Società Italiana di Selvicoltura ed Ecologia Forestale

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Integrating conservation objectives into forest management: coppice management and forest habitats in Natura 2000

EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY

COST Action FP 1301 EuroCoppice
WG4
Services, protection, nature conservation

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Introduction

INTERPRETATION

MANUAL

OF

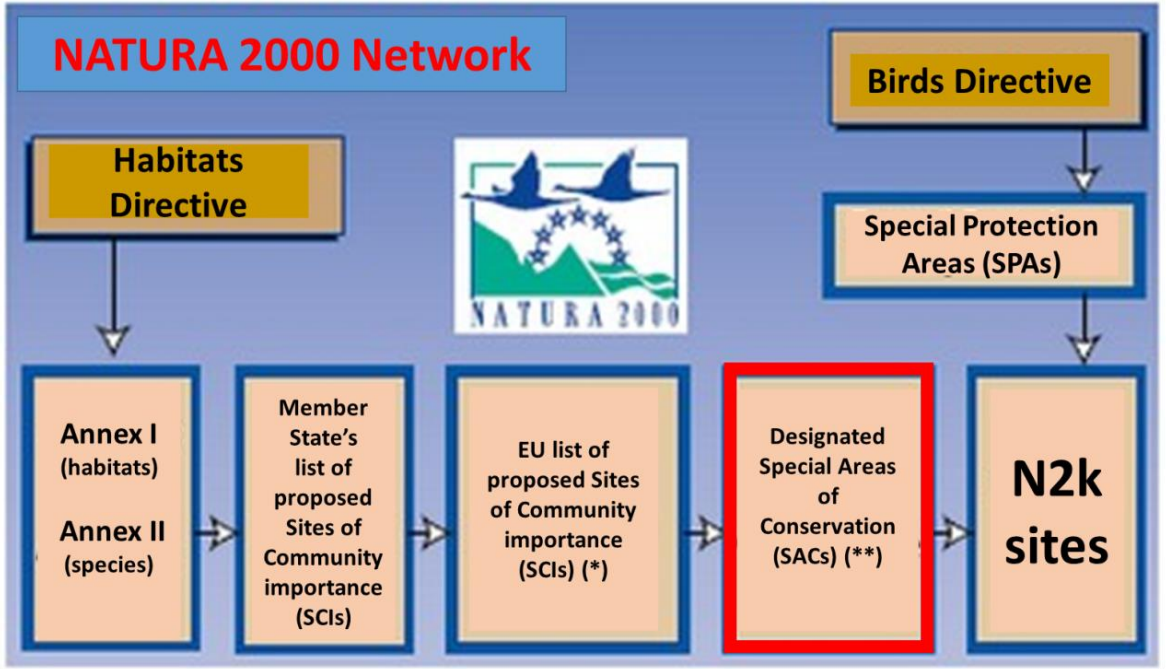
EUROPEAN UNION

HABITATS

Eur 15 / 2

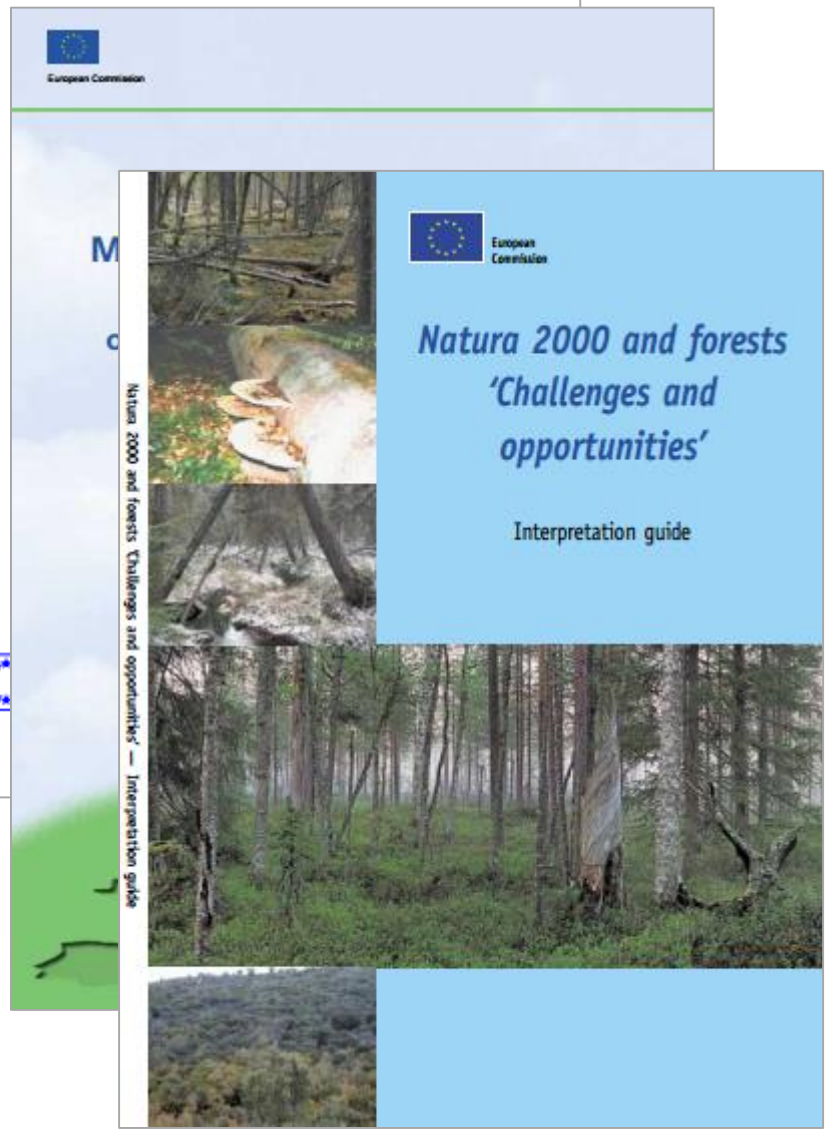
October 1999

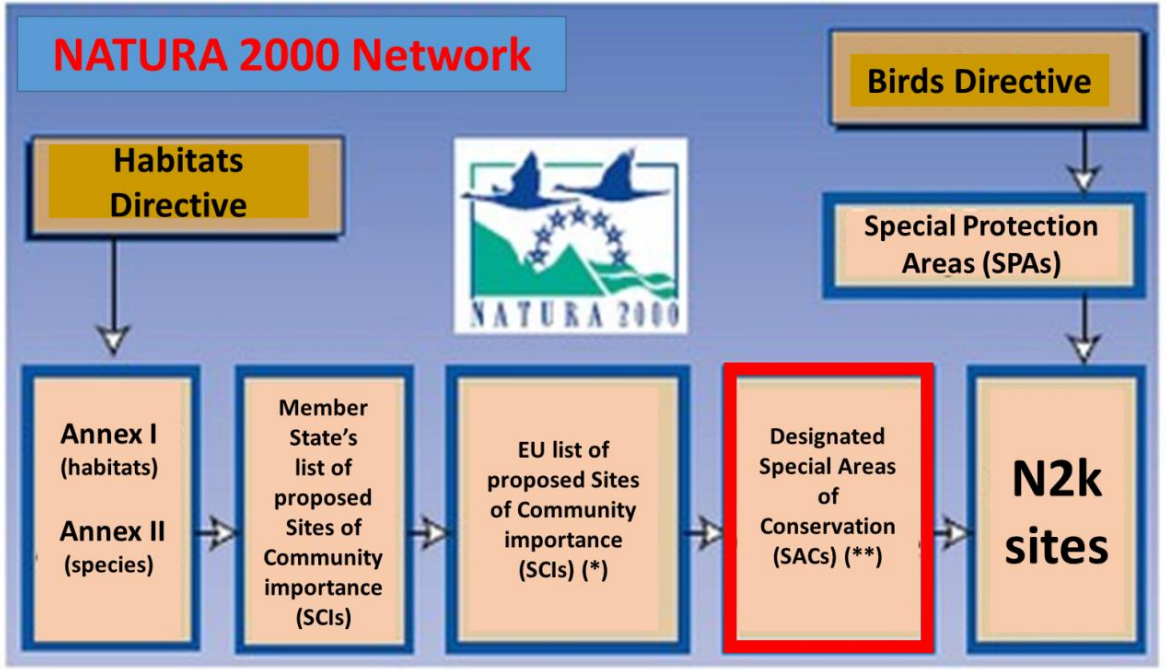
EUROPEAN COMMISSION
DG ENVIRONMENT
Nature protection, coastal zones and tourism



(*) Adopted by the EU
(**) Designated by Member States within six years from the adoption of European lists of Sites of Community Importance (SCIs)

Introduction





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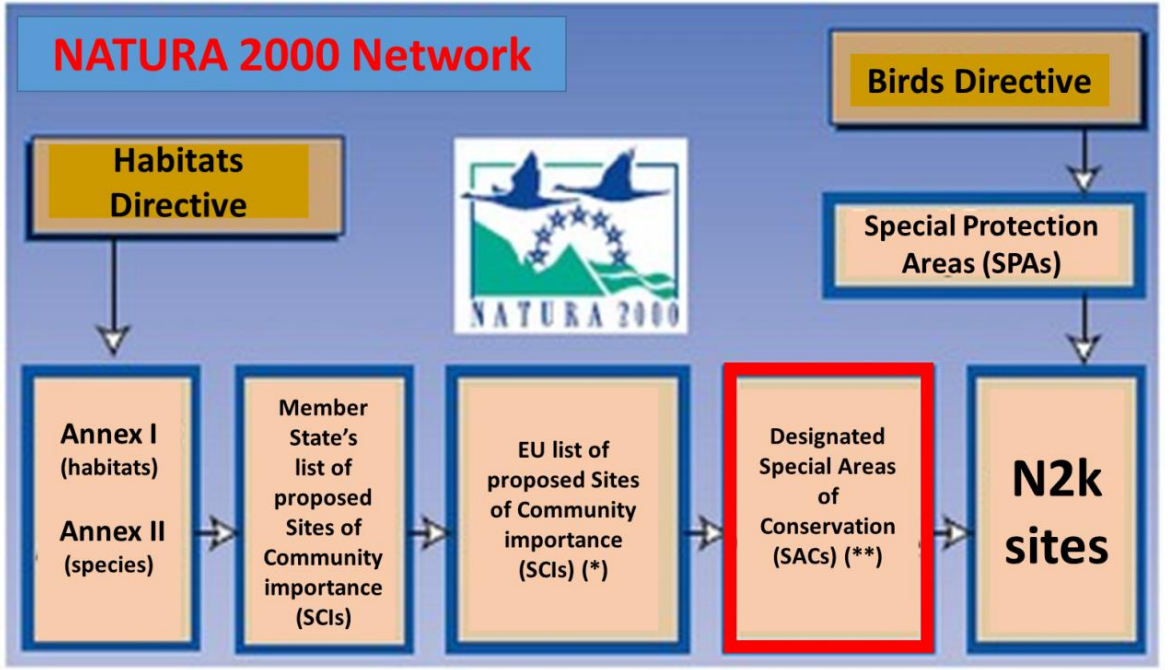
«traditional management systems that have created valuable ecosystems, such as **coppice**, on appropriate sites **should be supported when economically feasible**»

Introduction

Convention on Biological Diversity



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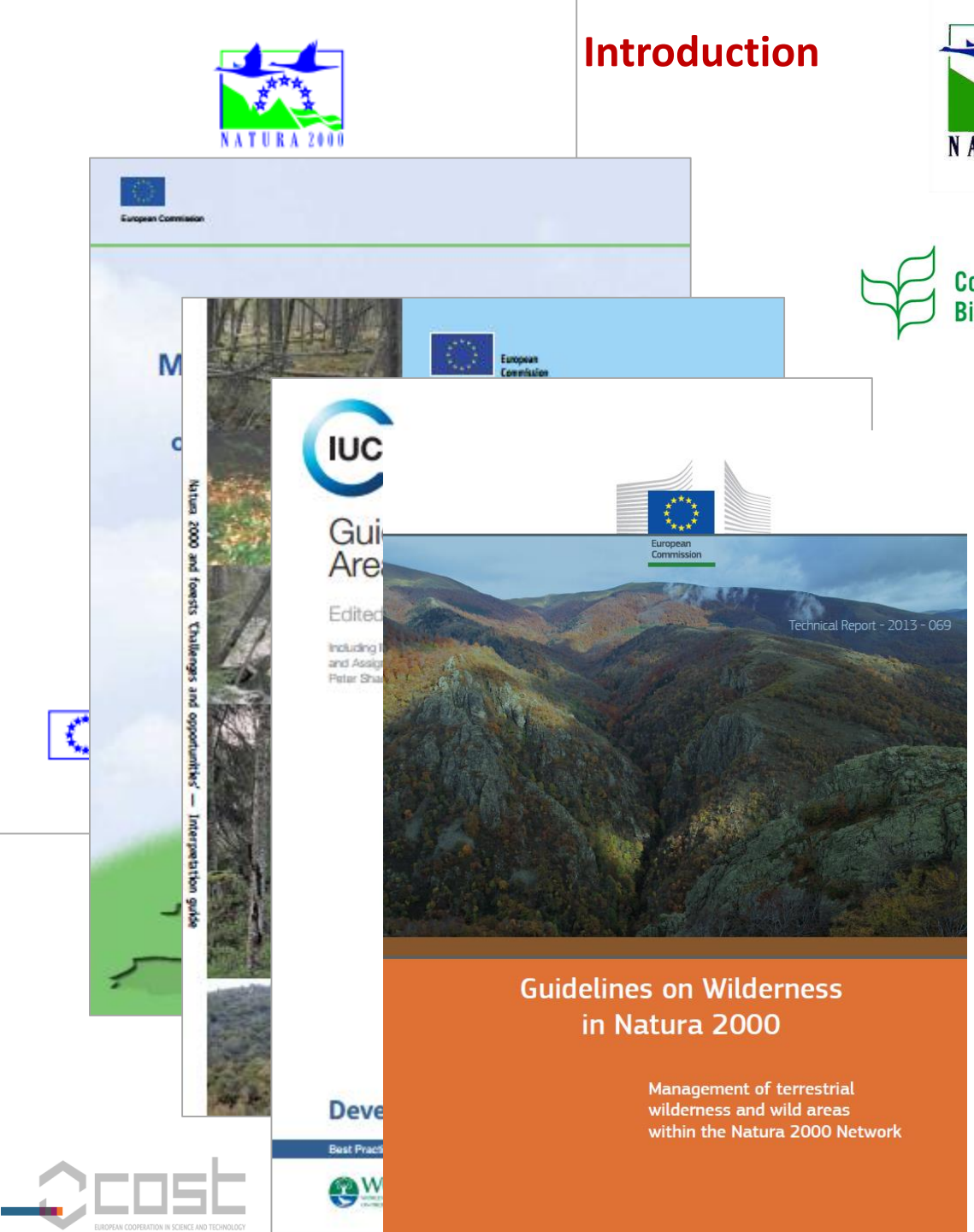
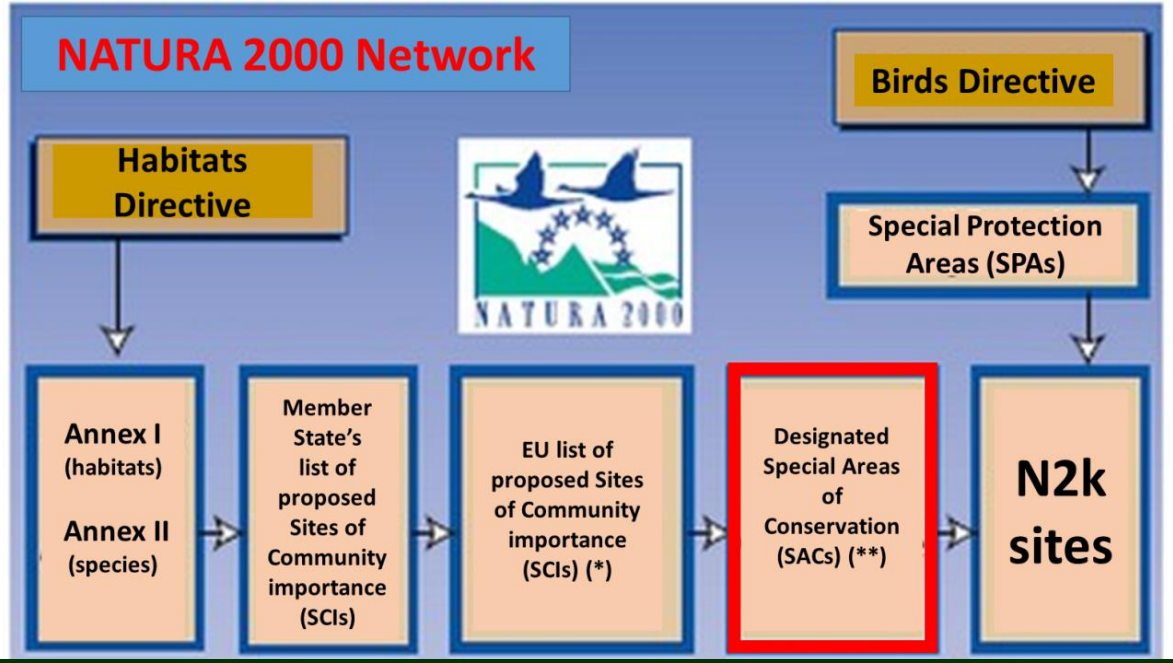
«a category IV protected area is usually either a fragment of an ecosystem (e.g., a pool, fragment of coral reef or small area of bog) or an area that relies on regular management intervention to maintain an artificial ecosystem (e.g., a **coppice woodland** or regularly mown area of grassland)»

«category IV protected area is managed primarily for its flora and fauna values, and interventions such as **coppicing**, vegetation clearance, prescribed burning etc. are undertaken mainly with this in mind: any profits or social benefits from such ventures are secondary»

Introduction



Convention on Biological Diversity



The EU Natura 2000 network is generally not a network of strictly protected areas in which no economic activities should take place. **Therefore in most Natura 2000 sites, a wilderness approach will not be the most appropriate form of management**.

*The **wilderness concept** calls for a segregated approach, which does not take into account the social, economic and ecological requirements of forests under Natura 2000, and therefore **contradicts the formulations of Article 2 of the Habitats Directive. The approach of segregating different forest functions does not fit into the culture of managing forests in Europe**.*

Confederation of European Forest Owners (CEPF) and European State Forest Association (EUSTAFOR) Joint Position Paper on Sustainable Forest Management and Natura 2000_Bruxelles 2012

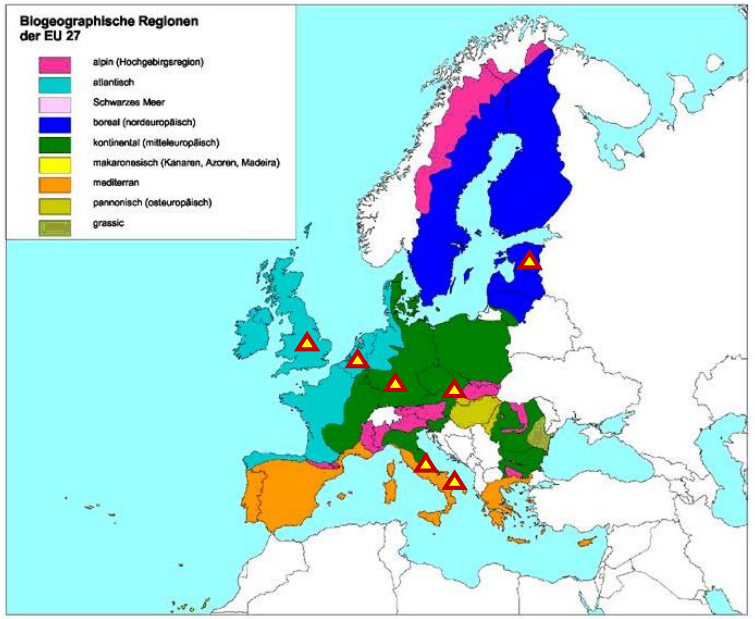
Objectives

- Understand how coppices are dealt with in representative EU28 countries and Natura 2000 SCIs/SACs selected along a biogeographical gradient;
- Identify the forest habitat types, among those listed in Annex I of the Habitats Directive, with the potential for coppice management (FHT_WPC) according to biological capacity (Del Tredici 2001), or which are or have been historically coppiced (FHT_C in each country);
- Verify the distribution and conservation status of the FHT_C across countries and Natura 2000 sites;
- Assess the extent to which the Habitats Directive was being implemented by SMPs, and the administrative level of responsibility for managing Natura 2000 sites

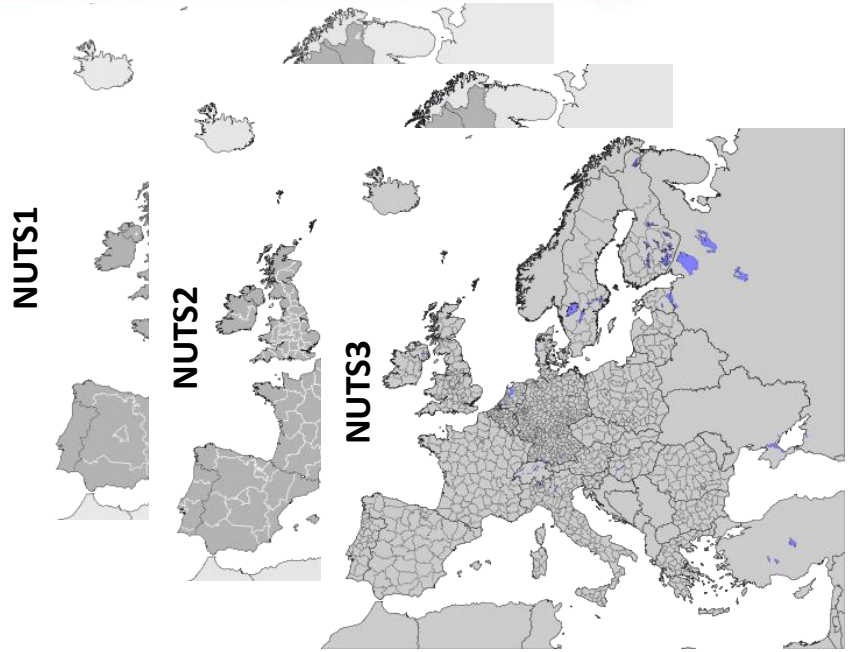
Methods

- Standardised data collection across selected countries (EU and national level) (official databases)
- Standardised questionnaire (15 open ended questions) across selected countries (EE, UK, DE, CZ) | NUTS (BE-1, IT C1, IT-D4 IT-E2, IT-F4
- Standardised analysis of "Site Management plans" (SMP) prescribed by Habitat Directive for SCI/SAC N2k sites in EE, UK-J, UK-L, DE-B, IT-E2, IT-F4.

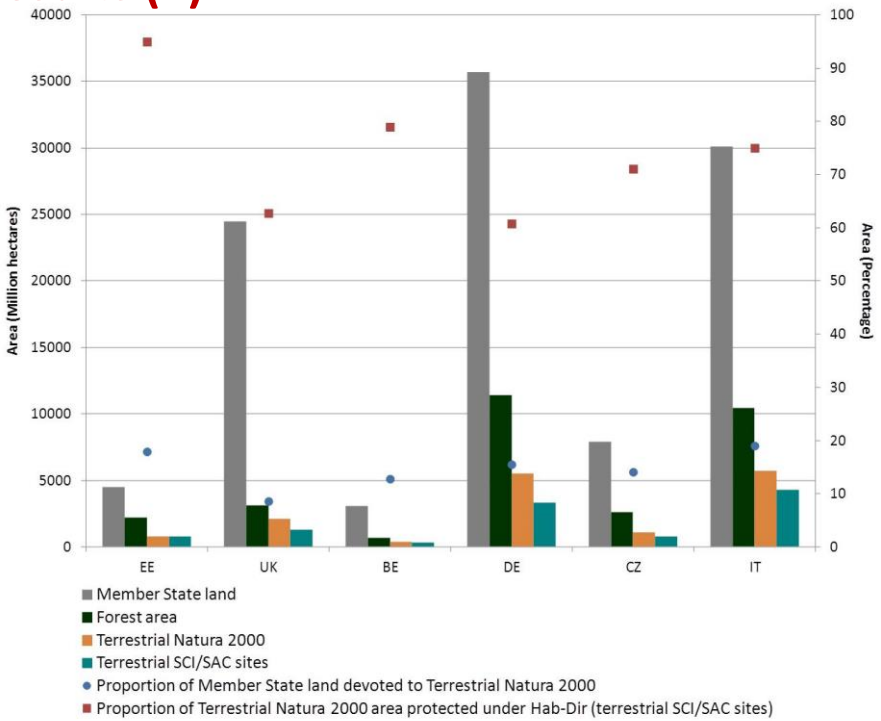
Study area

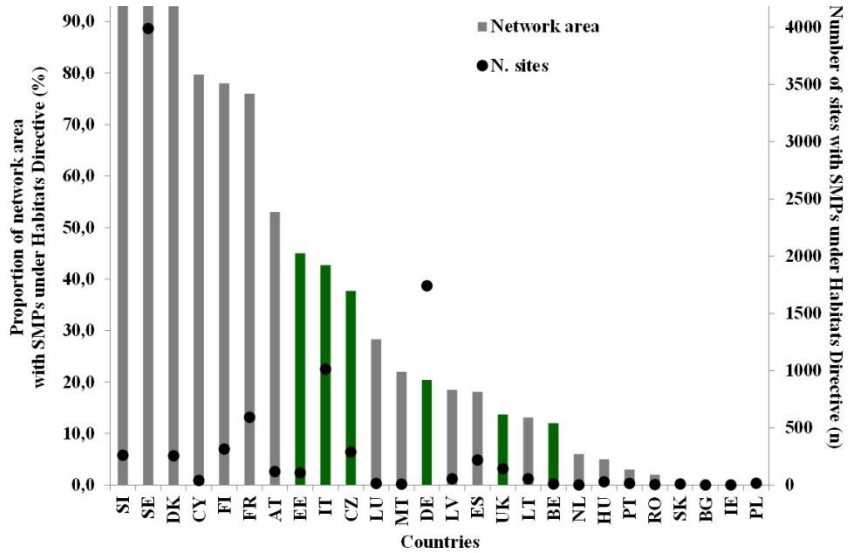


EE
UK
BE
DE
CZ
IT



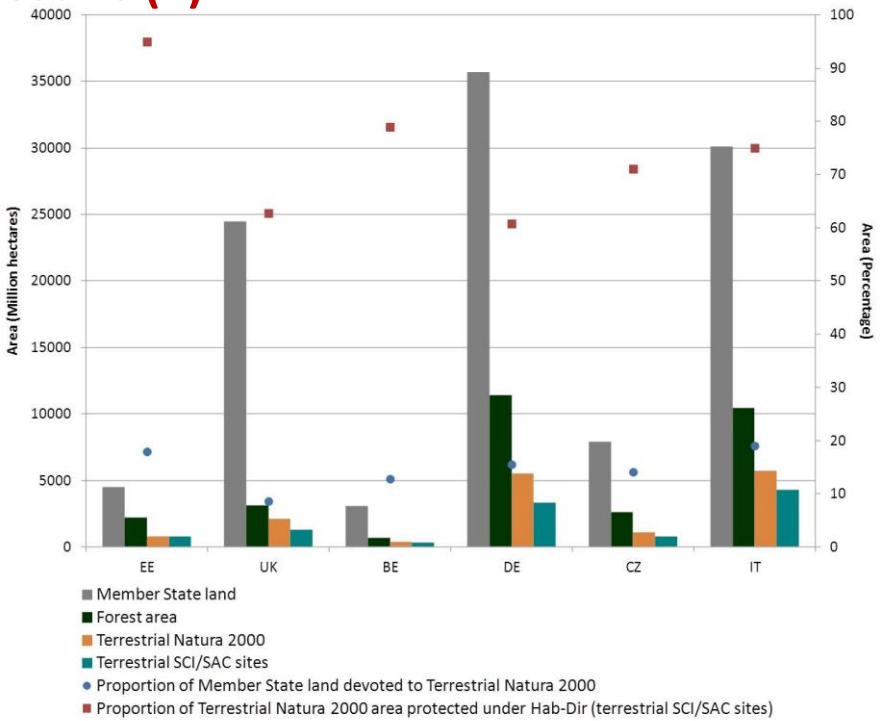
Results (1)

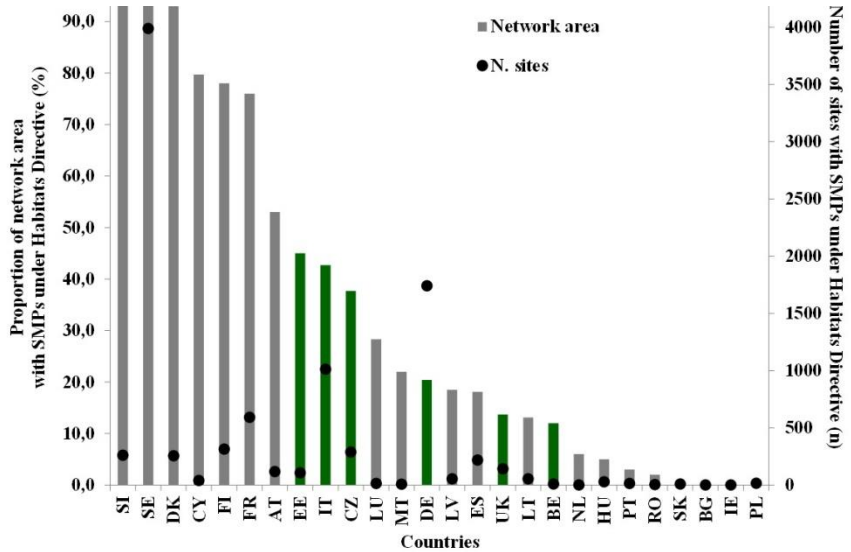




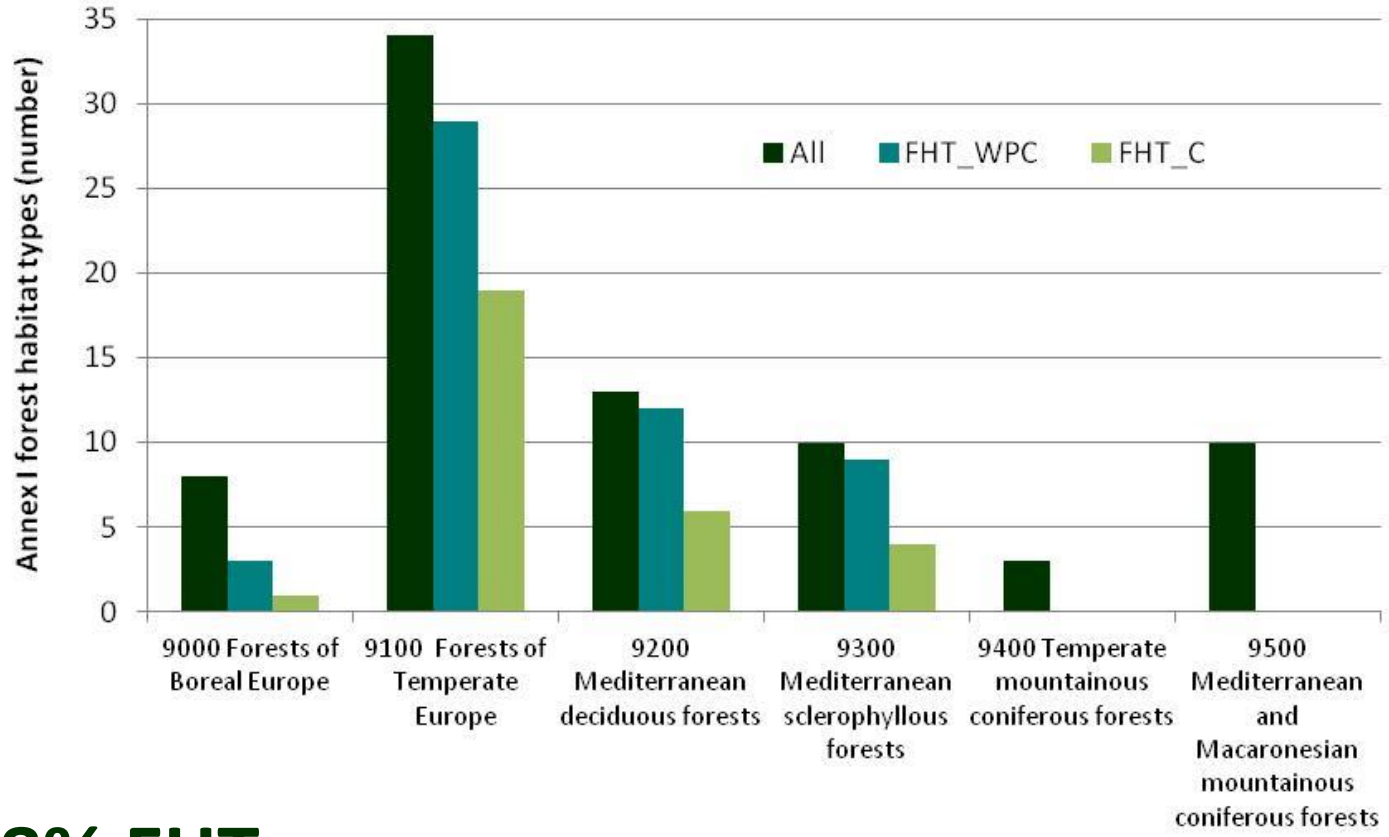
- Large differences in forest cover between the surveyed countries (EE having the highest proportion and the UK the least) have influenced the geographical patterns in protected areas under the Natura 2000 – SCIs /SACs.
- Larger countries also tend to have more designated sites, although the proportion was relatively greater in CZ compared with the UK. Overall, between 10-20% of the area of each surveyed country was devoted to Natura 2000 sites.
- Progress in formulating SMPs varied widely between the EU countries. Some countries have no SMPs so far, but some, like Slovenia, Sweden and Denmark, have completed nearly 90% of their network area. The average was well below 50%.
- Questionnaire confirmed low compliance, yet in IT surveyed regions regional conservation measures for those habitat types belonging to the same biogeographical zone (IT-D4 Friuli Venezia Giulia), or macro-environmental category (IT-C1 Piemonte and IT-F4 Puglia) surrogate for SPMs.
- SMPs are devolved to public tender, but in EE, UK and CZ
- All surveyed countries have national version of the EU habitat interpretation manual.
- Coppice is not allowed by EE and CZ national legislations

Results (1)





The majority of FHT belong to Forests of Temperate Europe; Mediterranean Deciduous and Sclerophyllous Forests, which mostly have good potential for coppice management



68% FHTs can potentially be managed as coppices

38% FHTs are/have been managed as coppices

20-50% SCIs/SACs surveyed contain habitat types that are associated with coppice management

Results (2)


Fennoscandian wooded pastures (9070)


Oak-hornbeam (9170)

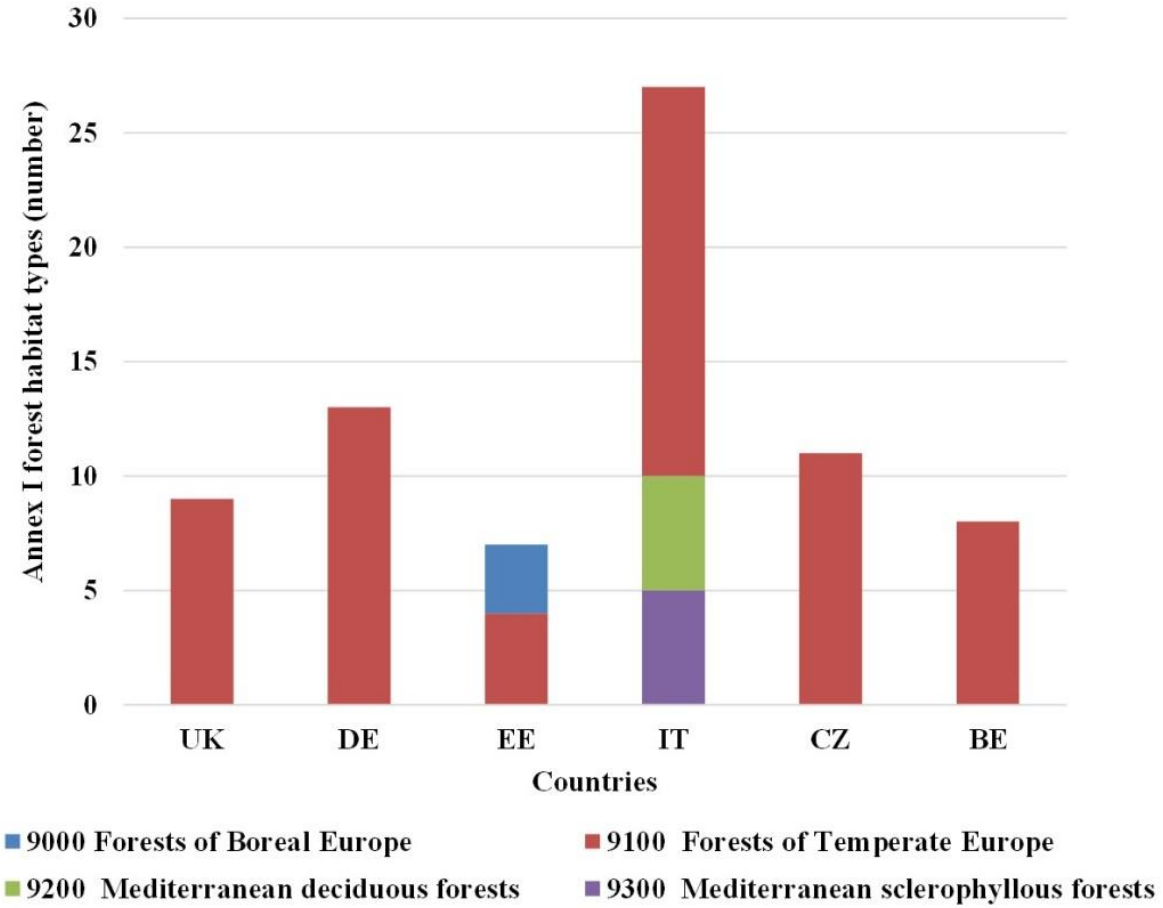

* Tilio-Acerion forests of slopes, screes and ravines (9180)

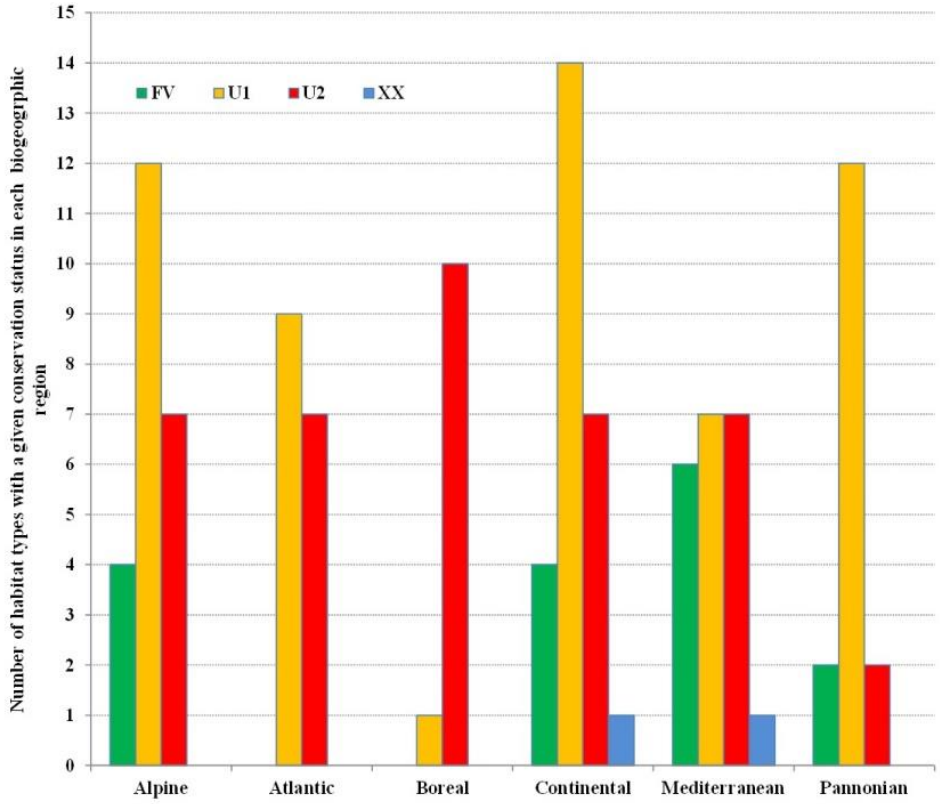

Macedonian oak (9250)


Upland oak forest (91A0)


Holm oak (9340)

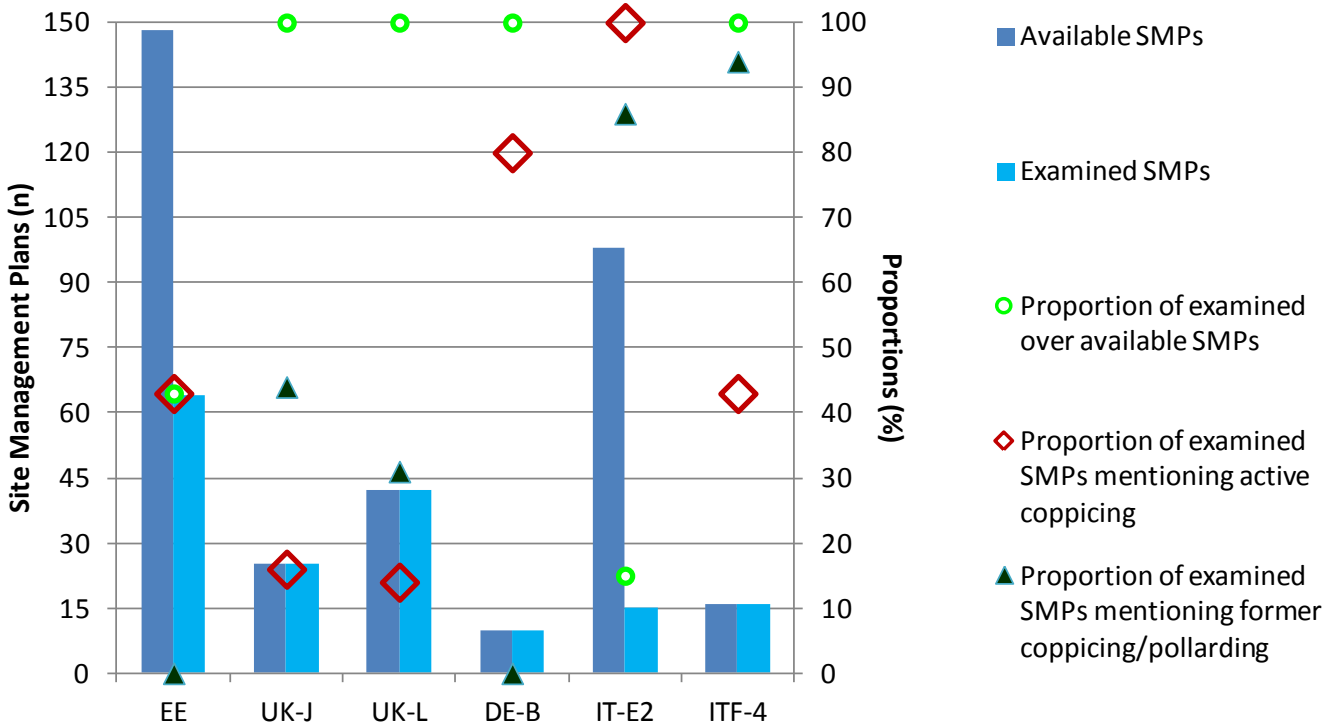
Results (2)


30
25
20
15
10
5
0
Annex I forest habitat types (number)
UK
DE
EE
IT
CZ
BE
Countries
9000 Forests of Boreal Europe
9100 Forests of Temperate Europe
9200 Mediterranean deciduous forests
9300 Mediterranean sclerophyllous forests


15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Number of habitat types with a given conservation status in each biogeogrphic region
FV
U1
U2
XX
Alpine
Atlantic
Boreal
Continental
Mediterranean
Pannonian

Results (3)

- All examined SMPs mention active coppice
- Historical coppice/pollarding is mentioned by UK and IT SMPs
- Special prescriptions for coppices (e.g., coupe size, rotation lenght, standard's density , sporadic tree species), are only reported for IT SMPs
- Different expertises are involved in SMPs compilation
- SMPs and surrogate conservation measures consider species listed in the Annexes of the Habitat Directive (few of which are adapted/specialised for coppice conditions)
- Rare non Annex II species requiring coppice woodland structure are seldom considered (e.g., DE, hazel grouse *Bonasa bonasia*, IT-C1, stag beetle *Lucanus cervus*)
- Coppice restoration (e.g., oak, oak-hornbeam) is reported in UK , DE, CZ for coppice specialists (e.g., herbs, insects, birds, small mammals)



Snapshot on the similarities and differences between countries/regions (EE, UK, DE, IT)

- Each country designates typical forest types for that region – big variation in NUTS levels
- Differences in the level of plan detail provided by different designating authorities
- Site management plans are descriptive, aspirational, do not provide detailed prescriptions/schedule
- Coppice management is not widely advocated in plans and non-intervention or conversion to high forest is often thought desirable, although reasons to justify this only seem to based on a generic notion of «biodiversity»
- In IT, plans can be written by urban planners, with foresters, biologists and/or conservationists; but by ecologists in Britain, ecologists and foresters in EE and DE. In EE also landscape historians can be involved.
- Coppicing is constrained by economics, markets, and prescriptions.

Concluding remarks

- Socio-economic and especially cultural factors both affect SMPs management strategies and the attitudes towards coppices
- Species which benefit from coppice management are under-emphasised in SMPs: what Annex II species are relevant for the habitat conservation status? Are there a minority of 'coppice' species? Are they less important?
- It is not clear which management strategy (coppice vs high forest vs no-intervention) management is beneficial (for each FHT) to the very specific habitat conservation status (syntaxonomic asset) as defined by the Habitat Directive and described by the Interpretation manual
- In many cases "high forest" or "non-intervention" management might encourage natural vegetation and stand dynamics. Yet this strategy may:
  - ✓ Not be appropriate were poor site conditions/disturbance legacies limit potential dynamic pathways
  - ✓ Lead to convergence of woodland structure among public and private owners
  - ✓ Lead to the dominance, at the landscape level, of "mature"/senescent (old-growth?!?) stands at the expenses of juvenile stand development stages and earlier vegetation successional stages, thus
    - ❖ Reducing forest landscape heterogeneity, connectivity and beta-diversity
    - ❖ Further hampering the conservation status of (even rare, but non necessarily Annex II) species requiring open forest habitats and coppice structure conditions

Acknowledgements

This work was carried out within the framework or the Working Group 4 - Services, protection, nature conservation has been submitted to iForest

COST Action FP 1301 “EUROCOPPICE”

Innovative management and multifunctional utilization of traditional coppice forests:
an answer to future ecological, economic and social challenges in the European forestry sector

http://www.eurocoppice.uni-freiburg.de/