



# UK Biodiversity Action Plan Priority Habitat Descriptions

## Oligotrophic and Dystrophic Lakes

**From:**

UK Biodiversity Action Plan; Priority Habitat Descriptions. BRIG (ed. Ant Maddock) 2008.

This document is available from:  
<http://jncc.defra.gov.uk/page-5706>

For more information about the UK Biodiversity Action Plan (UK BAP) visit  
<http://www.jncc.defra.gov.uk/page-5155>

Please note: this document was uploaded in November 2016, and replaces an earlier version, in order to correct a broken web-link. No other changes have been made. The earlier version can be viewed and downloaded from The National Archives:  
<http://webarchive.nationalarchives.gov.uk/20150302161254/http://jncc.defra.gov.uk/page-5706>

# Oligotrophic and Dystrophic Lakes

## Correspondence with existing habitats

- Broad Habitat: Standing open water and canals
- Phase 1: G1 Standing water
- JNCC revised lakes classification: Types A, B, C1 and C2
- NVC: Various, including A7, A9, A13, A14, A22–A24, S4, S8–S11, S19b
- Annex I: H3110 Oligotrophic waters containing very few minerals of sandy plains (part): *Littorelletalia uniflora*; H3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoeto-Nanojuncetea* (part); H3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara* species (part); H3160 Natural dystrophic lakes and ponds (part)
- Other: Palmer lake macrophyte classification types 2 and 3

## Description

Oligotrophic and dystrophic lakes are water bodies mainly more than 2ha in size which are characterised by their low nutrient levels and low productivity. Their catchments usually occur on hard, acid rocks, most often in the uplands. This habitat type encompasses a wide range of size and depth, and includes the largest and deepest water bodies in the UK. Good examples may support some of the least disturbed aquatic assemblages in the UK.

Oligotrophic lakes usually have very clear water, whilst some examples with dystrophic characteristics have peat-stained waters. Characteristic plankton, zoobenthos, macrophyte and fish communities occur, including several UK BAP species and species of economic importance. Fish communities, generally dominated by salmonids, may include charr *Salvelinus alpinus* and *Coregonus* spp. A number of benthic and planktonic invertebrates, found only in oligotrophic lakes, are possibly glacial relicts. Macrophytes are typically sparse, with species such as shoreweed *Littorella uniflora* and quillwort *Isoetes* spp. Shores are typically stony, and emergent vegetation is generally restricted to sheltered bays, where species such as bottle sedge *Carex rostrata* and bulrush *Scirpus lacustris* may be found. Oligotrophic and dystrophic lakes support a range of UK BAP priority species and other species listed on Annexes of the Habitats and Birds Directives (e.g. slender naiad *Najas flexilis*, salmon *Salmo salar*, common scoter *Melanitta nigra*, black-throated diver *Gavia arctica*, and otter *Lutra lutra*).

Oligotrophic and dystrophic lakes occur throughout the UK, but mostly in upland areas of the north and west.

The BAP priority habitat will comprise Tier 1 and Tier 2 Lakes from the UK Lakes database (i.e. Lakes of known conservation importance; of this set, Tier 2 are the damaged but remediable lakes), plus any Tier 3 Lakes which are assigned to that Tier due to lack of data, rather than because they are of known low importance.

New data are due to be incorporated in 2008–09 by the UK Lakes HAP Group ([www.lakeshap.org.uk](http://www.lakeshap.org.uk)), which will then re-allocate all their lakes within the same Tier structure.

A small minority of dystrophic lakes are not also oligotrophic. The work described above will identify these, which can then be incorporated into this or into the priority habitats Eutrophic Standing Waters or Mesotrophic Lakes, on a case-by-case basis.