

Contribution to the methodology for the evaluation of the habitats conservation state

Francesca Basso, Marie-Françoise Baliga and Françoise Duhamel

Centre Régional de Phytosociologie, Conservatoire Botanique National de Bailleul
Hameau de Haendries, F-59270 Bailleul, France
E-mail: f.basso@cbnbl.org

Abstract

With this work we propose a method for the evaluation of the habitats conservation state in their natural sites. This methodology considers different criteria to evaluate the plant communities (= habitats following the phytosociology). This criteria are as objective as possible in order to define 3 conservation states : 1. favourable state, 2. not representative yet not deteriorated state, 3. unfavourable and deteriorated state.

Keywords: Conservation state; Phytosociology ; Relevés; Habitats evaluation.

Introduction

The evaluation of the conditions (state of conservation) of habitats (plants communities) is fundamental for inventory and preliminary vegetation maps and for the setting up of the "Documents d'Objectifs" for the pSIC (proposal of site of Community importance) of the future European natural sites network, Natura 2000.

The evolution of the managements of these sites is analysed through the changes of the habitats conservation state (especially the plants communities belonging to the Annex 1 of the Habitats Directive): it is therefore essential that the evaluation is founded on objective bases.

However, the notion of "state of conservation" of a habitat – as well as the term "habitat" - remains very complex and needs a better definition both from a conceptual and a methodological point of view. Several institutions, among which some Conservatoires Botaniques Nationaux (National Botanic Conservatories) in France, made proposals for the assessment of the state of conservation (see "Cahiers des charges" for vegetation mapping) but there is no common methodology.

Other indications are given in European technical papers. Nevertheless, all different information and approaches are rather dispersive, and the evaluation of the state of the habitats gives a large place to the subjectivity.

With this paper we would like to introduce our approach and suggest a methodology for the evaluation of the habitats conservation state in a natural site. Such a method distinguishes some objective criteria (*e.g.* structure or floristic composition typical or not typical, changes such as eutrophication, encroachment of shrubs,...) from others referring to the subjective appreciation (*e.g.* environmental conditions,...).

Methodology

The first group of criteria (called "objectivable" criteria) depends on the analysis of the phytosociological tables of relevés concerning and describing a vegetal association.

The second group ("non objectivable" criteria) combines conditions such as threats, flood, drying.

Each "objectivable" criterion has a numerical value (levels):

- Floristic composition typical: 1
 not typical: 2
- Eutrophication no: 0
 low: 1
 high: 2
- Encroachment of shrubs no: 0
 low: 1
 high: 2

After attributing different values to each phytocoenosis and summing them up, it is possible to establish one of the three following conservation levels (states) for each habitat:

1. favourable state;
2. not representative yet not deteriorated state;
3. unfavourable and deteriorated state.

The definition of the habitat state is a particularly important phase to define the stakes and the reasons for the conservation and the management of a natural site.

References

- Basso F., M.F. Baliga, F. Duhamel and F. Hendoux. (in press). Contribution à une réflexion sur l'évaluation de l'état de conservation des habitats.
- Basso F. and M.F. Baliga. 2003. Caractérisation phytosociologique des communautés végétales du littoral de la plaine maritime picarde entre Le Touquet et Berck et réflexions sur l'évaluation de leur état de conservation. pSIC "Dunes et marais arrière-littoraux de la plaine maritime picarde", Site NPC08 / FR3100481. Centre Régional de Phytosociologie/Conservatoire Botanique National de Bailleul pour la Direction Régionale de l'Environnement Nord-Pas-de-Calais. 91p.
- Basso F. and M.F. Baliga. 2002. Mise en oeuvre du réseau Natura 2000 dans le Nord/Pas-de-Calais. Inventaire, caractérisation et cartographie phytosociologique des habitats naturels des secteurs publics de la proposition de Site d'Intérêt

Communautaire "Forêts domaniales de Raismes / St-Amand / Wallers et Marchiennes et plaine alluviale de la Scarpe". pSIC NPC 034 (département du Nord) / FR3100507. Centre Régional de Phytosociologie/Conservatoire Botanique National de Bailleul pour le Parc Naturel Régional Scarpe-Escaut. 68p.