

River Yare, Norfolk; 2016 hydro acoustic results. Fish stock and distribution.

The Surveys

Survey methods used by the Environment Agency are science based using best practice and skilled operators to ensure consistent, robust, repeatable results. This approach enables comparison between years and rivers at local and national scale.

The length of the River Yare survey dictates that the upstream and downstream surveys take place on separate nights. There is a difference between the upstream and downstream results obtained in 2016. This report concerns the downstream survey conducted in late September.

To provide a record of water quality at the time of the survey a sonde monitors Water temp, Ph., Salinity, Ammonia, and dissolved Oxygen at regular intervals along the survey route.

The River

Location

Rising from chalk springs near Shipdham, the River Yare wends its way for 80 km through the Norfolk countryside before discharging into the North Sea at Great Yarmouth. Two tributaries join the River in the lower tidal section. The survey includes 40 km of the lower tidal river from the outskirts of Norwich downstream to Reedham. The Bure, Waveney and Yare merge at Breydon water. All three rivers combine and discharge to the sea at Great Yarmouth on the East coast. Flow velocity and direction in the lower river vary due to the rivers' direct connection to the sea and the tide cycle.

Context

The Broads natural environment is important for commerce, recreation and science. Broadland commerce centres on water based tourism and recreation activities.

Results from recent surveys indicate that angling is a common aspect of Broadland tourism and lifestyle. Angling availability and quality influences over 20% of prospective Broadland tourists in their holiday choice and timing. Angling combines the unique scenery and wildlife of The Broads along with excellent fishing to provide long lasting impressions of the area. Repeat visits to the area are common.

Fish stocks are therefore important and monitoring of those stocks is necessary for the continued long-term benefits they provide. Regular hydro acoustic surveys take place on the lowland tidal sections of local rivers where there is a need to monitor fish stocks and other methods are unsuitable.

Character

For most of the survey length, the River Yare is wide and deep. Tidal influence (saline concentration) extends upriver dependant on the size of the tide. Weed growth increases upstream from Brundall towards Trowse. Norfolk reed (Phragmite) grows along the river margins; at first in isolated patches but further downstream growth is abundant.

Both Surlingham and Rockland Broads flooded former peat workings and their connecting dykes provide important habitat for fish. The majority of Boatyards and assorted dykes occur in and around Brundall.

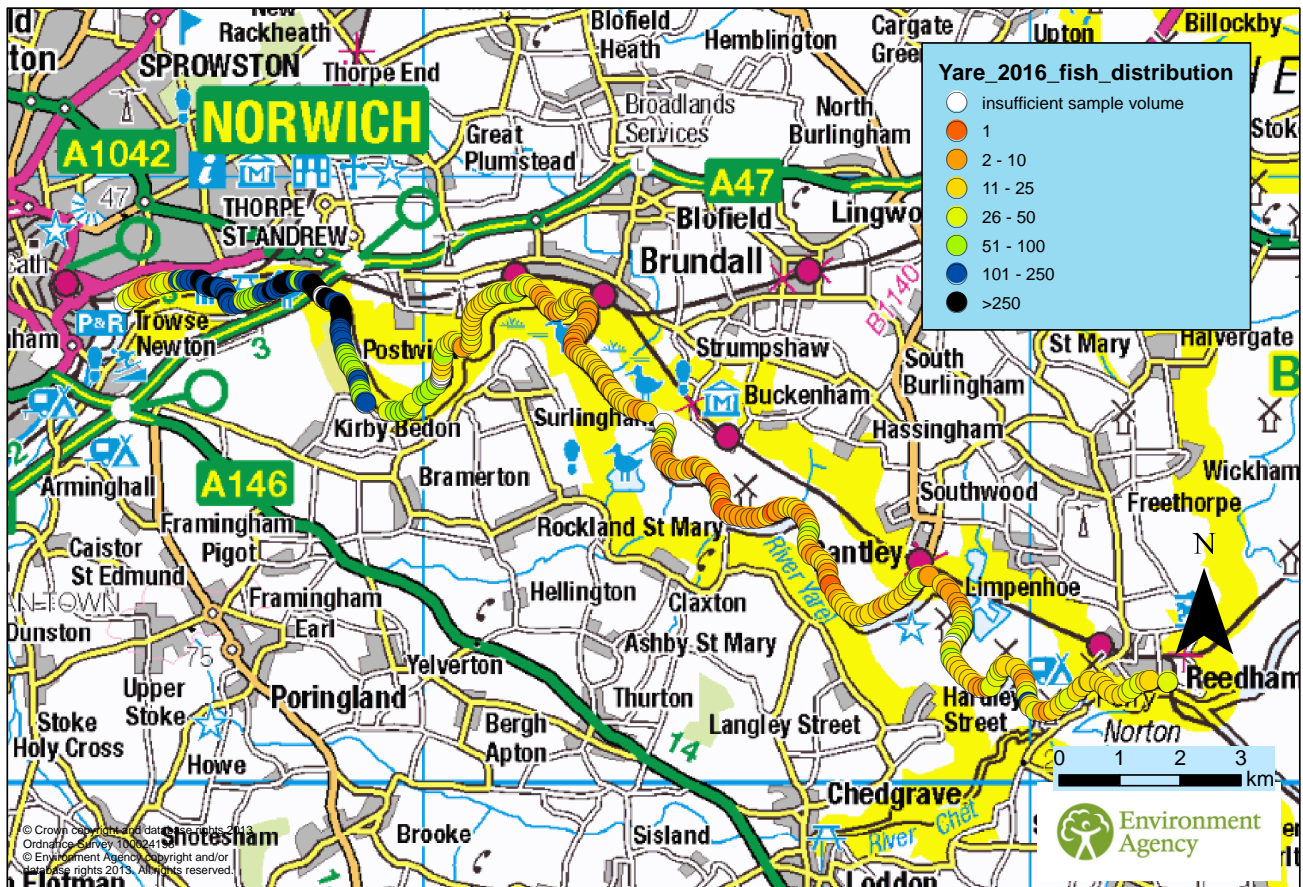
Ecology Chemistry Fish

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The Report

The map shown provides an overview of the fish distribution along the River Yare. The survey took place overnight in September 2016. The data provide an insight to fish distribution, stock and main concentrations of fish. Validation surveys along with match catch data provide a species assembly.



Downstream fish distribution along the River Yare, surveyed September 2016 using hydro acoustic survey methods.

- Roach and bream dominate the 11 species of fish known to exist in the surveyed section. Validation surveys identify 7 species, the remaining 4 derive from angling reports.
- The 2016 average fish density (62 fish 1000m⁻³) is the second highest value recorded since 2004 (2014 highest).
- Uneven fish distribution is evident along the Survey route.
- Highest fish densities occur near to boatyards, Broad entrances and dykes.
- Hotspots (fish density greater than 250 fish 1000 m⁻³) are evident upstream of Brundall.
- Low fish densities exist downstream of Bramerton. Highest salinity values occur in the same section.
- Fish stocks remain high in the River Yare.

This report provides a summary of the findings obtained during hydro acoustic surveys. If you have any suggestions for information in future reports please contact:

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