

## Hydroacoustic & Seine Netting fish population survey

### The Ely Ouse

**Hydro acoustic survey:** 18<sup>th</sup> to 20<sup>th</sup> May 2023

**Seine netting surveys:** 07<sup>th</sup> September and 10<sup>th</sup> & 18<sup>th</sup> October 2023

This report provides an overview of the fish population within the Ely Ouse as determined by hydroacoustic and seine netting surveys between Popes Corner and Denver with additional analysis of fishery performance using match returns provided by local angling clubs. These surveys were part of our routine sampling programme and are carried out to assess the health of the river and enable management of our principal fisheries.

#### Summary

- A total of 60 km of channel was monitored using **Hydroacoustic apparatus**.
- The average fish density derived from the upstream and downstream transects equate to 15.7 fish per 1000m<sup>3</sup> and 11.9 Ind./1000m<sup>3</sup> respectively, giving an overall population estimate of 13.8 Ind./1000m<sup>3</sup>.
- Three sites were sampled by **seine netting** however one of these surveys was influenced by external factors and will be discarded from subsequent analysis. Fish density at the remaining two sites comfortably exceeded the long-term density value for these locations with a mean density of a little over 40 Ind./100m<sup>2</sup>.



**Images 1-4:** The acoustic punt, Sunset on the Ely Ouse, surveying through Ely Town Centre, A quality Ely Ouse Rudd.

# 1. Survey Methodology

## Hydroacoustic survey technique

The hydroacoustic survey technique utilises sound waves (pings) which are fired across the river channel at a rate of 10 ‘pings’ per second. These ‘pings’ are returned to the transducer when reflected from objects within the 4 meter x 10 meter elliptical beam. The strength of the returning echo helps determine the nature of the reflective object, for example, items such as the far bank, bridge supports and riverbed give extremely strong returns, echoes from fish give a moderate return and surface scatter returns much weaker echoes (See **Image 1**). All returned echoes are recorded by an on-board laptop computer which displays the acoustic image produced in near real-time allowing fine tuning of the transducer alignment to gain the best possible survey range.

The survey vessel travels at 6 km/h, working just off the edge of the marginal shelf to avoid submerged macrophyte growth which may otherwise wrap around the sounder unit and obscure the transducer face. Sampling occurs along each bank, and both upstream and downstream transects of survey reaches are completed on the same night to minimise fish movement between passes, thus reducing the influence that this behaviour may have on the stock distribution recorded.

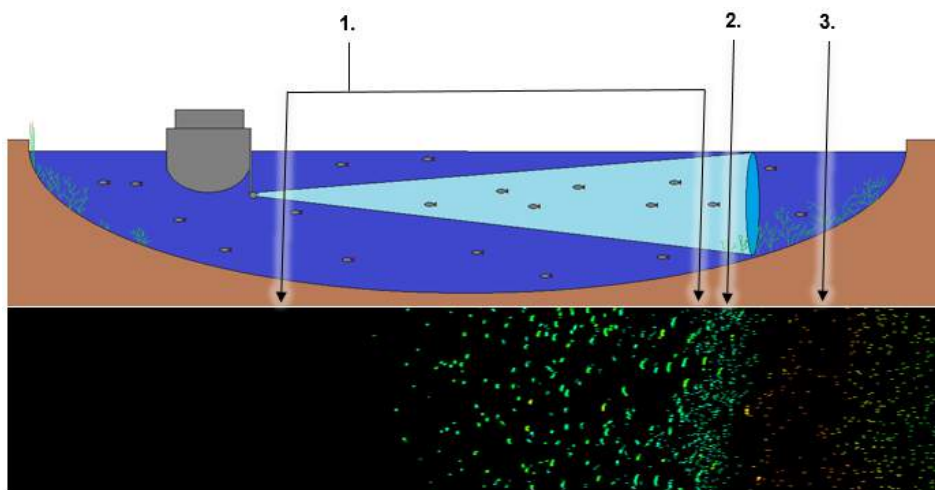
Hydroacoustic surveys are conducted at night when fish are more evenly distributed throughout the water column allowing them to be easily distinguished from substrate, macrophyte growth and any bankside ‘clutter’ present. Our surveys are also scheduled to coincide with a new moon as this minimises any lunar illumination during the survey period.

Once the survey is complete the raw data is post-processed and interpreted by fisheries staff. Output from this analysis is provided as a fish density estimate expressed as fish per thousand meters cubed (Ind./1000m<sup>3</sup>) and this data is easily expressed as density groupings in map format.

The hydroacoustic survey apparatus uses G.P.S to log the position of our survey vessel and because of this, data-points on maps **1-4** have been manually offset to opposite bank, that i.e. the area the acoustic beam was sampling. This more accurately displays stock distribution and avoids data from the left-hand bank being plotted on the right-hand bank, and vice versa.

Unfortunately, engine trouble with our regularly borrowed boat ‘Kingfisher’ meant that a replacement craft had to be found and quickly modified. The substitution did allow the survey to proceed but was a considerably less stable acoustic platform than our usual vessel and we do not consider the data collected to be on par with our usual standard.

**Image 1:** A simplified image of the hydroacoustic survey beam and raw echogram output (below).



1. Open water and clearly visible fish echoes.
2. Limit of the ‘usable’ data surface scatter (light blue) and echoes from rooted plants (light green).
3. Heavy (red and brown) echoes from marginal slope and riverbank.

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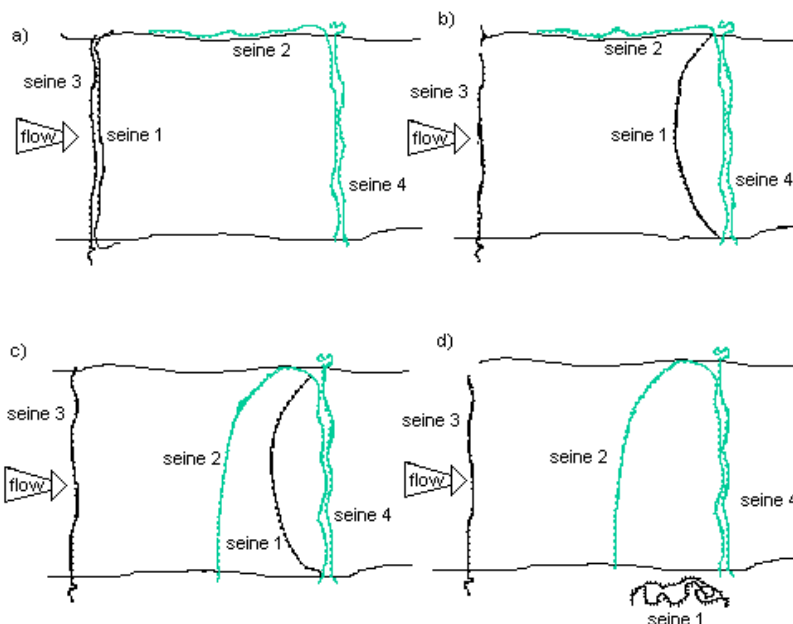
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## Seine netting survey technique

Seine netting is our primary survey technique on lowland watercourses where collection of a physical sample is required and the depth and width of the river channel precludes the use of electric fishing. The seine netting operation starts with staff positioning stop nets across the river channel to isolate the survey area and prevent fish from migrating into and out of the site. An appropriately sized seine net is then laid by boat to encircle the survey area. The seine net 200 meters long and 8 meters deep and constructed from 10mm knotless mesh which is soft to help minimize damage to fish. Floats are attached along the top edge and a lead line is fixed along the bottom to ensure that the net hangs vertically within the water column. The catching net is hauled in by hand and fish are removed and retained in floating keep-cages.

The netting operation should be repeated until a catch that is 50% smaller than the first catch is achieved. A second 'depletion' catch was not possible at Sandhills Bridge due to extensive macrophyte growth within the survey area which slowed the netting operation and meant that boat traffic was held up by our stop nets across the channel. Thankfully, the number of fish caught at Sandhills Bridge in the initial netting meant that this site remained viable as validation data for our hydro acoustic survey but should only be viewed as a minimum estimate of the fish stock present.

What should certainly **not** happen is the catalogue of disasters that befell the survey team at Ten Mile Bank which saw a very strong gusting wind push a boat into our stop net and cause a large tear in the seine net (from the boat propeller) that potentially let fish out and which needed urgent repair and then, as the coup de grâce, the sudden appearance of a juvenile seal within the survey area which pushed under the net lead line, opening further escape routes for any fish within. The poor initial catch and lack of a second catch to confirm this result (due to the damaged net), means that it not possible to determine whether the disappointing result was due to external factors, or was truly due to a rather limited local fish population.



## Angler participation - The Match Catch database

If the angling community has provided match returns to the EA then fishery performance can be assessed using output from the EA's Match Catch Database. Rod and line surveys can provide a valuable source of information and may be a sound indicator on the status of the exploited stock. The match catch database allows storage of match results in a way that permits rapid analysis of angler catches over time and is an excellent way for anglers to support their fishery and have a say on the quality of sport that they are experiencing. Such data not only underpins and validates our survey data but, in some cases, also adds to it by including details of species which have not been caught in surveys.

By collecting & providing the EA with catch returns an angling club knows that if there are concerns about the state of its waters, a record of fishery performance will exist against which this may be compared. Data from the match catch database is expressed as catch per unit effort (CPUE) expressed as weight caught in grams per hour. The CPUE value is then classified using five categories from A+ to D which are defined in **Table MC1**.

**If clubs wish to provide match data for analysis and inclusion in subsequent reports, then this is encouraged and will be greatly valued.**

**Table MC1: Match catch fisheries classification ranges.**

Class	CPUE		CPUE	
	Grams / angler hour		Decimal Ounce / angler hour	
	Rivers / canals	Stillwater	Rivers / canals	Stillwater
A+	>290	>909	>10.00	>32.00
A	150 - 289	150 - 909	5.27 - 10.00	5.27 - 32.00
B	110 - 149		3.8 - 5.26	
C	70 - 109		2.5 - 3.84	
D	<70		<2.50	

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## 2. Results:

### Hydroacoustic results

Hydroacoustic sampling took place on the 18<sup>th</sup>, 19<sup>th</sup> & 20<sup>th</sup> of May 2023 and a total of 60 km of channel was sampled. For ease of viewing the results are broken up into three sub-reaches. The upstream and downstream limits of these sub-reaches are demarked by an obvious feature, and each represents a night of survey; generally, from 11 pm till 3 am.

**Reach 1:** Popes Corner to Queen Adelaide Bridge

**Reach 2:** Queen Adelaide Bridge to Brandon Creek

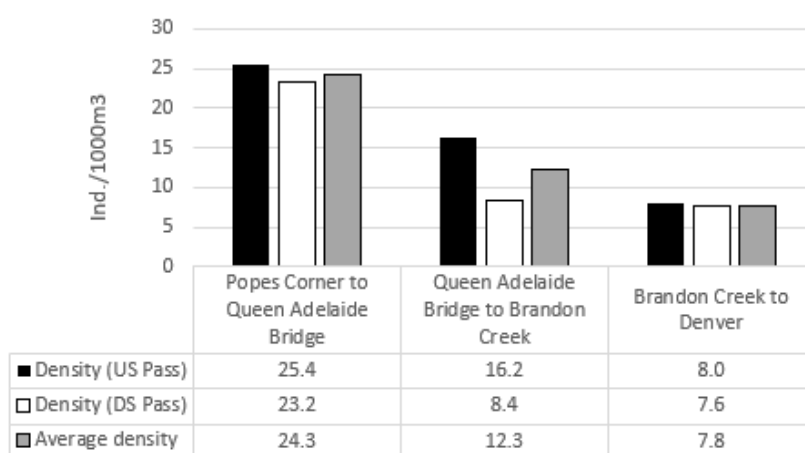
**Reach 3:** Brandon Creek to Denver

The average fish density derived from data collected on the upstream and downstream runs equates to 15.7 Ind./1000m<sup>3</sup> and 11.9 Ind./1000m<sup>3</sup> respectively, giving an overall population estimate of 13.8 Ind./1000m<sup>3</sup>.

The 2023 density values seem somewhat low, particularly when compared to the previous survey (2022) where an average density of 44 Ind./1000m<sup>3</sup> was determined.

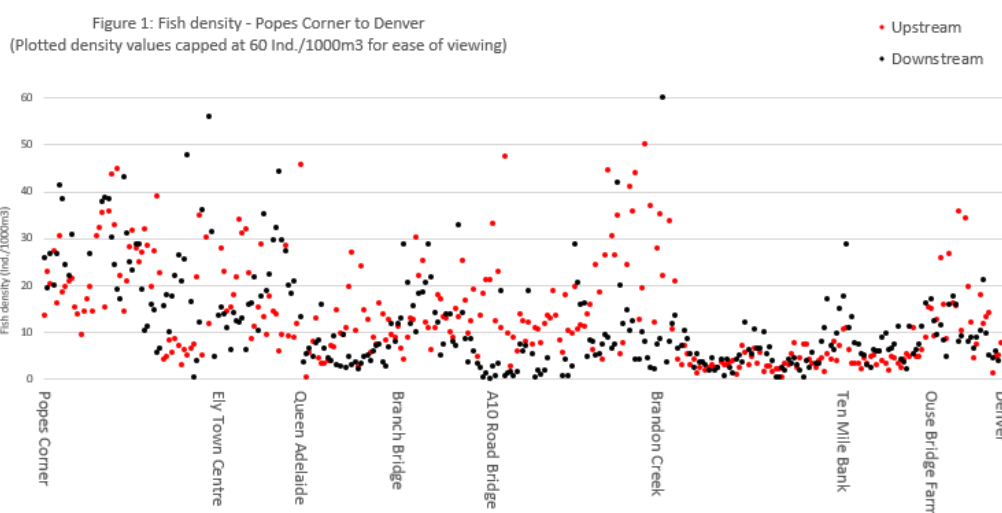
Looking at field data and environmental variables collected at the time of survey it is apparent that despite the similar timing of the 2022 & 2023 surveys (24<sup>th</sup> & 18<sup>th</sup> of May respectively), the river temperature recorded in 2023 was almost 5°C lower than during the previous survey and it is possible the unusually cool 2023 spring period had reduced fish activity and dispersal, leading to fewer fish being observed during the survey. Seine netting and match catch data that follow supports the supposition that stocks have not declined on the scale suggested by acoustic sampling.

**Table 1: Density estimates in survey reaches 1 - 3**



As the low overall density estimate seems likely to be an underestimation the results would perhaps be better used to determine the distribution of the fish at the time of survey, rather than deriving a density estimate that is comparable with the preceding survey years.

The 2023 results indicate that, at the time of survey, the most consistent fish populations were located within the upper extent of the watercourse between Popes Corner and Queen Adelaide Bridge. Fish stocks elsewhere on the river appeared to be somewhat aggregated with areas of increased density observed between Branch Bridge and Littleport, Plantation House and Brandon Creek, immediately around Ten Mile Bank Bridge, and between Ouse Bridge Farm and Denver. See **Figure 1** and **Maps 1-4**



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## Seine netting results

Site name: Little Thetford

Date of survey: 10/10/2023

Area sampled: 2541m<sup>2</sup>

Species	Minimum length (mm)	Maximum length (mm)	Average length (mm)	Number Caught
Roach [ <i>Rutilus rutilus</i> ]	52	185	113	1037
Perch [ <i>Perca fluviatilis</i> ]	45	198	91	289
Common bream [ <i>Abramis brama</i> ]	32	190	91	102
Ruffe [ <i>Gymnocephalus cernuus</i> ]	50	122	87	67
Bitterling [ <i>Rhodeus sericeus</i> ]	49	76	66	59
Bleak [ <i>Alburnus alburnus</i> ]	55	129	99	19
Rudd [ <i>Scardinius erythrophthalmus</i> ]	94	171	128	15
Zander [ <i>Sander lucioperca</i> ]	132	246	155	15
Pike [ <i>Esox lucius</i> ]	190	263	241	6
Tench [ <i>Tinca tinca</i> ]	115	459	273	3

Our survey at Little Thetford found a fish population chiefly composed of roach and over a thousand individuals were caught which measured between 52mm and 185mm in length. Roach at Little Thetford averaged 113mm long and contributed 80% towards the site density estimate of 43.5 Ind./100m<sup>2</sup> for fish >99mm. Common bream were subdominant by density with perch secondary by number caught. Both species represented 7% of the density estimate and an average fork length of 91mm.

The 2023 density estimate greatly exceeds all previous population estimates from this location, indeed, the previous highest roach population, made at this site in 1996, was around half of that derived from the 2023 with a population estimates of 21.7 Ind./100m<sup>2</sup>.

It should be noted that the 2023 density estimate is subject to some uncertainty as not all fish were processed in the same manner. Due to the large number of fish caught it was decided that fish welfare required the retention time in our keep cages should be minimised and therefore, rather than measuring every fish a representative subsample would instead be measured and the remainder would be counted back. This meant that lengths could be attributed to the 'counted' fish using the length frequency of the measured sub-sample. This subsampling was conducted in line with Environment Agency operational instruction for processing fish caught on survey.

**Figure LT2** shows the long-term density estimate from Little Thetford showing contribution by key species. Note that a number of single catch surveys are present (demarcated with an S) and these should be considered to represent a minimum estimate of density only.

The roach population at this site shows some interesting trends being fairly consistent between 2000 and 2008 with a steady decline thereafter until a resurgent population has emerged by 2017. Population growth in the upper river was noted during annual hydroacoustic sampling conducted between 2015 and 2017 and this data can be viewed as maps **LT1-3** in the conclusion of this report.

Figure LT1: Species composition by density (>99mm)

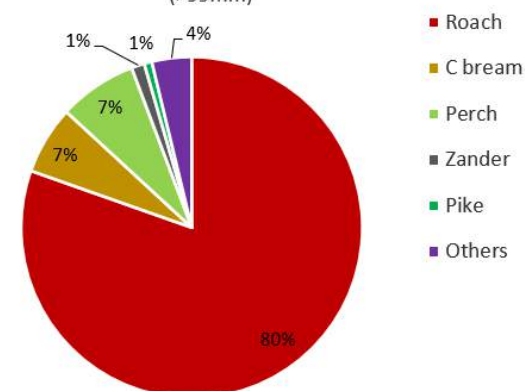
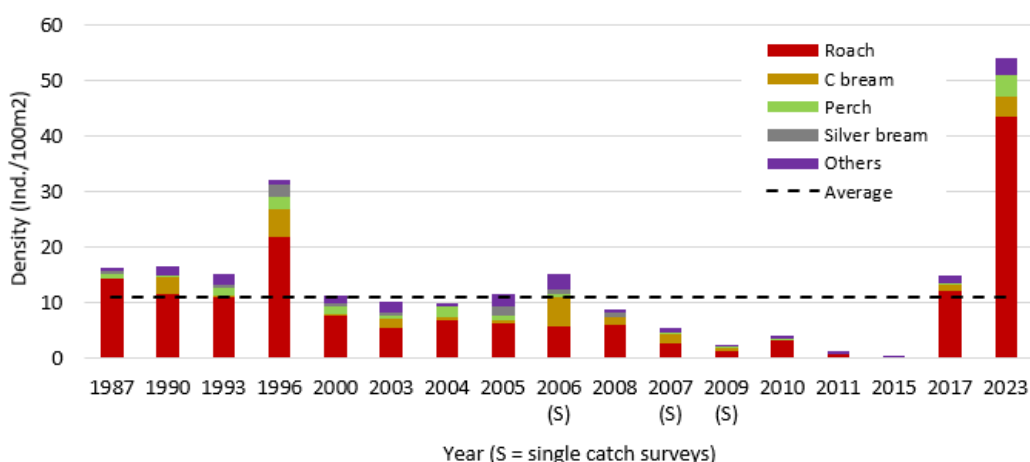


Figure LT2: Long term density at Little Thetford (>99mm)



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## Match catch analysis – upper river

We are fortunate to have been provided with match returns from numerous competitions at Little Thetford and **Figure LT3** shows the breadth of the data made available and details the number of matches and participants in each year’s dataset. It is immediately apparent that the 2022 and 2023 datasets are the largest to date at this location, indeed the number of match returns from these two years exceed the aggregate from all previous years.

Any year with fewer than five matches are not included in the analysis that follows due to the small sample size.

**Figure LT4** shows the average CPUE values from datasets which did contain five or more returns. The CPUE value is expressed as an average weight caught in grams per hour during matches in each year. These values are plotted against the A+ to D classification thresholds.

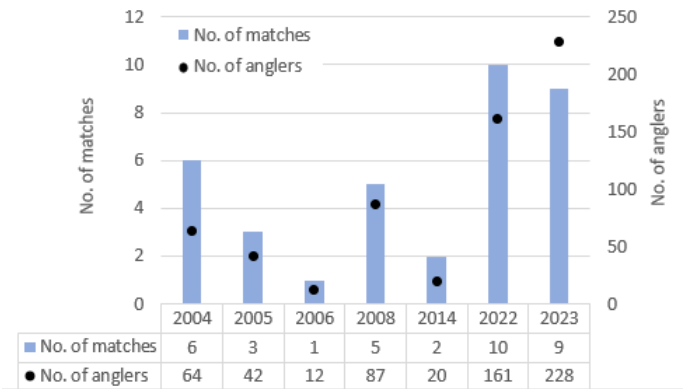
Average CPUE data from 2004, 2022 and 2023 have comfortably exceeded the highest A+ classification band (>290 g/hr), and the 2008 sits between the A and A+ value. The CPUE given is an averaged value from all of the events and as such there are some match results which have fallen into lower categories, with comments such as “river in-flood” and “strong wind” frequently accompanying the poor returns showing the influence adverse environmental conditions may have on fishery performance.

The average first, second and third weights have been increasing since 2008 **Figures LT5** with the average first place weight having doubled since 2008 which may have been due to a change in species encountered (e.g. larger species such as bream) or may suggest that the fishery had become a little more ‘peggy’ with increased stock in certain swims.

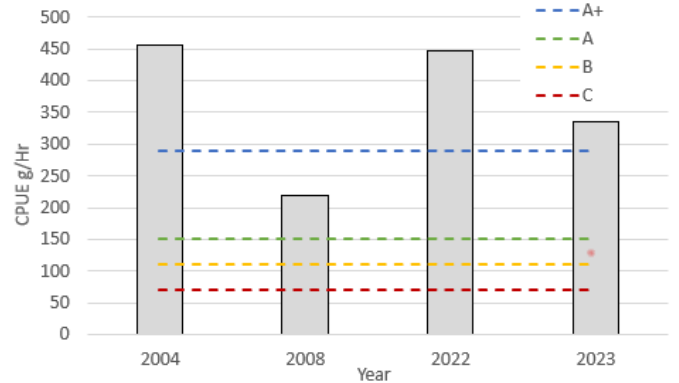
A valuable part of the match catch system is the ability to record the principal (most numerous) species caught in each event as well as the secondary species and any others encountered. At Little Thetford it is common bream and roach that have been most the most significant contributor to match weights with bleak, perch, rudd, tench and eel also caught by competing anglers.

**Figure LT6** displays principal species data expressed as the percentage of matches in each year where either common bream or roach were considered the major component of the overall catch. At Little Thetford common bream have been the primary species in 60% of matches or greater and in 2008 the species was considered the principal species in all matches fished. The 2023 dataset represents the first instance where roach have surpassed common bream, the species being considered the greatest contributor to catches in 56% of returns.

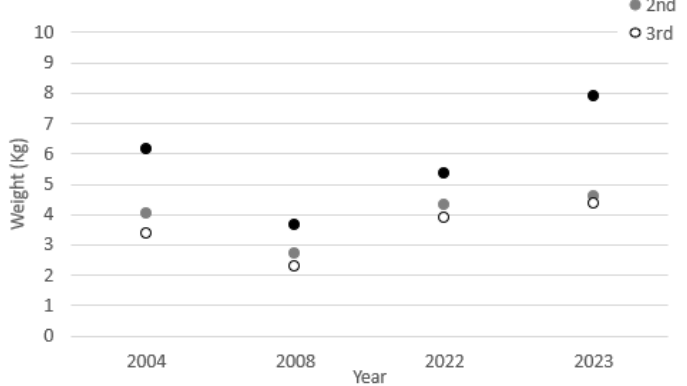
**Figure LT3:** Match catch data availability at Little Thetford



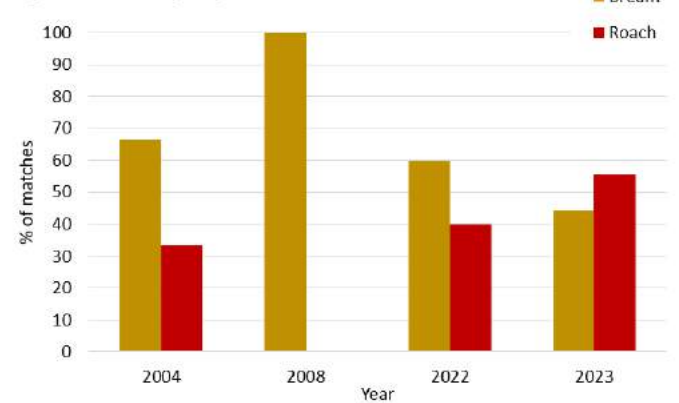
**Figure LT4:** Average CPUE (g/Hour)



**Figure LT5:** Average 1st, 2nd & 3rd weight



**Figure LT6:** Principal species 2004 - 2023



A closer look at the 2023 dataset reveals that early season matches were generally won with catches of bream, however in August this changed to a dominance of roach. This seasonal ‘species switch’ is also apparent elsewhere within the wider dataset which may suggest either seasonal species distribution, or potentially a change in angling technique, that is influencing this data. Conversation with a well-rounded member of the match angling community suggested that, as roach angling tends improve in the late summer, many match anglers will target more reliable species to accrue their match weights prior to August.

There are no great surprises in the ‘secondary species’ category with common bream and roach once again vying as dominant species; however, bleak were occasionally recorded in sufficient numbers to place within this category see **Figure LT7**.

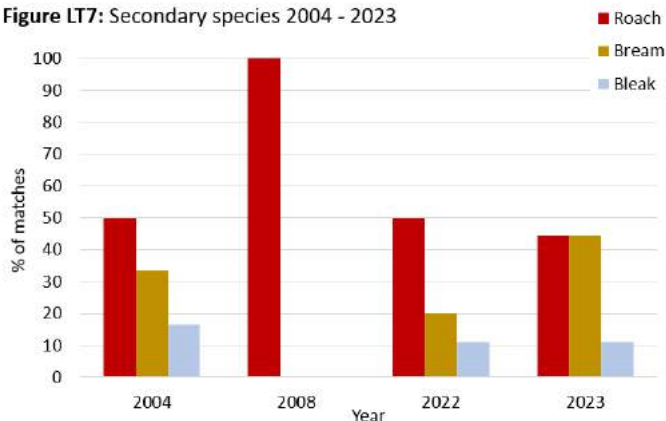
In terms of ‘other species’ present **Figure LT8** shows that bleak, perch and rudd were most frequently encountered whilst tench graced lucky angler’s nets in over 50% of matches conducted during 2022 and 2023.

Population data from our 2023 seine netting survey confirms the dominance of roach at this site and overall species composition shows close comparison to the match results with representation from common bream, perch, bleak, rudd and tench.

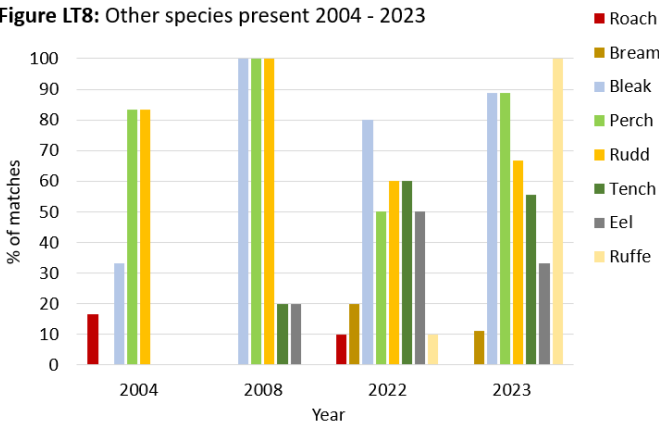
The continued A+ fishery performance (and strong 2023 seine netting result) at Little Thetford supports our theory that the density estimate derived from our May hydroacoustic survey was indeed influenced by the unusually cold spring weather, and although recent CPUE values signify a reduced weight caught per hour, this may have been due to the prevalence of bream in 2022 and roach in 2023.

**Figure LT9** displays CPUE values from all individual matches on record at Little Thetford and demonstrates that whilst some matches have proved unrewarding, the large majority of returns have sat comfortably within the A and A+ category.

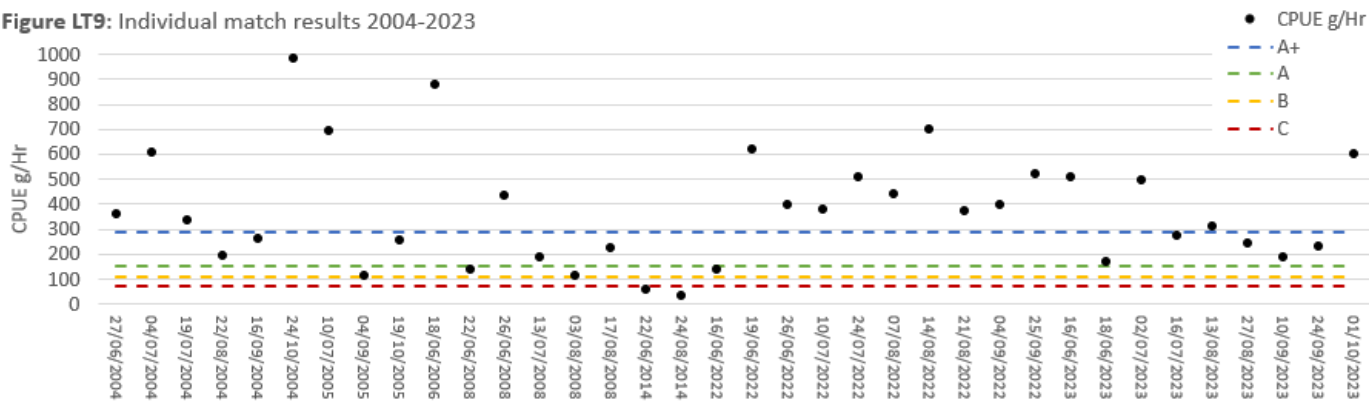
**Figure LT7: Secondary species 2004 - 2023**



**Figure LT8: Other species present 2004 - 2023**



**Figure LT9: Individual match results 2004-2023**



**Images 5-7:** Examples of match catches from Little Thetford 2023



**Site name:** Sandhills Bridge

**Date of survey:** 19/09/2023

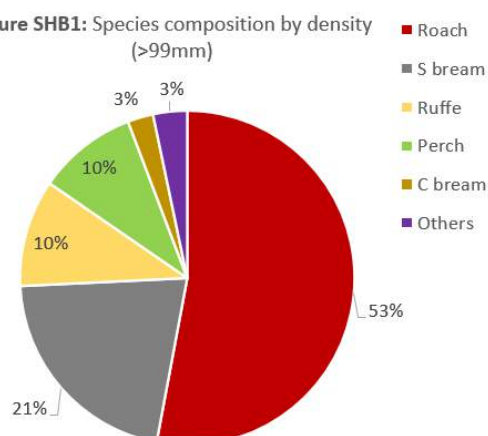
**Area sampled:** 3150m<sup>2</sup>

Species	Minimum length (mm)	Maximum length (mm)	Mean length (mm)	Numbers Caught
Roach [ <i>Rutilus rutilus</i> ]	73	263	114	450
Silver bream [ <i>Abramis bjoerkna</i> ]	56	200	130	181
Ruffe [ <i>Gymnocephalus cernuus</i> ]	47	137	92	88
Perch [ <i>Perca fluviatilis</i> ]	66	155	94	82
Common bream [ <i>Abramis brama</i> ]	60	317	147	21
Bitterling [ <i>Rhodeus sericeus</i> ]	66	88	74	13
Bleak [ <i>Alburnus alburnus</i> ]	98	139	123	7
Zander [ <i>Sander lucioperca</i> ]	125	136	129	3
Pike [ <i>Esox lucius</i> ]	206	296	251	2
Ro x cb hybrid	85	235	160	2
Rudd [ <i>Scardinius erythrophthalmus</i> ]	99	99	99	1

Heavy boat traffic meant that the 2023 seine netting at Sandhills Bridge had to be conducted as a single catch survey. Dense macrophyte growth significantly increased the time of the netting operation and disrupted navigation. The survey could not be rapidly concluded without risking fish welfare and therefore the decision was made to conduct a single catch only. This means that the survey result is likely to be an *underestimation* of the stock present.

The long-term dataset at this site is subject to some uncertainty due to poor catch depletion 2011 and 2017 and unusual length distribution between catches that led to large *overestimation* of the population. These issues would not have been apparent until long after the survey were completed and could not have been avoided by the survey team. To avoid overestimating the stock present in 2011 & 2017 the density estimates have been manually calculated using the numbers of roach >99mm (with no depletion calculation) and these results are demarked in **Figure SHB2** as a red dashed column to differentiate this from our standard data.

**Figure SHB1:** Species composition by density (>99mm)



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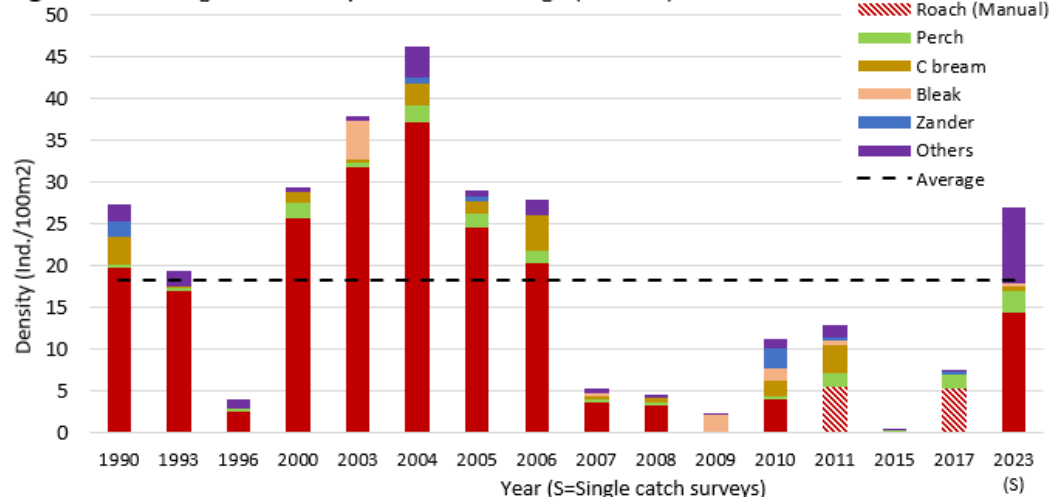
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Results from the 2023 survey show a population principally composed of roach (53% of density) with silver bream subdominant (21%) and, in a very unusual occurrence, the humble ruffe placing third with a 10% share of the density and a total catch of 88 individuals (which is surely a record for the catchment!)

**Figure SHB2:** Long term density at Sandhills Bridge (>99mm)



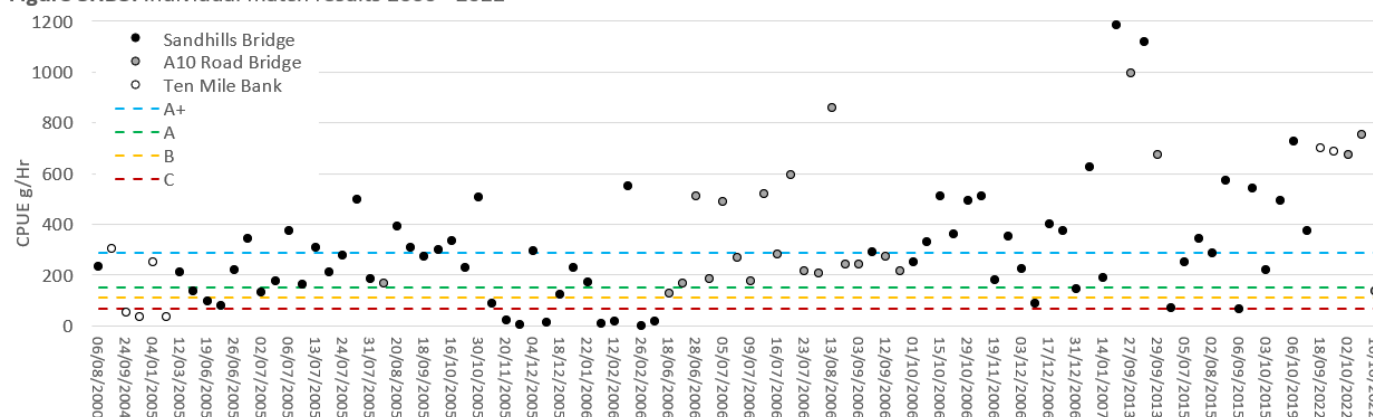
As with the Little Thetford survey, the 2023 result suggests a resurgent roach population when compared to that observed in the 2007 – 2017 period and the sites overall population density of 26.9 Ind./100m<sup>2</sup> sits comfortably above the long-term average for this location.

### Match Catch analysis – Middle & lower river

Catch returns are available from almost ninety events fished between Sandhills Bridge and the A10 Road Bridge however the majority of these are older records from 2005/2006 with just eight available from between 2018 and 2022 and nothing at all from 2023. A small amount of data is also available from Ten Mile Bank; however, this is too sparse to be viable for separate analysis and, for interest only, this has been plotted alongside the Littleport dataset. If more data becomes available, then this will be analysed separately, and in more detail, during future reports.

**Figure SHB3** shows all results collected over the past 23 years and indicates that, although sport experienced has been a somewhat mixed bag, the preponderance of results have been class A or better (77%), 11% were B & C class returns and the remaining 12% were class D of which disproportionate amount (81%) occurred between late November and March suggesting environmental conditions may have been responsible for these difficult matches.

**Figure SHB3:** Individual match results 2000 - 2022



It is also interesting to note that 90% of the class D returns were from the 2004 – 2006 period and most were winter matches at Sandhills Bridge which demonstrates that the strong roach populations observed during the summer and autumn of these years did not necessarily equate to consistent sport being enjoyed during the winter, likely due to environmental conditions and migration of stock elsewhere to overwintering areas.

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Figures SHB4 to SHB6 show species composition as recorded in matches at Sandhills Bridge. Roach are clearly the principal species caught followed by common bream which closely vied for dominance in 2007 and in a small number of instances perch and bleak were the most numerous species encountered. In terms of secondary species, roach and common bream are the most regular inclusion, however on some occasions there has been strong representation from perch, bleak and rudd whilst a small number of matches also recorded eel and tench as the secondary species caught.

Figure SHB6 displays 'other species' recorded in these matches and contains a couple of unusual inclusions, chub and dace, both species not normally associated with the Ely Ouse but each having been recorded just once during seine netting at Sandhills Bridge, three chub being found during 2005 and seven dace in 1996.

Figure ARB1 displays combined species composition values derived from all matches conducted around the A10 Road Bridge and there are no great surprises in this data with roach and common bream remaining key to accumulating match weights and lesser representation observed from tench, perch, bleak etc.

### 3. Scale reading - age and growth data

A subsample of 112 scale samples were collected during our seine netting surveys and submitted to the National Fisheries Laboratory at Brampton to determine age composition of the population and conduct growth analysis.

Scale reading found that common bream, silver bream and rudd were aged to a maximum of 6+ years old, whilst roach were aged to 8+ years old and when compared to their respective standard growth the roach, silver bream and common bream exhibited average growth with a percentage standard growth (PSG) value of 91% for common bream and roach. Silver bream were found to be growing a little faster with PSG of 101%, however the number sampled was under the threshold of statistical significance (30 individuals) and therefore the data may not be a true representative of this species overall population.

Growth data indicates that the species sampled are within their expected standards and are not being significantly constrained by the food resource available to them and it will be interesting to find whether there will be continued growth to the roach population detected in subsequent surveys.

Figure SHB4: Principal species 2006 - 2022

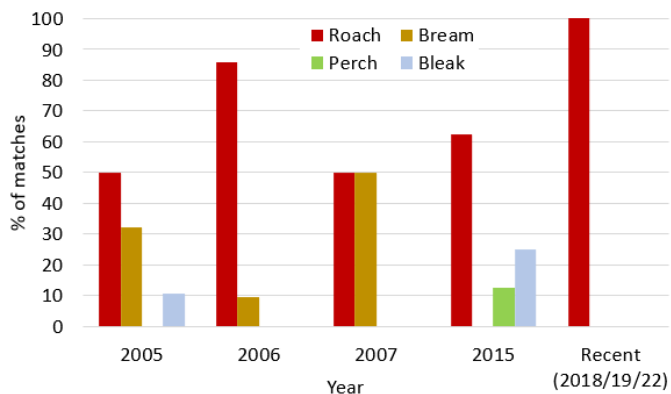


Figure SHB5: Secondary species 2006 - 2022

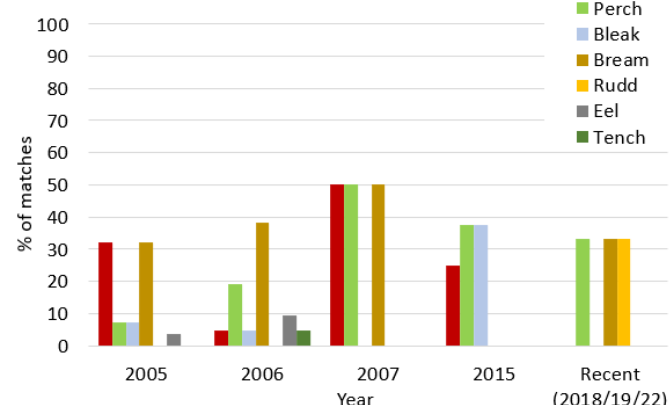


Figure SHB6: Other species present

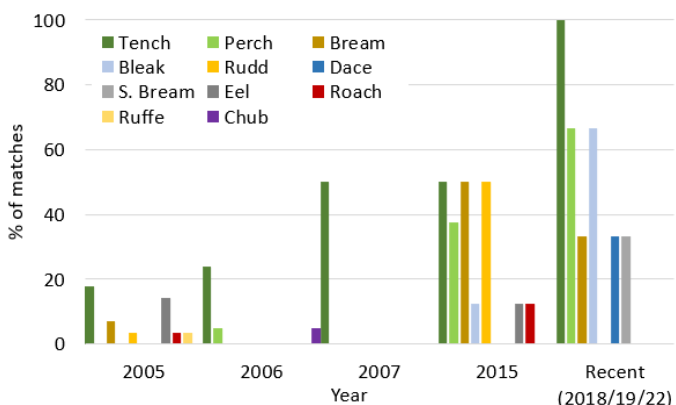
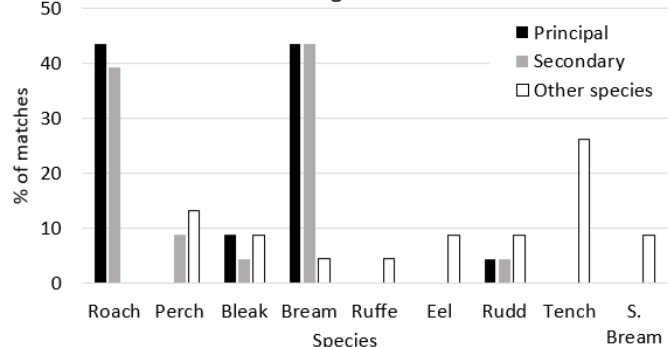


Figure ARB1: Species composition from Littleport A10 Road Bridge



## 4. Conclusions

It is hoped that this combined report will be of interest to the angling community and has adequately demonstrated the value of combining complimentary data streams to better describe a fishery, to establish distribution of stock, species composition, health and growth of key species as well as the quality of sport being experienced.

Hydro acoustic survey techniques can cover large survey areas, in this instance the whole river, and can fill in the gaps between triennial seine netting surveys, to monitor population changes between these events, for example, observing the steady population growth in the upper river around Little Thetford between 2015 and 2017 (See maps **LT1-3**). The hydro acoustic technique is not infallible though, and the use of match analysis and seine netting returns were able to sense-check the 2023 acoustic survey results and indicate that the downturn in density recorded was likely an artefact of the unusually cold spring survey period; seine netting providing a large haul of roach and match returns remaining in the A+ category, although admittedly the CPUE value was lower than the previous year.

The use of hydroacoustic survey and seine netting will continue to be our standard approach on this lowland watercourse, however if more match catch data will be made available by clubs fishing the Ely Ouse (and indeed all lowland rivers in the catchment) then it is hoped that this useful indicator of fishery performance can be a regular inclusion in these reports. A blank match return is attached at the rear of this report. The Ely Ouse should continue to offer good sport to visiting anglers and will next be surveyed by hydro acoustic sampling in 2024 and seine netting in 2026.

Justin Mould

### Analysis & Reporting

February 12<sup>th</sup> 2024

The Ely Ouse will next be sampled by:

Hydroacoustic sampling - 2024

Seine netting: - 2026

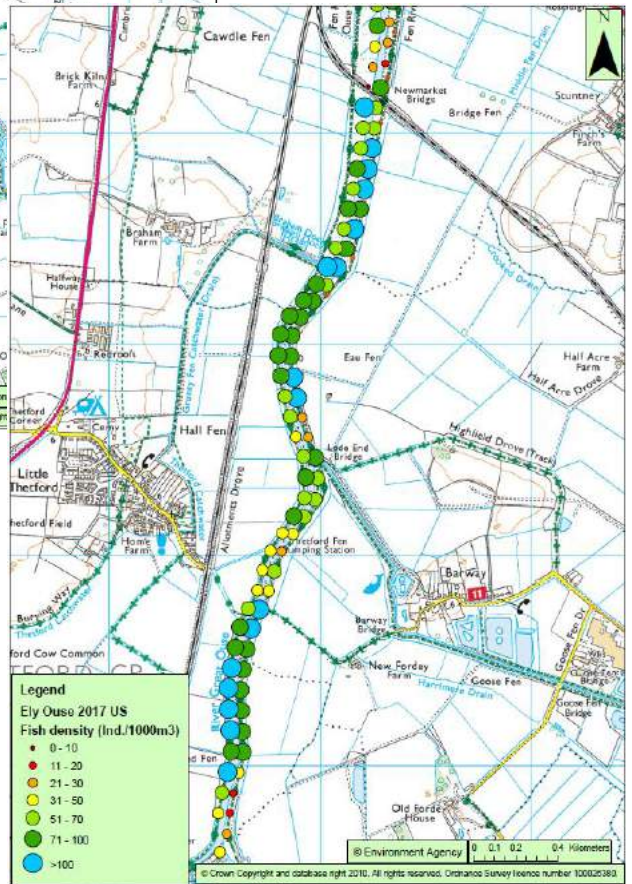
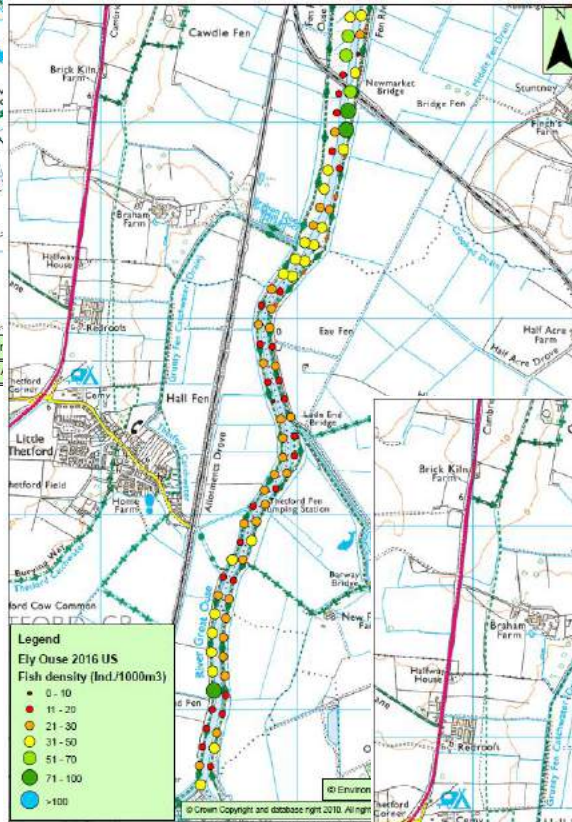
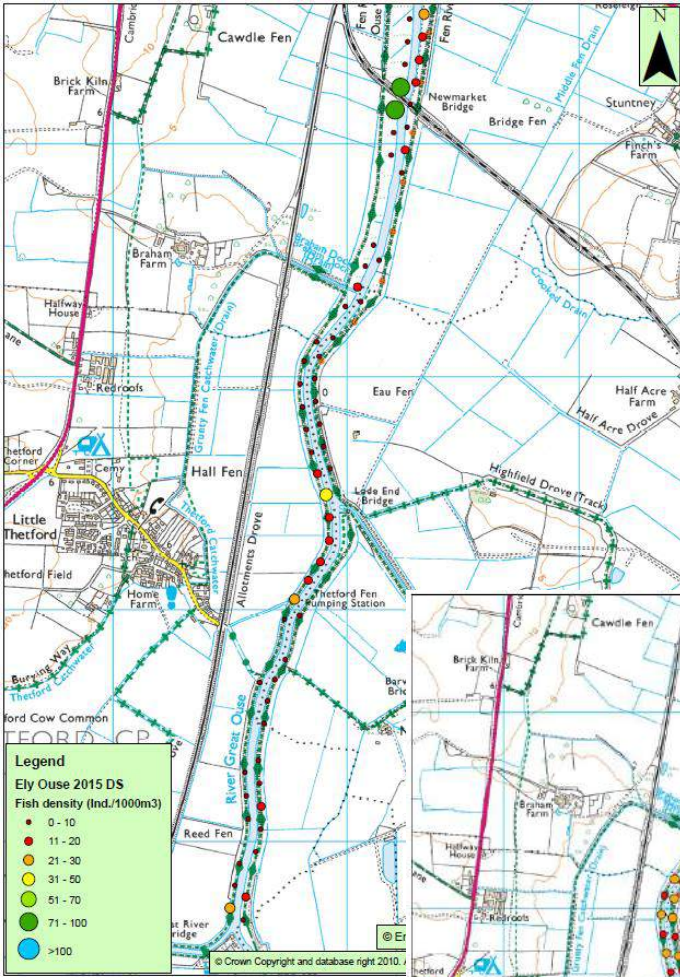
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incident hotline  
0800 80 70 60

floodline  
0345 988 1188  
0845 988 1188

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**Maps LT1-3:** Hydroacoustic survey results showing a growing fish population in the upper river between 2015 and 2017.

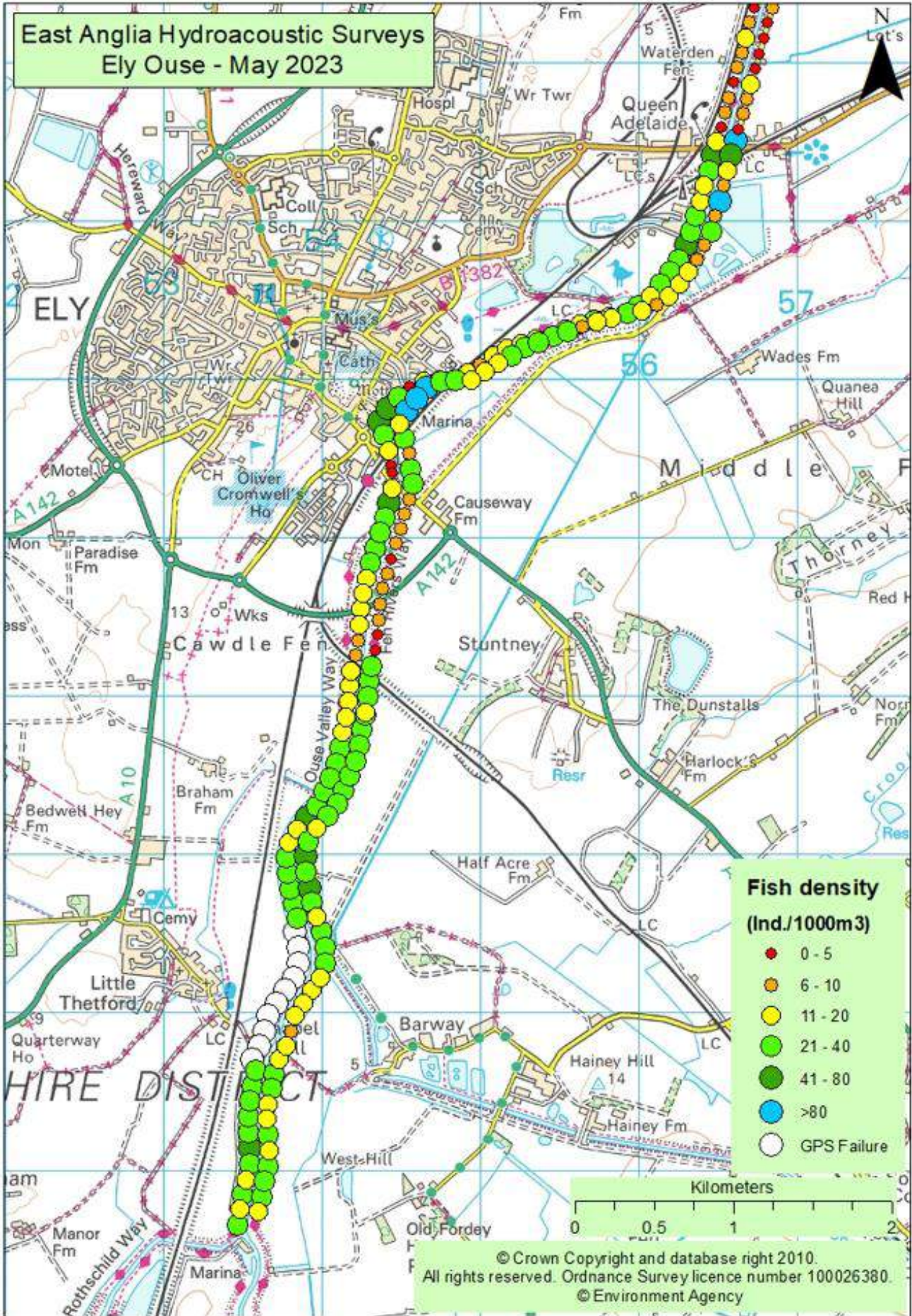


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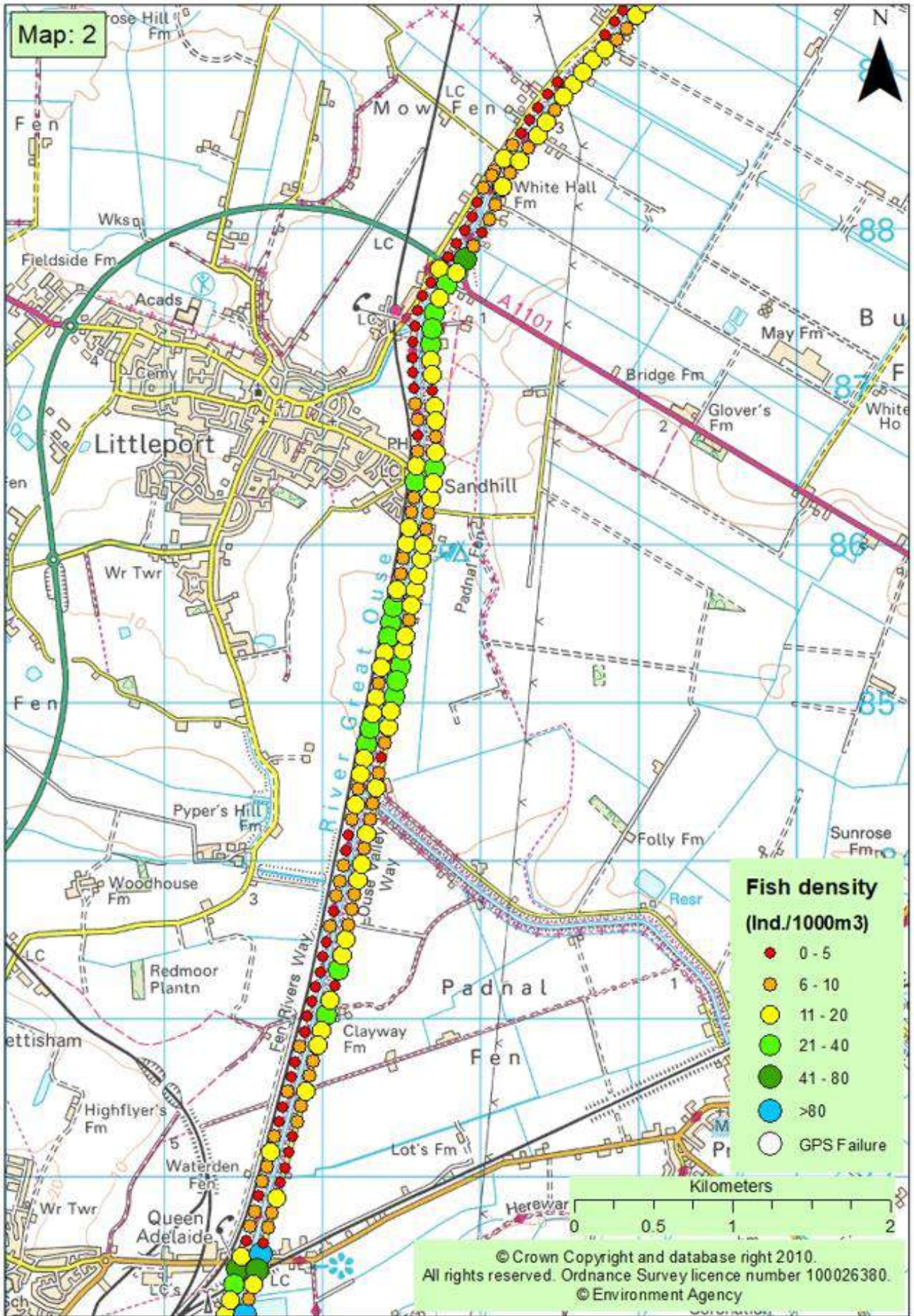


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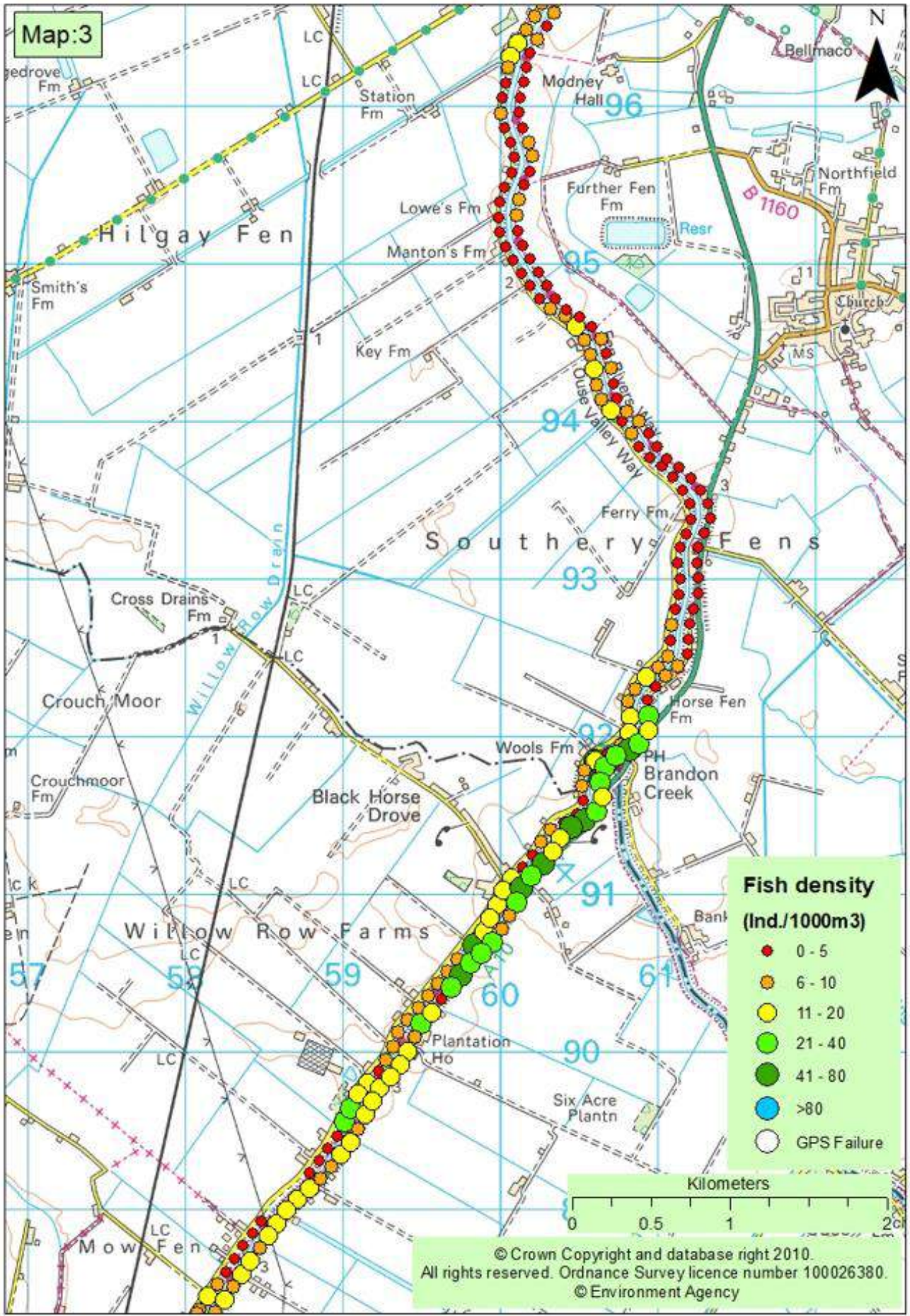


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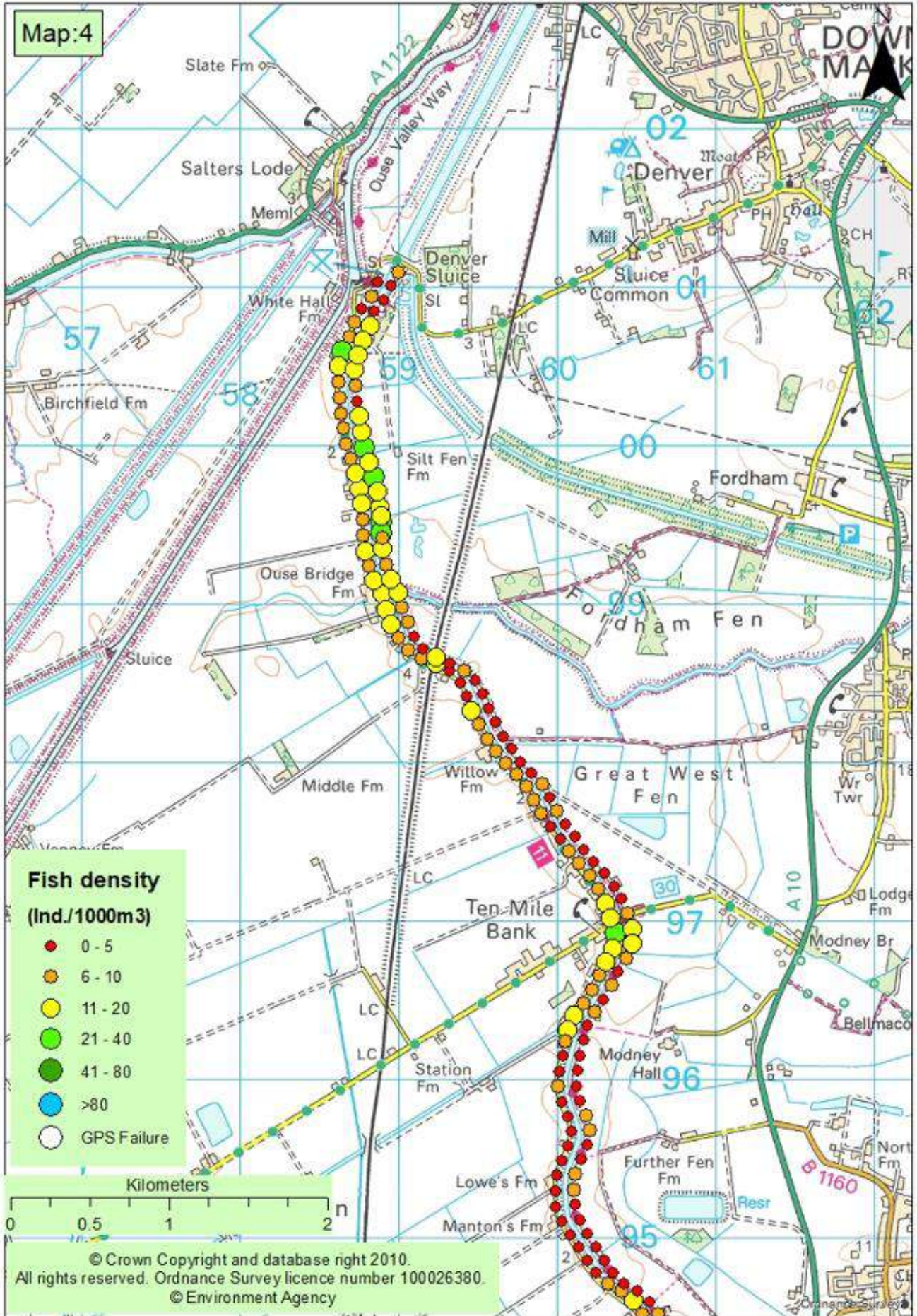


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# Environment Agency Match Record

(Please complete after each match and return by email to [chris.middleton@environment-agency.gov.uk](mailto:chris.middleton@environment-agency.gov.uk))

Name of angling club:		Date of match:	
River:		Venue:	
Section / peg fished:		Number of competitors:	
Match start time:		Match duration (hrs):	

Number of anglers weighing-in:			
Total weight caught:		(lbs/oz) or (g) <i>delete as appropriate</i>	
Winning weight:		(lbs/oz) or (g) <i>delete as appropriate</i>	
2 <sup>nd</sup> weight:		(lbs/oz) or (g) <i>delete as appropriate</i>	
3 <sup>rd</sup> weight:		(lbs/oz) or (g) <i>delete as appropriate</i>	

## Species Caught In:

Greatest number:	
Second greatest number:	
Other species present:	

## River Conditions:

Level		Colour		Condition		River Temp	
Low		Clear		Falling		Cold	
Normal		Coloured		Steady		Normal	
High		Green		Rising		Warm	

## Weather Conditions:

Brightness		Wind		Rain	
Dull		Still		Dry	
Changeable		Light		Drizzle	
Bright		Moderate		Light	
		Strong		Heavy	
				Hail	
				Sleet	
				Snow	

Any other comments:

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# STOP THE SPREAD



Are you unknowingly spreading invasive species on your water sports equipment and clothing?

Invasive species can affect fish and other wildlife, restrict navigation, clog up propellers and be costly to manage. You can help protect the water sports you love by following three simple steps when you leave the water.



**Check** your equipment and clothing for live organisms - particular in areas that are damp or hard to inspect.

**Clean** and wash all equipment, footwear and clothes thoroughly. Use hot water where possible. If you do come across any organisms, leave them at the water body where you found them.

**Dry** all equipment and clothing - some species can live for many days in moist conditions. Make sure you don't transfer water elsewhere.

For more information go to [www.nonnativespecies.org/checkcleandry](http://www.nonnativespecies.org/checkcleandry)



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