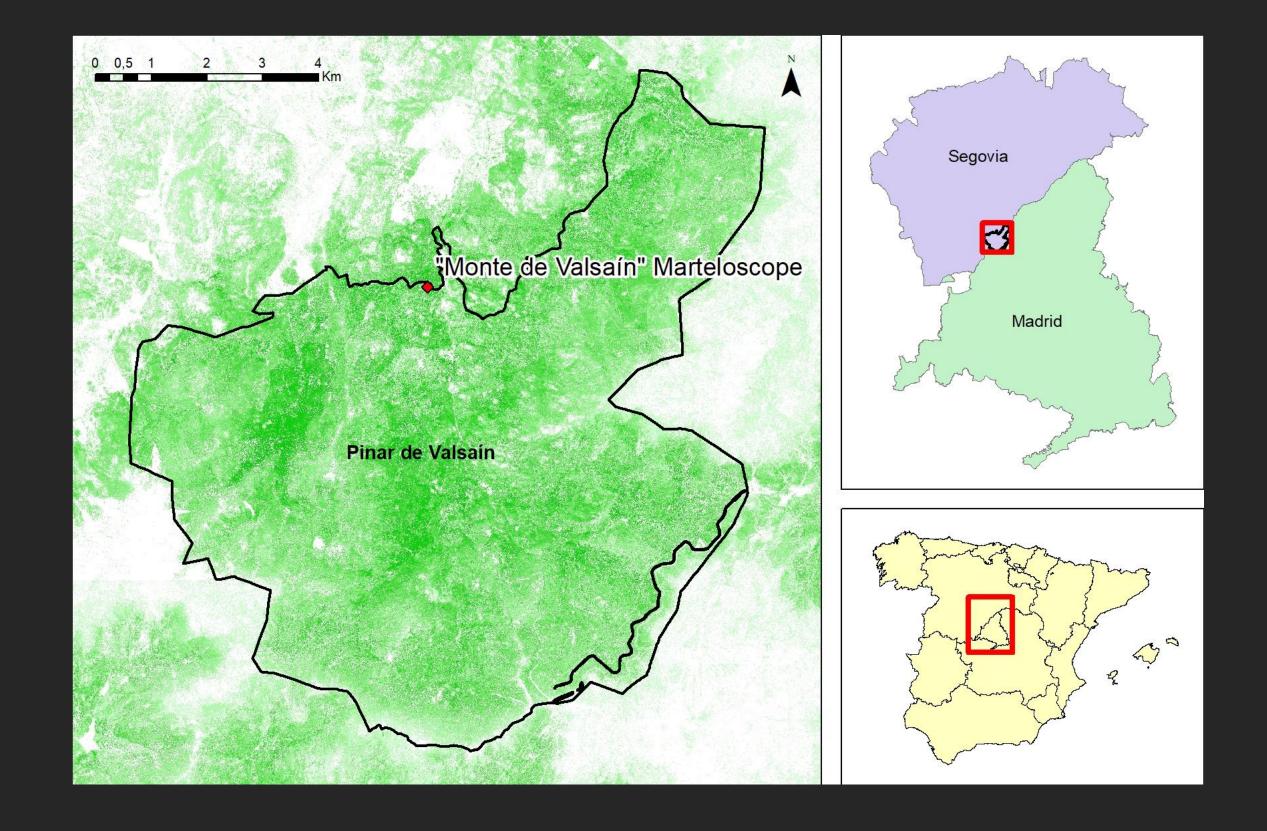
Marteloscope Monte de Valsaín

"Pinar de Valsaín" forest

The forest of Pinar de Valsaín is located in the municipality of Real Sitio de San Ildefonso (Segovia, Castilla y León), close to two important urban areas, Segovia and Madrid.

Recognized for their natural and historical importance, these forests are managed by the Organismo Autónomo Parques Nacionales (OAPN) through the Centro Montes y Aserradero de Valsaín, which is responsible for harmonizing the conservation of this natural area and its species with forestry, livestock and recreational activities.

Located in Sierra de Guadarrama, there is a considerable altitudinal variation: from the summits of more than 2000 m of altitude to the valley bottoms located just over 1000 m in just a few kilometres. Accordingly, more than half of the forest surface has a high slope (more than 25%). Rainfall varies from 1350 mm in the high areas to 460 mm in the low areas. As for the average annual temperature, it ranges between 6.5 $^{\circ}$ C in the high areas and 12 °C in the low areas.





0,3%

7581 ha 4,8% conifers Total forest Annual income Biomass Actual average Annual allowable cut (above and stock from area Quercus pyrenaica below ground) wood 7204 ha 616 trees/ha **38.2** m/ha 0.2 % 7,5 m³/ha Barren areas (shrubland, 94,9% grassland) and improductive Tree density Roads and broadleaves Tree covered Annual areas (rocks, roads, etc.) trails density increment area

414 m³/ha **4.4** m³/ha **123.6** €/ha Pinus sylvestris 99.8 %



4.9 t/ha·year 9.1 t/ha·year Annual biomass Annual CO₂ increment increment

Real Sitio de San Ildefor

"Monte de Valsaín" Marteloscope

"Pinar de Valsaín" forest

Special Protection Area NP

National Park (NP)

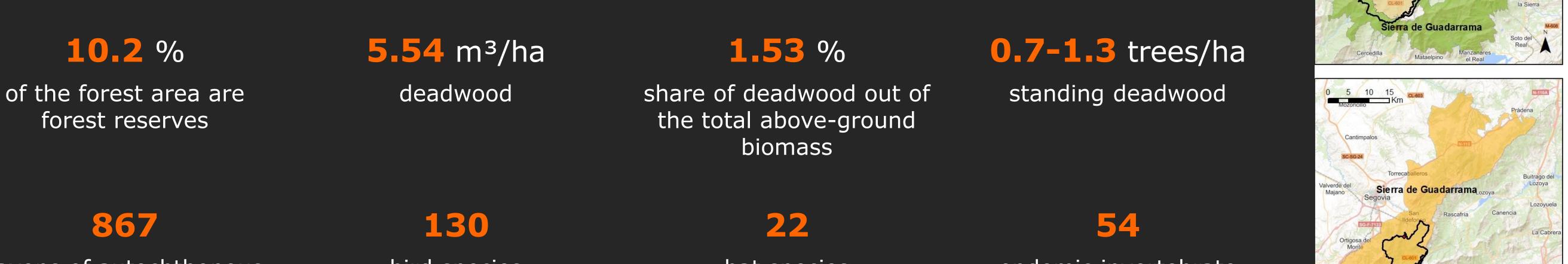
Biosphere Reserve

Natura 2000 Network

CO2

Forest management and biodiversity

Pinar de Valsaín forest is protected by different legal figures. One of the great values of this area is its birdlife, which includes the Iberian imperial eagle (Aquila adalberti) and the black vulture (Aegypius monachus).



taxons of autochthonous vascular flora

bird species

bat species

endemic invertebrate species







Aegypius monachus

Nyctalus lasiopterus



Graellsia isabelae



Acanthocinus aedilis



Narcissus pseudonarcissus

2,5 5



Alytes obstetricans

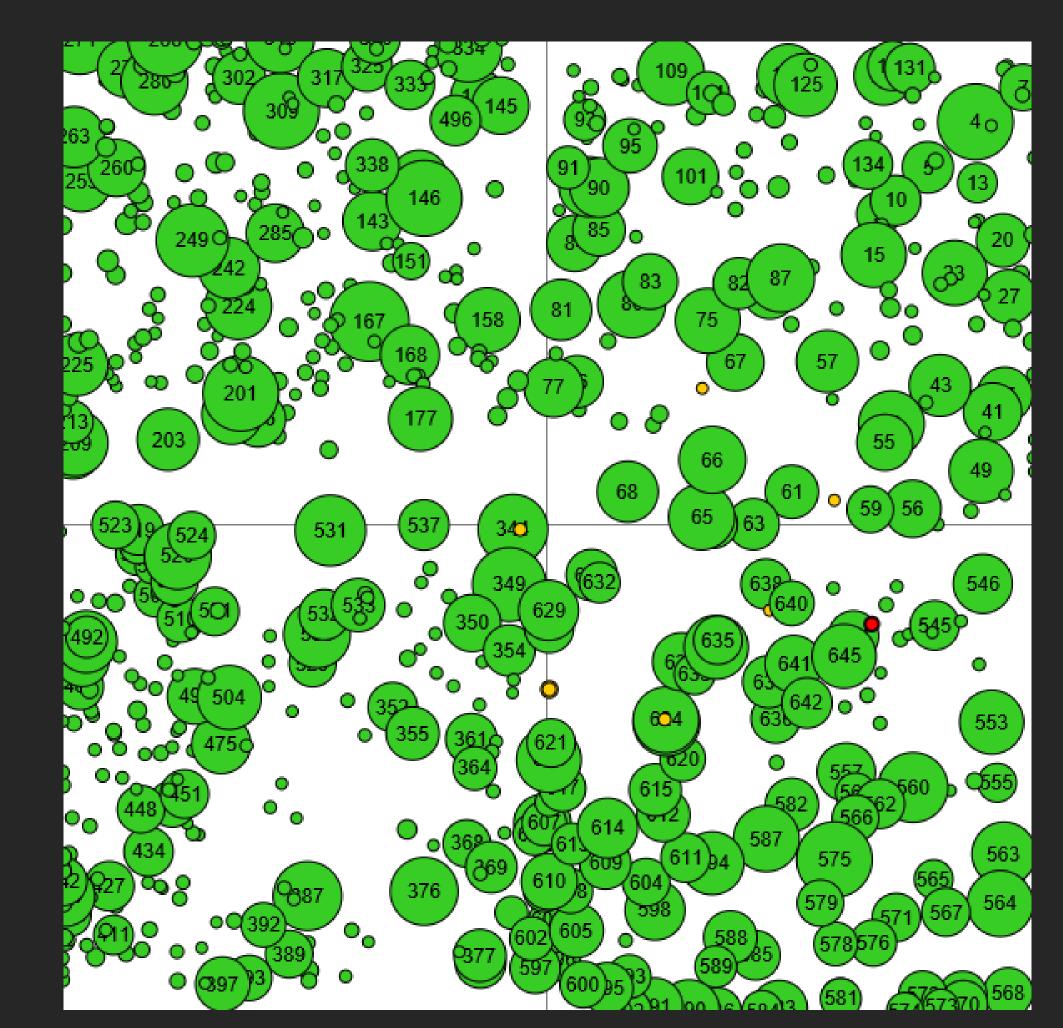
Site conditions

Coordinates (X, Y)*:	413102, 4523264
Type of forest:	Montane/subalpine scots pine forest.
Soil:	Argiluvic.
Geology:	Granite with veins of porphyry, diorites and quartz.
Altitude:	1230 m.a.s.l.
Mean annual temperature:	10.6 °C.
Annual precipitation:	690 mm.
Summer precipitation (June 1st – August 31st):	86.9 mm.
Periodo medio de sequía:	2 months (July and August

Stand characteristics



Marteloscope tree map



40	
0.0 5 10 15 25 30 35 40 45 50 5	5 60 65 70 75
DBH class (cm) N [stems/ha]	645
BA [m²/ha]	52.9
Volume [m ³ /ha]	680.7
Tree microhabitats [units]	512
Habitat value [points]	8,120
Economic value [€]	24,490
Standing deadwood [m ³ /ha]	30.4
Lying deadwood [m ³ /ha]	26.9



Photographs by: María Soledad Redondo Rodríguez

*Reference system: ETRS 89 UTM Zona 30N

The different graphs, tables, screenshots, and other exercise results were created using the I+' software: 1) iplus.efi.int

2) Schuck, A., Kraus, D., Krumm, F., Held, A., Schmitt, H., 2015. Integrate+ marteloscopes - Calibrating silvicultural decision making. Integrate+ Technical Paper No. 1. 12 p.

