

# FORWARD PLANNING IN CONSERVATION

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One of the perennial problems for nature conservation relates to the extremely difficult task of predicting where problems and opportunities will arise, and to being adequately prepared in advance. As a result many issues are still dealt with in an ad hoc reactive way rather than as part of a planned programme. It is fascinating to find that even before the 1914-18 war Rothschild and others were worried by the way that nature reserves were being chosen on an ad hoc basis. In his historical review Sheail (1) points out that even then, when habitat conservation was in its infancy, there was a feeling that every effort should be made to preserve the finest sites in the country instead of dissipating resources on the less significant areas. It was a far sighted view, but unfortunately we have yet to resolve the problem. Indeed it has been intensified by the increased pace of developments over the past twenty or so years.

The relentless pressures on wildlife and habitats, coupled with the limited resources available for conservation, have meant that conservationists have been continually thrown back on the defensive, and indeed some of the difficulties may stem from the fact that the argument for conservation has been so successful. As more and more people involved with environmental matters have come to recognize the need for sound advice on conservation, so the movement as a whole has found that it cannot meet all the demands made upon it.

Conservationists have often been forced into a position of responding to individual issues as they arise. At its worst, this has meant that each case had to be dealt with separately by mustering whatever supporting evidence could be found in the limited time available. It has thus been difficult for conservationists to stand back from the day to day issues in order to plan ahead, and the very absence of anticipatory planning has only exacerbated day to day problems. Despite the enormous progress which has been made in conservation I am sure this vicious circle still persists.

For further progress to be made, ways must be found to reduce the level of uncertainty and to ensure that adequate information is available in advance. This is no easy task. However, significant progress in this direction has been made in recent years through the development of forward planning, involving positive 'strategies' for conservation. These have now become an accepted part of our modus operandi.

What exactly is meant by a conservation 'strategy'? In essence it is a statement of long-term requirements for nature conservation. It requires a comprehensive knowledge of the wildlife resources of an area, and a sound basis for determining conservation priorities. This is an important advance, but in my view there is more to it than simply producing a static plan. Forward planning cannot be successful unless it takes into account changing circumstances. To be fully effective it must include an assessment of trends affecting the wildlife resource so that priorities for action can be altered to suit changing circumstances. I believe that this dynamic aspect of the whole approach is of crucial importance. Although it may be difficult to establish priorities in time it is, nevertheless, an essential procedure. Ideally the overall forward plan should provide a consistent framework within which priorities can be more readily assessed on a short-term basis.

This kind of approach has several clear advantages. It allows conservationists to take the initiative and to be a step ahead rather than always reacting to other organizations' proposals - if this type of plan could be achieved throughout Britain it would represent a considerable advance. However, it must be recognized that the initial collation of the required data is a task of considerable magnitude. A greater predictive ability would also help to avoid some of the problems associated with ad hoc responses. Conceivably, it could even go some way to identifying new and currently unexpected opportunities.

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There is, of course, more to it than simply 'being better prepared'. From recent experience of structure plans it is evident that there is considerable potential for progress if the conservation case is fully considered alongside other competing demands on the countryside. A long-term conservation plan can play a vital role in establishing a wider perspective and understanding of nature conservation requirements. Many of the usual conflicts could be avoided if this was taken a stage further and if an overall strategy was to be adopted by competing land-use interests. NCC has advocated this kind of approach as a means of resolving some of the conflicting demands between nature conservation and agriculture (2) and recently there have been moves to develop just such a joint land-use strategy in the uplands of Mid-Wales.

Clearly the strategic approach can be pitched at many different levels. Judging from recent initiatives it seems that this kind of thinking is now prevalent in many spheres of resource exploitation where there is potential land-use conflict. Examples exist at every level from the World Conservation Strategy of the International Union for the Conservation of Nature and Natural Resources (IUCN) to the planning policies of local District Councils

Looking back over the past ten years it is possible to identify three different ways in which progress has been made in Britain towards the development of better conservation planning. These have involved:

1. The compilation of positive plans for specific areas or regions, using existing information and sometimes reinforced by additional surveys.
2. Comprehensive new surveys of specific areas of countryside, in some cases linked with systems of data handling.
3. The habitat approach, in which all the sites of a particular kind are examined and compared, and where conservation priorities are defined.

I have no doubt that the first of these approaches has gained considerable momentum from the requirements of county Structure Plans, and even District Plans, following the reorganization of local government in the early 1970s. There have however been many other examples of this kind of approach during the past decade and the main features of these studies can be demonstrated by reference to a few selected examples.

One of the earliest examples is a study entitled 'Nature Conservation at the Coast' (3). This was jointly produced in 1969 by the Countryside Commission and Nature Conservancy. The stated purpose of this survey makes interesting reading: "The purpose of the survey is to assemble and assess information about coastal resources and the special qualities and values which they possess; about past, present and foreseeable demands on these resources and their ability to withstand them. In the light of all the facts it is hoped to advise Ministers with a view to arriving at a co-ordinated land-use policy for the coast of England and Wales, which will ensure the wise use of this limited and extremely valuable resource." This report is an important model. It contained all the elements of forward planning with maps showing nature conservation requirements and brief notes on sites of importance around the whole coastline. It also included an extremely detailed appraisal of human impacts on coastal ecosystems.

Since this report dealt with the whole coastline of England and Wales, and relied heavily on existing knowledge, some areas of importance will undoubtedly have been missed. Nevertheless it was a remarkably comprehensive review considering the scale of the problem. Since that time there have been other more detailed appraisals of long sections of the coastline; an evaluation of the Pembrokeshire Coast by NCC and RSPB, in 1974, and a further assessment of the whole coastline of Wales by NCC in 1975 being the most notable examples.

In 1971 a working party convened by the Nature Conservancy produced a plan for wildlife conservation in the North Kent Marshes (4). This is an example of more detailed planning for a specific area. The principal coastal habitats were indicated on a map and their ecological features were discussed. A map showing the location of existing sites protected by statute was included but the most notable innovation was a map showing proposed conservation zones. Four categories of land were identified according to their relative importance for conservation and their compatibility with other forms of land-use. Indicating incompatibilities in advance is one way of reducing conflict. It is also significant that the fourth category was defined as "areas of little scientific importance." Although the authors indicated that further survey might be required, it seems that in this case the plan was based on a fairly comprehensive survey. To be able to confidently identify areas of least importance for conservation is a very significant step in the direction of forward planning.

Rapid development of new industries in the hitherto largely undeveloped coastal zone of Easter Ross led to the production in 1972 of a 'Prospectus for Nature Conservation within the Moray Firth' (5). This report constitutes a landmark in the integration of nature conservation into the planning process in Scotland. It was succeeded by a revised and much expanded edition in 1978 and these two reports illustrate many of the advances which have been made in the strategic approach during the past decade.

In recent years there have been many other examples of forward planning to meet specific needs. Two examples will perhaps suffice. In the Somerset Levels there have been long-standing conflicting demands on the countryside from agriculture, nature conservation and the peat extraction industry; in 1977 NCC prepared a consultative document in which a number of options for future action were suggested in the hope that a satisfactory strategy could be developed. In the case of the Vale of Belvoir NCC has undertaken a comprehensive review of the nature conservation interest in preparation for the current public inquiry on the proposal to develop a new coalfield in this area.

The second type of approach referred to earlier relates to the need for more comprehensive surveys of large areas of countryside. These have been approached in several ways. The NCC and many County Naturalists' Trusts have carried out surveys of semi-natural habitats throughout much of lowland Britain along the lines suggested by Tubbs and Blackwood in 1971 (6). They used a mapping process as a basis for evaluation of broad areas of countryside and this approach now provides the Trusts with essential data on the distribution and abundance of different types of habitat. The approach was described in several contributions to the Society for the Promotion of Nature Conservation Conference in 1978 and was well summarised by Easton in its proceedings. A habitat survey method of this kind, developed by NCC in Scotland and northern England, has formed the basis for the West Yorkshire Biological Data Bank, the information for the whole Metropolitan County being stored on computer and on maps at a scale of 1:10,000.

Another approach to broad ecological survey has been developed by the Institute of Terrestrial Ecology in conjunction with the Cumbria County Council (7). In this case sixteen different categories of 1 km squares were recognised on the basis of information obtained from Ordnance Survey maps. Vegetation was examined in a sample of each type and, by making predictions from these, sample maps were produced for the whole county. Such an approach may well be of value in measuring trends, but it has definite limitations as a means of identifying important areas for conservation.

A final example of these comprehensive ecological surveys is the Study of Scottish Coastal Habitats carried out by Edinburgh University on behalf of NCC (8). In this case colour air-photography was used as a means of obtaining a rapid yet comprehensive inventory of habitats for a great deal of the Scottish coastline. Again the whole data set was stored on computer. Considerable progress has therefore been made in the development of comprehensive information on the distribution of different habitats. It is now a matter of obtaining sufficient funds to

complete this type of survey. County Trusts will need to employ surveyors for long time before

The third approach, involving the classification of sites. It may be noted that Evans' classification is confined to a particular type of wetlands in north-west Scotland. The object of these lists is to give a value; such lists

'A Nature Conservation (9) is the most comprehensive on a sound basis for the country. In so doing it has a high level. In the meantime, on having a systematic effort is currently being made over a wide range of sites to be effectively at the regional level.

There is a need for various approaches incorporating sound principles to be readily available. At that stage it will be necessary to develop quick developments quick current trends and to solve the problems of

1. Sheail, J. 1976
2. Nature Conservation in Scotland. HMSO, London.
3. Countryside Commission. Special Study of the Countryside. London.
4. Nature Conservancy. Marshes. Report on the Moray Firth.
5. Nature Conservancy. The Moray Firth.
6. Tubbs, C.R. and Blackwood. Nature Conservation Purposes.
7. Institute of Terrestrial Ecology.
8. Kirkby, R. 1977. Research Report.
9. Ratcliffe, D.A. 1971. Oxford University Press, Cambridge.

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complete this type of survey throughout Britain. During 1978 many of the County Trusts were quick to take advantage of the Job Creation Scheme to employ surveyors to complete 'field by field' surveys, but it will be a long time before there is entire coverage for Britain.

The third type of approach, which I have called the 'habitat approach', involves the straightforward nature conservation evaluation of sites. It may be done on a national basis as was the case for Ward and Evans' classic study of limestone pavements, or it may be confined to a particular region such as John Ratcliffe's study of wetlands in north-east Wales and Peterken's study of lowland woods. The object of these studies was to rank sites in order of conservation value; such lists can then be used as a basis for conservation policy.

'A Nature Conservation Review' published by NCC and NERC in 1977 (9) is the most significant contribution of this kind since it provides a sound basis for a national policy for nature conservation in Britain. In so doing it has reinforced the positive planning approach at regional level. In the more detailed studies referred to above, success depends on having a systematic method for comparing the quality of sites. Much effort is currently being devoted to the development of such methods for a wide range of habitats, and it is to be hoped that such methods will be effectively applied to the definition of conservation priorities at regional level.

There is clearly a need for greater integration between the various approaches which I have described. We need comprehensive surveys incorporating sound methods of evaluation, and the resulting data ought to be readily available through an effective data system. When we reach that stage it will be possible for conservationists to respond to new developments quickly and effectively. In the meantime we must not ignore current trends affecting wildlife and habitats for they are the clue to the problems of the future.

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