



Wye 2012 Fisheries Survey Summary

Report – TM/SE A&R/12/25

Andrew Gott

We are The Environment Agency. It's our job to look after your environment and make it **a better place** – for you, and for future generations.

Your environment is the air you breathe, the water you drink and the ground you walk on. Working with business, Government and society as a whole, we are making your environment cleaner and healthier.

The Environment Agency. Out there, making your environment a better place.

Asiantaeth yr Amgylchedd ydym ni. Ein gwaith ni yw gofalu am eich amgylchedd chi, a'i wneud yn **lle gwell** – i chi, ac i genedlaethau'r dyfodol.

Eich amgylchedd yw'r aer a anadlwch, y dŵr a yfwch, a'r ddaear y cerddwch arni. Gan weithio gyda busnesau, y Llywodraeth a chymdeithas yn gyfan, rydym yn gwneud eich amgylchedd yn ianach ac yn iachach.

Asiantaeth yr Amgylchedd. Allan yn y maes, yn gwneud eich amgylchedd yn lle gwell.

Cyhoeddwyd gan:

Asiantaeth yr Amgylchedd
Horizon House
Deanery Road
Bryste BS1 5AH
Ffôn: 0870 8506506
E-bost: enquiries@environment-agency.gov.uk
www.environment-agency.gov.uk

© Asiantaeth yr Amgylchedd

Cedwir pob hawl. Caniateir atgynhyrchu'r ddogfen hon gyda chaniatâd Asiantaeth yr Amgylchedd o flaen llaw.

Further copies of this report are available from our publications catalogue: <http://publications.environment-agency.gov.uk> or our National Customer Contact Centre: T: 08708 506506

E: enquiries@environment-agency.gov.uk.

Introduction

The temporal electrofishing programme was carried out on the Wye in 2012. This programme provides the data used in the long term trend analysis. The surveys were not carried out in 2011 to make space in the programme for the large numbers of WFD investigations.

The 2012 Wye survey programme consisted of:

- 32 Temporal salmonid surveys
- 74 surveys in the Irfon catchment as part of the Irfon SAC Project
- 7 WFD classification surveys and 1 WFD investigation in the Herefordshire area

Temporal Programme

Only 30 of the 32 temporal surveys were completed. Of those, 6 were only done as semi-quantitative surveys and cannot be used in the trend analysis. This was due to high flows and difficulty in carrying out the surveys effectively.

Key Points

Salmon

Of note in 2012 was the Ithon catchment which, from these results, shows a marked improvement in fry density. The Clywedog site recorded the highest fry numbers since the mid 1990s, and was classified as Excellent (A) for the first time in 15 years. The Aran recorded the highest fry densities since 1985 and was classified as Good (B) for the first time in over ten years. Densities on the main Ithon appear unchanged in recent years.

The upper Wye showed reduced numbers of fry, with densities at many sites lower than in recent years.

The Irfon catchment however showed a good recovery in fry after the poor year in 2011 when it is believed that the harsh winter of 2010/2011 restricted access to the upper reaches of tributaries.

As noted, the temporal programme was not carried out in 2011, however the ISAC surveys on the Irfon that year reflected a hard winter where smaller rivers froze, access for adult salmon to upper reaches of rivers and tributaries was restricted and consequently fry were absent or low in number at these sites. This is reflected in parr numbers on the Irfon where 2012 densities are generally lower than previous years. Exceptions to this are the Chwerfri and Cammarch sites. It is likely that this picture was repeated across much of the upper Wye catchment in 2011. Lower parr densities in 2012 probably reflect this at some of the upstream sites, such as the Edw, Llanwrthyl Brook, and Marteg (W096r, upstream of the waterfall at St Harmon). The exception to this was the Dernol, a small river high up in the catchment. Here parr densities were amongst the highest ever recorded at this site. The Ithon catchment sites also show better than typical densities of salmon parr.

Brown Trout

The average brown trout fry density for the Wye catchment is down compared to recent years. Evidence for this comes from most of the sites, but specifically the Lugg (W014), Arrow (W052) and Monnow (W019) where the densities were significantly lower than in recent years. The notable exceptions to this were the Bidno (W029) and the Aran (W033), which both had high densities. The Bidno trout fry densities were the highest since 2006, whilst the Aran densities were the highest recorded since monitoring started in 1985.

Densities for brown trout parr and adults were higher in 2012 on the Sgithwen and Garth Dulas, but were generally lower in many other places, notably the Lugg (W014) and Arrow (W052). The density of brown trout on the Lugg (W014) is at its lowest in twenty years - this is usually a very good site so plan to investigate this further to determine what the issue might be.

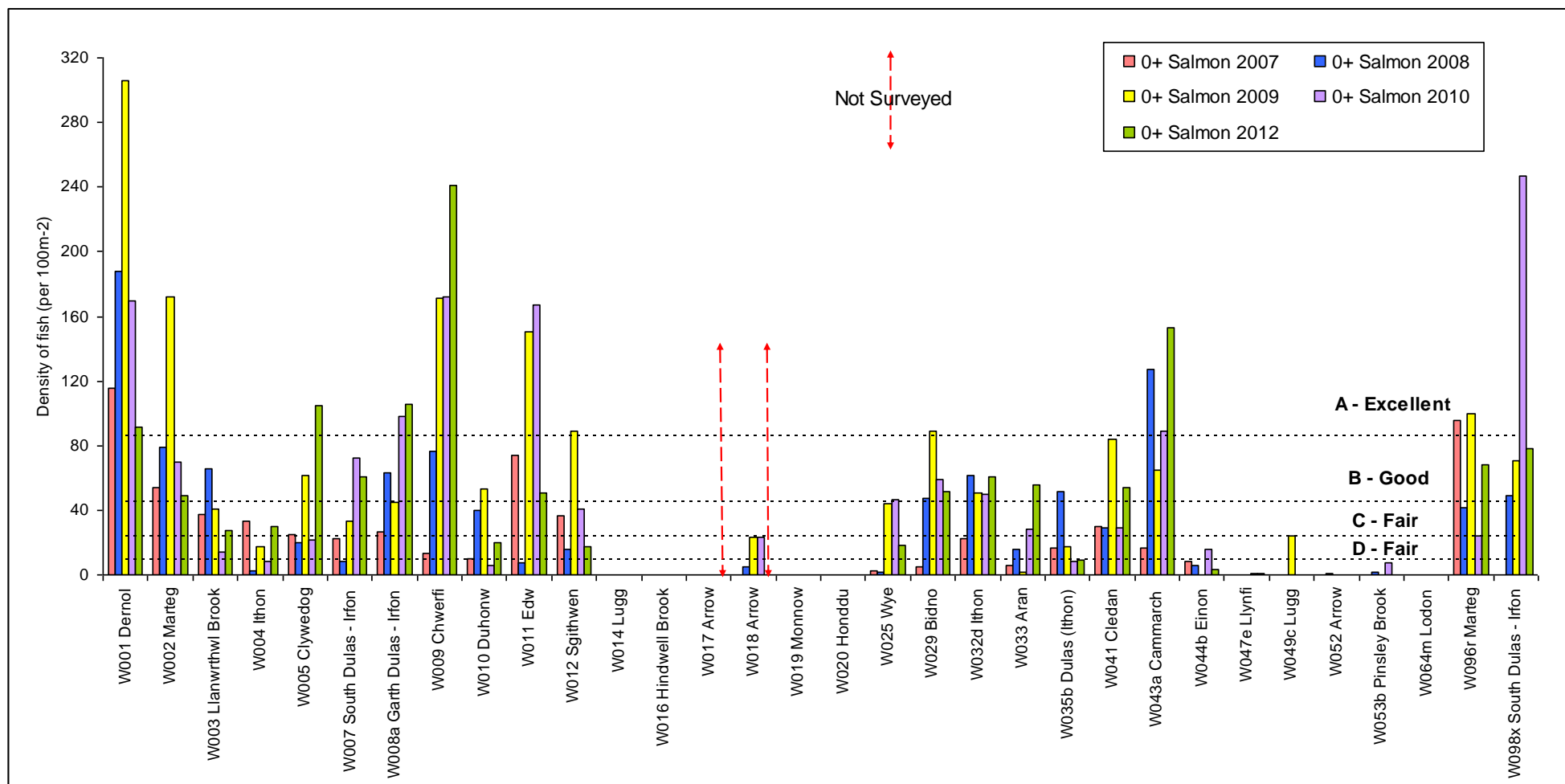


Figure 1 – Salmon fry densities at temporal Wye sites 2007 – 2012 (not including 2011 when surveys were not carried out)

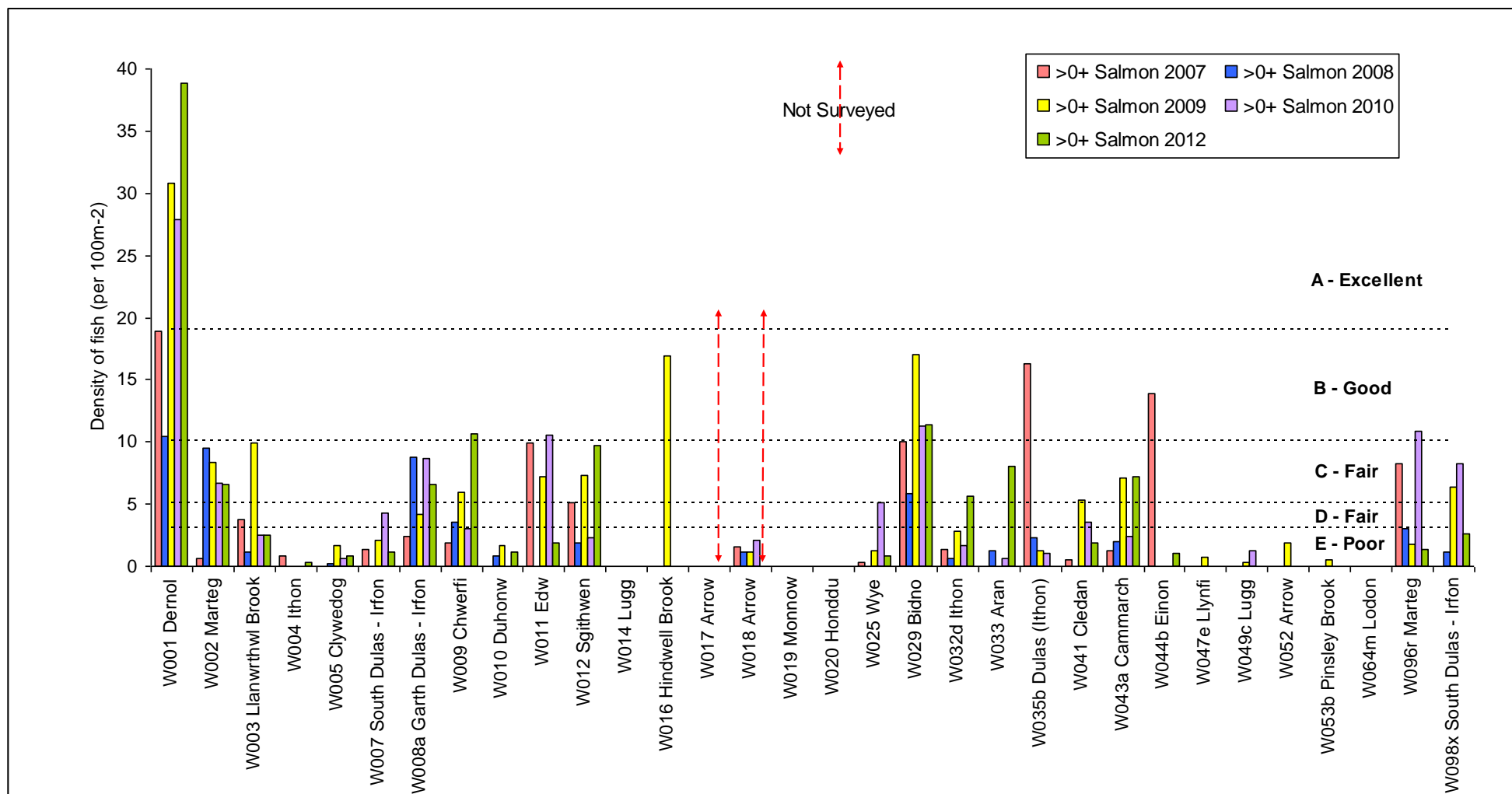


Figure 2 – Salmon parr densities at temporal Wye sites 2007 – 2012 (not including 2011 when surveys were not carried out)

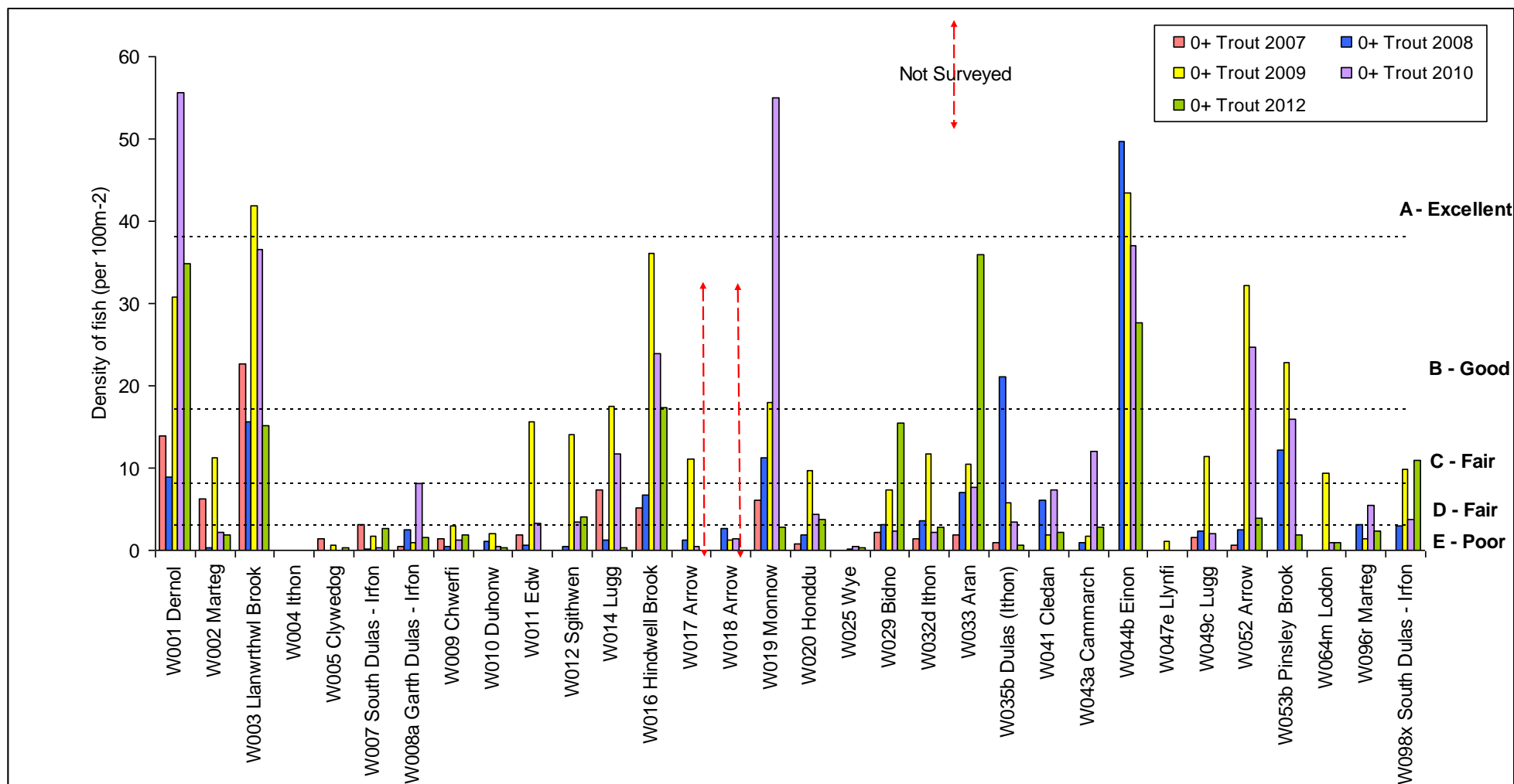


Figure 3 – Brown trout fry densities at temporal Wye sites 2007 – 2012 (not including 2011 when surveys were not carried out)

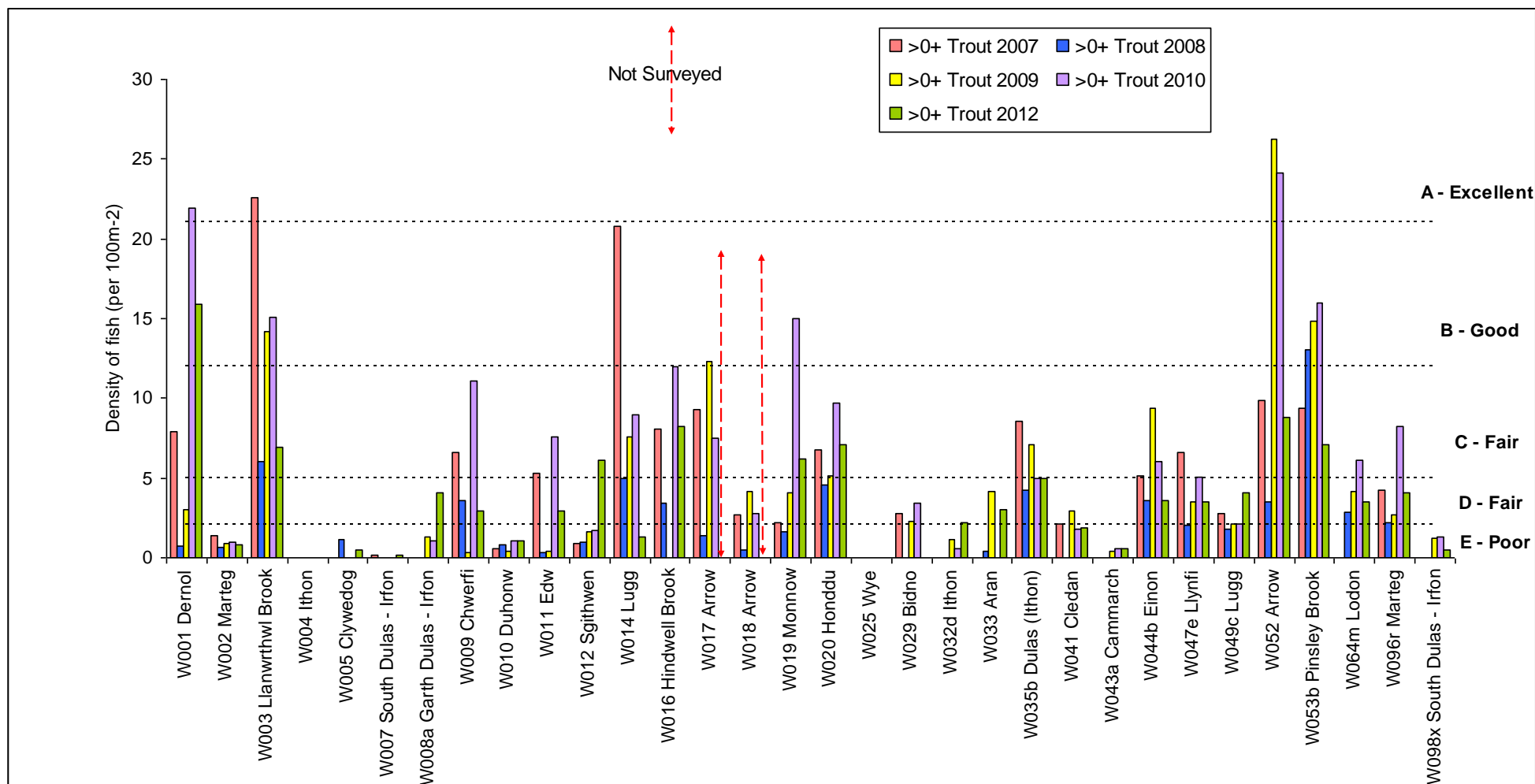


Figure 4 – Brown trout parr and adult densities at temporal Wye sites 2007 – 2012 (not including 2011 when surveys were not carried out)

Figure 5 – Classification of salmon fry in the Wye 2012

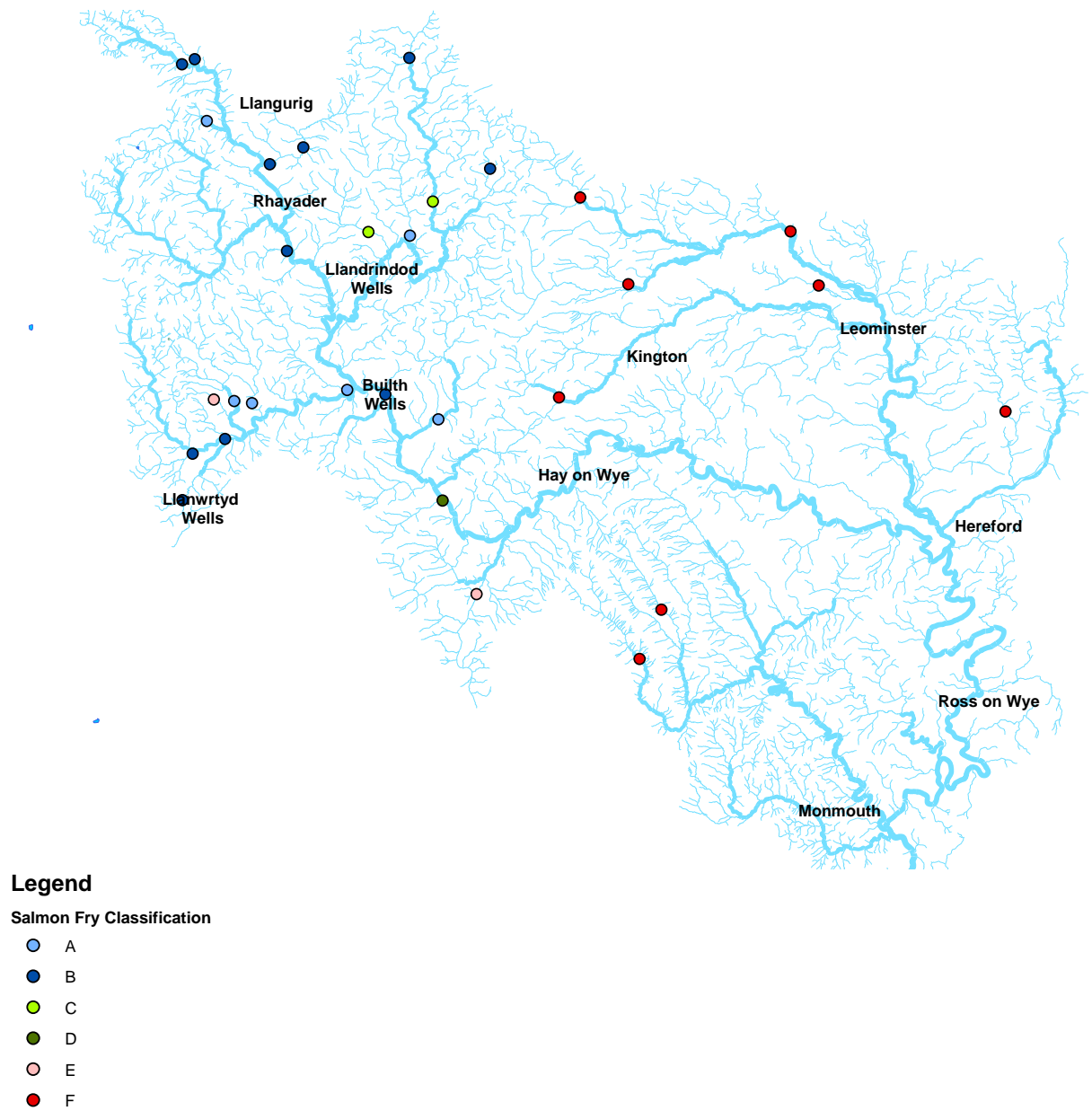


Figure 6 – Classification of salmon parr in the Wye 2012

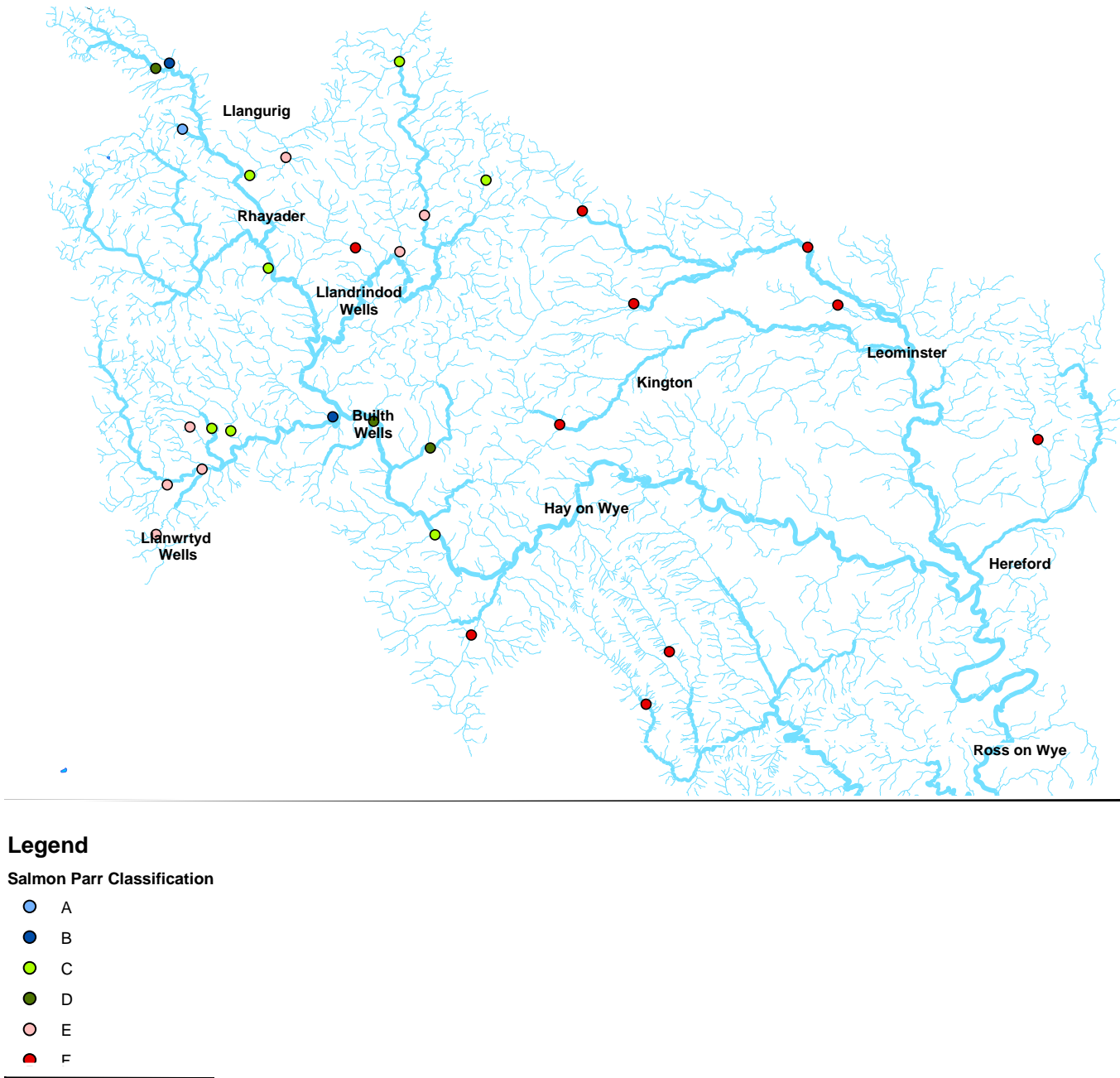


Figure 7 - Classification of brown trout fry in the Wye 2012

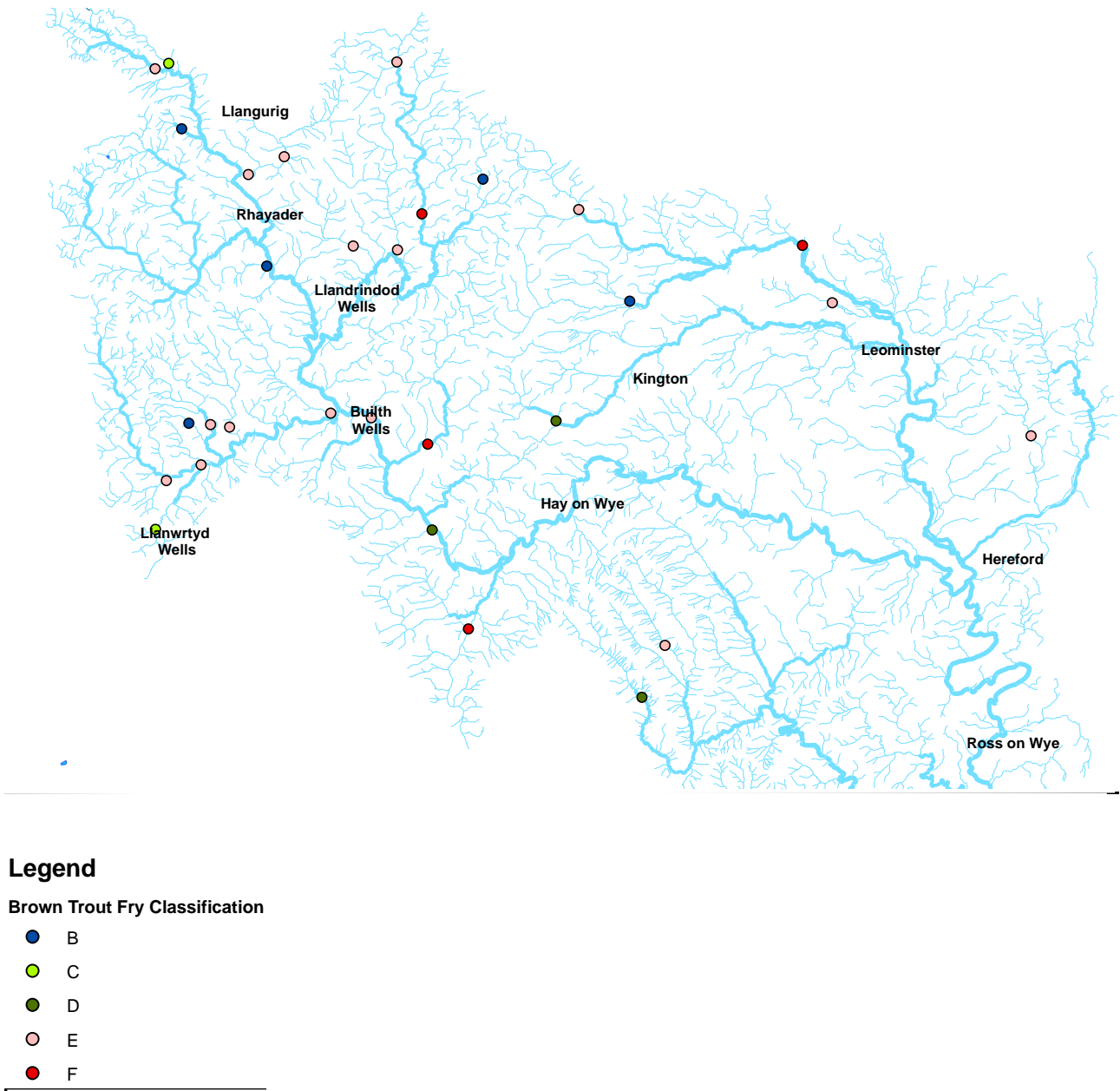
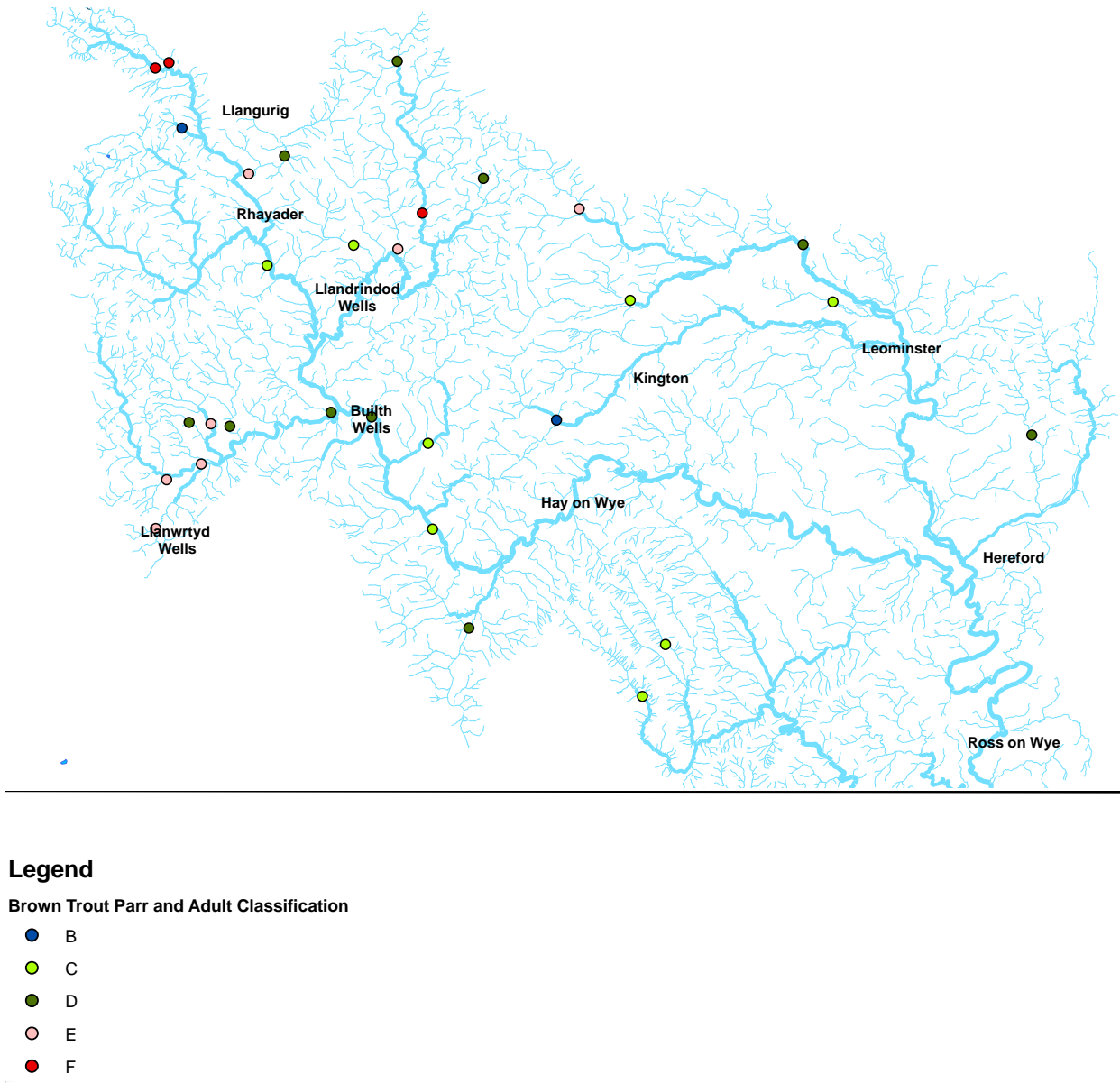


Figure 8 - Classification of brown trout parr and adults in the Wye 2012



Other Surveys

Water Framework Directive

Seven classification surveys were carried out in the Herefordshire area which will be used for inclusion in next years WFD reporting.

One WFD fisheries investigation was carried out on the Olchon Brook (water body reference: GB109055035820, the Olchon Brook – source to confluence River Monnow). This site was classified as moderate status in the 2009 classification, failure being driven by low numbers of brown trout and bullhead. (For more information about the classification of the waterbody please refer to the data review for the Olchon Brook, waterbody ID GB109055035820). W059B, at Upper Course, was also surveyed as part of the investigation.

The table below shows the numbers of fish caught at W059b in each survey run.

Species	Run 1	Run 2	Total numbers
Trout	24	11	35
Bullhead	150	53	203

The density of trout caught at Upper Course was lower than in 2008 while the density of bullhead had increased. It is unlikely the classification of the site will improve in the 2013 interim classification. We have concerns that the habitat at the site is not representative of the whole waterbody, as a large percentage of the substrate is composed of bedrock, offering limited habitat cover for trout and bullhead. We are therefore considering a further site along the waterbody to provide a more representative classification for the Olchon Brook.

A walkover survey has been carried out in the waterbody to assess habitat, migratory issues and land use to help assess the cause of failure. The survey has identified a number of measures which could improve the classification of the waterbody. The recommendations were:

1. Improve livestock management and tackle sediment sources which can impact on habitat quality downstream.
2. Future assessment of the three weirs (SO2887631650) above the sample site at Glandawr.

Irfon SAC Project

As with 2011, a total of 74 sites was surveyed this year.

Salmon fry were recorded at 50 sites in 2012. Salmon parr were recorded at fewer sites than in 2011 (41 in 2012, 47 in 2011). Overall, the salmon classifications for 2012 are lower than last year (C or below).

The main observation in 2011 was the lack of salmon fry in the upper reaches of the tributaries. None were recorded at the top sites on the Chwerfri, Garth Dulas (and Cyfyng), Einon and the Cledan, and significantly poorer densities were noted at the top of the South Dulas. This is attributed to very heavy frost and snow during the previous winter which is believed to have prevented adult salmon from reaching these upper spawning grounds.

In 2012 salmon fry were found at most of the sites in the upper reaches of these tributaries, the only exception to this being the Cyfyng.

The absence of fry at several sites in 2011 has clearly resulted in low parr numbers in 2012.

Of note were four sites, W008a on the Garth Dulas, W009 on the Chwerfri, W043a on the Cammarch and W043b on the Cammarch, which all had very high numbers of salmon fry.

Survey sites on the Cloddiad and main Irfon above the waterfall at Devils Staircase, showed an ongoing absence of fish. Further survey sites on these upper reaches may be carried out in 2013.

There was again no record of eels from any site.

The ISAC project is an EC LIFE+ coordinated by the Wye and Usk Foundation and is supported by the Environment Agency Wales, the Countryside Council for Wales, the National Museum Wales, and the Rivers Trust.



ASiantaeth Yr
Amgylchedd Cymru
ENVIRONMENT
AGENCY WALES

