



*INVENTAIRE FORESTIER
NATIONAL*

The french forest
Figures and maps

Edition 2008

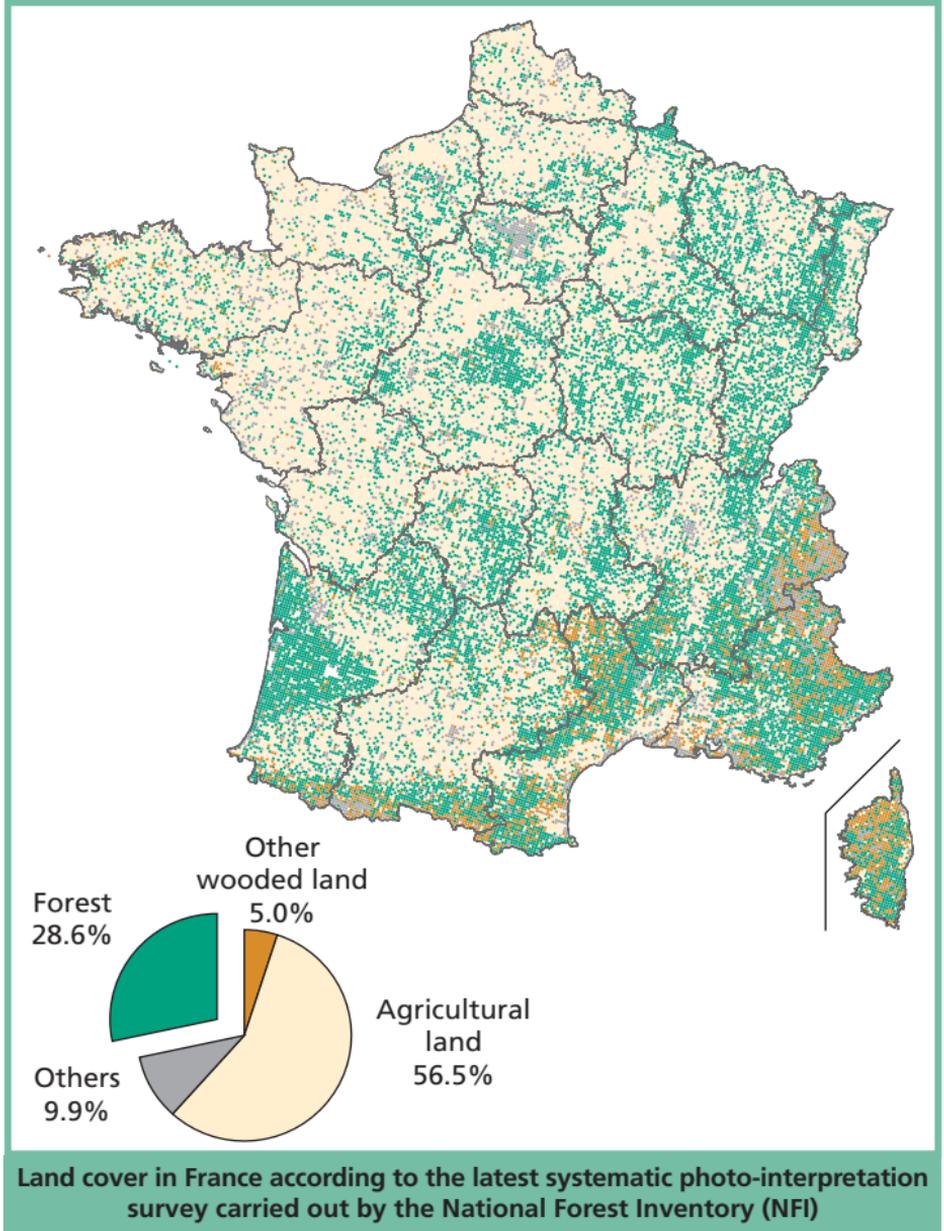
Drawings: Dominique MANSION, taken from
Flore forestière française, guide écologique illustré
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23 avenue Bosquet – F-75007 Paris

Data: unless otherwise specified, the information herein
(maps, figures, graphs) is based on French National Forest
Inventory data.

Forest in metropolitan France	2
An area in expansion	3
Percentage of forest cover	4
Closed and open forest	5
French forest composition	6
Tree species richness	7
Who does the french forest belong to?	8
Main species	10
Pedunculate oak	12
Sessile oak	13
Pubescent oak	14
Evergreen oak	15
Beech	16
Hornbeam	17
Common ash	18
Chestnut	19
Maritime pine	20
Scots pine	21
Norway spruce	22
Common silver fir	23
Douglas fir	24
Some regional data	25

Forest in metropolitan France

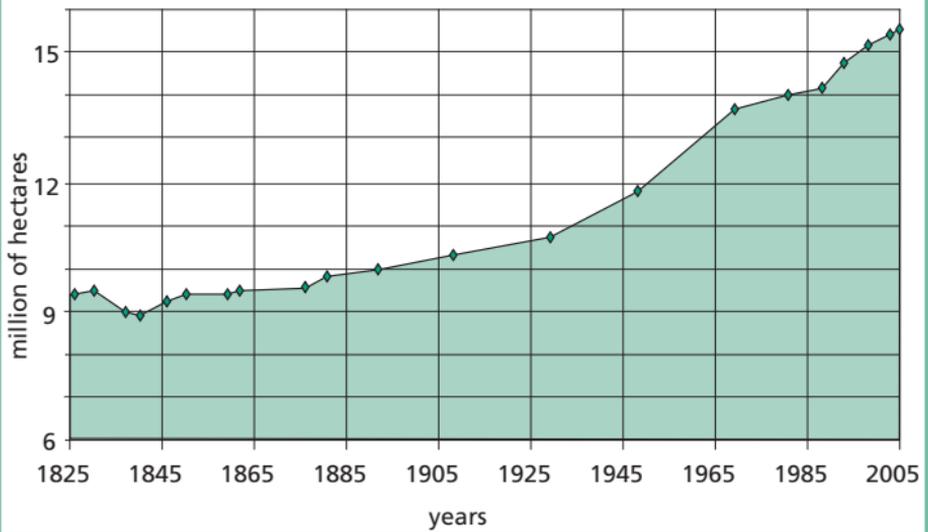
With **15.71** million hectares, forest covers **28.6%** of the metropolitan territory. This is equivalent to half of the agricultural area.



Definition:

A **forest** is defined as land with tree crown cover of more than 10%, an area of more than 0.5 ha and an average width of more than 20 m. Trees should be able to reach a minimum height of 5 m at maturity *in situ*.

An area in expansion



Trends for the french forest area

Source : CINOTTI (B.), *Évolution des surfaces boisées en France : proposition de reconstitution depuis le début du XIXe siècle*, *Revue forestière française*, Vol. XLVIII (6), 1996, p. 547-562

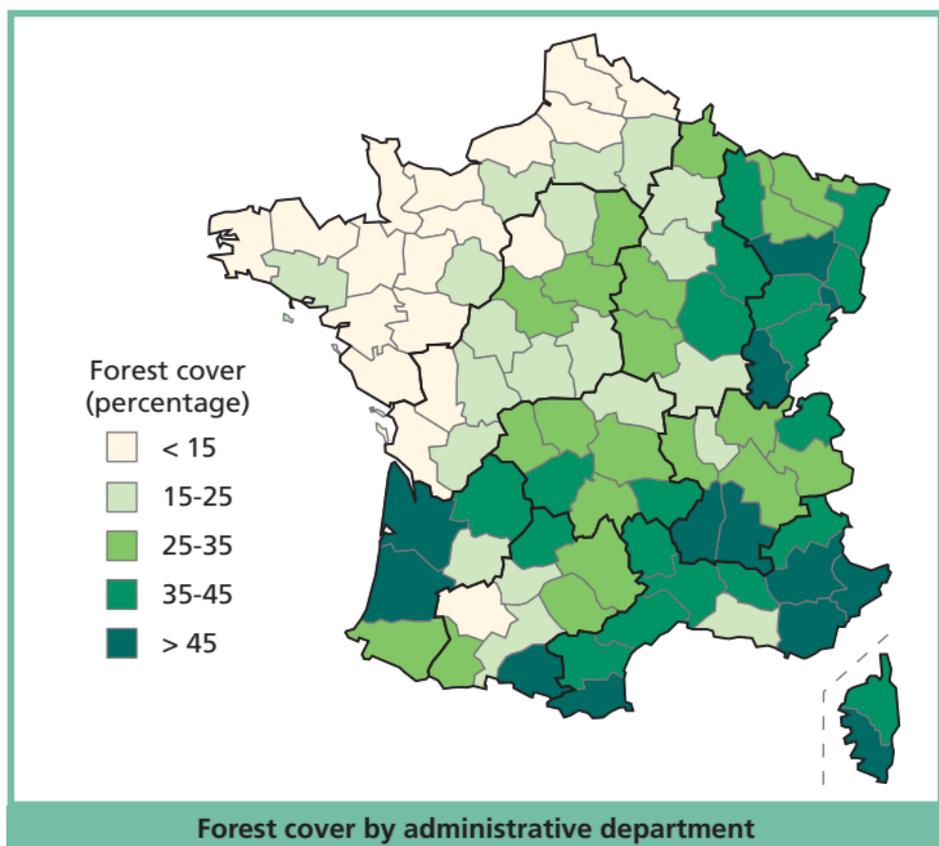
Since the middle of the XIXth century, forest area has increased in France. In particular, this situation corresponds to the use of other energies than wood from the industrial revolution. More recently, this increase has also been connected to the decrease in agricultural areas linked to increasing yields and land abandonment by unprofitable farms.

Abandoned agricultural land was partly transformed into forest, by natural or artificial afforestation. Afforestation also took place to stabilise dunes or protect soils from erosion, floods or avalanches. For example, at the end of the XIXth century the Landes Forest was created by man, as were many mountain forests in the XIXth and XXth centuries.

After the Second World War, the National Forest Fund supported reforestation to increase wood production. Thus, 1.7 million hectares of essentially conifer forest were planted. In the last twenty years, forest area has continued to increase, in particular in the South-East.

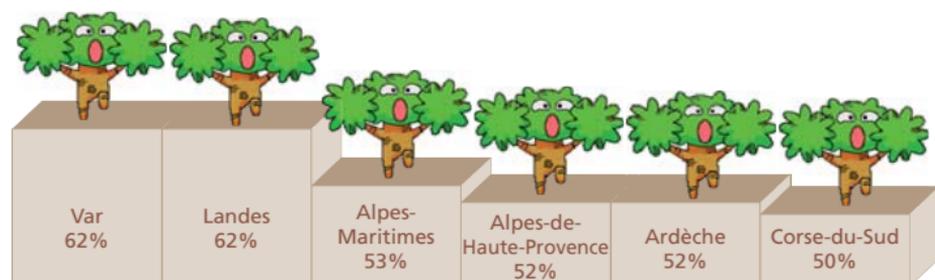
Percentage of forest cover

The average percentage of forest cover, i.e. the relative part of forest among all different land uses, is **28.6%** in metropolitan France.



In nine administrative departments (Calvados, Loire-Atlantique, Manche, Mayenne, Nord, Pas-de-Calais, Deux-Sèvres, Somme and Vendée) the rate is less than 10%.

In six administrative departments, forest covers more than half the territory.

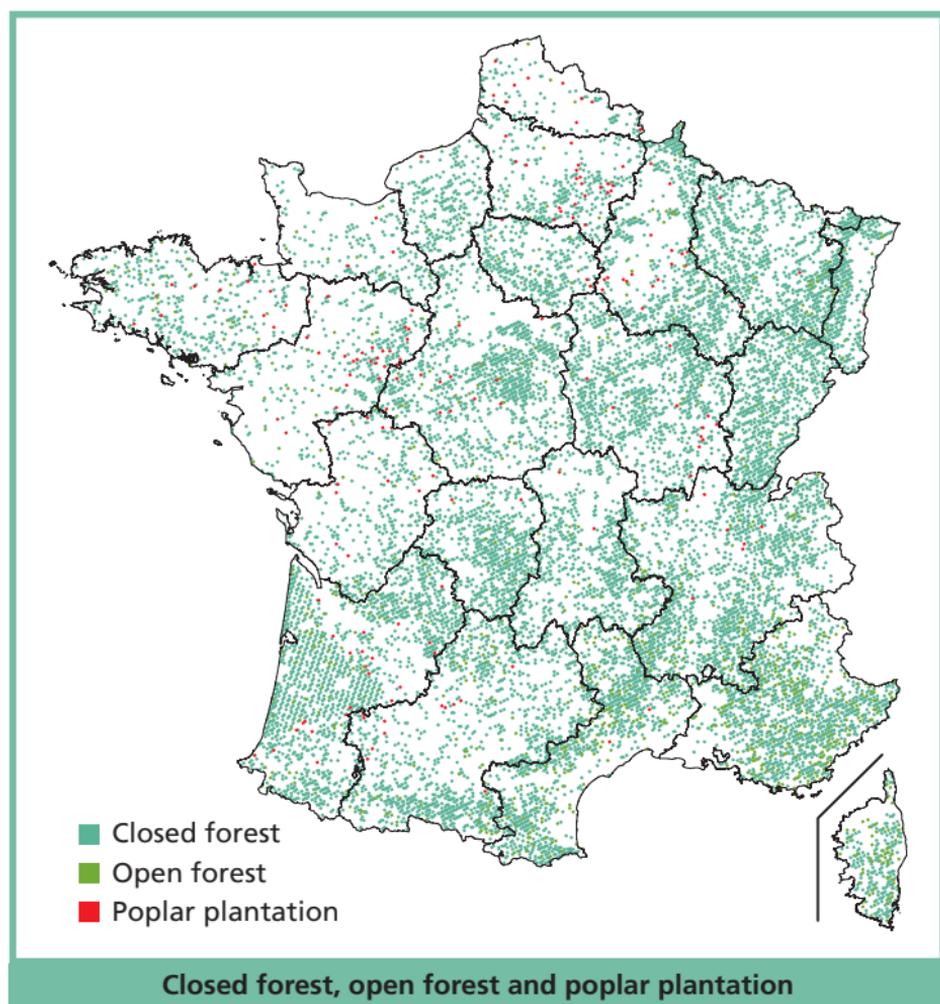


Closed and open forest

In France, forest is essentially a closed forest, i.e. with a tree crown cover of more than 40%. Closed forest thus accounts for 93% of the total forested area, or 14.63 million hectares.

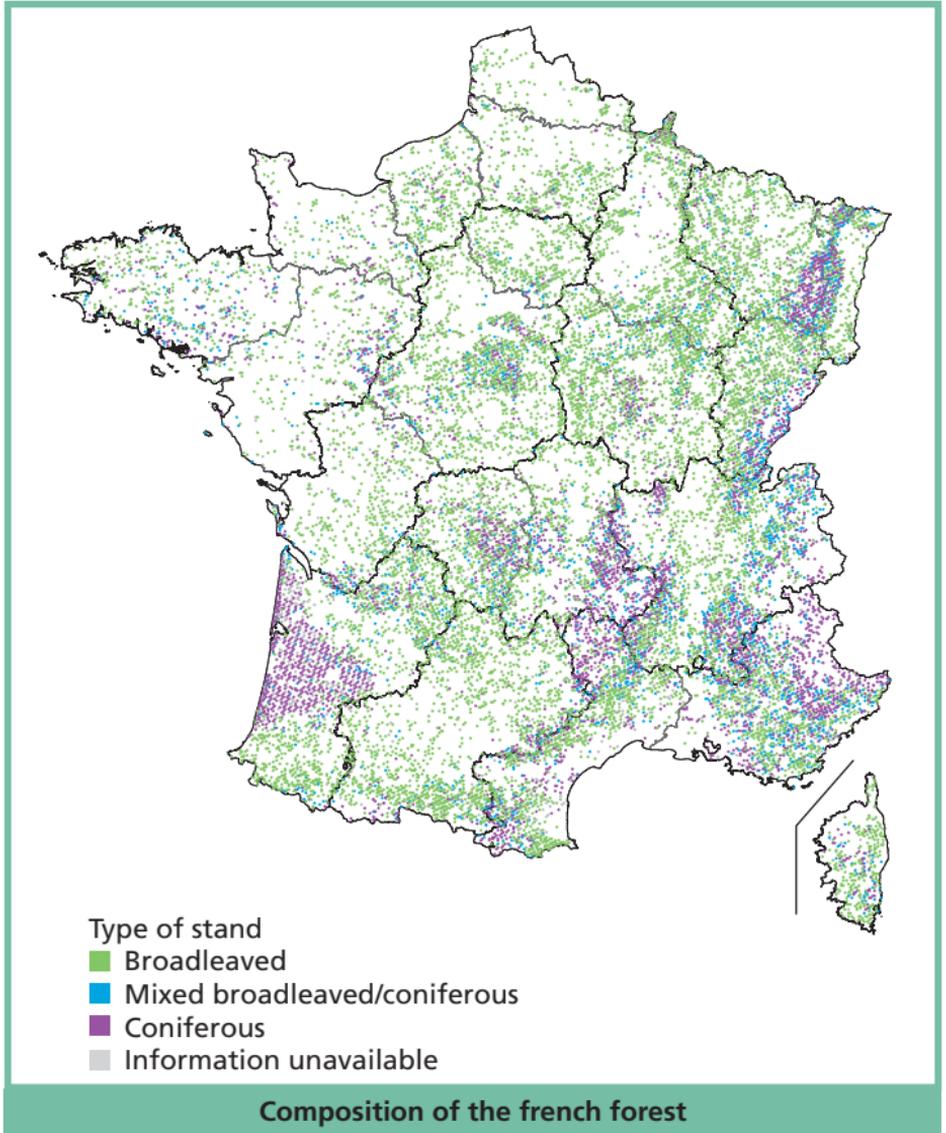
Open forest, with a tree crown cover between 10 and 40%, is rarer and less widespread. It represents only 7% of the forested area (1.08 million hectares). Open forest is mostly found in the South-East (580,000 hectares) and in Rhône-Alpes (120,000 hectares).

Poplar plantations cover 200,000 ha, mainly in northwestern France. There are also large areas in Champagne-Ardenne and in the Garonne river valley.



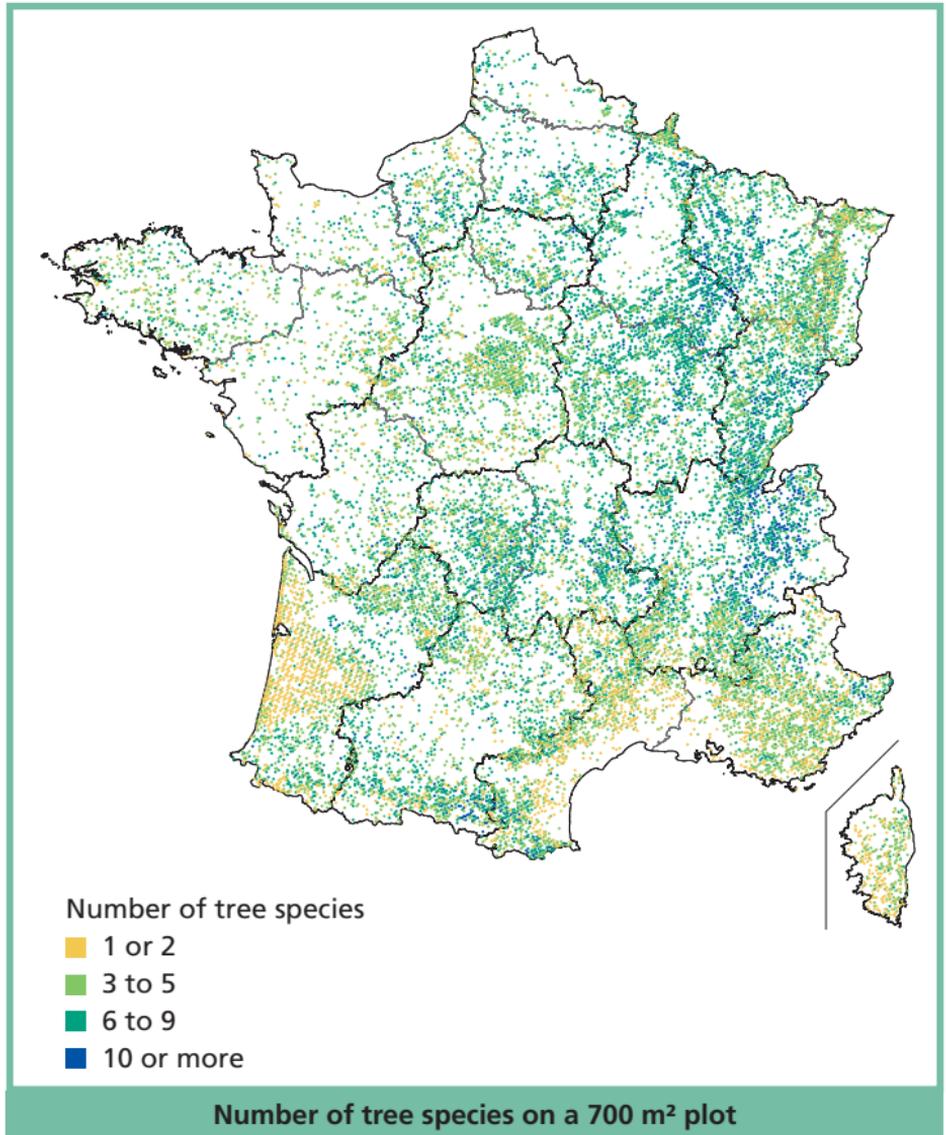
French forest composition

French forest is mostly a forest of broadleaved trees. Broadleaved stands cover 58% of the forested area. Conifers are more often present in the Landes Forest and in the mountainous regions. Mixed broadleaved/coniferous stands are located at the interface between plain and mountain.



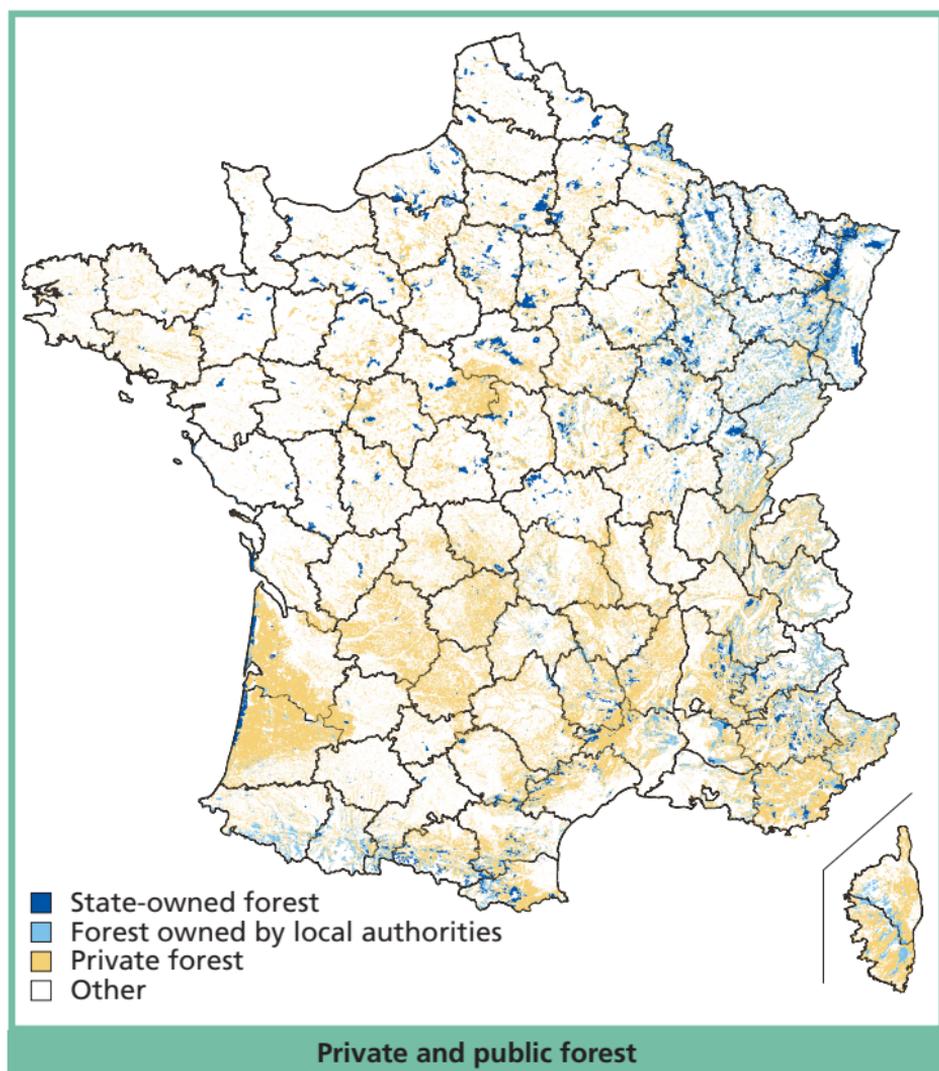
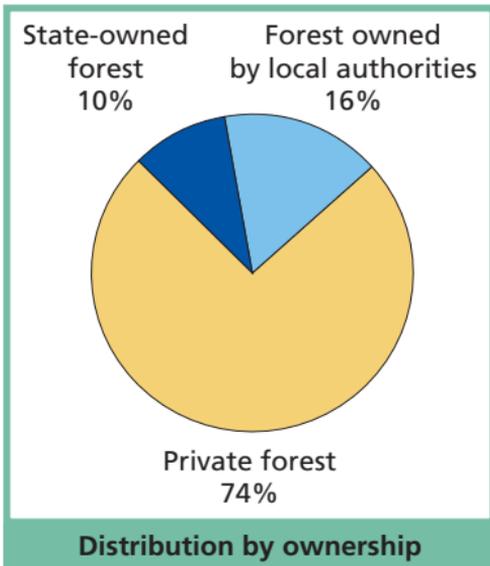
Tree species richness

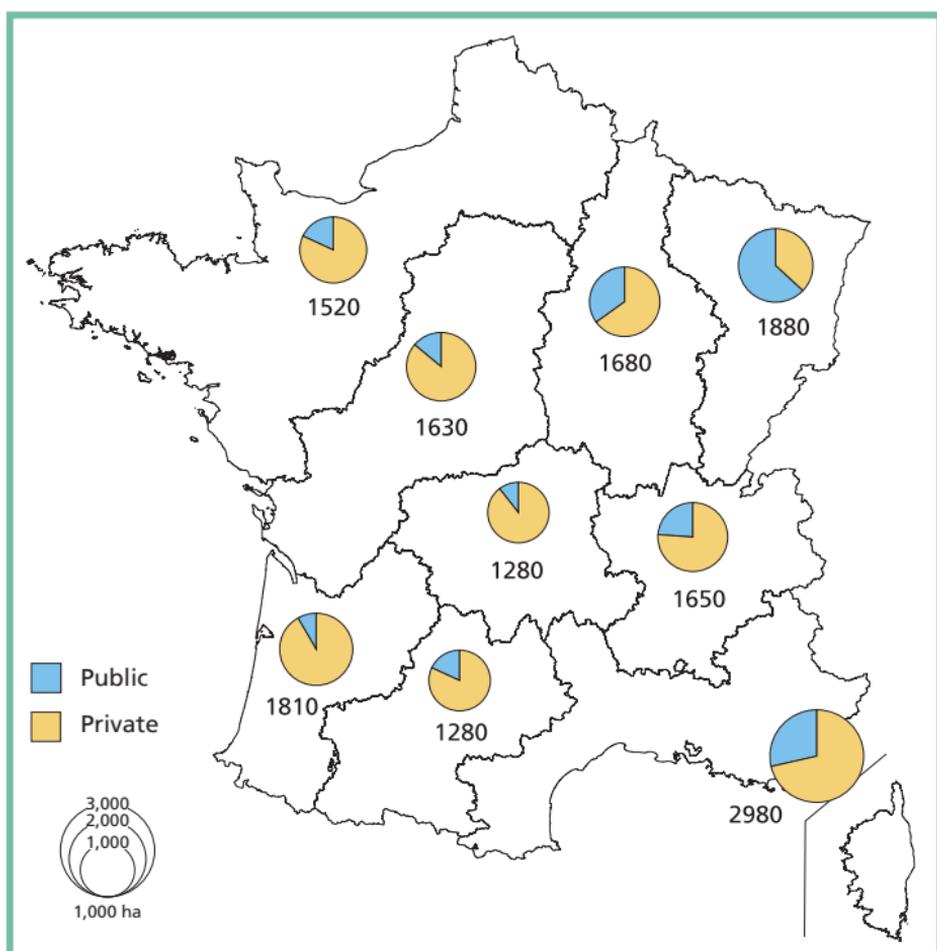
The floristic inventory carried out on the NFI forest plots allows us to describe local tree species richness. Each occurring species is recorded on a circular 700 m² simple plot. Trees from seedling to mature stages are taken into account.



Who does the french forest belong to?

Three quarters of the French forest (11.69 million hectares) belong to private owners. The public forest, managed by Office national des forêts (ONF), is divided between state-owned forest (1.53 million hectares) and other public forest (2.49 million hectares) that belong to local authorities, mainly townships.



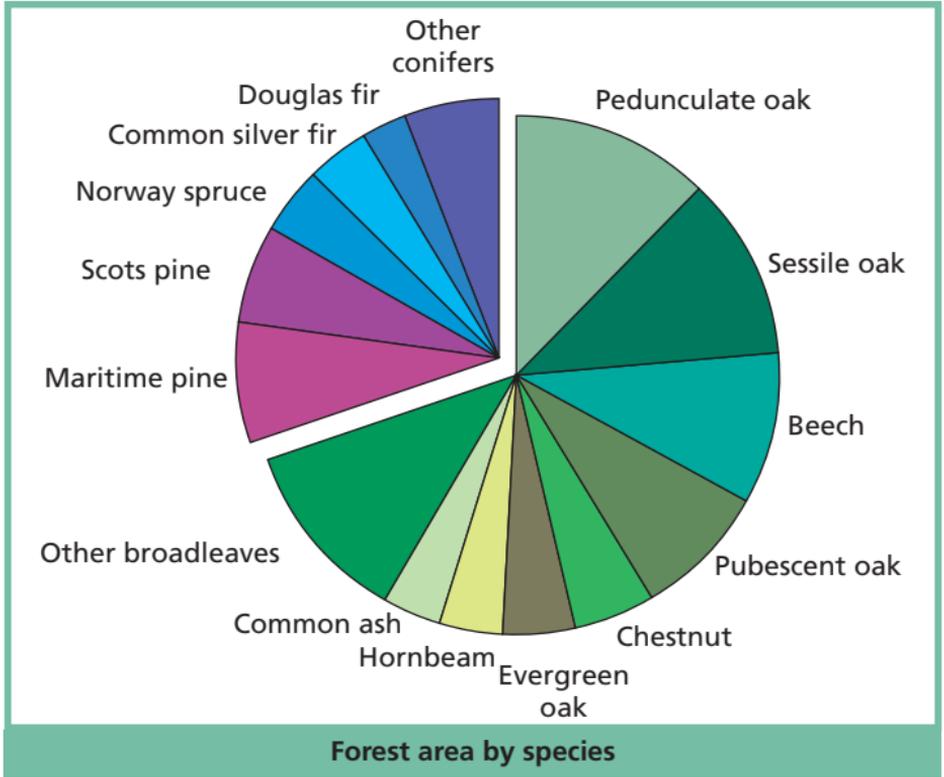


Forest area by ownership

Interregion	Area (1,000 ha)		
	Public forest	Private forest	Total
North-West coastal regions	270	1,250	1,520
Île-de-France – Centre – Poitou-Charentes	230	1,400	1,630
Champagne-Ardenne – Burgundy	590	1,090	1,680
Alsace – Lorraine – Franche-Comté	1,190	700	1,880
Auvergne – Limousin	130	1,150	1,280
Rhône-Alpes	390	1,260	1,650
Aquitaine	150	1,660	1,810
Midi-Pyrénées	230	1,050	1,280
South-East	850	2,130	2,980
France	4,020	11,680	15,710

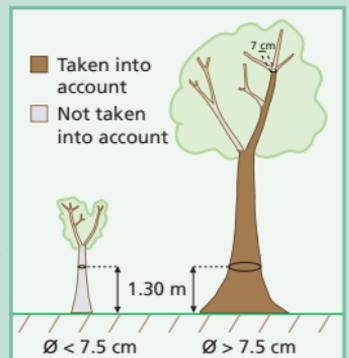
Main species

The French National Forest Inventory lists nearly 140 tree species in the European French forest, whose 74 indigeneous. Thirteen main species make up 80% of the French forest. More detailed information is given in the following pages.



Definitions:

The **volume** taken into account includes only the forest trees dedicated to wood production whose diameter at breast height (dbh) is more than 7.5 cm. For these trees, the volume taken into account includes the stem from the ground up to a diameter of 7 cm. It also includes the bark and one main limb.

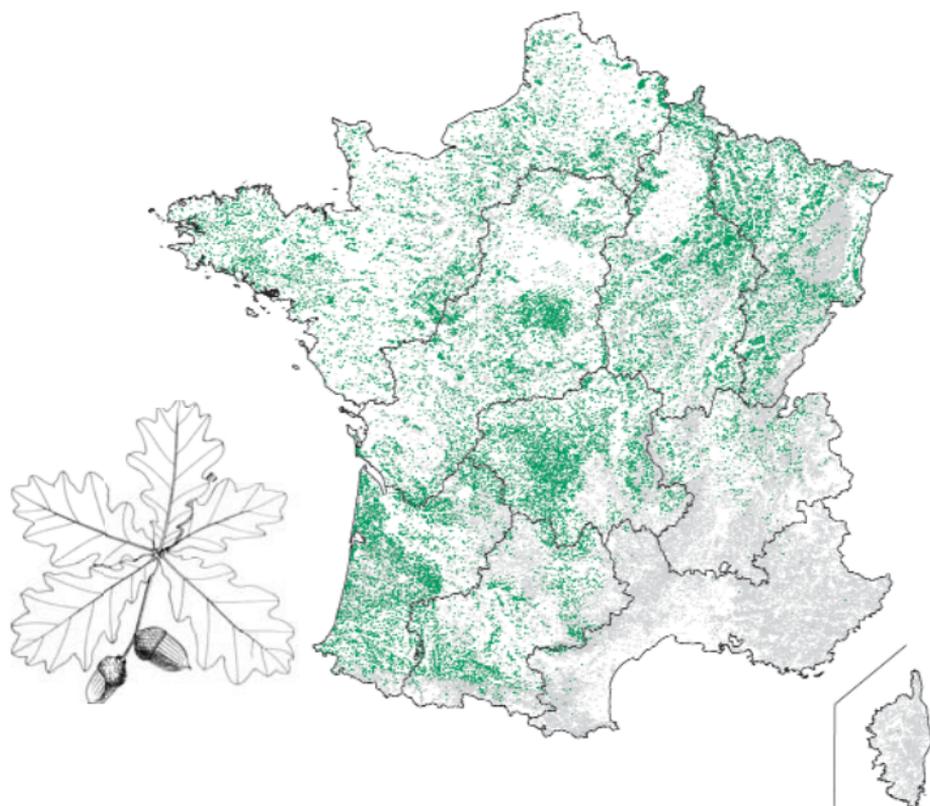


The **annual increment** corresponds to the increase in wood volume (i.e. the woody biomass) produced by the forest in one year.

	Forest area linked to wood production	Growing stock
Species	(1,000 ha)	(million of m ³)
Pedunculate oak	1,850	275
Sessile oak	1,690	289
Beech	1,390	260
Pubescent oak	1,250	93
Chestnut	740	118
Evergreen oak	650	24
Hornbeam	580	90
Common ash	540	80
Other broadleaves	1,690	272
All hardwoods	10,380	1,502
Maritime pine	1,100	179
Scots pine	910	143
Norway spruce	630	190
Common silver fir	580	178
Douglas fir	400	88
Other conifers	860	127
All softwoods	4,470	905
Unspecified	120	–
Total	14,970	2,407
Area et growing stock for the 13 main species		

Pedunculate oak

Quercus robur

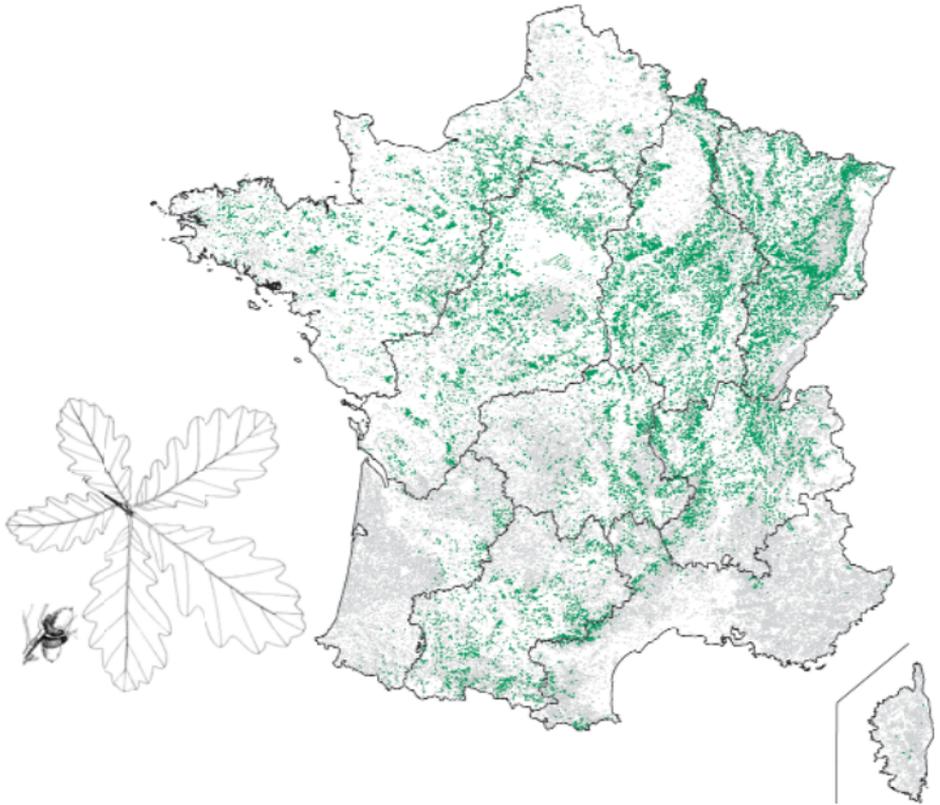


Interregion	Area (1,000 ha)	Growing stock (million of m ³)
North-West coastal regions	270	41
Île-de-France – Centre – Poitou-Charentes	370	50
Champagne-Ardenne – Burgundy	260	43
Alsace – Lorraine – Franche- Comté	170	31
Auvergne – Limousin	260	42
Rhône-Alpes	ε	4
Aquitaine	320	38
Midi-Pyrénées	160	25
South-East	ε	ε
France	1,850	275

N.B. : ε indicates an area of less than 50,000 hectares, a growing stock of less than 2 million cubic meters or a yield of less than 0.1 million cubic meters.

Sessile oak

Quercus petraea

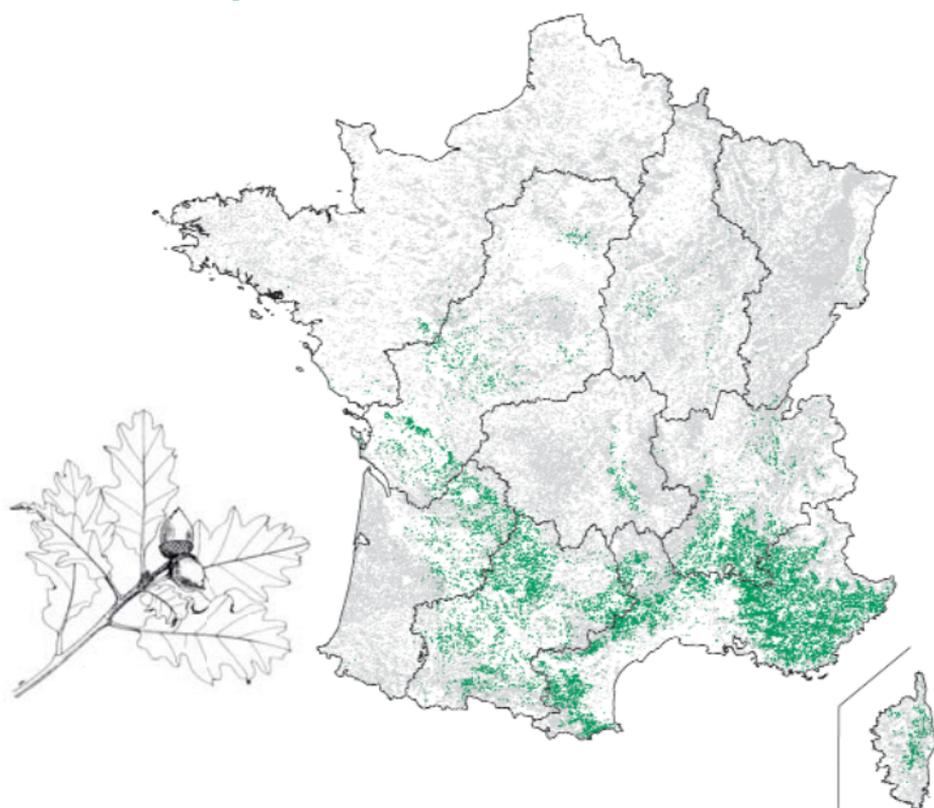


Interregion	Area (1,000 ha)	Growing stock (million of m ³)
North-West coastal regions	210	40
Île-de-France – Centre – Poitou-Charentes	390	67
Champagne-Ardenne – Burgandy	520	80
Alsace – Lorraine – Franche- Comté	260	53
Auvergne – Limousin	120	22
Rhône-Alpes	110	16
Aquitaine	ε	ε
Midi-Pyrénées	50	8
South-East	ε	ε
France	1,690	289

N.B. : ε indicates an area of less than 50,000 hectares, a growing stock of less than 5 million cubic meters or a yield of less than 0.2 million cubic meters.

Pubescent oak

Quercus pubescens

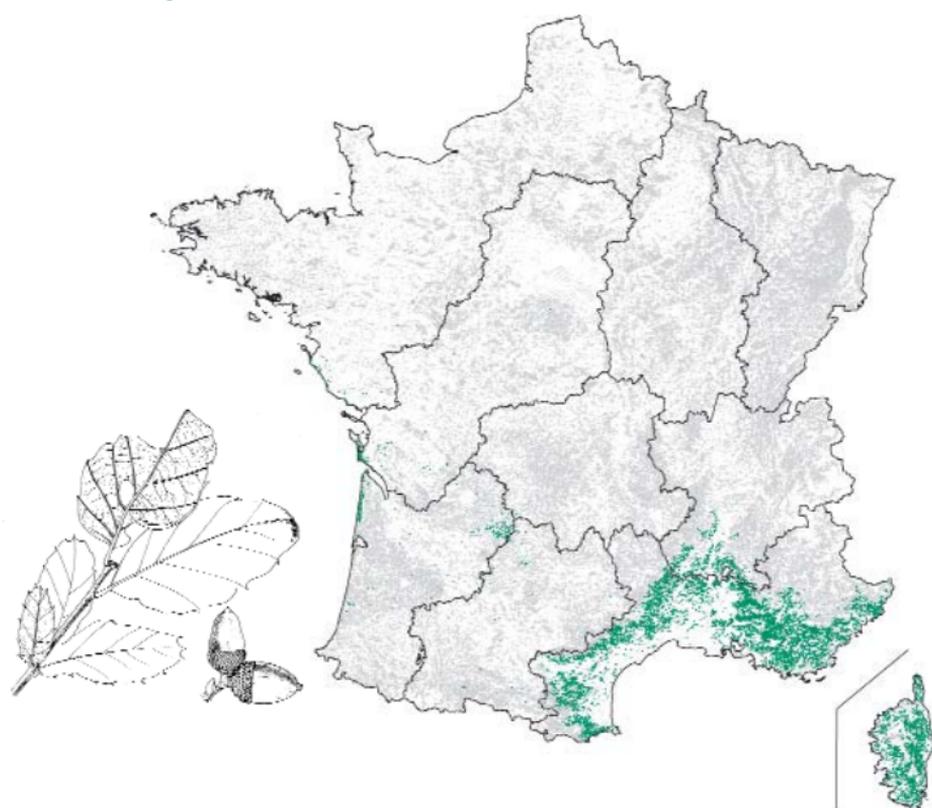


Interregion	Area (1,000 ha)	Growing stock (million of m ³)
North-West coastal regions	ε	ε
Île-de-France – Centre – Poitou-Charentes	100	9
Champagne-Ardenne – Burgundy	ε	ε
Alsace – Lorraine – Franche- Comté	ε	ε
Auvergne – Limousin	ε	ε
Rhône-Alpes	170	9
Aquitaine	130	15
Midi-Pyrénées	380	34
South-East	440	23
France	1,250	93

N.B. : ε indicates an area of less than 50,000 hectares, a growing stock of less than 2 million cubic meters or a yield of less than 0.1 million cubic meters.

Evergreen oak

Quercus ilex

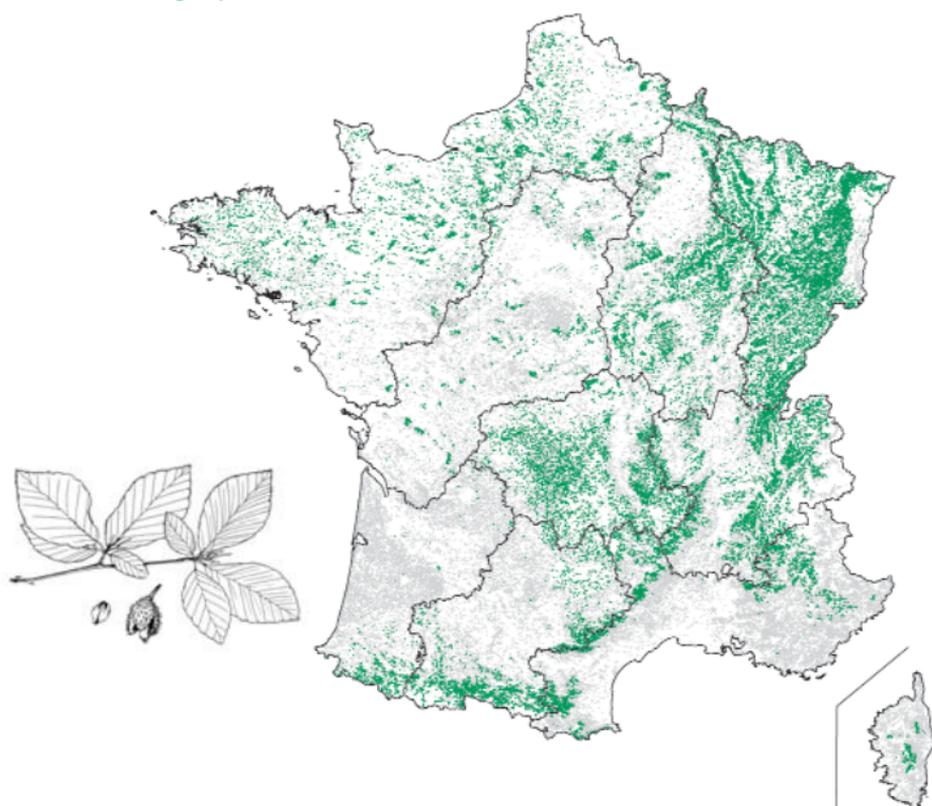


Interregion	Area (1,000 ha)	Growing stock (million of m ³)
North-West coastal regions	0	ε
Île-de-France – Centre – Poitou-Charentes	ε	ε
Champagne-Ardenne – Burgundy	0	0
Alsace – Lorraine – Franche-Comté	0	0
Auvergne – Limousin	0	0
Rhône-Alpes	ε	ε
Aquitaine	ε	ε
Midi-Pyrénées	ε	ε
South-East	600	22
France	650	24

N.B. : ε indicates an area of less than 50,000 hectares, a growing stock of less than 1 million cubic meters or a yield of less than 0.1 million cubic meters.

Beech

Fagus sylvatica

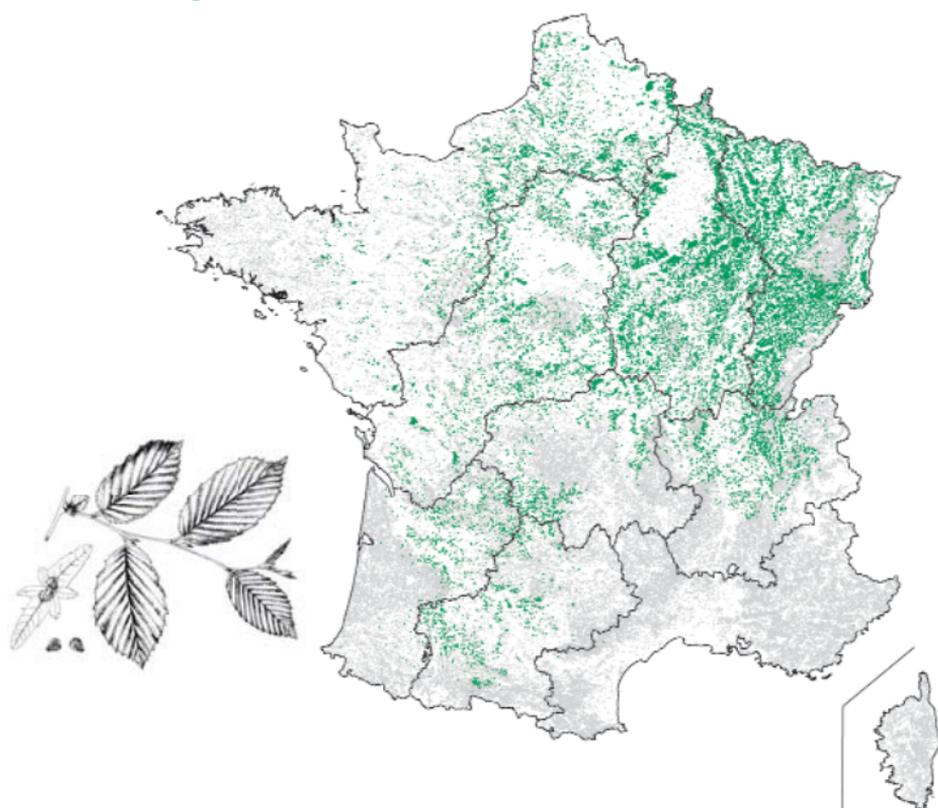


Interregion	Area (1,000 ha)	Growing stock (million of m ³)
North-West coastal regions	130	28
Île-de-France – Centre – Poitou-Charentes	ε	ε
Champagne-Ardenne – Burgundy	150	26
Alsace – Lorraine – Franche- Comté	390	77
Auvergne – Limousin	120	31
Rhône-Alpes	220	35
Aquitaine	60	12
Midi-Pyrénées	140	24
South-East	160	25
France	1,390	260

N.B. : ε indicates an area of less than 50,000 hectares, a growing stock of less than 5 million cubic meters or a yield of less than 0.2 million cubic meters.

Hornbeam

Carpinus betulus

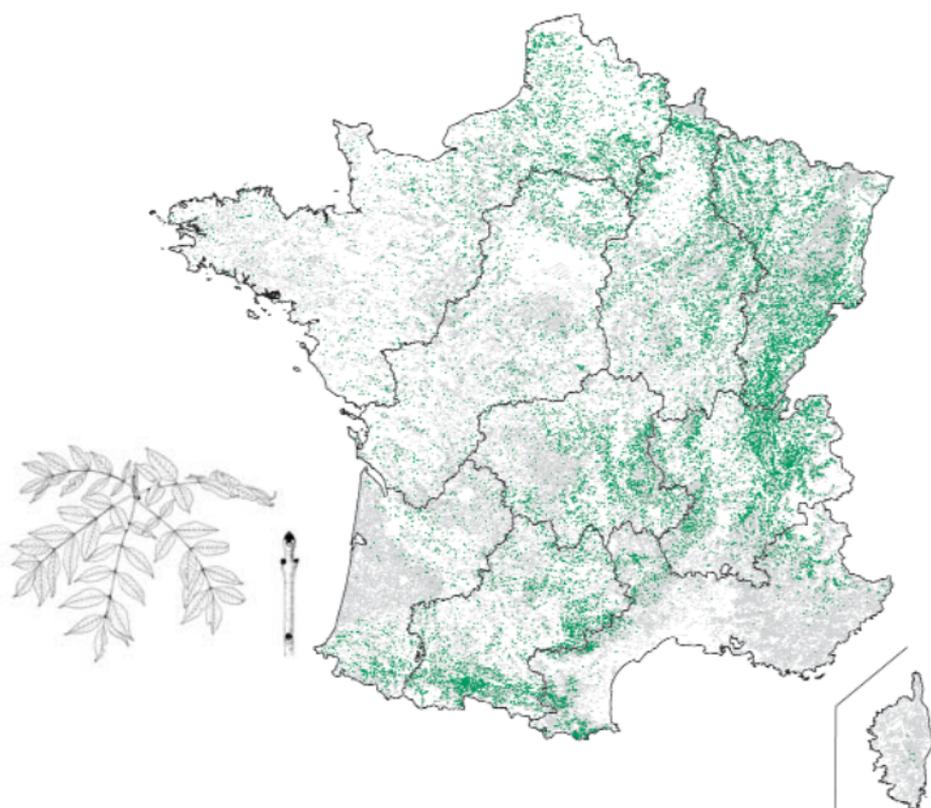


Interregion	Area (1,000 ha)	Growing stock (million of m ³)
North-West coastal regions	50	9
Île-de-France – Centre – Poitou-Charentes	70	12
Champagne-Ardenne – Burgundy	170	28
Alsace – Lorraine – Franche- Comté	200	29
Auvergne – Limousin	ε	5
Rhône-Alpes	ε	3
Aquitaine	ε	4
Midi-Pyrénées	ε	ε
South-East	0	0
France	580	90

N.B. : ε indicates an area of less than 50,000 hectares, a growing stock of less than 2 million cubic meters or a yield of less than 0.1 million cubic meters.

Common ash

Fraxinus excelsior

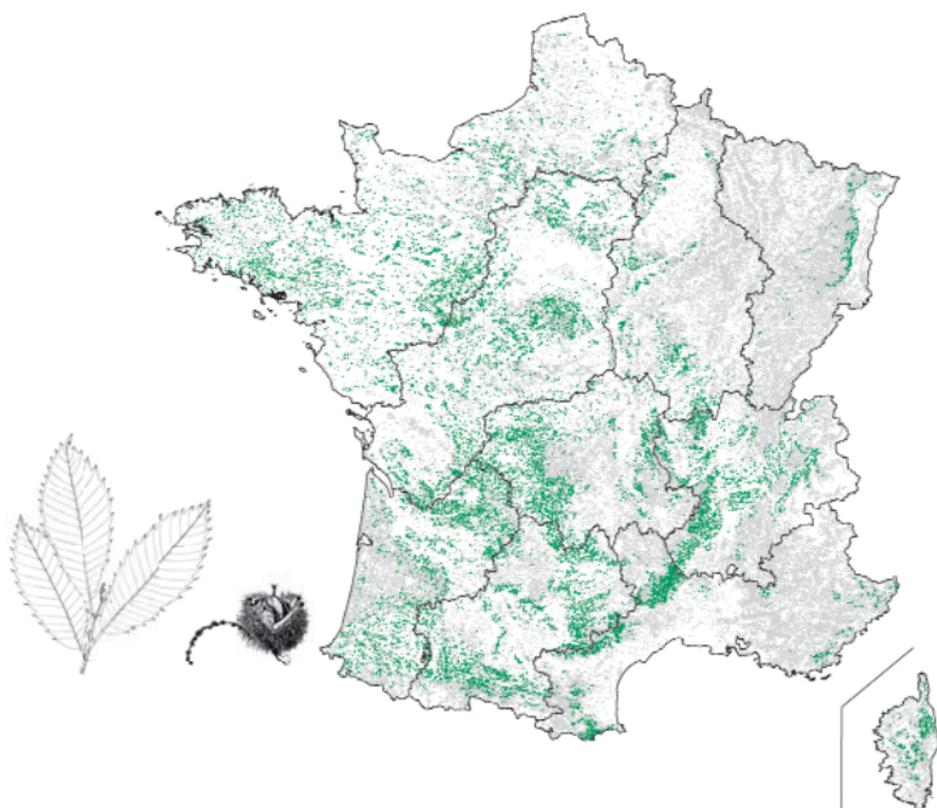


Interregion	Area (1,000 ha)	Growing stock (million of m ³)
North-West coastal regions	90	12
Île-de-France – Centre – Poitou-Charentes	60	8
Champagne-Ardenne – Burgundy	70	14
Alsace – Lorraine – Franche-Comté	110	18
Auvergne – Limousin	ε	ε
Rhône-Alpes	70	11
Aquitaine	ε	ε
Midi-Pyrénées	60	8
South-East	ε	ε
France	540	80

N.B. : ε indicates an area of less than 50,000 hectares, a growing stock of less than 5 million cubic meters or a yield of less than 0.3 million cubic meters.

Chestnut

Castanea sativa

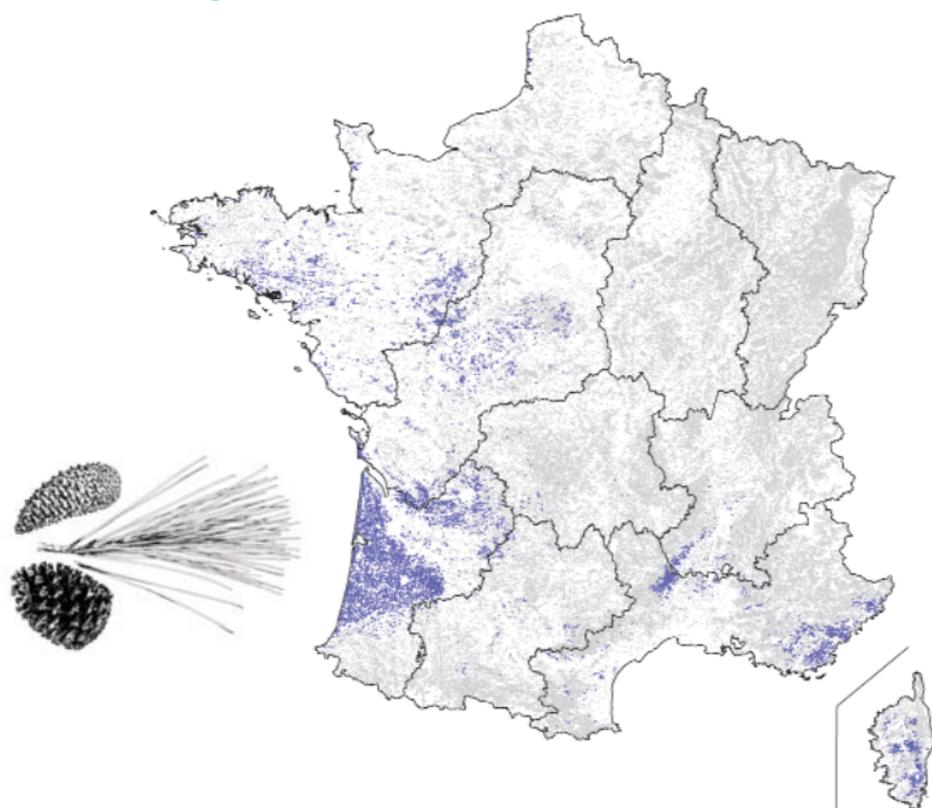


Interregion	Area (1,000 ha)	Growing stock (million of m ³)
North-West coastal regions	100	18
Île-de-France – Centre – Poitou-Charentes	110	18
Champagne-Ardenne – Burgundy	ε	ε
Alsace – Lorraine – Franche- Comté	ε	ε
Auvergne – Limousin	90	14
Rhône-Alpes	90	15
Aquitaine	130	19
Midi-Pyrénées	100	18
South-East	100	12
France	740	118

N.B. : ε indicates an area of less than 50,000 hectares, a growing stock of less than 5 million cubic meters or a yield of less than 0.2 million cubic meters.

Maritime pine

Pinus pinaster

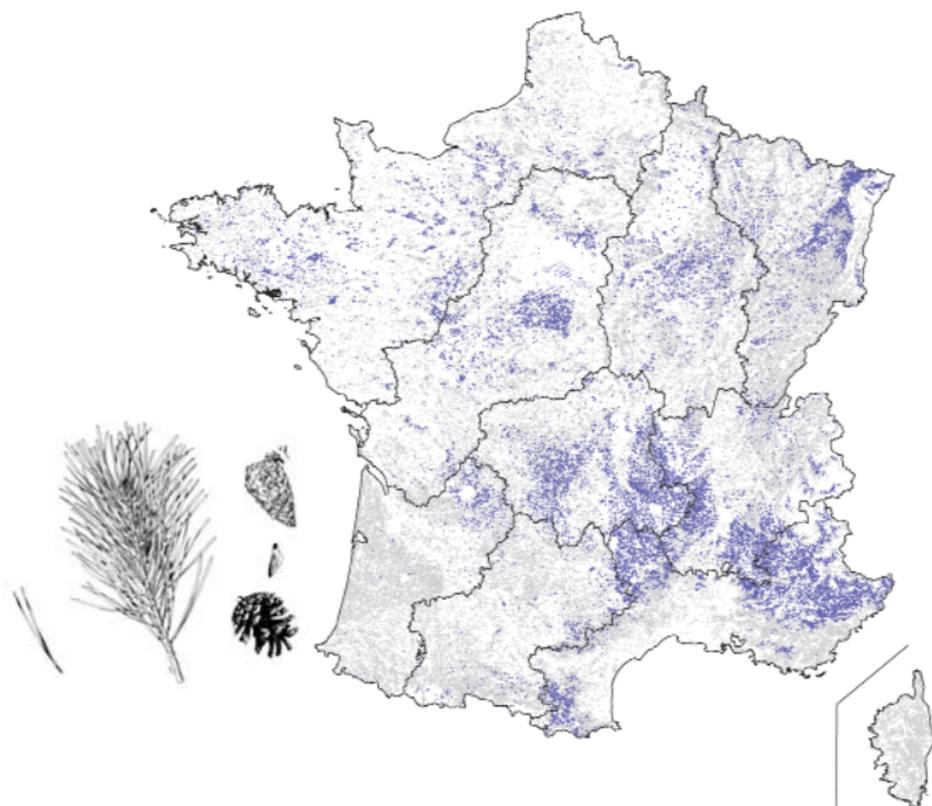


Interregion	Area (1,000 ha)	Growing stock (million of m ³)
North-West coastal regions	100	21
Île-de-France – Centre – Poitou-Charentes	70	13
Champagne-Ardenne – Burgundy	0	ε
Alsace – Lorraine – Franche-Comté	0	0
Auvergne – Limousin	0	ε
Rhône-Alpes	ε	ε
Aquitaine	830	128
Midi-Pyrénées	ε	ε
South-East	80	12
France	1,100	179

N.B. : ε indicates an area of less than 50,000 hectares, a growing stock of less than 5 million cubic meters or a yield of less than 0.2 million cubic meters.

Scots pine

Pinus sylvestris

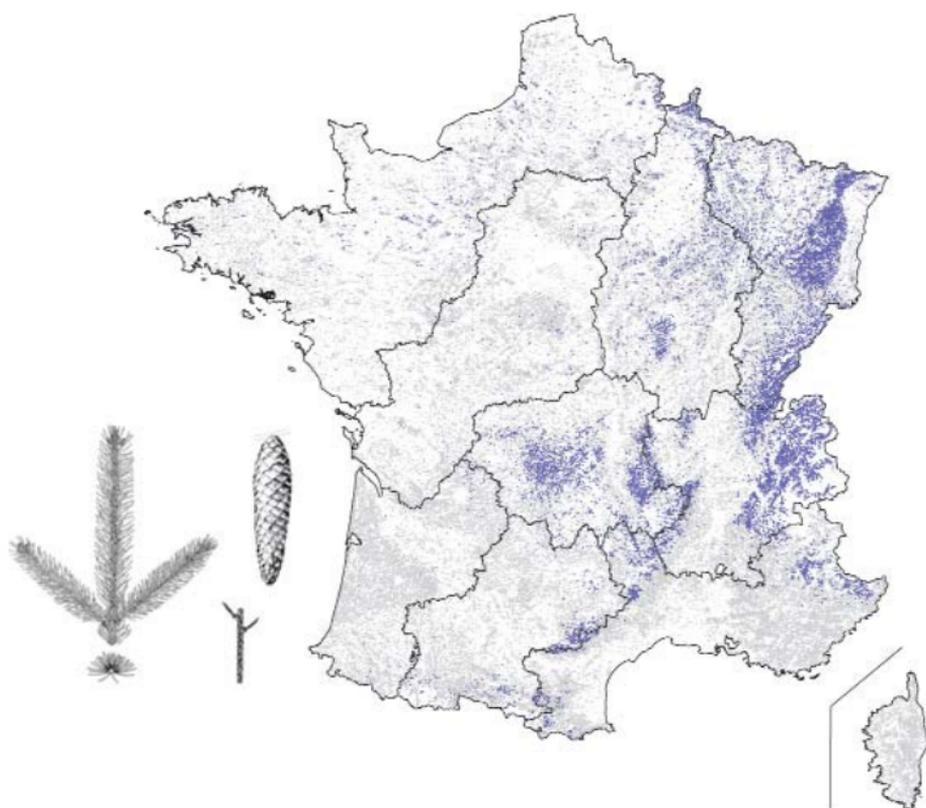


Interregion	Area (1,000 ha)	Growing stock (million of m ³)
North-West coastal regions	50	9
Île-de-France – Centre – Poitou-Charentes	80	17
Champagne-Ardenne – Burgundy	ε	7
Alsace – Lorraine – Franche-Comté	60	17
Auvergne – Limousin	120	26
Rhône-Alpes	140	19
Aquitaine	ε	ε
Midi-Pyrénées	ε	ε
South-East	370	41
France	910	143

N.B. : ε indicates an area of less than 50,000 hectares, a growing stock of less than 5 million cubic meters or a yield of less than 0.2 million cubic meters.

Norway spruce

Picea abies

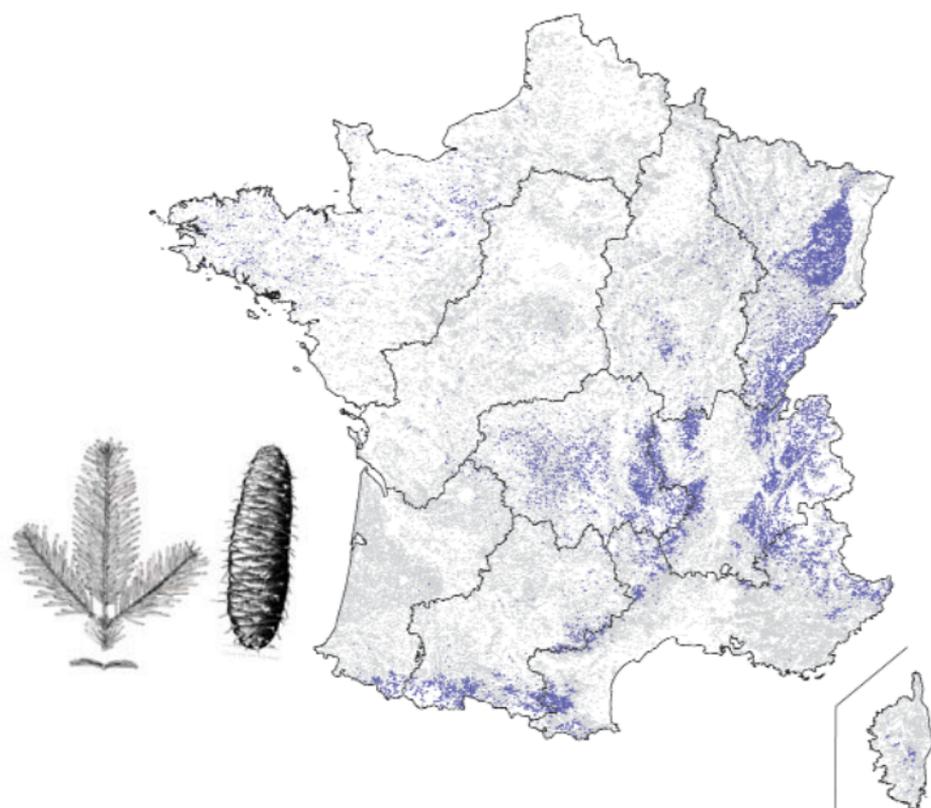


Interregion	Area (1,000 ha)	Growing stock (million of m ³)
North-West coastal regions	ε	ε
Île-de-France – Centre – Poitou-Charentes	ε	ε
Champagne-Ardenne – Burgundy	60	17
Alsace – Lorraine – Franche-Comté	200	58
Auvergne – Limousin	100	30
Rhône-Alpes	200	68
Aquitaine	ε	ε
Midi-Pyrénées	ε	ε
South-East	ε	ε
France	630	190

N.B. : ε indicates an area of less than 50,000 hectares, a growing stock of less than 10 million cubic meters or a yield of less than 1 million cubic meters.

Common silver fir

Abies alba

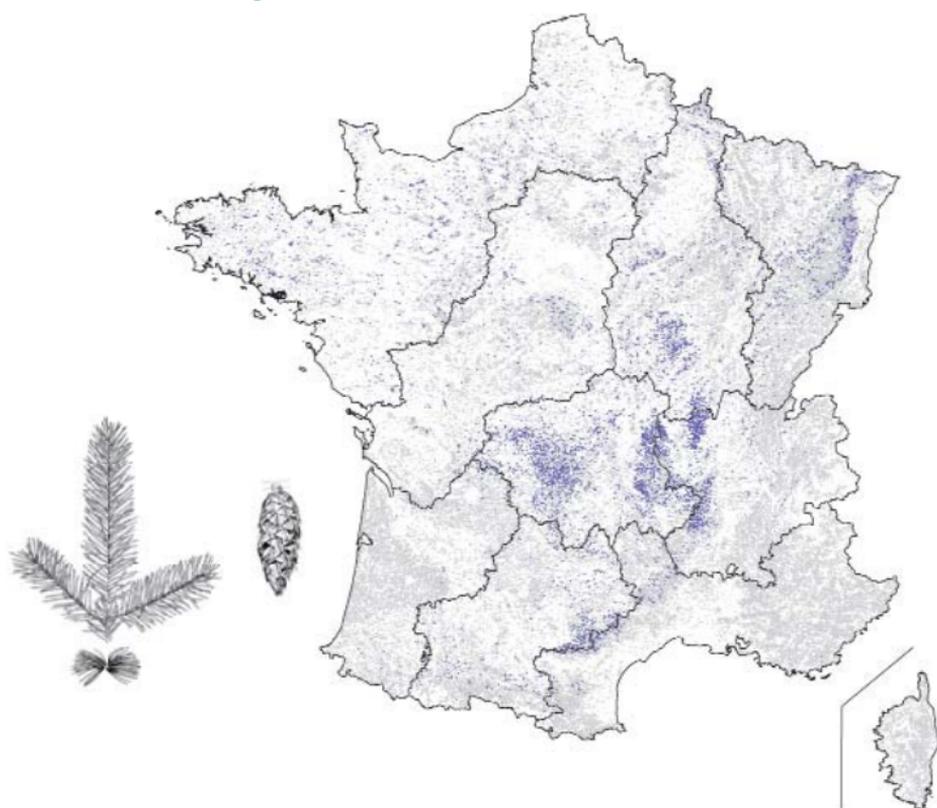


	Area	Growing stock
Interregion	(1,000 ha)	(million of m ³)
North-West coastal regions	ε	ε
Île-de-France – Centre – Poitou-Charentes	0	ε
Champagne-Ardenne – Burgundy	ε	ε
Alsace – Lorraine – Franche-Comté	200	64
Auvergne – Limousin	90	29
Rhône-Alpes	140	45
Aquitaine	ε	ε
Midi-Pyrénées	50	15
South-East	60	16
France	580	178

N.B. : ε indicates an area of less than 50,000 hectares, a growing stock of less than 5 million cubic meters or a yield of less than 0.5 million cubic meters.

Douglas fir

Pseudotsuga menziesii



Interregion	Area (1,000 ha)	Growing stock (million of m ³)
North-West coastal regions	ε	ε
Île-de-France – Centre – Poitou-Charentes	ε	ε
Champagne-Ardenne – Burgundy	70	17
Alsace – Lorraine – Franche- Comté	ε	ε
Auvergne – Limousin	130	27
Rhône-Alpes	50	15
Aquitaine	ε	ε
Midi-Pyrénées	ε	ε
South-East	ε	ε
France	400	88

N.B. : ε indicates an area of less than 50,000 hectares, a growing stock of less than 10 million cubic meters or a yield of less than 1 million cubic meters.

Some regional data

Administrative region	Forest area (1,000 ha)		Growing stock	
	total	dedicated to wood production	total (million cubic meters)	per hectare (cubic meters)
Lower Normandy	170	160	29	181
Brittany	350	330	56	169
Upper Normandy	220	210	39	183
Nord-Pas-de-Calais	110	110	18	166
Pays de la Loire	350	330	54	165
Picardie	320	310	57	181
Total North-West coastal regions	1,520	1,450	253	174
Centre	940	920	152	166
Île-de-France	290	270	46	171
Poitou-Charentes	400	390	46	117
Total Île-de-France, Centre and Poitou-Charentes	1,630	1,580	243	155
Burgundy	970	960	168	176
Champagne-Ardenne	700	670	119	178
Total Champagne-Ardenne and Burgundy	1,680	1,630	287	177
Alsace	330	320	81	251
Franche-Comté	710	700	155	223
Lorraine	850	840	166	197
Total Alsace, Lorraine and Franche-Comté	1,880	1,860	402	216
Auvergne	710	690	158	230
Limousin	560	550	101	183
Total Auvergne and Limousin	1,280	1,240	259	209
Rhône-Alpes	1,650	1,550	283	184
Aquitaine	1,810	1,770	256	145
Midi-Pyrénées	1,280	1,220	175	144
Corsica	380	310	32	103
Languedoc-Roussillon	1,150	1,070	101	96
Provence-Alpes-Côte d'Azur	1,450	1,280	116	91
Total South-East	2,980	2,660	250	94
France	15,710	14,970	2,407	161

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