

Report on the eel stock and fishery in UK 2008

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Reporting Period: This report was completed in August 2008 for the ICES/EIFAC WGEEL 2008, held in Leuven, Belgium in early September. It must be noted that most of the data relating to 2008 are provisional and will not be finalized until complete catch and Her Majesty's Revenue and Customs (HMRC) trade data are obtained and records can be fully validated. In compiling the report, the previous year's data are routinely updated. Where revisions have been made from earlier reports, this is indicated in the text.

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UK.B Introduction

UK.B.1 Distribution of eel within England and Wales 2001–2007

Routine electric fishing surveys for coarse fish and salmonids conducted by the Environment Agency (EA) from 2001 to 2007 demonstrate eels are present in nearly all river systems in England and Wales (Figure 1). There are some areas where eels are scarce or absent, particularly the upper reaches of rivers, though some lower reaches of rivers appear devoid of eel while the species is present further upstream. This may result from different survey techniques being utilized across a catchment. Eel were present in 43–51% of the survey samples during this period.

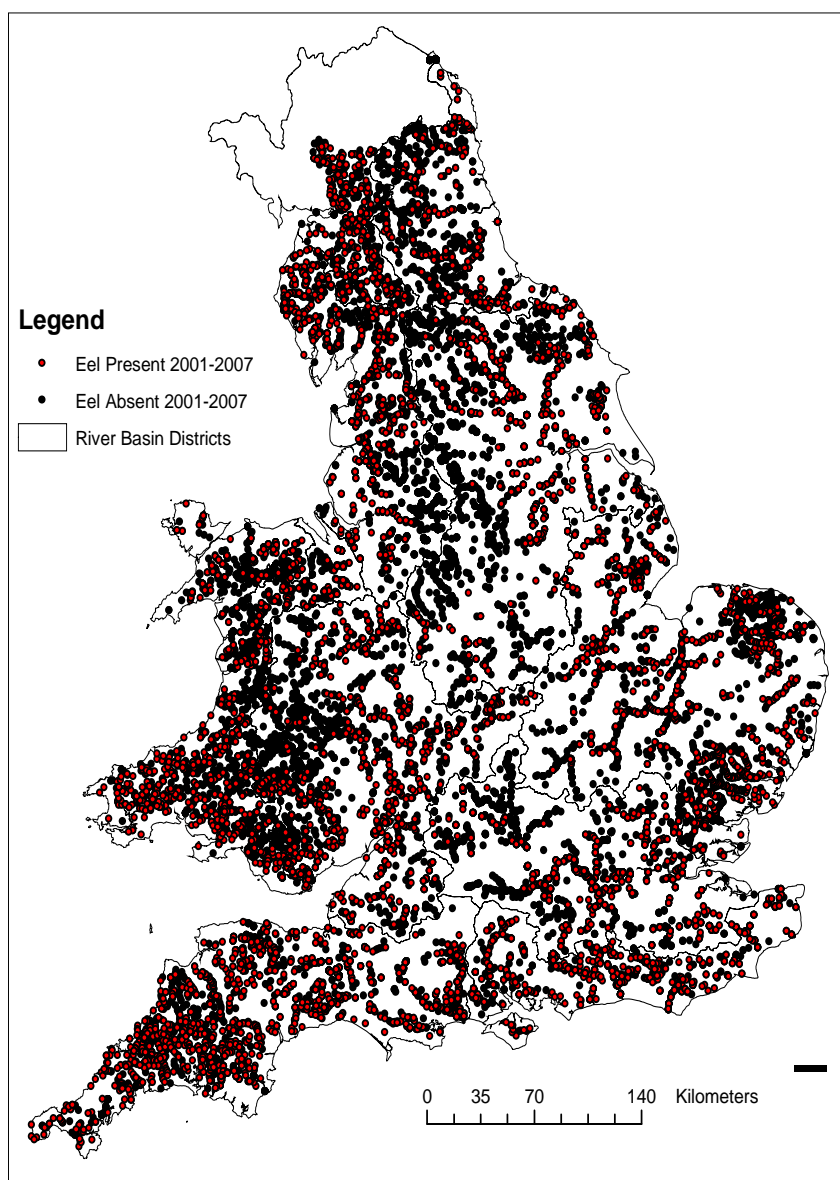


Figure 1. Environment Agency data on eel presence and absence in England and Wales, 2001–2007.

The Environment Agency is responsible for the management of eel fisheries in England and Wales. Annual licences are issued for a single region and are not transferable other than where estuaries are shared by more than one Environment Agency

region (the Thames Estuary, for example). Fisheries are managed by national and local byelaws. National Eel Fishing Byelaws introduced in 2004 authorize the use of six instruments for eel fishing: permanently fixed traps (e.g. weir or rack traps and 'putts'); moveable or temporary nets or traps without leaders or wings and with an opening with a maximum diameter of less than 75 cm; moveable or temporary nets or traps with leaders or wings with an opening with a maximum diameter of less than 100 cm (usually fykenets); large fykenets used on the River Severn (Gloucester wing nets), not exceeding 25 m in length and with leaders of up to 7 m; eel trawlnets and elver (glass eel) dipnets. Recreational angling is permitted using rod-and-line. Appendix 1 in the 2007 UK report provides a summary description of netting and trapping methods used to catch eels in the UK.

The National Eel Byelaws also stipulate that all eel (apart from glass eel) less than 300 mm in length must be returned to the water, that no part of any net, wing or leader shall be made of a mesh greater than 36 mm stretched mesh, and that monofilament material is prohibited (except for an elver dipnet or fishing with rod-and-line). It is also a requirement that nets set in tidal waters should not dry out, unless they are checked just before they do so, and that nets should not cover more than half the width of the watercourse, or should not be set closer than 30 m apart (apart from in stillwaters and tidal waters). All fykenets must be fitted with an otter guard (a 100 mm square mesh hard plastic frame, fitted in the mouth of the first trap, to prevent otters becoming trapped in the nets). No fishing is allowed within 10 m upstream and downstream of any obstruction. Elver dipnets must be used singly, by hand and without the use of ropes, nets, chains, floats or boats.

Every licensed instrument must carry an identity tag issued by the Environment Agency and it is a legal requirement that all eel fishers submit a catch return. Licences are required to give details of the number of days fished, the location and type of water fished, and the total weight of eel caught and retained, or a statement that no eel have been caught. Fixed traps can be used across the whole of England and Wales, except the North East Region, non-tidal rivers in Devon and Cornwall, or in the Border Esk, while small wingless traps and winged traps can be used across the whole of England and Wales except in non-tidal rivers in Devon and Cornwall and parts of North East Region. Gloucester Wing nets can only be used in the River Severn, and eel trawls are restricted to a box in the outer Thames Estuary (but they no longer operate). The glass eel fishery is restricted to two zones in parts of Wales and the North West and South West of England.

UK.B.2 Distribution of eel within Northern Ireland

Lough Neagh in N. Ireland is the largest fresh-water lake in the UK. Prior to 1983, estimates of annual recruitment of glass eel to the Lough consistently exceeded 6 million and averaged in excess of 11 million (based on a mean weight of 3000 kg⁻¹). Productivity is such that the Lough sustains a large population of yellow eel and produces many silver eels that migrate via the out-flowing Lower River Bann.

The system sustains the largest remaining commercial wild eel fishery in Europe, producing 25% of the total recorded EU wild catch and supplying 3% of the entire EU market. Fishing rights to all eel life stages are owned by the Lough Neagh Fishermen's Co-operative Society (LNFCS). The fishery is managed to allow the capture of approximately 250–350 t of yellow eel and 75–100 t of silver eels annually, with an escapement of silver eels at least equivalent to the catch of silvers. Whilst it is illegal to fish for glass eels in N. Ireland, provision is made whereby staff from the LNFCS is allowed to catch glass eels using drag nets below a river-spanning sluice gate, which

creates a barrier to upstream juvenile eel migration, for onward stocking into L. Neagh. Elvers are also trapped at the same location and stocked into the Lough.

The yellow eel fishery (May–September, 5 days a week) supports 80–90 boats each with a crew of two men using draft nets and baited longlines. Eels are collected and marketed centrally by the Co-operative. Around 300 families derive and depend on income from the fishery. Through the Co-operative, yellow eel fishers are paid the market price for their catch. Silver eels are caught in weirs in the Lower River Bann. Profit from the less labour-intensive silver eel fishery sustains the management of the whole co-operative venture, providing working capital for policing, marketing and stocking activity and an out of season bonus payment for yellow eel fishers at Christmas.

Natural recruitment has been supplemented since 1984 by the purchase of glass eel. Approximately 77 million additional glass eel have been stocked by the LNFCS. Reviews on the fishery, its history and operation can be found in Kennedy, 1999 and Rosell *et al.*, 2005.

The cross-border Erne system is comparable in size to L. Neagh and produces a fishery yield in the region of 35–50 t of eels per year. Within N. Ireland, Upper and Lower Lough Erne sustain small-scale and declining yellow and silver eel fisheries. Elvers are trapped at the mouth of the River Erne using ladders placed at the base of the hydroelectric facility that spans the Erne, and trucked into the Erne lake system for stocking. A comprehensive study into the structure, composition and biology of the eel fisheries on the Erne was conducted by Matthews *et al.*, 2001.

Overall policy responsibility for the supervision and protection of eel fisheries in Northern Ireland, and for the establishment and development of those fisheries rests with the Department of Culture, Arts and Leisure (DCAL).

Summary of management measures for eel fisheries in Northern Ireland:

- Ban on glass eel fishing (other than for stocking);
- Trapping and transport of juveniles on the Erne system;
- Restricted access to the fisheries through a system of licence, permits and seasonal closures;
- Minimum landing sizes (30 cm, though fisheries impose voluntary 40 cm);
- Technical measures associated with fishing gears;
- Closure of the Department-owned silver eel fishery on the Erne as a conservation measure;
- Free gaps (10%) in silver eel fishing weirs.

In addition to the above, the LNFCS has in place:

- Trapping and transport of juveniles on the Bann;
- A quota system on yellow eel catch;
- Restocking with purchase of supplemental glass eel;
- Ban on the use of fykenets;
- Suspension of two silver eel fisheries on the Lower River Bann.

UK.B.3 Distribution of eel within Scotland (1996–2006)

Electrofishing surveys by the Fisheries Trusts in Scotland (from 1996–2006) indicate