



ASSESSMENT OF BIOLOGICAL STATUS IN EU HABITAT TYPES

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ABSTRACT

An assessment system for evaluating the biological condition of terrestrial habitat types on the EU Habitats Directive has been implemented in the Danish Natura 2000 planning. The system use measurable and objective indicators to evaluate the impact on the habitat types. The data collection of an area with several habitat types can be made within 1 to 2 hours. Indicators for structural elements and species composition are used to calculate a structural index and a species index. The structural elements are simple to observe visually and hold important information on the present biological condition of the habitat types. Based on the Danish monitoring system the following five indicator groups are used to characterise the structure and function of the habitat types:

- 1) Vegetation structure
- 2) Hydrology and coastal protection
- 3) Grassing/nature management
- 4) Impact from agricultural management
- 5) Habitat type characteristic structures

The species composition is an important source of information in the identification of the habitat types and the characterisation of the biological status. The total species composition of vascular plants is registered in a circle of 5-m radius centred in a homogeneous area characteristic of the habitat type. A species index is calculated from individual species scores based on the sensibility of the individual species to negative impacts on the habitat type.

The biological condition is a weighted summation of the two indices an characterised on a reference scale from 0 to 1, where 1 is the optimal condition. Subsequently this value can be translated to one of five status classes analogous to the ecological status classes used in the EU Water Frame Directive ranging from poor to high status.

A total inventory of the Danish NATURA 2000 designated areas has been performed in 2004-5 and repeated in 2010-11. An overview of the results and examples from selected areas will be presented.



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