



NATURALNESS

FULL ASSESSMENT

Scale: **Forest stand (< 10 ha)**

Forest:

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More information: www.foretsanciennes.fr

Version 1.2

General information

ID	N°: Country Region yy mm dd n°					Data access: <input type="checkbox"/> Restricted <input type="checkbox"/> Public		
	Author(s)/Organism(s):						Pictures: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Location	Ownership:		Parcel number:		Parcel size (ha):			
	Strongest conservation status:		Latitude:		Longitude:			
	→ Draw the contours of the parcel described and the sampled zone on the map (1: 25 000). Join the map for each field sheet.							
	Mean altitude (masl):		Slope (%):		Orientation (°):			
Sampling	Type of prospection: <input type="checkbox"/> Line-transect <input type="checkbox"/> Circular sample plot <input type="checkbox"/> Rectangular sample plot							
	Width (m):		Length (m):		Radius (m):		Slope coefficient:	
	Described area (m²):			Coefficient to transform counted variables in density per ha: x				
Instructions	Site index (H₀)		Tree species 1: / m		Tree species 2: / m			
	Height limits of stand layers:		<input type="checkbox"/> IBP <input type="checkbox"/> ND		DBH limit (cm)			
	Shrub layer		Large trees (LT) ¹		<input type="checkbox"/> > 70 <input type="checkbox"/> > 60 <input type="checkbox"/> > 40 <input type="checkbox"/> > 30			
	Lower tree layer		Very large trees (VLT) ²		Tree species 1: > Tree species 2: >			
Canopy layer		Deadwood		<input type="checkbox"/> IBP ¹ <input type="checkbox"/> > 40 <input type="checkbox"/> > 20 <input type="checkbox"/> > 15 <input checked="" type="checkbox"/> ND <input checked="" type="checkbox"/> > 30				

Wildness (perceived naturalness)

1. PERCEIVED NATURALNESS IN THIS PARCEL IS?		<input type="checkbox"/> Nil <input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High <input type="checkbox"/> Very high <input type="checkbox"/> Outstanding					
2. YOUR REFERENCES: give the name of the nearest forest and/or parcel where you have felt a level of naturalness equivalent or superior.		Equivalent:					
		Superior:		Level:			
3. EXPLAIN with 6 terms maximum the feelings or their origin.							
1.	3.	5.					
2.	4.	6.					

¹ Atlantic & continental domain Version 2.7 ACM : LT 70 except low fertility 40 and deadwood 40 except low fertility 20 ; Mediterranean domain : LT 60 except low fertility 30 and deadwood 30 except low fertility 15. ² H₀x4, rounding off closest 5 cm. Upper limit 120 cm, lower limit 30 cm.

Specific diversity

4. TREES Specify species in notes.

Biodiversity potential via the number of tree genus¹: 1 2 3 4 ≥ 5
 0 0 (S²=2) 2 (S²=5) 2 (S², M²=5) 5

Indigenous tree species richness:]0-1] 0]2-4] 5 (A²=7) 5 or 6 7 (A, S²=10) ≥ 7 10

Importance of natural heritage

5. LISTED FOREST SPECIES (at least one species)

No sign Likely presence Confirmed presence
 0 5 10

Quote, based on signs of presence:

6. FOREST HABITAT cf. Corine Biotope

Other 0 Listed 10

Code: Name:

Habitat diversity

7. ROCKY HABITATS Tick if at least 20 m²

Rock Stable scree, low wall, etc. Unstable scree Lapiés Tangled heap of large rocks (> 2m)
 1 1 1 1 1 3

Flagstone shingle bank outcrop Cave and pit Cliff Other* Naturally absent
 1 1 1 1

8. HUMID HABITATS including temporary

Spring Small stream River Oxbow lake (or backwater) Small pond Pond and lagoon Peat bog Lake
 1 1 1 1 1 1 1 1 3

Swampy area Rivulet (or small brook), maintenance-free and humid ditch, little channel Pit of uprooted tree Other* Naturally absent Damaged or destroyed habitats
 1 1

9. OPEN HABITATS WITHIN THE FOREST

Cumulated area (%) 0]0-1]]1-5]]5-20]]20-50] > 50
 0 2 (S²=0) 5 (S²=2) 2 (S²=5) 2 (S²=5) 2 (S²=5)

Nativeness

10. PROPORTION OF INDIGENOUS TREES IN THE FOREST COVER (%)

< 25 0]25-50[1]50-75[2]75-90[4]90-100[7 100 10

Structural complexity

11. STAND STRUCTURE

Wooded pasture Matorral Coppice High forest mixed with coppice or high forest with low density Even-aged forest stand Forest uneven-aged in diameter (with or without coppice) Forest uneven-aged in diameter and height
 1 2 2 7 5 (A²=10) 7 10

12. BASAL AREA (Minimum diameter = 17,5 cm)

]0-15] 0]15-20] 3]20-25] 5]25-30] 7]30-35] 9 > 35 10 G = m²/ha

13. STAND LAYERING Tick if the area covered is >20%

Herbaceous layer Shrub layer Low tree layer Tree canopy
 1 1 1 1 1 1

Moss layer Low-shrub layer Layer of emerging trees⁴ Natural absence of understorey
 1 1 1 1

Σ of the layers' notes 1 0 0 2 0 5(A=10) 3 2 10 > 3 5 10

* Specify in notes. ¹ Cf. IBP. ² Abbreviations, A: alluvial, softwood stages, M: supra, meso and thermomediterranean levels, S: Subalpin. ³ Note (IBP): Absence = 0; 1 type = 2; 2 types and more = 5. ⁴ H > 1,25 x H₀.

Diversity of tree microhabitats

14. MICROHABITATS OF LIVING TREES (cf. typology IBP V. 2.7 ACM)

Woodpeckers hole <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	Water-filled hole (or dendrothelm) <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	Base empty cavity without mould <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	Base cavity with mould <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2
Missing bark with undecayed wood <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	Broken limb or tree top (ø > 20cm) <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	Trunk cavity with mould <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	Crack and bark in process of peeling <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2
Dead wood in tree crown <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	Polypore fungi <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	Active sap-run <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	Creepers (and mistletoe) <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2

Σ = < 1 [1-5]]5-10]]10-15] > 15

0 0 2 1 5 3 5 5 5 7

15. NESTINGS HOLES OF WOODPECKERS¹

Counting: 0]0-5]]5-10] > 10

Number: /ha 0 1 2 3

Maturity (old-growthness)

16. STAND AGE (preexisting trees excluded)

Very young $\frac{1}{8}$ Young $\frac{1}{4}$ Fully grown $\frac{1}{2}$ Mature $\frac{3}{4}$ Old $\frac{4}{4}$ Very old

0 2 5 7 10 10

17. LARGE TREE WITH POLYPORUS (Ø > 30 cm)

Counting: 0]0-5] > 5

Number: /ha

18. LARGE TREES (included VLT)

Counting: < 1 [1-5[5 and more

Number: /ha 0 2 5

19. VERY LARGE TREES

Counting: < 1 [1-5]]5-10] > 10

Number: /ha 0 3 7 10

Origin: Agro-pastoral Forest **Maximum DBH:** cm

20. VOLUME OF DEADWOOD (Ø > 30 cm, m³/ha)

< 1]1-5]]5-10]]10-20]]20-50] > 50

0 2 3 5 7 (10 si H₀ < 20) 10

21. LYING DEADWOOD (Nombre de pièces par ha, L > 1m)

< 1 0 [1-3] 2 > 3 5

22. STANDING DEADWOOD (Nombre de pièces par ha, H > 1m)

< 1 0 [1-3] 2 > 3 5

Dynamics

23. SUCCESSION STAGES⁴

Pioneer 0 Post-pioneer 4 Intermediate 7 Complete 10

24. PHASES OF DYNAMICS Tick if patch > 200 m²

Rejuvenation 1 Initial 1 Optimal 2 Terminal 3 Decline 3

Spatial continuity

25. CONTIGUOUS FOREST COVER⁵ (ha)

< 10 [10-100]]100-1000]]1 à 10 000]]10 à 100 000] > 100 000

0 2 4 6 8 10

Ancientness

26. CONTINUITY OF FOREST COVER ESTIMATED FROM THREE KEY DATES

Before 1790: Woodland 3

Around 1850: Ploughings, vineyards, others 0 0 Pasture, meadow 0 1

Around 1950: Woodland 2

Close to forest edge (< 100 m), wooded pasture, orchard without ploughing 2 3 Woodland 5 5 Other 0

¹ On living and dead trees. ² Sum the notes. ³ Average note Indicator 20 and the best note among indicator 16 and 19. ⁴ Estimation, based on flora, of the relative equilibrium of species composition, depending only upon abiotic variables, without climate changes and for human life span. ⁵ No forest cover for more than 100 m minimum. ⁶ Sum of individual notes, if the parcel is not wooded at one period, the notes of previous periods are not counted.

Human footprint

DN

1800-1960

27. ASSUMPTION OF AGRICULTURAL USES

- Old path **2** Cattle tracks **5** Grazing (erosion, indicator species) **5** Agro-pastoral tree forms **5** Ruin, shelter **5**
 Low wall, rock heap **10** Terrace **10** Soil favourable to ploughing (slope < 30%, altitude < 2000 m) **10** Absence of signs but likely uses **2** Absence of use **0**

28. ANCIENT LOGGING

- Charcoal burner's clearings **5** Stumps, resprouting shoot > 60 years² **4**
Signs Cable **4** Extraction of resin **2** Absence of signs but likely use **1** Absence of use **0**
Date of last logging 1910-1960 **5** 1860-1910 **3** Before 1860 **0**

29. LOGGING

- Time since last logging (years)* < 20 **10** [20-60[**5** None on the period **0** Date:
Stumps per ha (ø maiden tree > 17,5cm; ø coppice > 7,5cm) > 400 **10**]100-400] **8**]50-100] **6**
]10-50] **4**]1-10] **2** < 1 **0**

30. PRESENCE OF INVASIVE ALIEN SPECIES

- General invasion **10** Local presence in expansion **9**
 Stable & local presence **7** Absence **0**

31. CAUSE OF FRAGMENTATION⁶

- Urbanization, transport **10** Grazing, agriculture **9** Clear-cut, plantation **7**
 Unfragmented **0** Natural discontinuity (river, alpine areas) **0**

32. HUNTING

- Hunting forbidden **0** Hunting possible but low accessibility **3** Hunted, no sign **5** Hunted, scattered and local signs **7** Permanent hunting infrastructures **10**

33. BROWSING BY GAME

- No sign **0** Scattered and local signs **3** Impact on tree regeneration < 50% of stems **5** Impact on tree regeneration > 50% of stems **10**

34. RECREATION

- Urban influence⁷:* < 50 000 **0** 50 000 - 250 000 **2** 250 000 - 1 million **3** > 1 million **5**

- Access:* Path > 100m **-2** Little known path **1** Well known path **3** Road access < 100 m **5**

35. DURABILITY OF USES (through protection status)

- No protection **10** IUCN V⁸ **8** Natura 2000 **6** Nature reserves **4** IUCN I et II⁹ **0**

36. WOOD HARVESTABILITY

- Easy **10** Medium **7** Hard **5** Very hard **0**

37. ANTHROPOGENIC FOREST FIRES

- Mediterranean area
Sensitiveness: < 600 m **6** 600-1000 m **3** Elsewhere **0**
Additional factors: Urbanization or high influx of visitor **2** Continuous and flammable understorey **2**

38. DEFORESTATION (FOR AGRICULTURE)

- Forbidden by land status **0** Possible and slope > 30% **2**
Clearing possible, slope < 30% and... Agricultural land > 5 km **4** Close to agricultural land **7** Close and context favourable to clearing **10**

39. URBANIZATION AND DEVELOPMENT

- Forbidden by land status¹² **0** Land without protection **4** Construction (or project) in the surrounding 5 km **2** Scattered housing **2** High pressure **3**

40. INVASIVE SPECIES

- Risk of general invasion **10** Presence scattered, local and stable **7** Absence but sensitive environment **5** Absence and resistant environment **0**

41. CLIMATE CHANGE (till 2050, scenario + 2°C)

- Without forest future **8** Resilient but likely change of habitat **4** Change of habitat not likely **0** Decaying due to climate **2**

After 1960

Pressures for the next 50 years

¹ Maximal note among ticked uses. ² Specify density in notes. ³ Sum, maximum 10. ⁴ [10- note (ancientness) + note (grazing and agriculture) + note (logging)]/3. ⁵ Average of the two notes. ⁶ No forest cover for more than 100 m minimum. ⁷ Number of inhabitants in the surrounding 50 km. ⁸ Buffer zone of national park, harvested core zone of national park, regional park and other status of IUCN V category. ⁹ Integral reserve, core zone of national park without logging. ¹⁰ [3 x note 29 + 2 x note 35 + the other notes]/10. ¹¹ If IUCN status is I or II, note is 0. ¹² All except protected areas of IUCN I to IV categories.



SYNTHESIS

Degree of naturalness, human footprint and wildness

→ NATURE

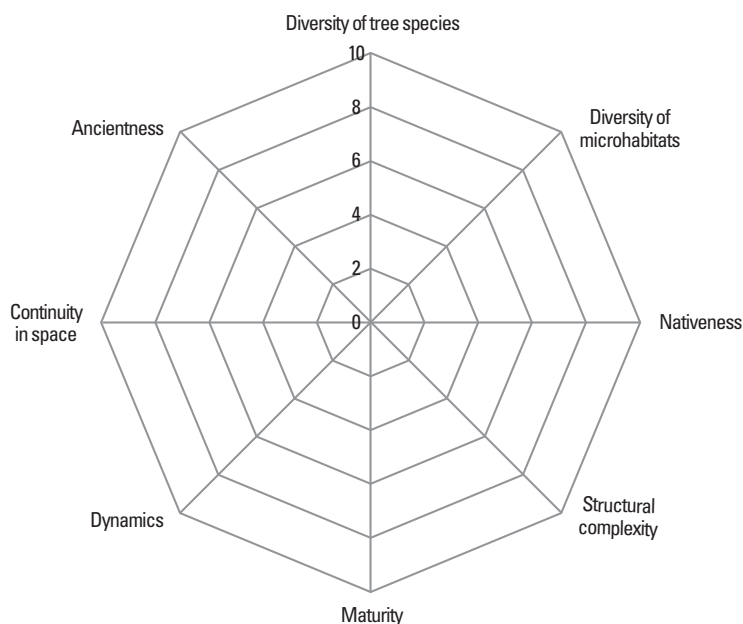
A. Diversity of tree species	C. Diversity of microhabitats	E. Nativeness	G. Structural complexity	<i>I. Importance of natural heritage</i>
B. Maturity (old-growthness)	D. Dynamics	F. Continuity in space	H. Ancientness	<i>J. Diversity of associated habitats¹</i>

→ HUMAN FOOTPRINT

1800-1960	1960- to date	Next 50 years
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→ WILDNESS (PERCEIVED NATURALNESS)

→ CHART



→ INDEXES

Naturalness index ²	Footprint index ³
/10	/10

Main notes of the Potential biodiversity index (IBP, Larrieu & Gonin, 2008)

Notes related to

the forest stand and its management

the environment

total

/ 35
 Σ (4, 9, 13, 14, 18, 21, 22)

/ 15
 Σ (7, 8, 26)

/ 50

¹ [Average of notes 7, 8, 9] x 2. ² Σ de A à H x 1,25 / 10. ³ Σ footprint notes / 3.

Statement and recommendations

→ INTERESTS FROM DIFFERENT POINTS OF VIEW...

- nature conservation

- forest management

- scientific

- recreation, education, culture...

→ THE 3 WEAKEST CRITERIA OR INDICATORS TO IMPROVE

Criteria or indicator	Target	Chosen restoration methods	Time lap (years)

→ PRESSIONS AND THREATS

→ MAIN STAKES BY STAKEHOLDERS

Stakeholders	Land owner:	Manager:	Other:
Stakes			

→ RECOMMENDATIONS



MAPS, PICTURES AND NOTES

Geographic map

Draw the contours of the stand. (scale 1:25 000)

Aerial picture

Draw the contours of the stand.

Date:

Ancient map

Draw the contours of the stand.

Map:

Date of the map:

Pictures

Insert the most representative pictures of the stand.

Legend:

Legend:

Legend:

Notes by criteria and indicators

Criteria or indicator	Notes

Other notes