

The National Pond Monitoring Network

The National Pond Monitoring Network has been set up by Pond Conservation and the Environment Agency with support from Defra, English Nature, the Countryside Council for Wales, the Scottish Environment Protection Agency, the Environment and Heritage Service (Northern Ireland) and numerous non-governmental organisations.

Why do we need a National Pond Monitoring Network?

1. Ponds are an important and neglected part of the ecological landscape.

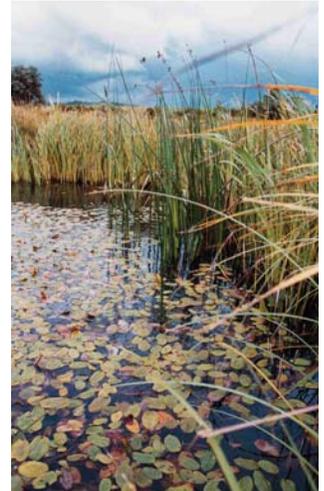
Nationally, ponds are as rich as lakes and rivers in invertebrate and plant species, and support many rare species¹. They have been shown to contribute more to regional biodiversity than rivers, streams or ditches². Two thirds of Britain's freshwater macrophytes and macroinvertebrates are found in ponds and at least 65 BAP priority species use them for habitat³.

2. Ponds are a threatened habitat.

Pond numbers in the UK are estimated to have declined by over a third from the 1940s to the 1980s⁴. The turnover rate is now c. 1% per year⁵ and new ponds created may not be of high ecological quality. Many sites are affected by pollution, overstocking of fish or wildfowl and invasion by non-native plant species⁶.

3. Until now there has been no way for the UK to assess the national picture and monitor trends.

Although around 2000 ponds have been surveyed in the last 5 years, a variety of survey methods have been used and until now data have not been collated, so national trends in pond quality are unknown.



The National Pond Monitoring Network strategy³ describes how partners will work together to:

1. Establish a monitoring programme for the UK's ponds.

Develop proposals to enable assessment of the status of ponds in the UK, particularly their ecological quality and biodiversity value, and identify trends through time.

2. Promote new survey activity.

Stimulate and co-ordinate partner activity in carrying out targeted surveys and developing an inventory of ponds and associated biodiversity data.

3. Create a UK focus for pond survey data.

Collate new and old datasets to develop the National Ponds Database.

4. Report on the state of the UK's ponds.

Create reports using the National Ponds Database to feed into policy development to protect the habitat.

5. Create a UK centre of ponds survey expertise.

Promote standard survey methods (particularly PSYM, the Predictive SYstem for Multimetrics⁶ (see below) and provide technical support, training and quality assurance.

6. Promote awareness of and public involvement in pond conservation.

Network activities will involve volunteers and members of the public will be able to submit and find information about ponds via the project website.



The National Ponds Database will contain data from three sources:

Core monitoring programme: stratified random sites across the UK repeated at regular intervals

Targeted surveys: to address specific questions (e.g. status of BAP species, impact of pollutant)

Pond inventory: name, location and biodiversity information from as many sites as possible



The Predictive SYstem for Multimetrics PSYM (pronounced "sim")

The PSYM⁶ method for assessing the ecological quality of still waters involves identifying plant species and/or invertebrate families from a site sampled using a standard method. These and basic environmental and location data are entered into a computer model which compares survey results with predicted values for a minimally impaired site to give an indication of pond quality.

References

1. Biggs, J., Whitfield, M., Williams, P., Fox, G. and Nicolet, P. (2000). Factors affecting the nature conservation value of ponds: results of the National Pond Survey. In Pond Action (2000). *Proceedings of the Ponds Conference 1998*. Pond Action, Oxford.
2. Williams, P., Whitfield, M., Biggs, J., Bray, S., Fox, G., Nicolet, P., Sear, D. (2004). Comparative Biodiversity of Rivers, Streams, Ditches and Ponds in an agricultural landscape. *Biological Conservation* 115: 329-341.
3. The Environment Agency and The Ponds Conservation Trust (2003). *The National Pond Monitoring Network: a strategy for pond monitoring, surveillance and inventory development*.
4. Swan, M.J.S. and Oldham, R. S. (1989). *Amphibian Communities*. Final Report. Nature Conservancy Council, Peterborough.
5. Williams, P., Biggs, J., Barr, C.J., Cummins, C.P., Gillespie, M.K., Rich, T.C.G., Baker, A., Baker, J., Beesley, J., Corfield, A., Dobson, D., Culling, A.S., Fox, G., Howard, D.C., Luursema, K., Rich, M., Samson, D., Scott, W.A., White, R., and Whitfield, M. (1998). *Lowland Pond Survey 1996*, Department of the Environment, Transport and the Regions.
6. Environment Agency (2000). *Biological Techniques of Still Water Quality Assessment Phase 3*. Method Development. Research and Development Technical Report E110.



Contact details:

For more details, and to access the database, see

www.pondconservation.org.uk

If you have pond data, are planning pond survey work, or would like to know more about the project contact:

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