miappe

Investigation

Investigation Unique ID
ITQB-20191112_01

Investigation Title
Effects of forest management practices on the montado

Investigation Description
Project focused on assessing the effects of different kinds of forest management techniques on the montado habitat

Submission Date
2019-11-12

License
CC-BY

MIAPPE version
1.1

Associated publication

Person

Name
Your Name

E-mail
your_email@itqb.unl.pt

Role
principal investigator

Affiliation
ITQB NOVA, Av. da República, 2775-412 Oeiras, Portugal

Data file ✓

Study

Study Unique ID
ITQB-20191112_01-S1

Study title
Assessing the effect of pruning on cork quality

Study description
Four trees were randomly selected from the forest.Two were pruned annualy, and the other two not. Apart from pruning, trees were grown in wild conditions. The experiment was concluded in 2018, after ten years.Cork quality was assessed yearly, one month after pruning, by evaluating cork porosity, cork discontinuities and cork thickness.

Start Date of Study
2008-01-01

End Date of Study
2018-12-31

Contact Institution
ITQB NOVA, Av. da República, 2775-412 Oeiras, Portugal

Geographic location (country)
PT

Experimental site name
Estação agronómica

Geographic Location Coordinates
Lat. 38.69925 Long. -9.317 Alt.

Description of the Experimental Design
Randomly distributed trees selected for pruning or not pruning.

Type of Experimental Design

Observation Unit Level Hierarchy
study > plant

Observation Unit Description
Cork oak trees (plants) were observed individually.

Description of Growth Facility
cork oak forest (montado)

Type of Growth Facility
forest

Cultural Practices
trees grown in natural conditions

Biological Material

Biological Material ID
1

Organism
NCBITAXON:58331

Genus
Quercus

Species
suber

Biological Material Coordinates
Lat. 38.7012 Long. -9.31633 Alt.

Biological Material Preprocessing
All trees were planted in 1973 and then pruned once a year from 1978 to 2008.

Material Souce ID

Material Souce Coordinates
Lat. Long. Alt.

Material Source Description

Environment

Environment Parameter	Environment parameter value	
Average length of the light period	8:16h	*
Average day temperature	22°C	*
Average night temperature	14°C	*

Experimental Factor

Type
Mechanical treatment - pruning

Description
The pruning consisted of eliminating low branches, reducing crown diameter, leaving some branches in the middle of the crown which would overshadow first-order branches and ensure a round-shaped crown.

Values
pruned; unpruned

Event ✓

Observation Unit

Observation Unit ID
1
Observation Unit Type
plant
External ID
Spatial Distribution
latitude: 38.69962; longitude: -9.31779
Observation Unit Factor Value
pruned

Observation Unit ID
3
Observation Unit Type
plant
External ID
Spatial Distribution
latitude: 38.69937; longitude: -9.31612
Observation Unit Factor Value
unpruned

Observation Unit ID
2
Observation Unit Type
plant
External ID
Spatial Distribution
latitude: 38.69921; longitude: -9.31769
Observation Unit Factor Value
pruned

Observation Unit ID
4
Observation Unit Type
plant
External ID
Spatial Distribution
latitude: 38.69982; longitude: -9.31678
Observation Unit Factor Value
unpruned

Sample ✓

Observed Variable

*

Variable ID
cp_ns_mm2
Variable Name
Cork porosity, based on nail size, measured in mm2
Variable Accession Number
Trait
Cork Porosity
Trait Accession Number
CO_357:1000120
Method
Nail size - Tangential section protocol
Method Accession Number
CO_357:2000080
Me thod Description
Reference Associated to the Method
doi:10.1007/s11295-013-0652-6
Scale
mm2
Scale Accession Number
UO:0000082
Time Scale
years

*

Variable ID
enguy_cdp_mm2
Variable Name
Cork discontinuities, measured with relevant protocol in mm2
Variable Accession Number
Trait
Cork discontinuities
Trait Accession Number
CO_357:1000122
Method
Cork discontinuities protocol
Method Accession Number
CO_357:2000065
Me thod Description
Reference Associated to the Method
http://hdl.handle.net/10400.5/1926
Scale
mm2
Scale Accession Number
UO:0000082
Time Scale
years

*

Variable ID
ESP_ctbbp_mm
Variable Name
Cork plank thickness before boiling
Variable Accession Number
Trait
Cork plank thickness
Trait Accession Number
CO_357:1000106
Method
Cork thickness before boiling protocol
Method Accession Number
CO_357:2000055
Me thod Description
Cork's thickness is measured in eight positions: two in each radial surface and two others in each transversal face. The measured positions are marked for comparison with data obtained after boiling.
Reference Associated to the Method
Scale
mm
Scale Accession Number
Time Scale
years