



# **Coarse fishing close season on English rivers - public consultation report**

January 2019

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# Foreword

We are consulting on the future of the coarse fishing close season on rivers in England.

The coarse fishing close season dates back to 1878. Its primary purpose was to protect coarse fish stocks from excessive exploitation and was set to coincide with the time that they spawn. The evidence behind the start and end dates was fairly sparse in the 19th century. Nevertheless, while some coarse fish spawn as early as February and others as late as August, the three months from 15 March to 15 June fit fairly well with the period when most coarse fish species spawn in most rivers in most years.

The close season has seen various changes in the intervening years, notably being removed from most stillwaters in 1995 and most canals in 2001. Where it remains, on rivers and some canals and stillwaters, the dates remain the same. The 14 March and 16 June remain significant dates in the coarse fishing calendar.

Whether these dates are the best fit and if the close season is actually necessary to protect stocks has been hotly debated in recent decades. There are strongly held views in favour of retaining, removing and changing the close season. The Environment Agency's view has been that any proposed change must be based on sound scientific evidence. In the absence of such evidence we have adopted the precautionary principle and retained the current close season.

Thanks to the work of the Environment Agency, Angling Trust and Institute of Fisheries Management study group, we now have a better understanding of the available evidence. Further studies might shed more light, but these would take a lot of time and a lot of money and still may not provide the conclusive evidence needed to support a confident decision.

We encourage you to read the evidence and use this consultation as an opportunity to have a meaningful debate.

## **Kevin Austin**

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# 1. Introduction

## 1.1. What this consultation covers

We are consulting on the future of the statutory coarse fishing close season on rivers in England.

This consultation covers England only.

We are not consulting on the close season on stillwaters. Nor are we consulting on the close seasons for salmon or for trout.

We have provided three options for discussion:

- retaining the current statutory coarse fishing close season on rivers
- removing the statutory close season
- retaining a statutory close season, but starting on 15 April and ending on 30 June

If, as a result of this consultation, we agree to make new close season byelaws, this will happen during 2019. We must advertise any new byelaws, to give people the opportunity to object (or support) the proposals, before we apply to Ministers for confirmation.

## 1.2. Why we're consulting

The river coarse fishing close season has been long debated. There are strongly held views in favour of retaining, removing and changing the current byelaw, but a clear desire to introduce further evidence into the issue.

Along with the Angling Trust and the Institute of Fisheries Management, we set up a study group to examine the evidence on the close season on rivers. Although there is no conclusive evidence supporting a case to either retain or remove the close season, the group has collated considerable available information on the risks of fishing and the close season.

From a 2018 survey of anglers' opinions, we know:

- 43% of anglers support retaining the current close season
- 17% support retaining a close season, but changing the dates
- 33% support removing the close season
- the remainder are undecided

The Environment Agency's position has been to take a precautionary approach towards rivers and retain the current close season. However, our evidence review has shed more light on the relative level of risk associated with changing or removing the close season. Through this consultation we want to listen to the views of all those with an interest in coarse fish and fisheries - angling clubs, fishery owners, angling representatives and conservation bodies, and receive any additional evidence that they can provide before we decide whether there is a case for change. We also want to understand the implications of retaining, removing or changing the close season on angling participation and on angling-related businesses.

Through this consultation we want to:

- fully engage with stakeholders who have an interest or involvement in coarse fisheries management

- summarise and present the available scientific and other evidence around the coarse fishing close season
- present three options for future close season regulation and describe possible risks and benefits
- seek views on the options from those who would be affected by or have an interest in them, where possible, supported by evidence
- seek feedback on the social and economic benefits of retaining, removing or changing the close season, to help us understand the likely impacts (positive and negative) on angling and angling-related businesses
- understand from different peoples' perspectives, the likely impacts and benefits of the options presented to other fisheries and wildlife, and the wider environment

### 1.3. Who we're consulting

This consultation will be of interest to anyone who fishes for coarse fish in England or who has an interest in coarse fish stocks or fisheries, including:

- anglers
- fishery owners and managers, including angling clubs
- businesses that support, or are supported by, coarse angling
- fisheries and angling organisations
- other conservation organisations and non-governmental organisations such as Rivers Trusts and Wildlife Trusts
- government agencies and authorities including Natural England, Natural Resources Wales and local authorities
- the public.

### 1.4. How to respond to this consultation

#### How we will use your information

After the consultation closes, we'll publish all comments we receive online or by email, post or fax on our website – unless you've requested we keep your response confidential. We will also publish the names of the organisations of those who have responded, but we won't publish any personal data that could reveal your identity (this includes your name or information within your response).

After the consultation closes, we'll also publish a summary of responses on our website. As above, this summary will include the names of organisations, but not individuals. We are unable to respond to individual comments.

In line with the Freedom of Information Act 2000, we may be required to publish your response to this consultation, but will not include any personal information. If you've requested confidentiality, we may still be required to provide a summary of it.

#### Privacy Notice

If you respond to this consultation, we will ask you for your email address. This allows us to email you an acknowledgement when you submit your response. Also, by providing us with your email address, you consent for us to let you know when the consultation summary responses document has been published.

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**Code of Practice on Consultation**

This consultation follows the government's Consultation Principles. If you have any queries or complaints, please email [emma.hammonds@environment-agency.gov.uk](mailto:emma.hammonds@environment-agency.gov.uk) or write to:

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## 2. Background

There is an annual coarse fishing close season on all rivers, some canals and some stillwaters in England from 15 March to 15 June (inclusive). It covers the time during which the majority of coarse fish spawn.

The current season dates were set in 1878, a time when most coarse fish were caught and killed. Coarse angling is now almost exclusively catch and release, and byelaws prohibit anglers from taking more than a specified number of fish.

The Environment Agency removed the close season from most stillwaters in 1995 and from most canals in 2000. We retained it on rivers. Our position has been that any proposal to remove the close season from rivers must be based on sound science. At that time such evidence was not available. The background to the coarse fishing close season on different waters is provided in Appendix 1.

During 2015 to 2017, we worked with the Angling Trust and the Institute of Fisheries Management to understand the evidence around the close season. This study concluded that:

- Overall, our current evidence of the impact of angling on spawning/recently spawned coarse fish remains incomplete. However, a review of the scientific literature, in particular on the spawning behaviour of dace, pike and grayling, as well as the views of coarse fisheries experts, significantly adds to our understanding.
- There is no reported evidence of detrimental impacts on fish or fisheries where the close season has been removed or shortened (either in England or in other European countries). However, there is also an absence of studies to investigate these risks.
- Further research can add to our understanding, but this would require significant investment in money and time, and would still leave a degree of uncertainty.
- Regardless of whether angling during the close season impacts on coarse fish, the level of impact in most rivers is unlikely to be detectable against wider environmental factors. It may be more apparent in smaller rivers with more sensitive species.
- The evidence collated through this study provides a better understanding of the possible and perceived impacts on stocks and fishery performance than we've had previously.

We agreed with England Fisheries Group that, given the proportion of anglers in our latest survey who supported a change in the existing close season, we should undertake a wider public consultation.

### 2.1. The legal framework

The Environment Agency can make close season byelaws under the [Water Resources Act, 1991](#) to protect fish stocks and fisheries. We must advertise any new byelaws before we can apply to the Secretary of State for Environment, Food and Rural Affairs for confirmation. The Secretary of State must be satisfied that the byelaws are necessary and that we have considered any objections. The Secretary of State can amend a byelaw before confirming it. The current close season byelaw is included in Appendix 1.

Under the [Conservation of Habitats and Species Regulations 2017](#), we are obliged to consider any proposed new byelaws for their potential risks to protected sites of European conservation importance (Special Areas of Conservation and Special Protection Areas). We have [similar duties](#) in respect of protected nationally important sites (Sites of Special Scientific Interest). If we cannot demonstrate that changing or removing the close season



from particular sites will not have an adverse effect on integrity of Special Areas of Conservation and/or Special Protection Areas, or is not likely to damage SSSIs, we may need to amend the proposal or retain the current close season for these sites. We can also make fisheries byelaws to specifically prevent harmful angling practices affecting wildlife.

[Section 2 of the Salmon and Freshwater Fisheries Act, 1975](#), is also relevant to the close season. This makes it an offence to 'knowingly' take, kill or injure (or attempt to take, kill or injure) any freshwater fish that are about to spawn, have recently spawned and have not recovered from spawning. It is also an offence to 'wilfully' disturb spawning fish or spawning grounds. Regardless of any change to the close season, these offences will remain.

Fishery owners can make their own fishery rules in addition to Environment Agency byelaws. They cannot dis-apply byelaws from their waters.

## **2.2. The rest of the United Kingdom**

The Environment Agency covers England only. We have no jurisdiction in Wales, Scotland (except for the Border Esk) or Northern Ireland.

While this consultation does not cover the coarse fishing close season in Wales, because we share the fisheries management of three rivers that cross the England-Wales border (the Severn, Wye and Dee) and because the rod licence covers fishing in England and Wales, we have kept our colleagues in Natural Resources Wales aware of developments in England. If, as a result of this consultation, we agree to make new close season byelaws, we will work with Natural Resources Wales on arrangements for these border rivers.

## 3. Options for future close seasons

We are consulting on three options:

- retain the current statutory close season
- remove the statutory close season
- retain a statutory close season, but change the start to 15 April and the end to 30 June.

### 3.1. Retain the current statutory close season

This option would retain the current statutory close season on rivers in England.

The close season runs from 15 March to 15 June (both dates inclusive).

Fishery owners can extend (but not shorten) the close season through their own fishery rules. They would be responsible for enforcing an extended close season.

From the 2018 survey of anglers' opinions, 43% of anglers support retaining the current close season.

### 3.2. Remove the statutory close season

This option would remove the statutory close season altogether.

River fishery owners would be able to impose and enforce their own fishery rules to retain the current or a different close season on their waters.

From the 2018 survey of anglers' opinions, 33% of anglers support removing the close season.

### 3.3. Retain a statutory close season, but change the start and end dates

This option would retain a statutory close season, but change the start to 15 April and the end to 30 June. These dates have been proposed by the close season study group, based on the available scientific evidence and professional judgement of members of the group. More detail is provided in [Section 9.3 below](#).

Fishery owners could adopt and enforce additional rules if their waters require additional protection.

From the 2018 survey of anglers' opinions, 17% of anglers support changing the close season (in that survey, a close season running from 15 April to 30 June was provided as an example).

**We would like to know your preferred option for future close season regulation. Please refer to the questions in Section 1 of the response form.**

## 4. Risks to coarse fish

Our principal concern is to make sure any change to the close season would not put fish populations, the fisheries they support and other wildlife at undue risk. In preparation for this consultation we have collated evidence on the potential risks.

To better understand the potential impact of changing or removing the close season on fish, the close season study group collated available scientific evidence and other information on the coarse fishing close season and the impact of angling, in particular on spawning (including pre- and post-spawning) coarse fish. The group also considered whether any additional studies might realistically add to this evidence, but did not carry out any further research itself.

Angling activity can pose incidental risks to the wider environment, including disturbance and damage to wildlife and habitats. To an extent these are mitigated by fisheries byelaws, including the close season, and fishery rules. The study group did not examine these risks in relation to the close season. The Environment Agency has separately examined existing evidence on the migration and feeding behaviour of salmon smolts, to allow some consideration of the risk to salmon stocks.

### 4.1. Coarse fish spawning times

Although spawning times vary between rivers and from one year to the next, coarse fish are known to spawn at any time between February and August. Dace, pike, perch and grayling are the earliest spawners, with a range of species spawning later in the close season. However, peak spawning by most species occurs during April, May and June. The current close season is a good fit for spawning times by most species in most rivers in most years. Spawning times for most coarse fish species are shown in Figure 1.

Species	Common name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<i>Anguilla anguilla</i>	European eel				Spawns at sea					
<i>Abramis brama</i>	Common bream				2	1	1	2		
<i>Alburnus alburnus</i>	Bleak				1	1	1	2		
<i>Barbus barbus</i>	Barbel		2		1	1	2	2		
<i>Blicca bjoerkna</i>	Silver bream					1	1	2		
<i>Carassius carassius</i>	Crucian carp				2	1	1	2		
<i>Cyprinus carpio</i>	Common carp					1	1	2		
<i>Esox lucius</i>	Pike		2	1	1	2				
<i>Gobio gobio</i>	Gudgeon				2	1	1	2		
<i>Gymnocephalus cernua</i>	Ruffe			2	1	1	2	3		
<i>Leuciscus leuciscus</i>	Dace		2	1	1	2				
<i>Perca fluviatilis</i>	Perch		3	2	1	1	2	3		
<i>Rutilus rutilus</i>	Roach			2	1	1	2			
<i>Sander lucioperca</i>	Zander			2	1	1	2			
<i>Scardinius erythrophthalmus</i>	Rudd			2	1	1	2			
<i>Squalius cephalus</i>	Chub			2	1	1	1	2		
<i>Tinca tinca</i>	Tench				2	1	1	1	2	
<i>Thymallus thymallus</i>	Grayling			1	1	1	2			

  

Key	1	Peak spawning	Data source – spawning tables from fishbase.org
	2	Occasionally spawns	
	3	Rarely spawns	

  

Close season 15 March to 15 June	
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Figure 1 Coarse fish spawning times

### 4.2. Close seasons in other European countries

Most European countries have close seasons for coarse fish. However, the start and/or end dates and the species covered are different to the close season in England. Notable differences are Belgium, where the close season only applies to some protected rivers, and the Republic of Ireland and Northern Ireland, which have no close season, but do restrict coarse fish removal. European close seasons are summarised in Appendix 2.

### 4.3. Expert panel risk assessment

To complement other evidence, we invited a number of fisheries professionals, comprising coarse fishery scientists and managers to use their professional judgement to assess risks associated with removing the close season. We also invited members of the study group to do the same. We asked them to assess the perceived impacts of angling during the close season on each of the main coarse fish species - roach; bream; perch; chub; barbel; pike; dace; and grayling - and in different fishery types.

The key conclusions are:

- barbel, chub, grayling, dace and pike are perceived to be the most sensitive species. The least sensitive are perceived to be roach, perch and bream.
- the highest perceived risks are increased mortality and reduced spawning success due to catching and handling fish during the spawning season, and disturbance of spawning aggregations (the last of these is skewed towards certain species, including dace and barbel).
- impacts are generally considered to be greater in smaller rivers/upper reaches, where populations of the species of concern are present.

More detail of the risk assessment can be found in Appendix 3.

**We are particularly interested to hear from anglers and fishery owners whether they share these views and of any additional evidence. Please refer to the questions in Section 2 of the response form.**

### 4.4. Review of available scientific literature

The group collated available scientific reports on angling exploitation; fish spawning; fish feeding behaviour; fish survival post-catch and release; and other related topics. Where possible, these focussed on coarse fish. The findings of over 20 papers (from an initial collation of over 260) were summarised in our literature review.

Given one of the options under consideration includes postponing the start of the close season, we have separately reviewed and reported the available evidence on feeding and spawning behaviour of the principal early spawning species - dace, pike and grayling.

These reports can be read in full in Appendix 4a to 4c, but a summary of each is provided below.

#### 4.4.1. Angling and stress

- The direct effects of angling on non-spawning fish are well documented. Although, there are few studies on UK coarse fish, there are enough on other species to make a general inference.
- Larger fish fight harder, so are more likely to suffer from the symptoms of exhaustive stress and typically have a higher mortality risk compared to smaller fish.
- Under certain conditions, fish may face additional environmental and physiological stressors which can act cumulatively and raise their overall mortality risk. Angling related stress and mortality are compounded by elevated water temperatures and exposure to air when fish are caught and released.

#### 4.4.2. Seasonal differences in fish physiology

- Fish (not specifically coarse fish) are subject to increased stress levels during the breeding season, as a result of behavioural, hormonal or other physiological changes.

- Post-spawned Atlantic salmon (kelts) survived being caught and released, and had a reduced stress response compared to freshly run fish. This may be because kelts have very low energy reserves, and cannot put up much of a fight, which may contribute to the apparent reduced stress response compared to harder fighting fresh run salmon. This raises questions around the fighting capacity of spawning coarse fish, and their stress response to capture.

#### 4.4.3. Angling and mortality rates

- The type of angling gear can have a significant impact on the mortality rate of fish. On the whole, fly fishing is less harmful than spinning and spinning is less harmful than bait fishing. This reflects the increased likelihood that baits will be swallowed.
- The size and choice of hook type used, such as J shape, circular, trebles, or barbless can significantly affect mortality rates.
- Irrespective of the gear used, the location of the hook when set has the greatest impact on survival rates. Gullet hooked fish or heavily bleeding fish are most susceptible.
- The evidence here is focused on other species, rather than coarse fish.

#### 4.4.4. Angling impacts on spawning fish

- We do not know whether angled spawning fish have an increased mortality risk compared to non-spawning angled fish.
- However, if the close season was lifted in-part or altogether, despite the vast majority of coarse fish being returned, the overall additional angling activity would (most likely) increase overall mortality.
- There is no evidence that this would affect the sustainability of river coarse fish stocks and fisheries.

#### 4.4.5. Angling and exploitation rates

- We do not have up to date information on the exploitation rates of river coarse fish (the percentage of a population that are caught). Some data exist from the mid-1980s. Generally speaking, direct angling mortality rates (the percentage of caught fish that die as a result) are comparatively low (less than 10%). This may vary considerably between species.
- Exploitation and mortality rates are essential to assess the impact at a local population level. For example, if we know a fishing method has a mortality rate of 10% and that the anglers' exploitation rate for a particular species is 10% using that angling method, then the overall loss to the population would be 1% (10% of fish are caught, of which 10% die). Even if enough data on mortality and exploitation rates were available, we do not know what an acceptable loss is. More information on seasonal exploitation rates of UK coarse fish would help us understand the risks associated with lifting or changing the close season.
- Some anecdotal evidence suggests that certain fish species, irrespective of food availability, may feed less during the breeding season. If true, these species may have a reduced exploitation rate during and after spawning, but, as summarised earlier, these fish may already be stressed and thus have an intrinsically higher risk of angling-related mortality. Conversely there is evidence that fish will feed avidly after spawning whilst they are still physically and physiologically weakened.

#### 4.4.6. Angling impacts on fish migration and behaviour

- The behaviour of certain species during the breeding season may make them more or less susceptible to being targeted by anglers. For example, dace form particularly dense aggregations during the breeding season, which could be targeted (see Section

4.4.8, below). Others, like barbel, migrate to spawning grounds, but during low flows, may get temporarily trapped behind weirs or other obstacles.

- There are no studies on the effects of angling on the reproductive success of UK coarse fish. We can look at foreign studies of other species to draw some inferences on how UK spawning coarse fish might react to angling-related stress:
  - angling activity can delay the migration rates in salmonids
  - angling pressure increases egg nest abandonment rates in smallmouth bass
  - reproduction potential of Australian bass reduces in angled fish
  - the quality of offspring is impaired in angled largemouth bass

#### **4.4.7. Angling and risk of disease in fish**

- Stillwater coarse fisheries experience most fish kills between April and June, during the spawning season and when water temperatures were warm. These are mainly caused by parasitic or bacterial infections. High stocking densities and sub-optimal habitat are factors in these incidents.
- Studies of American largemouth bass suggest the post-capture confinement methods, such as live-wells on boats, can lead to increased viral transmission rates and fish kills.
- This raises some concerns around the use of gear such as keepnets on fish mortality. We know that such risks are compounded by elevated water temperatures. Some studies show that common carp appear to be comparatively robust to such handling prior to release, but other coarse fish species may not.

#### **4.4.8. Species specific evidence - dace**

Dace are known to spawn earlier than most other coarse fish, so spawning fish could be exposed to more angling pressure if the start of the close season was postponed. Our review of the scientific evidence tells us:

- Female dace lay a single batch of eggs each year, but may spawn annually for up to seven successive years.
- Dace can migrate tens of kilometres to spawning grounds, which the evidence indicates are often in smaller tributaries which are not generally targeted by anglers.
- Male dace form large aggregations prior to spawning.
- Female dace may spawn over only a short period, maybe 3 to 5 days. They are highly fecund (produce many eggs). Fertilised eggs sink and adhere to gravel and sand on the river bed.
- Following spawning, 'spent' dace form large aggregations and seek refuge in deeper water downstream of their spawning grounds.
- There's some evidence that dace do not feed during or immediately after spawning.

While dace may spawn earlier than other species, their migratory and feeding behaviour around spawning may significantly reduce the risk of capture at this time.

#### **4.4.9. Species specific evidence - pike**

Similarly to dace, pike spawn earlier in the year than most coarse fish, so spawning fish could be subject to additional angling pressure if the start of the close season was delayed. Our review of the scientific evidence tells us:

- Pike reproduce in shallow waters during spring (March to May) in water temperatures ranging from 4°C to 14°C.

- Male pike first spawn at two years old and females at three. The average life expectancy is 7 to 10 years, but they can live to 20.
- Pike migrate to selective breeding grounds within rivers, where they can aggregate and disperse widely afterwards.
- It is generally agreed that pike do not feed while spawning, but forage extensively in the months following.

Given the significant contribution large pike make to a fishery (both in terms of their fecundity and angling value) and that some anglers may be tempted to target large, gravid pike, there may be a case to retain protection for them if the close season is changed for other species.

#### **4.4.10. Species specific evidence - grayling**

Grayling are also considered to be early spawners and can be vulnerable to angling before the start of the close season. Our review of the scientific evidence tells us:

- European grayling are spring spawners. Spawning occurs from the end of March (but can be as early as February) to the first half of June.
- Adult grayling are bottom feeders, whose diet changes with the season and as such can best be described as opportunist feeders. They will take many typical coarse fish and trout baits.
- There's no evidence that grayling do not feed during the spawning season.
- Grayling do not reach sexual maturity until the end of the third year and typically live up to 6 or 7 years in southern chalk streams in England. They are very fecund.
- Some grayling migrate to spawning grounds. Others do not stray far from feeding grounds. Males arrive on the spawning grounds several days before the females and adopt and defend their territories, courting females. Eggs are deposited in gravel beds and are left unguarded.
- A study on the status of River Dee (UK) grayling population concluded that angling had not affected the grayling population, as a high level of catch and release (98%) was practised.
- There's some natural separation of grayling habitats from coarse fish and trout, but there is significant overlap between them.

Unlike pike and dace, spawning grayling are already subject to angling pressure in mixed fisheries, from trout anglers throughout most of their spawning period or from coarse angling where grayling spawn early (prior to 15 March).

### **4.5. Gathering further evidence**

The group reviewed a range of proposals for field-based and other projects that could improve the understanding of the risks around the close season. These included proposals previously outlined in a 2004 study carried out on behalf of the Environment Agency by environmental consultants, APEM. These are summarised in Appendix 5.

The group concluded that there were no viable options.

To give any degree of scientific certainty, the requisite studies are likely to be prohibitively expensive; extend over several/many years; and/or may only shed light on the risks to one or several species or river types. The Environment Agency's view of the APEM study remains unchanged. While there may be scientific merit in pursuing these and doing so would give a valuable opportunity to engage anglers and fishery owners on the issue, the group concluded such studies would only ever provide an incomplete picture.

## 4.6. Conclusions

Coarse fisheries in English rivers comprise many species, from several families of fish. While some coarse fish spawn as early as February and as late as August, the current broad close season covers most spawning by most species in most rivers in most years – it is a 'one-size-fits-all' approach. However, this means it probably protects early spawners for longer than they need and conversely may not protect some late spawners enough. However, for any given coarse fish species on any water, there will always be a peak time and range in which they spawn.

At any one time in this mixed fishery there may be fish in excellent health and not spawning, which could be safely angled for, but cannot be under the current close season. Yet, in mixed fisheries, it is intrinsically difficult to allow fishing to target certain species without accidentally catching others.

It is worth noting that since the original close season legislation was introduced. Anglers' attitudes and behaviours to fisheries conservation have changed - catch and release is now the norm (and underpinned by byelaws restricting which fish can be taken). In the last 20 years, there has also been a significant change in the angling pressures on rivers. As a whole, fewer people are fishing and those who are, tend to favour stillwaters over rivers ([Environment Agency, 2018a](#)).

Since the close season rules were first introduced in 1878, other, non-angling pressures on fisheries have changed dramatically. For example, we have seen significant changes in land use and agriculture and many rivers have been heavily modified to meet flood risk and water resources needs. Water quality, flow regimes, riverine habitats and fish passage all can an impact on fish populations.

We must also consider how coarse fish spawning might change under the influence of climate change. Warmer river temperatures are likely to result in more coarse fish spawning earlier and outside of the current close season. Similarly, sustained warmer temperatures through spring and early summer may result in more repeat spawning, including beyond the end of the close season. Earlier, warmer summers may lead to poorer environmental conditions as fish recover from spawning and are exposed to angling at the end of the close season.

These factors all need to be considered as part of this debate.

**We would like to hear the views of anglers, angling representatives and fishery owners on this evidence and whether they have additional evidence to inform the discussion. Please refer to the questions in Section 2 of the response form.**



## 5. Risks to salmon and trout

We must consider the risks to salmon stocks and sea trout (based on the current status) in England if we were to change or remove the close season. Atlantic salmon smolts can be caught by coarse anglers as they migrate from river headwaters through coarse and mixed river fisheries to the sea. Our review of the scientific evidence tells us:

- The timing of smolt migration varies between rivers, most likely as a consequence of local adaptations, to ensure entry to the sea during optimal periods. This is influenced by water temperature; photoperiod; and river flow. Migration can be impeded by barriers within the river.
- In many UK rivers, most smolts migrate in spring, from the end of April through to May. In some more southerly rivers, they will migrate earlier, most likely due to earlier warmer water temperatures.
- Smolts will migrate downstream individually at night, but also in shoals during the day
- Smolts swim actively and fast when migrating downstream.
- Natural mortality is highest in river mouths and estuaries (0.6% to 36% per km in estuaries compared with 0.3% to 7.0% per km in rivers).
- The evidence on smolt feeding behaviour is mixed, although some level of feeding most likely occurs. It suggests they feed on small, easy to catch prey that are consumed in large quantities or large sized prey with a high energy content. Stonefly larvae appear to be the favoured prey, but it is possible that they will take maggots or similar baits.
- Recent evidence suggests that smolts are more resilient to mortality from scale loss than previously thought. They are still susceptible to some risk of angling related mortalities if caught.

As pre-smolts, salmon and sea trout could be caught by anglers targeting coarse fish in upper tributaries of mixed fishery rivers. They're already vulnerable to capture by trout anglers although we have no evidence of the extent or impact of such accidental capture. As smolts, the chance of capture would increase if they were exposed to more angling as they migrate through coarse fisheries. They may be especially vulnerable where their migration is obstructed by weirs and other barriers.

From our own smolt monitoring and the published literature, we know that smolts mainly migrate downstream from mid-April to the end of May. This will vary between rivers and from year to year (some will migrate as early as late March and as late as late June). While the coarse fishing close season is not designed to protect migrating smolts, it does coincide with peak migration periods. Delaying the start of the close season to mid-April would increase the risk that smolts are caught: removing it altogether would increase this risk still further.

Adult salmon caught by rod and line before 16 June must be released to protect spring salmon stocks. Salmon anglers are restricted to fly and lure to maximise catch and release survival. River coarse anglers fishing between March and June with worm or other baits that are prohibited for salmon could increase accidental capture and mortality in early season salmon.

Brown trout coexist with coarse fish in some rivers, and only in certain reaches. While trout in mixed fisheries are already exposed to bait fishing from 16 June to the end of the trout season in September, changing or removing the coarse fishing close season increases exploitation by bait anglers, potentially by 3 months.

**We are particularly interested to hear from game anglers, angling representatives and fishery owners, and other on the potential risks to salmon, sea trout and brown trout. Please refer to the questions in Section 3 of the response form.**

## 6. Risks to other fish species

### 6.1. Eel

European eel do not spawn in freshwaters. Immature eel migrate into rivers in the spring. They remain in rivers and connected waters as yellow eel for up to 20 years, before the mature silver eel migrate back to sea to spawn. Eel stocks have declined significantly across Europe and there is a recovery plan in place to halt and reverse this. They're not covered by the coarse fishing close season, although anglers must return any eel caught to the water with the least possible harm. While eel can be angled all year round, changing or removing the close season is likely to increase the numbers caught. Eel are prone to deep-hooking, so additional angling may increase losses where they do not survive being released.

### 6.2. Smelt

Smelt migrate into rivers during late winter and early spring, depending on water temperature. They're not widely distributed, predominantly occurring in rivers in the east of England. They're not widely angled for and there is no close season for smelt. While they can be taken by anglers, usually fishing small lures, there is little or no evidence that changing or removing the coarse fishing close season is likely to expose smelt to additional angling pressure.

### 6.3. Sea and river lamprey

Sea and river lamprey are protected in some rivers. Although they cannot be caught by rod and line, spawning lamprey and their eggs can be vulnerable to disturbance by wading anglers. Game anglers already present such risks. If the close season was removed or changed, additional coarse angling may increase these risks. Lamprey spawning sites are generally known and could be protected by specific local measures.

### 6.4. Allis and Twaite shad

Allis and Twaite shad are only habitually found in the River Severn and River Tamar, and occasionally in several other English rivers. They migrate into rivers in April and May to spawn. It is illegal to kill, harm or take either species. There is no close season for shad. They're taken accidentally by salmon and trout anglers fishing with lures. If the coarse fishing close season was changed or removed, they could be similarly taken by coarse anglers.

**We are particularly interested to hear from anglers, angling representatives and fishery owners, as well as wildlife interests about the potential risks to other fish species. Please refer to the questions in Section 4 of the response form.**

## 7. Risks to other wildlife and habitats

The close season is not designed to protect other wildlife or the wider environment. However, it coincides with the nesting season of many water birds. Also it's a time when other fauna are breeding and aquatic and bankside vegetation is re-establishing after winter. It's important to note that rivers are not closed to other human activities during this time, including walking, boating or game angling, all of which may have comparable impacts on wildlife and habitats.

We have a specific duty to consider the impact of any change in fisheries regulation on protected wildlife sites (Special Areas of Conservation/Special Protection Areas and Sites of Special Scientific Interest) and species, and a general duty towards aquatic wildlife. When we removed the close season from most stillwaters in 1995, we retained it on some protected stillwater sites in England. These are where Natural England advised that continued angling through March to June could pose a risk to the species and habitats for which these sites are protected.

When we deregulated the close season on canals, we commissioned the British Trust of Ornithology in 1998 to carry out:

- a study of existing historical Waterways Bird Survey (WBS) data relating to waterside birds on canals
- a more detailed Waterways Breeding Bird Survey (WBBS) of all birds on an increased range of canals during the 1998 breeding season

Ref: [Environment Agency, 1998](#).

The conclusion of this was that neither the WBS nor the WBBS data provided evidence that counts of breeding birds differ systematically between canals with and without a close season for coarse angling. No similar studies have been carried out for rivers.

As we did with stillwaters, we must consider the risks that any change to the close season on rivers will have on protected sites and species. We'll work with Natural England (and Natural Resources Wales in respect of the rivers Dee, Severn and Wye) and other conservation bodies, to understand the risks to protected sites. If we cannot conclude that there will be no impact on effect on integrity of Special Areas of Conservation and/or Special Protection Areas, or is not likely to damage SSSIs, we may need to retain the close season on these sites.

**We are particularly interested to hear from angling and conservation interests on the potential risks to protected species and habitats, and the wider environment. Please refer to the questions in Section 5 of the response form.**

## 8. Social and economic benefits

### 8.1. Angling benefits

**Through this consultation, we want to better understand the evidence around the benefits to angling participation and how this might change under a different regime.**

From our latest report ([Environment Agency, 2018a](#)), coarse anglers (excluding grayling anglers) spent 19.7 million days fishing in 2015. Of these, 4.3 million days (or 22%) were spent fishing rivers; 14 million days (71%) fishing stillwaters; and 1.4 million (7%) fishing canals. However, these are significantly below the number of days spent angling in 2005 - 8.3 million on rivers; 14.6 million on stillwaters; and 2.4 million on canals.

The current close season limits angling opportunities in spring/early summer. Many coarse anglers report that this is a period of optimal river fishing conditions. Prior to March, many rivers may be unfishable due to seasonal high flows or flooding.

From our 2018 survey ([Environment Agency, 2018b](#)), 82% of coarse anglers fished on stillwaters during the 2017 coarse fishing close season (35% fish "often"; 47% fished 'sometimes').

The current close season always includes Easter and the two May bank holidays. If the close season started later, river fishing would be possible over the Easter bank holidays (on average 8 years in 10 if it started on 15 April). Removing the close season would make all three bank holidays available.

Changing or removing the close season will give coarse anglers more choice on where they can fish and is likely to affect angling behaviour. However, we do not know:

- what proportion of anglers that fish stillwaters during the river close season would spend additional time fishing rivers or whether they would choose to fish rivers instead of stillwaters
- what proportion of the those that currently do not fish for coarse fish at all during the close season would fish for coarse fish on rivers in the future
- whether the additional angling opportunity, especially around bank holidays, would inspire more people to take up fishing
- whether predominantly river fishing clubs would see an increase in membership

**We are particularly interested to hear from angling clubs and fishery owners, as well as individual anglers and angling representatives, on how the close season affects angling participation. Please refer to the questions in Section 6, 7 and 8 of the response form.**

### 8.2. Economic benefits

**A key part of this consultation is to help us better understand the evidence around the socio-economic benefits and how these might change with a change to the close season.**

From our latest report ([Environment Agency, 2018a](#)), freshwater anglers in England in 2015 spent £1.69 billion on their sport, contributing £1.46 billion to household expenditure and supporting 27,000 full time equivalent jobs.

Of this, expenditure on non-trip related items, such as tackle, permits/club memberships and clothing, was £680 million. This covers both coarse and game angling, as many items will be used for both types of angling.

Expenditure on individual fishing trips, including accommodation, transport, food and drink, day tickets and bait, is more relevant to any proposed change to the close season. Trip related expenditure in 2015 was £1.06 billion. Note: While angling participation is much reduced in 2015, compared with 2005, trip related expenditure is similar and non-trip related expenditure has increased.

- If removing or changing the close season results in increased angling participation (either due to anglers fishing more often or additional anglers), there is likely to be a corresponding increase in trip related expenditure (with a smaller increase in non-trip related expenditure);
- If removing or changing the close season results in anglers switching their trips from stillwaters to rivers, it may simply change where that expenditure is made.

In a 2001 report, we valued coarse fisheries in England at £2,235 million. Stillwater and canal fisheries were valued at £1,549 million and river fisheries at £686 million. We have no evidence that the values of river coarse fisheries are influenced by the close season or that changing or removing the close season would affect these values.

**We are particularly interested to hear from businesses that are wholly or partly dependent on angling on how the current or any future change to the close season affects them. Please refer to the questions in Section 9 of the response form.**

## 9. Options strengths and weaknesses

While there are risks involved in changing or removing the close season, we need to consider whether these are significant in terms of fish stocks and the fisheries they support, wildlife and habitats.

The following summarises the strengths and weaknesses for each of the options we are consulting on.

### 9.1. Retaining the close season

#### Strengths

- The current statutory close season only applies to rivers, some stillwaters and some canals. Subject to fishery rules, anglers are able to fish for coarse fish on most stillwaters and most canals all year round.
- The current close season covers the period when most coarse fish species spawn in most rivers in most years.
- The current close season covers the period when most salmon and sea trout smolts migrate downstream, hence protecting them from accidental capture. It also avoids incidental capture of shad by coarse anglers and reduces disturbance to lamprey spawning. Note: These species are already vulnerable to capture/disturbance by game anglers.
- The close season coincides with the nesting season, so reduces disturbance to waterside birds, as well as other sensitive wildlife. Note: Other riverside activities are not subject to similar restrictions.
- The current close season dates are well established among anglers and there is an overall very high level of compliance.

#### Weaknesses

- There's no conclusive evidence that removing the close season will impact on fish stocks. We do not know conclusively if fish being exposed to angling while spawning will be detrimental to the fish or fish stocks.
- The current close season restricts angling choice, often at a time of year when fishing conditions are most suitable. It may limit the number of angler visits and be a barrier to some people taking up the sport.
- The current close season does not wholly protect early spawning species, such as dace, pike and grayling.
- While the current close season provides protection for many fish recovering from spawning, some late spawning fish will still be recovering and vulnerable to angling in late June, after the end of the close season.
- Climate change may increase the probability of some fish spawning earlier and before 15 March, and others spawning multiple times and after 15 June. We may also see earlier warmer water temperatures, when fish are recovering from spawning.
- Coarse fish spawn at different times during the close season, so at any one time between 15 March and 15 June, many fish could be safely angled, but cannot because other fish are spawning.
- Anglers and angling clubs claim the absence of anglers during the close season increases the risk of illegal fishing and predation.

## 9.2. Removing the close season

### Strengths

- Removing the close season will provide additional angling opportunities. This is especially true around Easter and May bank holidays, and when conditions are often most suitable for river angling.
- It may result in an initial uplift in angling activity, with corresponding social and economic benefits, and help protect or increase angling club membership.
- There is anecdotal evidence that coarse fish do not feed while spawning: this is supported by scientific evidence for at least one species (dace). There's also anecdotal and some scientific evidence that spawning migrations prevent some fish from being caught.
- Removing the close season would be clear and unambiguous. It would be widely understood and allow the Environment Agency to redeploy enforcement resources to other fisheries activities.

### Weaknesses

- There's no conclusive evidence that removing the close season will not impact on fish stocks. Angling may disturb, harm or kill spawning fish, potentially impacting on stocks.
- Regardless of whether they are spawning, the cumulative risk of continued angling may impact on stocks.
- Removing the close season will expose salmon and sea trout smolts, as well as shad, to an additional risk of capture and mortality. Additional angling may increase disturbance to spawning lamprey.
- Wildlife and habitats may be impacted by additional angling.
- Anglers may need to comply with different non-statutory close seasons between different rivers and fisheries, potentially leading to poor compliance. Those fishery owners wishing to retain a close season would be responsible for enforcement.
- Anglers may switch to fishing rivers rather than stillwaters at this time, with consequential impacts on stillwater fishery businesses.

## 9.3. Changing the close season to 15 April to 30 June

### Justification for choice of dates

Changing the start to 15 April will increase angling pressure, but most likely on only three early spawning species - dace, grayling and pike:

- There is evidence that dace spawn in waters that are less frequently fished and may not feed while spawning;
- Spawning grayling can already be caught by game anglers and there is no evidence that this has an impact;
- Pike may be at risk. There is some evidence they don't feed while spawning (although feed intensively after).

Changing the end to of 30 June provides additional protection to later or repeat spawning fish, in particular while they recover from spawning. This may increase in importance to mitigate for the effects of climate change. The basis for this extension is collective professional judgement, rather than scientific evidence.



## Strengths

- Postponing the start of the close season by four weeks still provides the majority of species substantial protection from angling disturbance.
- Postponing the end of the close season by two weeks provides additional spawning protection to later spawning species, as well as post-spawning recovery protection for many species, and at a time of year when water temperatures will be increasing.
- Postponing the start of the close season provides additional angling choice and opportunity, especially around the Easter bank/school holiday, and at a time when rivers are often in good fishing condition.
- Any additional angling-related fish losses will be reduced due to lower water temperatures during later March/early April. Postponing the close season to 30 June will reduce angling-related losses, when water temperatures may be higher (this risk may increase under predicted climate change scenarios).
- A later close season start would still protect the majority of migrating salmon and sea trout smolts.

## Weaknesses

- Postponing the start of the close season removes protection from early spawning species (dace, pike and grayling). This may increase the risk to these stocks. These risks may increase under current climate change predictions.
- Close season regulation would still take a one-size-fits-all approach, equally protecting spawning and non-spawning fish.
- A later start to the close season would increase the risk of accidental capture of salmon and sea trout smolts, but this is limited.
- Some wildlife and habitats may be impacted by a later start.
- Postponing the end of the close season would protect early spawning species such as pike, grayling and dace for longer than necessary.
- Postponing the end of the close season would restrict angling choice and opportunity during the early summer.
- Changing from the current to a new close season may not be widely understood and complied with immediately.

## 9.4. Specific arrangements for pike

Changing or removing the close season could make pike more vulnerable to angling while spawning or while recovering from spawning.

Given pike would also be caught by anglers targeting other predatory fish, an option might be to introduce restrictions on terminal tackle that reduce accidental pike capture, while minimising the impact on angling for other species. These restrictions could include prohibiting the use of live and dead fish baits, and large artificial lures and spinners for fishing for freshwater fish between 15 March and 15 June. While this would restrict the choice of zander fishing methods, fishing for other predatory freshwater fish (perch and trout) would be largely unaffected.

Anglers would still be allowed to use larger lures and spinners when fishing for salmon and sea trout, but they would be expected to hold a salmon and sea trout rod fishing licence.

In making decisions on the future of the close season on rivers, the Environment Agency must also consider the cost and practicality of introducing any new or revised byelaws. Adding additional rules will likely cost more to enforce and consequently divert resources from other fisheries activities funded through the sale of rod licences.

We have not made this a specific option in the consultation, but would welcome feedback from anglers and others. Please refer to question 2.3 in the consultation response.

# 10. Responding to this consultation

## How to respond

If you would like to respond online, please use this link - <https://consult.environment-agency.gov.uk/fisheries/consultation-on-the-review-of-the-close-season>

If you would like to respond in writing, please use the response form that you can download from the above link (Appendix 6 - Consultation response form). Alternatively, please request a copy by email to [fisheries@environment-agency.gov.uk](mailto:fisheries@environment-agency.gov.uk) or for a printed copy, please write to us at:

Coarse Fishing Close Season Consultation  
Environment & Business  
Environment Agency Fisheries Team  
Horizon House  
Deanery Road  
Bristol  
BS1 5AH.

## Consultation questions

You need to use the online or printed response forms to respond to this consultation. However, we have listed below the consultation questions.

Please note, not everyone is expected to answer every question. Some sections need only be answered by certain groups. For example, only anglers need answer questions 6.1 to 6.7 and only angling-related businesses need answer questions 9.1 to 9.5.

### 1. Coarse fish close season options

Question 1.1. Do you support retaining, removing or changing the current river coarse fishing close season?

### 2. Risks to coarse fish

Question 2.1. Do you believe that changing the statutory coarse fishing close season on rivers to 15 April to 30 June would pose a risk to coarse fish? Please provide any supporting evidence

Question 2.2. Do you believe removing the statutory coarse fishing close season on rivers would pose a risk to coarse fish? Please provide any supporting evidence

Question 2.3. In the event of changing or removing the close season, do you believe there should be different arrangements for pike fishing? Please provide any supporting evidence

### 3. Risks to salmon and trout

Question 3.1. Do you believe changing the statutory coarse fishing close season on rivers to 15 April to 30 June would pose a risk to salmon, sea trout and brown trout? Please provide any supporting evidence

Question 3.2. Do you believe removing the statutory coarse fishing close season on rivers would increase the risk to salmon, sea trout and brown trout? Please provide any supporting evidence

#### **4. Risks to other fish species**

Question 4.1. Do you believe that changing the statutory coarse fishing close season on rivers to 15 April to 30 June would increase the risk to eel, smelt, lamprey or shad? Please provide any supporting evidence

Question 4.2. Do you believe removing the statutory coarse fishing close season on rivers would increase the risk to eel, smelt, lamprey or shad? Please provide any supporting evidence

#### **5. Risks to wildlife and habitats**

Question 5.1. Do you believe that changing the statutory coarse fishing close season on rivers to 15 April to 30 June would pose a risk to river wildlife and habitats? Please provide any supporting evidence

Question 5.2. Do you believe that removing the statutory coarse fishing close season on rivers would pose a risk to river wildlife and habitats? Please provide any supporting evidence

#### **6. Angling participation - for individual anglers**

Question 6.1. Please tell us about your fishing

- What type of fishing do you do?
- Where do you fish for coarse fish?
- Do you fish for coarse fish on stillwaters or canals between 15 March and 15 June?

Question 6.2. How often do you currently fish rivers for coarse fish between 16 June and 30 June?

Question 6.3. If the statutory river coarse fishing close season was removed, how many times would you go fishing for coarse fish on rivers between 15 March and 15 June?

Question 6.4. If the statutory river coarse fishing close season was changed to 15 April to 30 June, how many times would you fish for coarse fish on rivers between 15 March and 15 April?

Question 6.5. If the statutory river coarse fishing close season was changed or removed, what would be your principal reason for not fishing for coarse fish on rivers during this time?

Question 6.6. If the statutory river coarse fishing close season was changed or removed, would you continue to fish on stillwaters during this time?

Question 6.7. Please use this space to comment further on you angling activity and the close season, including any supporting evidence.

#### **7. Angling participation - for angling clubs, associations and syndicates**

Question 7.1. Please provide the name of your angling club, association or syndicate.

Question 7.2. What type of coarse fishing does your club own or lease?

Question 7.3. Is the current statutory river coarse fishing close season a barrier to more people joining your club?

Question 7.4. If the statutory river coarse fishing close season was changed or removed, are there other barriers that might prevent your members from fishing on your club's river(s) during this time?

Question 7.5. If the statutory river coarse fishing close season was changed or removed, do you think it would affect the value of your river fishery?

Question 7.6. If the statutory river coarse fishing close season was changed or removed, do you think it would affect the value of your stillwater or canal fishery?

Question 7.7. If the statutory river coarse fishing close season was changed or removed, do you anticipate paying more in running costs for your river fishery (for example increased fishery lease, employing more staff or higher maintenance costs)?

Question 7.8. Please use this space to comment further on the close season and angling activity, including any supporting evidence.

## **8. Angling participation - for angling representatives and others**

Question 8.1. Please provide the name of your organisation

Question 8.2. Do you think the current statutory river coarse fishing close season is a barrier to more people going fishing?

Question 8.3. Do you think the current close season reduces or enhances the social and economic value of angling?

Question 8.4. If the statutory river coarse fishing close season was changed or removed, do you think it would reduce or enhance the social and economic value of angling?

Question 8.5. Please use this space to comment further, including any providing any supporting evidence.

## **9. Angling-related businesses**

Question 9.1. What type of business do you own or manage? What is the name of your business?

Question 9.2. How does the current statutory river coarse fishing close season affect your business?

Question 9.3. How would removing the statutory river coarse fishing close season affect your business?

Question 9.4. How would changing the statutory river coarse fishing close season to 15 April to 30 June affect your business?

Question 9.5. Please use this space to comment further, including any providing any supporting evidence.

## **10. Further comments**

Question 10.1. We really value your feedback on our proposals. Please use this space to provide any other comments you have about the options for the statutory coarse fishing close season on rivers in England.

Question 10.2. If you have any documents that support your response, you can upload them here.

## 11. What happens next?

The last date for responding to this consultation is 11 March 2019. After this, we will collate the feedback we receive and publish a report on what you have told us. If, as a result of this and the evidence we have already collated on the close season, we conclude there is a case to either change the close season dates or remove it altogether, we will make and advertise new byelaws in 2019. This will give everyone an opportunity to object or support the proposals, before we submit an application to the Secretary of State for Environment, Food and Rural Affairs to confirm the byelaws. The Secretary of State may confirm the byelaws as they stand, make changes to them or reject the application.

We will keep you informed of progress.

## Appendices

Appendix 1 - Close season byelaw - background and current byelaw

Appendix 2 - European close seasons

Appendix 3 - Review of available scientific literature

Appendix 3a - Review of available scientific literature - dace

Appendix 3b - Review of available scientific literature - pike

Appendix 3c - Review of available scientific literature - grayling

Appendix 3d - Review of available scientific literature - salmon smolts

Appendix 4 - Expert panel risk assessments

Appendix 5 - Scope for gathering additional evidence

Appendix 6 - Consultation response form

## References

Type references here and sort alphabetically by author, as shown below:

1. Environment Agency, 1998. A Coarse Fish Close Season on Canals - paper in evidence to the review of Fisheries Policy and Legislation: Paper Number EA
2. Environment Agency (2018a). A survey of freshwater angling in England - Phase 1: angling activity, expenditure and economic.  
<https://www.gov.uk/government/publications/a-survey-of-freshwater-angling-in-england>
3. Environment Agency (2018b). A survey of anglers' views on the coarse fish close season. Internal Environment Agency report.

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