixture)

Less soil erosion

More resources

for wild fauna



Global analysis







Taking Home Ideas

Increase 1

Comparison

with 2017

Global evolution considering the 2 years of study:



These preliminary results suggest that fencing and sowing the pole **bases** is the most **beneficial solution**, since simultaneously **increases** the plant richness and the feeding and refuge habitat for fauna.



In the Spring of 2020...

• Assessment of flora species in the 15 pole bases

• The trends previously registered seem to remain











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Thank you for your attention!!



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