

Science based nature conservation in Europe; Lessons from the Habitats Directive

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Modern day Nature Conservation has many and varied origins and in the second half of the 20th century the discipline of Conservation Science began to develop, bringing together ideas from ecology and nature conservation. Today this is a well recognised field with several dedicated journals. Conservation Science gives both a theoretical base to nature conservation and the practical techniques and methods required. It should also allow us to learn from past mistakes and successes.

The 1992 Habitats Directive is a typical example of the interaction between science & legislation, it addresses a clear problem (the loss of biodiversity) using protected areas & species protection, both well established as appropriate responses, and relies on reliable scientific information for its implementation. However, it is clear that in many instances the necessary science was lacking or the information available incomplete. The Directive also includes some definitions which are difficult to use or terms which are not defined at all.

The list of species & habitats to be protected was largely based on expert opinion using the knowledge available in the late 1980s for an EU of 12 countries. The 1992 list of habitat types was largely based on the CORINE biotopes project but little information was available on the distribution and extent of many habitats although some types were clearly threatened with widely reported losses of habitats such as peatbogs and haymeadows. Since 1992, Annex I has been extended due to successive EU enlargements and today includes 231 habitat types which differ widely in their inherent variability. Although an Interpretation Manual has been produced by the European Commission there are clearly differences in how the habitats are interpreted between countries, and sometimes between regions of the same country.

In most countries a lack of comprehensive inventories for some species groups or habitat types meant that site selection was also often based on expert opinion and existing protected areas. As a result of the Directive many countries have undertaken recent surveys and our knowledge of many groups has improved. With the obligation to report on the conservation status of each habitat type and species every 6 years under Article 17, our knowledge should improve. The 2007 assessments of Conservation Status also showed that better coordination between countries is required for future reports and the recently published guidelines for the next reports, due in 2013, have hopefully learnt from previous errors.

Recent publications such as regional Redlists show that many species which could qualify for listing on one or more annexes were omitted, in many cases due to poor information. It is also possible that some species and habitats currently listed to do not require such protection at a EU scale.

Although many of the problems in implementation are 'political' in nature these are often made more difficult to resolve by poor information which hinders communication.

As our knowledge of Europe's biodiversity improves there is an increasingly strong argument to revise the annexes of the Directive and the European Commission has acknowledged this although it is likely to be several years before any changes occur.