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PROTECTING BRITAIN'S PONDS:
A PROVISIONAL STRATEGY FOR POND CONSERVATION IN THE 1990s

Prepared by Pond Action
for the
POND CONSERVATION WORKING GROUP
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PROTECTING BRITAIN'S PONDS

Ponds are important wildlife habitats - they can support plant and animal communities of very high conservation value. Yet, at present, ponds receive only piecemeal protection.

The **provisional** strategy described here provides an outline of initiatives needed to more adequately protect Britain's ponds. It also describes a framework which could be used to co-ordinate the activities of the many thousands of people concerned about them.

There is tremendous enthusiasm for the protection of ponds. We need to harness this enthusiasm and combine it with expertise and legislative backup if we are to halt the current decline in pond numbers, adequately protect high value communities and begin to restore ponds which have been damaged by pollution and neglect.

The aims of the strategy are :

To identify and protect pond communities of high value for wildlife.

- **To protect populations of rare and endangered species that depend on ponds.**
- **To improve the quality of ponds damaged by pollution, land-drainage and neglect.**
- **To prevent further losses of ponds.**
- **To establish legal protection for ponds.**
- **To raise awareness of the importance of ponds for wildlife**

Each of these aims is described in more detail in the following pages.

IDENTIFYING AND PROTECTING POND COMMUNITIES OF VALUE FOR WILDLIFE

Individual ponds differ greatly in their importance for wildlife. It is clear that we must be able to assess the conservation value of pond communities if we are to adequately protect high value ponds.

This conservation assessment not only needs to take into account the occurrence of rare or uncommon species, it also needs to consider the value of the pond community as a whole - whether the community type is uncommon or threatened, whether it is a good example or supports a relatively diverse wildlife for its community type.

The development of methods for assessing the value of pond wildlife is therefore a central aspect of the development of a national pond conservation strategy.

Pond Action is currently being funded by WWF to develop assessment methods. The research for this will not be completed for at least 3 years and as a working intermediary, a provisional system has been developed by Pond Action and based on the first results from the National Pond Survey. Other groups and workers are also developing assessment systems.

PROTECTING COMMUNITIES - DETAILED RECOMMENDATIONS

The following projects, undertaken in approximately this sequence, should considerably improve the methods available for assessing the conservation value of ponds.

PROJECT	METHOD
Develop a national classification of pond communities.	The National Pond Survey, currently in progress, is developing a national classification of Britain's ponds. The survey focuses on classifying undamaged ponds in areas of semi-natural land use.
Describe the distribution of pond species.	A wide variety of projects are gathering data about the distribution of species which depend on ponds. These include JNCC Invertebrate Site Register and Red Data Books, Biological Records Centre Monitoring Scheme, National Amphibian Survey, National Pond Survey and many individual recorders. This information needs to be collated and extended in order to adequately represent ponds. The most essential need is for survey work in ponds from the wider countryside.
Combine the national classification and the distribution data to develop a system for assessing the conservation value of ponds.	Considerable progress towards the development of an assessment system will be completed at the end of the National Pond Survey (NPS). Other systems (eg using only water beetles or dragonflies) should be compared with the system derived from the NPS. Ultimately the data needs to be used in conjunction with surveys from the wider countryside.
Simplify classification and assessment techniques.	Assessment systems will need to be simplified so that they are made more widely applicable, eg by using family rather than species level identification for pond invertebrates.
Investigate fully the relationship between land-use and other variables and the wildlife value of ponds.	From detailed studies it should be possible to find environmental features, which can be described by any trained biologist or ecologist, which are correlated with high wildlife value. These techniques, while less accurate than detailed studies, will allow very many more ponds to be described than would be possible with more detailed assessment methods.
Derive 'quick' assessment techniques from these detailed studies.	

PROTECTING POPULATIONS OF RARE AND UNCOMMON
PLANTS AND ANIMALS THAT DEPEND ON PONDS

A surprising number of Britain's rarest wetland plants and animals depend on ponds, particularly shallow and seasonal ponds. Indeed about half of the wetland species listed in Schedules 5 and 8 of the Wildlife and Countryside Act are found in ponds.

In most cases the ponds in which the rarest species are found are in areas of long-established semi-natural habitat (like the New Forest or the floodplain of the river Thames). Rare species are often poor colonists, sensitive to pollution and drainage. They are rarely found in disturbed ponds in the wider countryside.

Protecting individual species depends on a combination of: (i) knowledge about those species, (ii) site protection, (iii) site management.

Management programmes for Britain's endangered species have been proposed by JNCC under the 'Recovery' programme. Suggestions made in 'Recovery' need to be supported and implemented as part of a wider plan to protect our rare and uncommon pond plants and animals.

In the longer term, measures to restore ponds in the wider countryside could encourage rare species to return to areas where they have become extinct in the last 50 years.

PROTECTING RARE SPECIES - DETAILED RECOMMENDATIONS

The following projects are important if we are to increase understanding of the ecology and conservation of rare pond species. In order to achieve this it is essential that well-established national recording schemes are continued, but in addition there is an urgent need for studies of the ecology and management of almost all rare plants and animals found in ponds.

PROJECT	METHOD
Surveys of distribution of rare and uncommon species.	Using JNCC Invertebrate Site Register data and specialist information on various groups (eg caddis flies).
Experimental investigations.	Investigations of the ecology of rare species should be undertaken to ensure that management takes into account their requirements.
Management.	Sites should be managed to protect populations of uncommon species. Management should be part of experimental programmes.
Monitoring.	Populations of rare species should be monitored on a regular basis. Unless drastic action is immediately necessary, management work on sites with rare species should not be carried out before the site has been monitored for a period of time.
Expert advice.	Management of sites with rare species should be carried out only after full consultation with the relevant expert authorities.

PREVENTING THE LOSS OF PONDS

The number of ponds in Britain has declined by about 50% since the beginning of the century (much more in some areas). Many of the ponds remaining are severely damaged by land-drainage, pollution and neglect.

Preventing further loss of ponds needs to be a major objective of the pond conservation strategy. However, simply maintaining the physical existence of a pond is unlikely to do much good unless damaging land-drainage and pollution are controlled.

The wildlife conservation value of the majority of ponds appears, broadly, to reflect the way in which their surroundings are used. For this reason we believe that one of the highest priorities for pond conservation is to reduce the intensity of land-use around ponds.

Research projects are urgently needed to more fully investigate the impact of catchment/land-use on ponds.

POND LOSS - DETAILED RECOMMENDATIONS

PROJECT

Estimates of the numbers of ponds in representative areas are necessary in order to obtain a true national picture of pond numbers.

Aerial/satellite photograph monitoring of pond numbers and their relationship to land use.

Relating pond numbers to land use.

Assessing the condition of Britain's ponds.

METHOD

Surveys of representative areas in Britain should be undertaken as a research project. A stratified random sample of 1x1km squares should be chosen. Surveys need to be carefully planned and organised to take account of newly created ponds as well as the loss of those shown on maps. A system should be established to monitor pond loss/creation in the long-term (using a selection of the 1x1km squares chosen).

Aerial/satellite photographic monitoring could be used to assess the numbers of ponds on a wider basis. This method can be checked with reference to the 'ground' survey of representative areas.

The results of the ground and aerial surveys can be used to establish the connections between land use and pond numbers.

The results of the ground survey could be used to estimate the condition of ponds in wider countryside.

IMPROVING THE QUALITY OF PONDS IN THE WIDER COUNTRYSIDE

In areas where land-use is intensive and destructive (for example, intensive agricultural land, conifer forests, urban areas) ponds often support impoverished or degraded communities dominated by common, resilient species. Ponds in which a few common species are abundant can appear to be in good condition, and we can be lulled into thinking that these ponds are of an acceptable standard. In fact, we should be able to regard as 'normal' ponds which are able to support a wide range of species, including both common species and species sensitive to pollution and drainage.

In lowland Britain, the majority of ponds are in areas of intensive land-use. In these areas pollution and drainage effects are likely to be at their most severe. Measures to protect ponds in these areas need to focus on means of preventing this damage or of minimising its impact, eg by encouraging the development of buffer zones.

More research work is needed to investigate the effectiveness of buffer zones for protecting water quality and diversifying wildlife habitats in and around ponds.

IMPROVING POND QUALITY - DETAILED RECOMMENDATIONS

PROJECT

METHOD

Management.

Advice on management measures which can be used on ponds in the wider countryside should be improved and made more widely available. Technical advice is a part of Pond Action's programme.

Specific programmes on the management of ponds are already in progress with PA. More detailed descriptions are given under the appropriate headings below.

Reduction of the intensity of land-use around ponds.

This requires experimental programmes between various concerned organisations.

Prevention of water pollution.

The NRA is responsible for maintaining water quality in all surface waters. Everybody concerned with pond conservation must support the NRA's efforts to control water pollution.

ESTABLISHING LEGAL PROTECTION FOR PONDS

At present there is only piecemeal protection of ponds under existing environmental legislation.

To prevent further loss of ponds, and damage to the vital wildlife communities that ponds support, it is necessary to strengthen the legal protection available for ponds.

A Pond Conservation Order should be established to protect ponds from physical damage, drainage and pollution. Conservation Orders should also recommend appropriate management.

It will be vital for the Pond Conservation Order to take account of the way the land around a pond is used. Orders should include provisions for the establishment of buffer zones (which on farmland could make use of funds available to reduce the intensity of land management).

Ponds of high wildlife value should be given statutory protection. Ponds with lower quality communities should be targeted for remedial measures, particularly those which reduce the intensity of land use in the surroundings of the pond.

In the short term, legislation to protect a wide variety of ponds would provide a safety net to prevent complete destruction of sensitive or important ponds before they can even be catalogued.

Pollution of ponds should be controlled under existing Water Act powers (the NRA has a duty to promote the conservation of 'controlled waters').

Although a lot of pond management is done by voluntary groups, additional heavy work could be made part of the NRA Land Drainage function (many NRA engineers already take on this important conservation work, wherever time and budget allow).

DETAILED RECOMMENDATIONS

PROJECT

The creation of pond SSSIs; the protection of Schedule 5 and 8 species.

Local Authority conservation.

Non-statutory 'guardianship'.

Pond Protection Order.

METHOD

In collaboration with JNCC, existing legislation should be used to prevent the loss of ponds which are on SSSIs or contain Schedule 5 species.

Work with Local Authorities to get ponds into the local planning system (especially into Structure Plans).

Local Action Groups. These should be advised by the existing network of organisations and backed by suitable technical information from other organisations such as Pond Action, JNCC, British Herpetological Society etc.

This will require lobbying by all groups concerned with freshwater conservation in support of the National Pond Conservation Strategy. A programme of lobbying should be led by CPRE.

IMPROVING THE PUBLIC PERCEPTION OF PONDS

To most of the general public the perception of "what a pond should look like" is limited to traditional images of the village pond with its pinioned ducks and the fish pond with its stands of water lilies and few other water plants.

Most people are not aware of the much greater variety of ponds which exist in the wider countryside, nor do they necessarily appreciate the factors associated with ponds of high quality.

It is obviously important that we generally encourage both pond creation and management. But it is essential that we link this with increased understanding. Ponds with pleasant vistas over open water are not necessarily those with the highest conservation value. Aquatic plants are not necessarily "weeds". Factors such as non intensive land use and protection from pollution are likely to be significantly linked with high conservation value.

We clearly need to change many general perceptions about ponds so that people can more easily recognise "good ponds" where they exist. There is also a need for much more information, so that when new ponds are created they have the greatest possible potential to become of high value for wildlife.

IMPROVING PERCEPTIONS - DETAILED RECOMMENDATIONS

Raising awareness will require carefully planned joint projects between campaigning organisations and groups or individuals with technical information.

PROJECT	METHOD
Development of an awareness of the value of ponds.	The great value of ponds to conservation should be stressed. The range of pond types should be used to highlight the range of wildlife which they can support.
Promotion of an awareness of the threats to ponds.	There is a perception that ponds are often lost due to landowners and developers filling them in. Whilst this is true in some cases, the greater threats of pollution and the adverse affects of land drainage are more significant and should be highlighted.
Promotion of an awareness of what a good pond is.	<p>The idea of a good pond having high numbers of fish and wildfowl is prevalent. A more informed view of what a good pond is and the factors which help to make a good pond (non-intensive land-use, careful management etc.) should be promoted.</p> <p>Concepts such as these should be promoted in educational materials for all groups and age ranges.</p>

The Pond Conservation Working Group was initiated by Pond Action and the Wildfowl and Wetlands Trust in 1991 to co-ordinate pond conservation work in the UK.

The group includes representatives from:

- British Dragonfly Society
- British Waterfowl Association
- Council for the Protection of Rural England
- English Nature
- Independent Consultants and Contractors
- Local Authorities
- The National Trust
- Pond Action
- Surrey Wildlife Trust
- Universities
- Wildfowl & Wetlands Trust
- World Wide Fund for Nature