

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

Version 1.0
December 2019

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## Executive summary

The Environment Agency ran a consultation on the coarse fish close season on English rivers, to better understand the risks of changing or removing the close season and to collate any additional evidence. This would help us determine whether these is a case for change.

The consultation ran from 14 January 2019 to 11 March 2019. We invited participants to respond online, although we also accepted hardcopy responses. We publicised the consultation through the media/social media and through email newsletters to online rod licence buyers. We wrote to principal fisheries, conservation and river user groups.
We received 13,680 responses. The vast majority ( $>90 \%$ ) were from anglers; $5 \%$ were from fishery owners, members of the angling trade and the general public; and $1 \%$ were from fisheries and other organisations.
Overall, $49.2 \%$ of responses support removing the close season; $38.8 \%$ support retaining the current close season; and $9.2 \%$ support retaining a close season, but changing the start and end dates ( $2.3 \%$ were undecided or did not answer the question).

Many participants contributed useful anecdotal evidence and personal opinions, but no additional scientific evidence was forthcoming.
Of the 17 national and local fisheries organisations that responded, 13 supported retaining the close season, 2 supported removing it, 1 supported changing it and 1 did not answer.

The percentage support for each option varies between different angling disciplines (a greater proportion of coarse anglers support removing or changing the close season than do game or mixed coarse/game anglers). Significantly more businesses that depend (wholly or in part) on anglers support removing the close season. Fishery managers are slightly less supportive of removing the close season than retaining one.
While changing or removing the close season would provide additional angling opportunities on rivers and potentially some economic benefits for angling-dependent businesses, the Environment Agency believes, on balance, that these are limited and that they do not override the risks to the long-term viability of fish stocks.

Most respondents' perception of the risks to fish and wildlife followed their opinion on the close season, that is those that support retaining the close season perceived greater risks than did those that support removing it and, to a lesser, those that supported changing it. Coarse fish were perceived to be most at risk from removing the close season (39.9\% of all respondents) and from changing the close season ( $23.2 \%$ of all respondents). Fewer respondents perceived there are risks to game fish from removing or changing the close season ( $23.6 \%$ and $14.3 \%$ of all respondents respectively), but more anglers were uncertain of such risks. The majority of respondents perceived there was no risk to riverine wildlife and habitats from changing the close season (63.7\%) and from removing it (55.8\%).

The majority of respondents (54.8\%) feel that in the event of changing or removing the close season, pike do not need additional protection.
No substantive new evidence on the risks to fish, habitats and wildlife was provided through the consultation. Many responses provided anecdotal evidence which either supported the available scientific evidence or countered it.
If the start of the close season was moved back to 15 April, most anglers ( $70.0 \%$ ) said they would fish rivers during this time. Fewer (26.9\%) said they would not fish rivers during this time. If the end of the close season was moved back to 30 June, this would curtail 3 of 100
angling for $82.1 \%$ of anglers. The majority of anglers (67.3\%) say they would go river fishing between 15 March and 15 June if the close season was removed.

A similar proportion of angling clubs feel the close season is and is not a barrier to new members joining. Most river clubs feel changing or removing the close season would not change the value of their fisheries, although around a quarter feel the value would increase. Most clubs feel that removing or changing the close season would not increase their running costs.
The largest proportion of angling-related trades (42.5\%) feel that the current close season has a negative impact on business (16.3\% say it has a positive impact and $25.9 \%$ say it has neither a positive nor negative impact). Changing the close season would benefit $27.5 \%$ of these businesses, whereas removing it would benefit $64.4 \%$. The views of the fishing tackle trade are more pronounced: $59.0 \%$ feel the current close season has some or a significant negative impact; and $34.1 \%$ and $78.0 \%$ say changing or removing it respectively would benefit their business.

Most participants (77.8\%) were either satisfied or very satisfied with the consultation. Only 2.7\% of participants were dissatisfied or very dissatisfied.

The Environment Agency is extremely grateful to all those that found the time to contribute to the consultation. The fact that so many did reflects how important an issue this is to anglers.

Taking the available evidence into account, the Environment Agency has decided to retain the current close season.

This report provides an explanation of how the consultation was run and more detail on the responses received.

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## Introduction

The need for a close season has long been debated among anglers and angling bodies. Many claim a close season protects spawning fish from disturbance and harm, with some suggesting different dates would better reflect spawning times. Others contest that the close season is not necessary and that removing it would give anglers more choice and bring more benefits to the angling trade.

The Environment Agency removed the close season on most stillwaters in 1995 and most canals in 2000. However, without conclusive evidence on the risks associated with changing or removing the close season on rivers, it maintained a precautionary approach and retained it.

In order to gain a better understanding of the risks, the Environment Agency worked with the Angling Trust and Institute of Fisheries Management to review the available scientific and other evidence. The working group concluded that the evidence remains incomplete and that further scientific research would be lengthy and expensive and would most likely only provide a partial picture. However, while it recognised that changing or removing the close season presented some risks to fish stocks, it also questioned whether the understanding of the available evidence was sufficient to move away from a precautionary approach. The available evidence on the close season is available on the Angling Trust website ${ }^{1}$ and summarised in Appendix 1.

In May 2018, the Environment Agency asked rod licence holders for their views on the close season, to decide whether there was support for wider public consultation. Although the largest proportion (43\%) supported retaining the close season, around half of respondents were in favour of changing from the current arrangement, either amending the dates (17\%) or removing the close season altogether (33\%). On that basis, we agreed to consult more widely, to understand if there is any additional evidence on the risks to help us decide if there is a case for change and to understand the issues and concerns around each option. While the consultation was also an opportunity to better understand the level of support among anglers and others, the focus was on collating the evidence.

This report provides an explanation of how the consultation was run and more detail on the responses received.

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## How we ran the consultation

## Aims

Our consultation collated the views of many individuals and organisations with an interest in coarse fish and fisheries, and to identify and assess any additional evidence to help us decide if there is a case for change. Although we will need to carry out a "business impact test" ahead of any proposed change to the close season byelaw, the consultation also gave an opportunity to gather information on the implications of any changes for angling participation and angling-related businesses.
The consultation was open to anyone with an interest in coarse fish and fisheries:

- fisheries and angling interests, including individual anglers; angling clubs; fishery managers; fisheries and angling representative organisations; and the tackle trade
- wildlife conservation interests, including government agencies and nongovernmental wildlife organisations
- other river users, including navigation and other recreational organisations, and the general public
We offered three options and invited people to offer their views and provide any evidence to help us reach a decision. The options were:
- retaining the current statutory coarse fishing close season on rivers
- retaining a statutory close season, but starting on 15 April and ending on 30 June
- removing the statutory close season


## Timing and publicity

We ran the consultation from 9.00 on 14 January to midnight on 11 March 2019.
There were no interruptions to access to the consultation during this period.
We publicised the consultation through a combination of digital and print media, and directed mail. In summary:

- 14 January - press release and supporting social media (Facebook)
- w/c 14 January - direct email invitations to 40 key stakeholder organisations
- from w/c 14 January - publicity through local tackle shops
- 22/23 January - item in January e-newsletter to 513k rod licence customers
- 19/20 February - reminder in February e-newsletter to 513k rod licence customers
- 1 March - a dedicated final reminder email to 321 k rod licence customers
- throughout - numerous national/local Facebook and Twitter posts

In addition, the Angling Trust and other partners posted frequently on social media. Local anglers arranged an item on the BBC Midlands regional news on 18 February.
We have appended a summary table of publicity activity and estimates of levels of engagement (Appendix 2). We have produced a separate report on communications activity and collation of publicity material, which we can make available on request.

## Documentation provided

We published a consultation document alongside the online (and printed) consultation response form to give all consultees the same level of information to help form a view. This explained the background to the consultation, its purpose and what it involved. It presented the three options, together with the risks and benefits around each, and summarised the available evidence. The consultation document was accompanied by 9 appendices comprising:

- 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

The consultation document and appendices are available https://consult.environment-agency.gov.uk/fisheries/consultation-on-the-review-of-the-close-season/

## Arrangements for responding

We used our online consultation website (Citizen Space) as the principal means of access to the consultation. This hosted the consultation report and appendices, as well as the response form.

We made printed versions available on request, for those that were unable to respond online.

The response form comprised a mixture of:

- multiple-choice questions asking participants for their opinions, including on the different close season options and the risks around them. We have quantified the responses to multiple choice questions;
- free-text boxes to allow participants to explain the reasons for their opinions and provide any supporting evidence - either scientific evidence that we were not aware of or anecdotal evidence, based on their experience. We have analysed these responses to identify any additional evidence and understand the principal concerns that people have over each of the three close season options.
The consultation questions are available https://consult.environment-agency.gov.uk/fisheries/consultation-on-the-review-of-the-closeseason/supporting documents/Appendix\%206\%20\%20Consultation\%20response\%20for m.docx


## Consultation response

## Response summary - volume and composition

We received responses from 13,680 people and organisations. Fewer than 10 used the hardcopy form: the rest responded via the online form.

Daily response rates followed the various publicity tactics. Significant numbers of responses were made in the seven days following the initial press release ( 2,516 responses) and the first e-newsletter ( 2,604 responses). The second e-newsletter generated fewer responses ( 995 responses). The largest response followed the specific final reminder email (5,366 responses). See Figure A.


Over 90\% of the responses were from anglers; $5 \%$ were from other individuals (fishery owners, members of the angling trade and the general public); $1 \%$ were from fisheries and other organisations (including angling clubs and wildlife trusts).

NB. 71 respondents who responded as individuals indicated they had also responded on behalf of an organisation. Similarly, 230 respondents who responded on behalf of an organisation indicated they had also responded as an individual.
Full details are provided in Table 1a and Figure 1a(i) and 1a(ii).

Table 1(a). Overall composition of the consultation response

| Type of individual | Count $^{2}$ | Percent |
| :--- | :--- | :--- |
| 1. I am a coarse, game or mixed angler | 12463 | $92.2 \%$ |
| 2. I own or manage a commercial fishery | 40 | $0.3 \%$ |
| 3. My business is dependent on anglers | 90 | $0.7 \%$ |
| 4. I am a member of the public | 492 | $3.6 \%$ |
| 5. I am responding in some other capacity (please specify) | 56 | $0.4 \%$ |
| Not answered | 378 | $2.8 \%$ |
| Total | 13519 | $100.0 \%$ |


| Type of organisation (I am responding on behalf of...) | Count $^{2}$ | Percent |
| :--- | :--- | :--- |
| 1. ... an angling club, association or syndicate | 93 | $57.8 \%$ |
| 2. ... a fisheries/angling organisation | 13 | $8.1 \%$ |
| 3. ... an environmental organisation | 9 | $5.6 \%$ |
| 4. ... a local authority | 0 | $0.0 \%$ |
| 5. ... a government agency/department | 1 | $0.6 \%$ |
| 6. ... another group or organisation | 15 | $9.3 \%$ |
| Not answered | 30 | $18.6 \%$ |
| Total | 161 | $100.0 \%$ |
| Grand total | 13680 |  |

[^1]

Figure 1a(ii). Overall response composition - organisations (total 161)


- Angling club, etc
- Local authority
- Not answered
- Fisheries organisation
- Government agency
- Environmental organisation
- Another organisation

Of those anglers responding, $71 \%$ described themselves as coarse anglers; $26 \%$ 有的fnixed (coarse/game) anglers; and 2\% as game anglers. See Table 1b and Figure 1b for full details.

## Table 1(b) Angler composition

| Angler type | Number | Percentage |
| :--- | :--- | :--- |
| Coarse only anglers | 9672 | 70.7 |
| Mixed (coarse and game) <br> anglers | 3527 | 25.8 |
| Game only anglers | 240 | 1.8 |
| Does not fish in freshwater | 27 | 0.2 |
| Not answered | 214 | 1.6 |
| Total | 13680 | 100.0 |



These anglers were members of over 1000 angling clubs and syndicates across England. NB. 225 respondents indicated they were responding on behalf of an angling club.
The consultation allowed people to respond without providing their email address and with the same email address as another respondent (for example, where families share the same email address). We maintained a check on the number of responses without an accompanying email address and for any duplicate responses:

- 668 respondents chose not to provide an email address. There is no significant difference in the percentage of these preferring to retain, change or remove the close season compared with all respondents;
- the same email address was used twice in 160 responses (1.1\% of the total).


## Response processing and analysis

We have examined every response to the consultation.
Of the 13,680 responses, 3,754 only answered some or all of the multiple choice questions, and did not offer any evidence or other information to support their answers.
We have collated the answers to all the multiple choice questions and reported them below.

For those providing supporting information, we read each response to identify those that provide:

- empirical/referenced evidence - where respondents are aware of published/peerreviewed scientific evidence
- anecdotal/experiential evidence - where respondents have cited personal experience and observations
We have summarised this below.


## Summary of key findings

The following describes the main results from the consultation.
We have collated the answers given in all 13,680 responses to the various "yes/no" and multiple choice questions and presented these in the text and accompanying table and graphs. We have provided a narrative for the principal results.

We have described the overall nature of the evidence and comments we received against each question. We have included examples of individual comments.
All individual responses are available to read at https://consult.environment-agency.gov.uk/fisheries/consultation-on-the-review-of-the-close-season/. These have been anonymised to protect individual identities and do not include responses from those that explicitly requested us not to publish them.

## Overall response

Question 1.1 Do you support retaining, removing or changing the current river coarse fishing close season?
We want to understand what the overall level of support for each option was. It is worth noting that the consultation is not a referendum, but aims to collate any additional evidence that would help us determine if there is a case for changing or removing the close season.

Overall:

- 5311 respondents or $38.8 \%$ support retaining the current close season
- 1254 or $9.2 \%$ support retaining a close season, but changing the dates to 15 April to 30 June
- 6807 or $49.8 \%$ support removing the close season altogether
- 308 respondents or $2.3 \%$ were undecided or did not answer the question

Please note, where an angling club official has responded on behalf of their club committee and/or club members, we have not added the number of club members to the responses supporting that particular option. It would be impossible to do with any degree of confidence. For example, the committee of one large north of England club with around 1200 members voted to support retaining the close season - we have not added 1200 to the support for this option.
The overall composition is presented in Figure $2 \mathrm{a}(\mathrm{i})$.


Given over 90\% of all responses were from anglers, anglers' opinions are virtually identical to the overall opinions ( $38.8 \%$ support remain; $9.4 \%$ support change; $49.7 \%$ support remove; and $2.2 \%$ undecided or did not answer the question).

Compared with anglers, a slightly higher proportion of fishery managers support retaining the close season (43.2\%) and a slightly smaller proportion support removing it. A significantly higher proportion of those whose business depended on angling support removing the closes season ( $75.5 \%$ ), with fewer ( $23.5 \%$ ) supporting retention. The general public opinions were similar to the overall opinion.
Full details are given in Table 2a and Figure 2a(ii).
When looking at different angling disciplines, more coarse anglers support removing the close season (55.9\%) than other anglers and respondents overall. More mixed (coarse/game) anglers and game anglers support retaining the close season ( $51.5 \%$ and $79.2 \%$ respectively). Similarly, more coarse anglers support changing the close season than do other angling disciplines. Full details are given in Table 2b and Figure 2b.

Among coarse anglers, a greater proportion of stillwater-only and canal-only anglers support retaining the close season ( $51.6 \%$ and $52.7 \%$ respectively), compared with riveronly anglers (37.9\%) or those that fish any waters (36.6\%). A greater proportion river-only anglers or those that fish any waters support changing or removing the close season than stillwater-only or canal-only anglers.

A significantly higher proportion (81.2\%) of those that do not go coarse fishing support retaining the close season than those that support changing or removing it (18.1\%).
Full details are given in Table 2c and Figure 2c.
Of those anglers that fish stillwaters and canals during the current river close season, the majority ( $61.1 \%$ ) want to remove the river close season. A corresponding majority of those who choose not to fish stillwaters and canals during the close season (64.5\%) want to retain it on rivers. Full details are given in Table 2d and Figure 2d.

Table 2a. Overall opinion according to who responded - number and percentage of responses

| Option | Angler |  | Fishery manager |  | Angling business |  | General public |  | Other |  | Not answered |  | Overall |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| Retain the close season | 4844 | 39.0 | 19 | 43.2 | 23 | 23.5 | 201 | 41.3 | 38 | 52.1 | 186 | 40.5 | 5311 | 39.1 |
| Retain a close season, but change the dates | 1172 | 9.4 | 4 | 9.1 |  | 0.0 | 39 | 8.0 | 4 | 5.5 | 35 | 7.6 | 1254 | 9.2 |
| Remove the close season | 6214 | 50.1 | 20 | 45.5 | 74 | 75.5 | 238 | 48.9 | 31 | 42.5 | 230 | 50.1 | 6807 | 50.1 |
| Undecided | 185 | 1.5 | 1 | 2.3 | 1 | 1.0 | 9 | 1.8 |  | 0.0 | 8 | 1.7 | 204 | 1.5 |
| Total (excluding not answered) | 12415 | 100.0 | 44 | 100.0 | 98 | 100.0 | 487 | 100.0 | 73 | 100.0 | 459 | 100.0 | 13576 | 100.0 |
| Not Answered | 85 | 0.7 |  | 0.0 |  | 0.0 | 9 | 1.8 | 1 | 1.4 | 9 | 1.9 | 104 | 0.8 |
| Grand Total | 12500 |  | 44 |  | 98 |  | 496 |  | 74 |  | 468 |  | 13680 |  |



Table 2b. Overall opinion for different angling disciplines

| Option | Coarse fishing |  | Game fishing |  | Mixed coarsel game fishing |  | I do not fish in freshwater |  | Not answered |  | Overall |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Num. | \% | Num. | \% | Num. | \% | Num. | \% | Num. | \% | Num. | \% |
| Retain the close season | 3168 | 33.0 | 190 | 79.2 | 1808 | 51.5 | 16 | 59.3 | 129 | 61.4 | 5311 | 39.1 |
| Retain a close season, but change the dates | 907 | 9.5 | 13 | 5.4 | 321 | 9.1 | 2 | 7.4 | 11 | 5.2 | 1254 | 9.2 |
| Remove the close season | 5364 | 55.9 | 36 | 15.0 | 1334 | 38.0 | 6 | 22.2 | 67 | 31.9 | 6807 | 50.1 |
| Undecided | 150 | 1.6 | 1 | 0.4 | 47 | 1.3 | 3 | 11.1 | 3 | 1.4 | 204 | 1.5 |
| Total | 9589 | 100.0 | 240 | 100.0 | 3510 | 100.0 | 27 | 100.0 | 210 | 100.0 | 13576 | 100.0 |
| Not Answered | 83 | 0.4 |  | 0.0 | 17 | 0.2 |  | 0.0 | 4 | 0.9 | 104 | 0.4 |
| Grand Total | 9672 |  | 240 |  | 3527 |  | 27 |  | 214 |  | 13680 |  |



Table 2c. Overall opinion according to where respondents go fishing

| Option | 1. Rivers only |  | 2. Stillwaters only |  | 3. Canals only |  | 4. Any waters |  | 5. I do not go coarse fishing |  | 6. Not answered |  | Grand Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| 1. Retain the current close season | 774 | 37.9 | 411 | 51.6 | 29 | 52.7 | 3700 | 36.6 | 108 | 81.2 | 289 | 53.4 | 5311 | 38.8 |
| 2. Change the close season | 222 | 10.9 | 59 | 7.4 | 4 | 7.3 | 921 | 9.1 | 5 | 3.8 | 43 | 7.9 | 1254 | 9.2 |
| 3. Remove the close season | 1010 | 49.4 | 294 | 36.9 | 18 | 32.7 | 5276 | 52.2 | 19 | 14.3 | 190 | 35.1 | 6807 | 49.8 |
| 4. Do not know/undecided | 22 | 1.1 | 23 | 2.9 | 3 | 5.5 | 141 | 1.4 | 1 | 0.8 | 14 | 2.6 | 204 | 1.5 |
| 5. Not answered | 15 | 0.7 | 10 | 1.3 | 1 | 1.8 | 73 | 0.7 | 0 | 0.0 | 5 | 0.9 | 104 | 0.8 |
| Grand Total | 2043 | 100.0 | 797 | 100.0 | 55 | 100.0 | 10111 | 100.0 | 133 | 100.0 | 541 | 100.0 | 13680 | 100.0 |



Table 2d. Overall opinion according to whether respondents already fish stillwaters or canals during the current river close season

| Opinion | Yes | No | Not answer |  |  | Overall |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Num | Percent | Num | Percent | Num | Percent | Num | Percent |
| Retain the current close season | 2604 | 28.0 | 2430 | 64.5 | 277 | 53.6 | 5311 | 39.1 |
| Change the close season | 870 | 9.4 | 354 | 9.4 | 30 | 5.8 | 1254 | 9.2 |
| Remove the close season | 5676 | 61.1 | 929 | 24.7 | 202 | 39.1 | 6807 | 50.1 |
| Do not know/undecided | 140 | 1.5 | 56 | 1.5 | 8 | 1.6 | 204 | 1.5 |
| Total | 9290 | 100.0 | 3769 | 100.0 | 517 | 100.0 | 13576 | 100.0 |
| Not answered | 65 | 0.7 | 30 | 0.8 | 9 | 1.7 | 104 | 0.8 |
| Grand Total | 9355 |  | 3799 |  | 526 |  | 13680 |  |

## Responses to individual questions

## Risks to fish and wildlife

Risks to coarse fish
Question 2.1 Do you believe that changing [or removing] the statutory coarse fishing close season on rivers to 15 April to 30 June would pose a risk to coarse fish?
We asked if changing the close season would pose a risk to coarse fish stocks:

- 3170 people ( $24.1 \%$ ) say it would pose a risk to coarse fish
- 7861 (59.8\%) say that it would not
- 2121 (16.1\%) are undecided

Of those that support changing or removing the close season, the majority ( $87.6 \%$ and $82.1 \%$ ), respectively, feel that changing the close season would not pose a risk to coarse fish stocks. Of those that support retaining the close season, $52.9 \%$ feel that changing it would pose a risk.
A greater proportion of coarse-only anglers (62.1\%) than mixed anglers (48.5\%) or gameonly anglers ( $27.5 \%$ ) feel that changing the close season would no pose a risk.
Full details are given in Table 3a to 3c and Figure 3a.
Question 2.2 Do you believe removing the statutory coarse fishing close season on rivers would pose a risk to coarse fish?

- 5455 people ( $40 \%$ ) say it would pose a risk to coarse fish stocks
- 7002 ( $51 \%$ ) say it would not
- 905 (7\%) are undecided

Of those that support removing the close season, $93.5 \%$ feel it would not pose a risk to coarse fish. The majority of those supporting retaining or changing the close season feel it would pose a risk ( $84.0 \%$ and $62.4 \%$, respectively).
A greater proportion of coarse-only anglers (57.0\%) feel that removing the close season would not pose a risk to coarse fish than do mixed (39.3\%) or game-only anglers (17.9\%). However, more coarse-only anglers felt removing the close season would pose a risk to coarse fish stocks (34.1\%) than changing it would (19.0\%).
Full details are given in Table 3a to 3c and Figure 3a.

Table 3a. Would changing or removing the close season pose a risk to coarse fish?

| Opinion | Change the close season | Remove the close season |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Number | Percent | Number | Percent |
| No | 7861 | 59.8 | 7002 | 52.4 |
| Yes | 3170 | 24.1 | 5455 | 40.8 |
| Undecided | 2121 | 16.1 | 905 | 6.8 |
| Total | 13152 | 100.0 | 13362 | 100.0 |
| Not <br> answered | 528 | 3.9 | 318 | 2.3 |
| Total | 13680 |  | 13680 |  |



Table 3b. Risks to coarse fish according to the option supported

| Which close season option do you support? | Would changing the close season pose a risk to coarse fish? |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No |  | Yes |  | Undecided |  | Not Answered |  | Grand Total |  |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| Retain | 1057 | 19.9 | 2810 | 52.9 | 1309 | 24.6 | 135 | 2.5 | 5311 | 100.0 |
| Change | 1099 | 87.6 | 43 | 3.4 | 96 | 7.7 | 16 | 1.3 | 1254 | 100.0 |
| Remove | 5588 | 82.1 | 268 | 3.9 | 591 | 8.7 | 360 | 5.3 | 6807 | 100.0 |
| Undecided | 69 | 33.8 | 24 | 11.8 | 109 | 53.4 | 2 | 1.0 | 204 | 100.0 |
| Not Answered | 48 | 46.2 | 25 | 24.0 | 16 | 15.4 | 15 | 14.4 | 104 | 100.0 |
| Grand Total | 7861 | 57.5 | 3170 | 23.2 | 2121 | 15.5 | 528 | 3.9 | 13680 | 100.0 |


| Which close season option do you support? | Would removing the close season pose a risk to coarse fish? |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No |  | Yes |  | Undecided |  | Not Answered |  | Grand Total |  |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| Retain | 271 | 5.1 | 4463 | 84.0 | 414 | 7.8 | 163 | 3.1 | 5311 | 100.0 |
| Change | 288 | 23.0 | 782 | 62.4 | 156 | 12.4 | 28 | 2.2 | 1254 | 100.0 |
| Remove | 6363 | 93.5 | 96 | 1.4 | 232 | 3.4 | 116 | 1.7 | 6807 | 100.0 |
| Undecided | 35 | 17.2 | 74 | 36.3 | 92 | 45.1 | 3 | 1.5 | 204 | 100.0 |
| Not <br> Answered | 48 | 46.2 | 40 | 38.5 | 11 | 10.6 | 5 | 4.8 | 104 | 100.0 |
| Grand Total | 7005 | 51.2 | 5455 | 39.9 | 905 | 6.6 | 315 | 2.3 | 13680 | 100.0 |

Table 3c. Risks to coarse fish according to type of fishing

| What type of fishing do you do? | Would changing the close season pose a risk to coarse fish? |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No |  | Yes |  | Do not know |  | Not Answered |  | Grand Total |  |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| Coarse | 6008 | 62.1 | 1838 | 19.0 | 1449 | 15.0 | 377 | 3.9 | 9672 | 100.0 |
| Game | 66 | 27.5 | 115 | 47.9 | 54 | 22.5 | 5 | 2.1 | 240 | 100.0 |
| Mixed coarse/ game fishing | 1711 | 48.5 | 1130 | 32.0 | 580 | 16.4 | 106 | 3.0 | 3527 | 100.0 |
| I do not fish in freshwater | 12 | 44.4 | 10 | 37.0 | 5 | 18.5 |  | 0.0 | 27 | 100.0 |
| Not Answered | 64 | 29.9 | 77 | 36.0 | 33 | 15.4 | 40 | 18.7 | 214 | 100.0 |
| Grand Total | 7861 | 57.5 | 3170 | 23.2 | 2121 | 15.5 | 528 | 3.9 | 13680 | 100.0 |


| What type of fishing do you do? | Would removing the close season pose a risk to coarse fish? |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No |  | Yes |  | Do not know |  | Not Answered |  | Grand Total |  |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| Coarse fishing | 5514 | 57.0 | 3299 | 34.1 | 669 | 6.9 | 190 | 2.0 | 9672 | 100.0 |
| Game fishing | 43 | 17.9 | 176 | 73.3 | 15 | 6.3 | 6 | 2.5 | 240 | 100.0 |
| Mixed coarse /game fishing | 1385 | 39.3 | 1862 | 52.8 | 201 | 5.7 | 79 | 2.2 | 3527 | 100.0 |
| I do not fish in freshwater | 7 | 25.9 | 14 | 51.9 | 5 | 18.5 | 1 | 3.7 | 27 | 100.0 |
| Not Answered | 53 | 24.8 | 104 | 48.6 | 15 | 7.0 | 42 | 19.6 | 214 | 100.0 |
| Grand Total | 7002 | 51.2 | 5455 | 39.9 | 905 | 6.6 | 318 | 2.3 | 13680 | 100.0 |

## Evidence supporting opinions to change or remove the close season

In terms of the evidence, very little new evidence was put forward through the consultation. A fair number of anglers feel there is insufficient scientific evidence and that further work and/or a trial should be commissioned to improve our understanding.

However, many respondents have provided anecdotal observations and accounts that support the existing scientific evidence and general understanding. Many others provide contradictory accounts. The following summarise the main issues raised and examples of comments made.

- Available evidence. A number of respondents commented on the available evidence. Some stated the evidence was sufficient to retain the close season unchanged on a precautionary basis. Others commented that the lack of evidence of risk to coarse fish supports changing or removing the close season. Others still suggested further research should be carried out to provide more conclusive evidence. As stated above, no new evidence emerged from the responses to the consultation that made a case to remove or change the close season.

Examples
"I am not satisfied that the scientific literature demonstrates conclusively one way or another that removing the close season would not pose risks to coarse fish. A precautionary principle therefore should apply. Furthermore, the existing close season appears to have produced satisfactory ecological and conservation outcomes since 1878 and there is limited evidence to suggest that it will no longer continue to do so. It should be retained on this basis alone. Conversely, removing the close season in its entirety leaves no 'ecological margin of safety' should a combination of climate change and angling pressure prove highly detrimental to the sustainability of coarse fish populations."
"There is plenty of scientific evidence, I have seen referenced through organisations such as the Angling Trust and Wildlife Trusts that show there is little evidence to support a closed season in terms of threats to fish stocks. I have also fished all over the world and I have seen very little evidence (anecdotally) that a close season makes any positive impact."
"I would really like more scientific research to be carried out in to fish spawning, habitats and river eco systems to have more evidence of how angling and other human activity on rivers affects the whole river. This would allow for a more informed decision to be made on how to protect the fish and rivers for future generations and allow anglers to continue enjoying their river fishing for many years to come."
"I believe strongly that a 5 year trial would be a good idea."
Environment Agency comment: The Environment Agency is an evidence-led organisation. Any decision to change or remove the close season must be based on sound scientific evidence.

There have been no scientific studies on the impact of coarse angling during the close season, which means the evidence base is very limited. What evidence exists suggests at least some species are at risk in some rivers.

We will consider any further evidence that becomes available, but gathering more would be expensive, would take several years to complete and would most likely leave a high degree of uncertainty.
For any trial to be worthwhile, it would need extend over several or many years, cover a range of river and fishery types and consider multiple risks. This would make it logistically difficult and prohibitively expensive.

While we have no current plans to carry out further research into the close season, we will consider any further evidence that becomes available.

- Whether the close season benefits spawning coarse fish. Many of those that support retaining the current close season and some of those supporting an amended close season cite the need for fish to be able to spawn without disturbance and/or that they need a "rest" from angling. Those that support removing the close season cite the lack of any evidence that removing the close season from stillwaters and canals has caused an impact or where there is not close season in other countries (see below).
Some others say that angling during the close season deters poachers and predators (see below) or that fish benefit from anglers' groundbait at a time of year when they are in greatest need. This latter argument is countered by concerns that rivers need a period of recovery from groundbait input and that excessive groundbait can smother eggs.


## Examples

"... fish recruitment is very poor on too many rivers and angling is likely to only add to this pressure if it takes place during the spawning period. Responsible anglers, clubs and organisations wish to see angling remain sustainable and rivers thriving - given we do not really know what the impact has been and the close season appears to give the best chance for fish to spawn without human interference it should not be removed."
"I believe that coarse fish stocks require and deserve a chance to rest, recover and replenish from fishing activities and that this time allows them to naturalise and recover from stress... Persistent and unrestrained fishing cannot do anything to help current fish stocks and by definition can only lead to additional pressure on fish stocks."
"Some species of river coarse fish are very pressurised. Barbel are a much sought after species. The current closed season provides these fish with an opportunity to spawn free from angler pressure and (given that May is usually their preferred spawning month) and beginning the process of recovering from spawning. Confining these fish in anglers' keepnets (which inevitably match fishermen do) is highly damaging to them. Abolition of the closed season would see them being targeted by anglers immediately prior to spawning. A similar argument applies to the Common Bream."
"Fish spawn throughout the year and the current dates do not offer any real protection. Also fisherman pose almost no threat to spawning fish so the closed season is pointless."
"Some fish spawn prior to the statutory close season while others, (barbel and chub) often spawn just after in late June, there has never been any evidence their stocks have been damaged."
"I feel lifting the close season would be the best option. I believe this for the following reasons:-

1. In my experience, fish engaged in spawning have little if any interest in feeding. So fishing during spawning is unlikely to have much, if any effect on the spawning fish. In addition, the current closed season does not cover the entire period of spawning for all UK species. It's my understanding that no impact has been seen in early and late spawning fish caught outside the closed season.
2. Commercial fisheries have no closed season. Is there any evidence to suggest fish suffer as a result?
3. By having anglers on the bank year round it will help to detect or deter poaching and illegal fishing.
4. By comparison, rivers are vastly under-fished compared to easy accessed commercial fisheries. Numbers of anglers likely to fish during the period covered by the closed season would still be low and unlikely to cause issues to fish stocks or health if it was lifted."

Environment Agency comment: The evidence on whether coarse fish need protection during the close season is limited. Certain species, in particular dace and barbel, aggregate

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while spawning, which may increase the likelihood of them being targeted. Given other pressures on coarse fish stocks, it is right to adopt the precautionary principle to retain the close season.

There is no evidence that current groundbait use is impacting river water quality or smothers eggs.

- Whether spawning fish feed. Many anglers recount that spawning fish do not feed and that they have never caught spawning fish (either immediately before or after the close season on rivers, or during spawning times on stillwaters), whereas others claim to have done so or report that fish are more vulnerable to capture immediately before or after spawning. The Avon Roach Project observed spawning roach being interrupted and feeding when presented with red maggots.


## Examples

"I believe that when fish are breeding or getting ready for breeding they are not likely to be feeding or not as hard as normal there for which ever species is breeding at the time you are fishing you wouldn't be affecting them as they are more concentrated on breeding."
"In the main fish do not feed whilst in spawning condition. It is possible to catch them in the weeks leading up to and after spawning. Anglers would in the main be extra careful as they are in commercial venues."
"I have been coarse fishing for 35 years, and nearly every year I catch lots and lots of fish full of spawn after the close season."
"They [roach] are very visible and very vulnerable and the old argument that fish don't feed when spawning is nonsense as knowing we'd be involved in this debate, we made sure of our facts and actually interrupted our Avon Roach spawning for a short period simply with a pot of red maggots." (Avon Roach Project)

Environment Agency comment: We have no scientific evidence on whether coarse fish feed while spawning. They can and will feed in the weeks and days leading up to and when recovering from spawning. Wading anglers may disturb spawning fish irrespective of whether they are feeding. Disturbance to pre-spawning (hen) fish may cause them to reabsorb their eggs and prevent them from spawning that season: post-spawning fish are already fatigued and may succumb to being caught.

- Close season timing. Many of those providing a view on the timing of the close season provide valuable observations of fish spawning at any time between February and August, and that this varies between years. For some, this makes the close season unnecessary, on the basis spawning fish are still vulnerable before and after it. Others claim the close season works because it covers the majority of fish in most years. Those supporting changing the close season, to run from 15 April to 30 June, feel these dates would provide a better fit for most species, but recognise that some early spawning fish may be more at risk.


## Examples

"Spawning for all species is dependent on environmental conditions. I have regularly seen evidence of roach spawning in late February/early March when weather conditions and water temperatures prevail. Having some set period is pointless."

> "Although not every coarse fish will breed during the current closed season the vast majority of them do, along with water birds and other bankside inhabitants. They are all best left alone at this sensitive time."
> "Different species spawn at different times in some cases they spawn more than once a year. This makes the close season outdated. Let the angler or angling club decide which species may be targeted."
> "Fish don't usually spawn until May anyway, and are often still spawning come June 16th. Starting in July is a much better idea."
> Environment Agency comment: Different coarse fish can spawn from any time between February (like dace) and July (like tench.. Some species are more influenced by water temperature and so spawning times can be earlier or later in warmer or cooler springs. The current close season covers the period when most species spawn in most rivers and in most years. Fewer fish spawn before and after the close season. To protect all fish in all conditions, the close season would need to be extended and we consider this to be overprecautionary.
> Changing the close season, to finish two weeks later, would provide greater protection for later or repeat spawning fish, but delaying the start by four weeks would put early spawners, such as dace, pike and grayling at greater risk.

- Club/fishery rules. A proportion (around 17\%) of respondents that support removing the close season suggest that angling clubs and fishery owners should be able to make their own close season rules, either, as a club or fishery rule. These retained (nonstatutory) close seasons could be set to reflect when fish are actually seen to be spawning and so vary between years. Several respondents that support retaining the current close season suggest that where clubs choose to impose their own close season as club rules, clubs on opposing banks may implement different rules, leading to confusion and potential conflict.

Examples
"Different species spawn at different times in some cases they spawn more than once a year. This makes the close season outdated. Let the angler or angling club decide which species may be targeted."
"I believe that the clubs that own waters would be the best people to manage their waters and know when the fish are ready for spawning and would either close their waters or make the spawning grounds out of bound from angling during the relevant period."
"If the statutory close season was changed or removed, we would still enforce the current close season on our waters. However, because some of our fishing rights adjoin or on the opposite bank to other angling clubs and landowners who do not necessarily feel the same way this could be extremely difficult to enforce."
"If two different clubs or landowners have the fishing rights to opposite banks of a river, one decides to enforce the old closed season and the other chooses to abolish it, it would be completely unfair to the club who wish to retain a close season to protect their waters and the local fish population."

Environment Agency comment: We know angling clubs take the responsibility for their fisheries very seriously. However, many reaches are not operated as fisheries or there is little or no active fisheries management.
If the statutory close season was removed, some clubs may continue to enforce the current or different close seasons: others may choose to dispense with it; some may enforce different close seasons in different years or for different species. Those reaches without any
formal fisheries management would have no close season. Combined with the requirement for a statutory close season to be retained on some protected rivers (see below), this could result in a "patchwork" of regulations, increasing confusion among anglers and enforcement costs for fishery owners. NB. Where a club wishes to retain a close season in the absence of a byelaw, they would be responsible for its enforcement.

- Climate change. Many respondents say the current close season is unnecessary as climate change is making spawning times more unpredictable. Some see climate change posing an additional risk to fish stocks, which retaining the close season would help mitigate against. Others report that fish spawn later in the spring, which they feel would be protected by a later close season, although a few feel locally-specific close seasons would be more effective.


## Examples

"Climate change has made fish spawn at varying times, not just in a man-made close season."
"Conversely, removing the close season in its entirety leaves no 'ecological margin of safety' should a combination of climate change and angling pressure prove highly detrimental to the sustainability of coarse fish populations."
"I believe the evidence available suggests that moving the closed season will still offer protection to fish during their breeding cycle. As we start to really see the effects of climate change, especially the variances in weather we now experience from year to year, no one size fits all approach will work all the time. To caveat my answer above, I feel that there should be the capacity to allow for local byelaws to amend closed season dates for potentially vulnerable species such as dace, pike and grayling."

Environment Agency comment: While climate change is happening and is affecting fish stocks (and other wildlife) in other ways, there is no evidence that it has caused natural spawning times to shift. Some species start spawning when rivers reach a certain temperature, so will spawn earlier in warmer years and latter in cooler ones. We may see an overall shift if, in the long term, rivers warm sooner. Other species' spawning is primarily determined by photoperiod (day length), which will remain unchanged.

- Spawning aggregations. A number of observations supported the scientific evidence that some coarse fish species, for example barbel, chub and dace, migrate and aggregate before spawning. To some anglers, this makes them vulnerable to angling, in particular from specimen hunters, whereas others feel the fact these species migrate away from the main river fisheries gives them some degree of protection.


## Examples

"I know a good number of places where large aggregations of spawning barbel and chub in particular, head to the same shallow stretch to spawn every year. I think it would be too easy and too tempting for anglers to target these areas while the fish are gathering pre-spawn and recovering post spawn, as well as when they are spawning."
"It is true that coarse anglers do not tend to fish in shallow, gravel glide habitats at the back end of each season but I believe that some anglers may well move to those areas were large pre- and post-spawning aggregations of fish will gather. Handling and catching bags of dace immediately pre- or post-spawning will put this species under increased pressure."
"Fish spawn at varying times and tend to disappear at spawning times."

Environment Agency comment: There is strong evidence that some species form spawning aggregations: barbel, dace and bream are among these. Where they form such aggregations, they may be particularly vulnerable to angling disturbance, either from cast tackle or from wading/bankside. There is also evidence, in particular for dace, that these spawning aggregations are in smaller tributaries and are therefore outside of principal fisheries.

- Angler numbers. Around one quarter of respondents that support removing the close season perceive the risk from coarse angling to be relatively low. They commented that there are generally many fewer anglers fishing rivers now than in previous decades and that in comparison to other pressures on fish stocks, for example pollution, predation and river maintenance, allowing angling to continue through the current close season posed very little risk.


## Examples

"There are so few anglers fishing rivers now that any impact by anglers would be inconsequential."
"Commercial fisheries have made it so easy for anglers to access waters all year round that very few anglers are seen on rivers even in the main season. The small increase in actual angling on rivers if the close season was removed would have little affect on fish. Coarse fishing on rivers has been on the decline for over 20 years due to many things, easy access being one of them..."
"Also, considering the mileage of rivers available in this country, the pressure caused by angling in comparison to that caused by pollution and predation is at most minimal."

Environment Agency comment: We agree that fewer coarse anglers fish rivers in recent years and that the angling pressure on coarse fish is relatively low, certainly compared with other pressures. However, fishery regulation, in particular fundamental regulations like the close season, must be future-proofed, should there be an upturn in river angling as we and our partners are working towards.

- Canal and stillwater fishing has not declined OR the lack of a close season in other countries has not impacted on stocks. Over a quarter of respondents say that fish stocks had not declined in waters without a close season, whether stillwaters and canals in England or rivers/other waters in other European countries.


## Examples

"There is no evidence from still waters or cancels in the UK or other countries Denmark, Ireland where there is no closed season that it is detrimental to either fish or fishing."
"...there is no close season on most still waters and they, and their businesses are thriving."
"Stillwater and canal fish stocks have not been adversely affected by the removal of a close season (responsible fisheries simply inform their members when the fish are spawning and temporarily close the waters). I see no reason why the same approach cannot be adopted by angling clubs on rivers."
"You allowed all year round fishing on commercial fisheries and canals with no detrimental effect so what is the difference between rivers and stillwater fish. In my view none."
"I've fished in countries all over northern Europe that have no close season and it makes no difference to the fish in their rivers. Does it affect fish in English lakes and canals? If so, why lift the close season on these?"

Some anglers that support retaining the close season counter this, saying that river fisheries rely on natural recruitment and are more sensitive to pressures than many stillwater fisheries, which managers restock so any impacts from fishing while fish are spawning are not detectable. One respondent challenged the notion that fish stocks have not suffered in Northern Ireland where there is no close season.

## Examples

"Rivers are more delicate environments subject to extraction, water run-off, increasing boat traffic, open water swimming etc. Removing the closed season altogether would just add another activity that is potentially stressful for the ecology of the river."
"Rivers are more sensitive environments than most stillwaters and are generally not stocked to maintain fish populations."
"The danger to coarse fish stocks in the relatively small river systems in England is inevitable in the extreme! My evidence is there for all to see on the demise of the River Erne system in Northern Ireland! Heavily fished in competition in the 1980s! Colossal weights of fish caught in competition and retained in keepnets before returning! Keepnets clogged with spawn and milt! A spawning generation denied! ... Vast stocks of roach/bream hybrids disappeared as the separate species had more room to be selective! The River Bann at Portadown suffered the same scenario!"

Environment Agency comment: While many of the species will be the same, fish stocks and fishery management in canals and stillwaters are very different from those in rivers. The vast majority of stillwater fisheries are in single ownership, so a decision to relax or remove the close season will not affect other fisheries.

In contrast to most stillwaters and canals, river coarse fisheries exploit a shared resource which relies far less on direct fishery management interventions such as stocking. In particular, they depend on natural spawning and naturally balanced fish communities, with very little or no supplemental stocking and stock manipulation. They are, as a result, more sensitive to pressures, which is why we adopted the precautionary principle and retained the close season on rivers when it was removed elsewhere.
In addition, rivers are also subject to many more pressures, including from flood risk management, surrounding land use and water abstraction and discharge. In many heavily modified rivers, natural coarse fish spawning, at least for some species, is has become restricted to a few reaches and tributaries.

While many other European countries have relaxed the close seasons for many species, most retain a close season for some species. In some countries, different fish are subject to different seasons and associated regulations. We do not believe enforcing separate close seasons for different species would be effective, for example, a pike-only close season would be difficult to enforce, given the popularity of perch and zander angling.

Question 2.3 In the event of changing or removing the close season, do you believe there should be different arrangements for pike fishing?
We also asked that in the event of changing or removing the close season for other coarse fish, whether pike required a separate close season, given they may be more sensitive to angling pressure whilst spawning. The majority of people (54.8\%) feel they do not need such protection, compared with $21.3 \%$ that do ( $21.6 \%$ are undecided).

Full details are given in Table 3d.

## Evidence supporting these opinions

In terms of evidence, little additional published evidence was offered. Evidence from anglers' experience is mixed. Some report catching pike in spawning condition as early as January, which in their opinion means retaining the current close season would be unnecessary. Others (and probably the most frequent comment) report that pike are sensitive to angling pressure, but that any restrictions on pike fishing should extend into the warmer months, with pike fishing only permitted in autumn/winter. Some argue that given many species spawn at different times, it would be perverse to make specific arrangements for pike alone and that doing so would create confusion for anglers and enforcement problems for the Environment Agency/clubs.

Table 3d. In the event of changing or removing the close season, do you believe there should be different arrangements for pike fishing?

| Which close season option do you support? | No |  | Yes |  | Do not Know |  | Not Answered |  | Grand Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| Retain | 2484 | 46.8 | 1433 | 27.0 | 1245 | 23.4 | 149 | 2.8 | 5311 | 100.0 |
| Change | 524 | 41.8 | 429 | 34.2 | 283 | 22.6 | 18 | 1.4 | 1254 | 100.0 |
| Remove | 4358 | 64.0 | 984 | 14.5 | 1327 | 19.5 | 138 | 2.0 | 6807 | 100.0 |
| Undecided | 70 | 34.3 | 54 | 26.5 | 76 | 37.3 | 4 | 2.0 | 204 | 100.0 |
| Not <br> Answered | 55 | 52.9 | 15 | 14.4 | 25 | 24.0 | 9 | 8.7 | 104 | 100.0 |
| Grand Total | 7491 | 54.8 | 2915 | 21.3 | 2956 | 21.6 | 318 | 2.3 | 13680 | 100.0 |

## Risks to salmon and trout

We asked if changing or removing the close season would pose a risk to salmon and trout stocks. In particular, we were interested in the risks to downstream migrating smolts from accidental capture in coarse or mixed fisheries.

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 and trout?

- 1963 people (15.6\%) say it would pose a risk to salmonids
- 5781 people ( $46 \%$ ) say it would not
- 4813 (38.3\%) are undecided

Of those that support changing or removing the close season, the majority ( $51.8 \%$ and $59.3 \%$ respectively) say it would not pose a risk, with $32.3 \%$ of those that want to retain the close season saying it would.
A significantly greater proportion of game-only anglers (52.1\%) than coarse-only anglers ( $9.5 \%$ ) feel changing the close season would pose a risk to salmonids, with $24.0 \%$ of those who fish for both feel changing it would pose a risk.
Full details are given in Table 4a to 4c and Figure 4a.
Question 3.2 Do you believe removing the statutory coarse fishing close season on rivers would increase the risk to salmon and trout?

When asked if removing the close season would pose a risk to salmonids:

- 3228 people ( $23.6 \%$ ) say it would pose a risk
- 5408 people ( $39.5 \%$ ) say it would not
- 3948 people ( $28.9 \%$ ) are undecided

The majority of those that want to remove the close season feel that doing so does not pose a risk to salmonids (64.5\%). Half (49.9\%) of those that want to retain it feel it would pose such a risk.

The majority of game-only anglers feel removing the close season would pose a risk to salmonids, compared with a minority of coarse anglers (16.6\%). Compared with changing the close season, more game-only, coarse-only and mixed anglers feel removing it would pose a risk to salmonids ( $66.3 \%, 16.6 \%$ and $38.6 \%$ respectively).
Full details are given in Table 4a to 4c and Figure 4a.

## Evidence supporting opinions to change or remove the close season

In terms of evidence, again, no additional published evidence was forthcoming. A greater proportion of coarse-only anglers are undecided over the risks to game fish. A fair number of respondents agree that salmon and sea trout smolts would and do take coarse angling baits, making them vulnerable to accidental capture. Others report that they had never caught them and/or that with careful handling they survived being released. Many state that both juvenile and adult salmonids are already caught by game anglers, so it would be unfair to restrict coarse anglers. While some anglers feel other pressures pose a greater risk to salmon and trout stocks, others, particularly those supporting retaining the close season, believe that additional angling pressure could be damaging to stocks.

Those that supported changing the close season and who commented on the risks to salmonids agreed that most salmon smolts migrate downstream during the proposed (and current) close season, so would continue to be protected.

Table 4a. Would changing or removing the close season pose a risk to salmon and trout?

| Opinion | Change the close season | Remove the close season |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Number | Percent | Number | Percent |
| No | 5781 | 46.0 | 5408 | 43.0 |
| Yes | 1963 | 15.6 | 3228 | 25.7 |
| Undecided | 4813 | 38.3 | 3948 | 31.4 |
| Total | 12557 | 100.0 | 12584 | 100.0 |
| Not <br> answered | 1123 | 8.2 | 1096 | 8.0 |
| Grand total | 13680 |  | 13680 |  |

Figure 4 a . Would changing or removing the close season pose a risk to salmon and trout


Table 4b. Risks to salmonids according to the option supported

| Which c | Wo | g | lose | po | k to | nids |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| season option do you support? | No |  | Yes |  | Do no know | cided | Not A |  | Grand |  |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| Retain | 1012 | 19.1 | 1713 | 32.3 | 2164 | 40.7 | 422 | 7.9 | 5311 | 100.0 |
| Change | 650 | 51.8 | 45 | 3.6 | 469 | 37.4 | 90 | 7.2 | 1254 | 100.0 |
| Remove | 4039 | 59.3 | 165 | 2.4 | 2020 | 29.7 | 583 | 8.6 | 6807 | 100.0 |
| Undecided | 46 | 22.5 | 23 | 11.3 | 121 | 59.3 | 14 | 6.9 | 204 | 100.0 |
| Not Answered | 34 | 32.7 | 17 | 16.3 | 39 | 37.5 | 14 | 13.5 | 104 | 100.0 |
| Grand Total | 5781 | 42.3 | 1963 | 14.3 | 4813 | 35.2 | 1123 | 8.2 | 13680 | 100.0 |


| Which close season option do you support? | Would removing the close season pose a risk to salmonids? |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No |  | Yes |  | Do not know/undecided |  | Not Answered |  | Grand Total |  |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| Retain | 584 | 11.0 | 2649 | 49.9 | 1620 | 30.5 | 458 | 8.6 | 5311 | 100.0 |
| Change | 361 | 28.8 | 353 | 28.1 | 441 | 35.2 | 99 | 7.9 | 1254 | 100.0 |
| Remove | 4390 | 64.5 | 156 | 2.3 | 1752 | 25.7 | 509 | 7.5 | 6807 | 100.0 |
| Undecided | 39 | 19.1 | 44 | 21.6 | 106 | 52.0 | 15 | 7.4 | 204 | 100.0 |
| Not Answered | 34 | 32.7 | 26 | 25.0 | 29 | 27.9 | 15 | 14.4 | 104 | 100.0 |
| Grand Total | 5408 | 39.5 | 3228 | 23.6 | 3948 | 28.9 | 1096 | 8.0 | 13680 | 100.0 |

Table 4c. Risks to salmonids according to type of fishing

| What type of fishing do you do? | Would changing the close season pose a risk to salmonids? |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No |  | Yes |  | Do not know |  | Not Answered |  | Grand Total |  |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| Coarse | 3913 | 40.5 | 922 | 9.5 | 3934 | 40.7 | 903 | 9.3 | 9672 | 100 |
| Game | 72 | 30.0 | 125 | 52.1 | 37 | 15.4 | 6 | 2.5 | 240 | 100 |
| Mixed coarse/ game fishing | 1739 | 49.3 | 845 | 24.0 | 789 | 22.4 | 154 | 4.4 | 3527 | 100 |
| I do not fish in freshwater | 6 | 22.2 | 9 | 33.3 | 9 | 33.3 | 3 | 11.1 | 27 | 100 |
| Not Answered | 51 | 23.8 | 62 | 29.0 | 44 | 20.6 | 57 | 26.6 | 214 | 100 |
| Grand Total | 5781 | 42.3 | 1963 | 14.3 | 4813 | 35.2 | 1123 | 8.2 | 13680 | 100 |


| What type of fishing do you do? | Would removing the close season pose a risk to salmonids? |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No |  | Yes |  | Do not know |  | Not Answered |  | Grand Total |  |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| Coarse fishing | 3839 | 39.7 | 1605 | 16.6 | 3330 | 34.4 | 898 | 9.3 | 9672 | 100 |
| Game fishing | 53 | 22.1 | 159 | 66.3 | 21 | 8.8 | 7 | 2.9 | 240 | 100 |
| Mixed coarse/ game fishing | 1475 | 41.8 | 1361 | 38.6 | 558 | 15.8 | 133 | 3.8 | 3527 | 100 |
| I do not fish in freshwater | 5 | 18.5 | 13 | 48.1 | 6 | 22.2 | 3 | 11.1 | 27 | 100 |
| Not Answered | 36 | 16.8 | 90 | 42.1 | 33 | 15.4 | 55 | 25.7 | 214 | 100 |
| Grand Total | 5408 | 39.5 | 3228 | 23.6 | 3948 | 28.9 | 1096 | 8.0 | 13680 | 100 |

39 of 100

Both the Wild Trout Trust and Salmon \& Trout Conservation UK support retaining the close season, in part, due to the risk to salmon and sea trout smolts. The Wild Trout Trust response is available https://www.wildtrout.org/assets/img/general/WTT Coarse-Fish-Close-Season-Consult Feb-2019.docx

Natural England, which has statutory responsibility for protected sites (including certain salmon rivers), stated that there was a small risk to salmon smolts from changing the close season, but that the risk of smolt mortality would increase if the close season was removed. Natural England's response is appended.

## Examples

"Again using my local river Dee as an example, when fishing for coarse fish using maggot and caster ... as bait, a lot of trout and salmon parr are caught accidentally because the river is a mixed fishery, as are most rivers."
"I've only ever caught a handful of young smolts in the whole of my 50 odd years of fishing so I don't believe the removal of the closed season will have any impact."
"Very few smolts run in early April, so it [changing the close season] it will have little impact."
Environment Agency comment: Salmon stocks in English rivers have declined, with 38 out of 42 principal salmon rivers assessed as either at risk or probably at risk of meeting their management objective. Salmon are protected in a number of rivers (Special Areas of Conservation and Sites of Special Scientific Interest). The risk of adult salmon being caught accidentally by anglers targeting coarse fish is very low. Salmon smolts, on the other hand, can take coarse angling baits and could be vulnerable to accidental capture during their downstream migration through coarse fisheries during late April and May. However, as smolts migrate during the coarse fish close season, they are protected from this risk. While the justification for the close season must be based on the risks to coarse fish stocks, we must also consider the risks to other fish and wildlife, in particularly those that are protected.

Risks to eel, smelt, lamprey or shad
We asked if changing or removing the close season would pose a risk to other migratory species, namely eel, smelt, lamprey and shad. Each of these species is threatened and lamprey and shad are protected, so it is important that we understand any potential risks. While lamprey do not take anglers' baits, there is a potential risk of disturbance from wading by anglers (and other river users).
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?

- 1766 people ( $13.7 \%$ ) say it would pose a risk to stocks of these species
- 6325 (48.9\%) say it would not
- 4839 (37.4\%) are undecided

Although $30.5 \%$ of those wanting to retain a close season perceive changing it would pose a risk to these species, very few of those wanting to change or remove it say it would ( $2.7 \%$ and $1.2 \%$ respectively). Full details are given in Table 5a and 5b and Figure 5a.
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?

- 2907 people (22.1\%) say it would pose a risk to stocks of these species
- 5902 ( $45.5 \%$ ) say it would not
- 4158 (32.1\%) are undecided

Although a greater proportion of those wanting to remove or change the close season felt removing it would pose a risk ( $46.1 \%$ and $27.1 \%$ ), less than $1 \%$ of those wanting to remove the close season did. Full details are given in Table 5a and 5b and Figure 5a.

## Evidence supporting opinions to change or remove the close season

Many anglers said they knew very little about these species and/or that they did not frequent the rivers they fished. This may explain why a greater percentage of anglers are undecided over the risks to these stocks ( $30 \%$ ) than are over the risks to coarse fish (7\%).

Of those commenting that changing or removing the close season would pose a risk, many said the bycatch of eel, combined with the fact that they are prone to deep hooking was a concern. Although shad are restricted to only a few rivers, a fair number of respondents said that these fish would be vulnerable to increased angling pressure at a time when they are migrating into these rivers.
Others pointed out that all eel must already be returned and that fishing for shad is prohibited. Combined with the very low/no targeted angling, changing or removing the close season would have no additional impact on stocks. Any specific risks could be managed through local measures (closed areas or bait restrictions).

Concern over smelt and lamprey was less prevalent, although several state that lamprey are prone to disturbance by wading anglers (presumably juvenile lamprey and brook lamprey) - a counter-view to this is that few coarse anglers wade.

Natural England has statutory duties for protected species. Its advice on changing the close season was "although there is a theoretical increased risk to some of the above species with an amended close season, the risk is thought to be extremely small." However, it has greater concern over risks to shad and smelt from removing the close season as "would be significantly increased as their full spawning migration periods would be exposed to coarse angling gear."

Table 5a. Would changing or removing the close season pose a risk to eel, shad, smelt and lamprey?

| Opinion | Change the close season |  | Remove the close season |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Number | Percent | Number | Percent |
| No | 6325 | 48.9 | 5902 | 45.5 |
| Yes | 1766 | 13.7 | 2907 | 22.4 |
| Undecided | 4839 | 37.4 | 4158 | 32.1 |
| Total | 12930 | 100.0 | 12967 | 100.0 |
| Not <br> answered | 750 | 5.5 | 713 | 5.2 |
| Grand total | 13680 |  | 13680 |  |

Figure 5a. Would changing or removing the close season pose a risk to eel, shad, smelt and lamprey


Table 5b. Risks to eel, shad, smelt and lamprey according to the option supported

| Which clo | Wo | g | lose | n po | sk to | ad, | nd la |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| season option do | No |  | Yes |  | Do no |  | Not A |  | Grand |  |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| Retain | 868 | 16.3 | 1619 | 30.5 | 2553 | 48.1 | 271 | 5.1 | 5311 | 100.0 |
| Change | 685 | 54.6 | 34 | 2.7 | 491 | 39.2 | 44 | 3.5 | 1254 | 100.0 |
| Remove | 4679 | 68.7 | 79 | 1.2 | 1631 | 24.0 | 418 | 6.1 | 6807 | 100.0 |
| Undecided | 52 | 25.5 | 15 | 7.4 | 130 | 63.7 | 7 | 3.4 | 204 | 100.0 |
| Not Answered | 41 | 39.4 | 19 | 18.3 | 34 | 32.7 | 10 | 9.6 | 104 | 100.0 |
| Grand Total | 6325 | 46.2 | 1766 | 12.9 | 4839 | 35.4 | 750 | 5.5 | 13680 | 100.0 |


| Which close season option do you support? | Would removing the close season pose a risk to eel, shad, smelt and lamprey? |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No |  | Yes |  | Do not know |  | Not Answered |  | Grand Total |  |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| Retain | 510 | 9.6 | 2448 | 46.1 | 2035 | 38.3 | 318 | 6.0 | 5311 | 100.0 |
| Change | 391 | 31.2 | 340 | 27.1 | 462 | 36.8 | 61 | 4.9 | 1254 | 100.0 |
| Remove | 4922 | 72.3 | 56 | 0.8 | 1517 | 22.3 | 312 | 4.6 | 6807 | 100.0 |
| Undecided | 39 | 19.1 | 38 | 18.6 | 117 | 57.4 | 10 | 4.9 | 204 | 100.0 |
| Not Answered | 40 | 38.5 | 25 | 24.0 | 27 | 26.0 | 12 | 11.5 | 104 | 100.0 |
| Grand Total | 5902 | 43.1 | 2907 | 21.3 | 4158 | 30.4 | 713 | 5.2 | 13680 | 100.0 |

## Risks to river wildlife and habitats

We asked whether changing or removing the close season would pose a risk to river habitats and wildlife.

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?

- 2874 people (21.9\%) say it would pose a risk to river wildlife and habitats
- 8713 (66.4\%) say it would not
- 1537 (11.7\%) are undecided

Although just under half of those wanting to retain the close season perceived changing it would pose a risk to wildlife (49.3\%), very few of those wanting to change or remove it did so (5.0\% and 2.0\% respectively).
Full details are given in Table 6a and 6b and Figure 6a.
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?

- 4553 people ( $34.4 \%$ ) say it would pose a risk to stocks of these species
- 7630 ( $57.7 \%$ ) say it would not
- 1035 (7.8\%) are undecided

Although $71.7 \%$ of those wanting to retain the close season and $42.8 \%$ of those wanting to change it perceived removing it would pose a risk to wildlife, only $1.6 \%$ of those wanting to remove it did.
Full details are given in Table 6a and 6b and Figure 6a.

Table 6a. Would changing or removing the close season pose a risk to other wildlife?

| Opinion | Change the close season |  | Remove the close season |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Number | Percent | Number | Percent |
| No | 8713 | 66.4 | 7630 | 57.7 |
| Yes | 2874 | 21.9 | 4553 | 34.4 |
| Undecided | 1537 | 11.7 | 1035 | 7.8 |
| Total | 13124 | 100.0 | 13218 | 100.0 |
| Not <br> answered | 556 | 4.1 | 462 | 3.4 |
| Grand total | 13680 |  | 13680 |  |

Figure 6 a. Would changing or removing the close season pose a risk to other wildlife?


Table 6b. Risks to other wildlife according to the option supported

| Which close season option do you support? | Would changing the close season pose a risk to other wildlife? |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No |  | Yes |  | Do not know |  | Not Answered |  | Grand Total |  |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| Retain | 1524 | 28.7 | 2618 | 49.3 | 999 | 18.8 | 170 | 3.2 | 5311 | 100.0 |
| Change | 1074 | 85.6 | 63 | 5.0 | 94 | 7.5 | 23 | 1.8 | 1254 | 100.0 |
| Remove | 5949 | 87.4 | 134 | 2.0 | 380 | 5.6 | 344 | 5.1 | 6807 | 100.0 |
| Undecided | 108 | 52.9 | 33 | 16.2 | 57 | 27.9 | 6 | 2.9 | 204 | 100.0 |
| Not Answered | 58 | 55.8 | 26 | 25.0 | 7 | 6.7 | 13 | 12.5 | 104 | 100.0 |
| Grand Total | 8713 | 63.7\% | 2874 | 21.0\% | 1537 | 11.2\% | 556 | 4.1\% | 13680 | 100.0\% |


| Which close <br> Weason option do <br> sou support? <br> yould removing the close season pose a risk to other wildlife? | No | Yes | Do not know | Not Answered | Grand Total |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Num | $\%$ | Num | $\%$ | Num | $\%$ | Num | $\%$ | Num | $\%$ |
| Retain | 754 | 14.2 | 3808 | 71.7 | 550 | 10.4 | 199 | 3.7 | 5311 | 100.0 |
| Change | 558 | 44.5 | 537 | 42.8 | 120 | 9.6 | 39 | 3.1 | 1254 | 100.0 |
| Remove | 6189 | 90.9 | 110 | 1.6 | 306 | 4.5 | 202 | 3.0 | 6807 | 100.0 |
| Undecided | 79 | 38.7 | 64 | 31.4 | 55 | 27.0 | 6 | 2.9 | 204 | 100.0 |
| Not Answered | 50 | 48.1 | 34 | 32.7 | 4 | 3.8 | 16 | 15.4 | 104 | 100.0 |
| Grand Total | 7630 | $55.8 \%$ | 4553 | $33.3 \%$ | 1035 | $7.6 \%$ | 462 | $3.4 \%$ | 13680 | $100.0 \%$ |

## Evidence supporting opinions to change or remove the close season

Many respondents (regardless of their opinion on the future of the close season) report that anglers are sensitive to wildlife needs and that any disturbance to wildlife should not be seen in isolation. In their experience, other river/riverside users (for example boaters/canoeists, walkers and cyclists) create more disturbance, given the relatively low numbers of river anglers in recent years. The Institute of Fisheries Management commented that, although changing or removing the close season would increase the number of anglers on the river bank, whether this would cause significant additional disturbance is debatable. In particular, it said angler disturbance should be put in perspective alongside disturbance from other river users.
Those that consider changing or removing the close season would pose a risk to wildlife cite increased disturbance to nesting birds in particular and that the current close season allows regenerating of bankside vegetation. The British Dragonfly Society explained how the period between May and September covers peak dragonfly activity, including when larvae emerge from water to transform into adults, a time when they are vulnerable.

Those that consider any change to the current close season will not pose a risk to river wildlife cite no evidence of impacts on canals and stillwaters since the close season was removed. Many also claim that anglers' presence on the river bank means they can alert the Environment Agency to pollution and other impacts, and deter predators and illegal activity impacting on wildlife.
Natural England has overall responsibility for wildlife conservation in England, including responsibility for assessing the condition of rivers designated as Sites of Special Scientific Interest (SSSI) and Special Areas of Conservation (SAC) under the Habitats Directive. In its response to the consultation, it stated that changing the close season may increase disturbance and bankside activity, thus posing a risk to wildlife. It raised concerns over to disturbance to nesting birds and modification of nesting vegetation during the most intense nesting season. It suggested a possible compromise of a close season between 1 April and 30 June. Moving the start of the close season would increase the risk to regenerating vegetation, reducing cover for aquatic fauna and increasing erosion. The later end to the close season would not mitigate for this, as more vigorous growth later in spring is less sensitive to disturbance. It also expressed concern over disturbance to aquatic mammals, although this was not thought to be significant due to the breeding habits of sensitive species. In the event of removing the close season, Natural England stated the same risks would exist, but the potential impacts would be exacerbated.
Natural England's full response is included in Appendix 3.

## Examples

"Anglers tend to be at the forefront of conservation of river environments, and actually act as extra pairs of eyes who are on the ground. Any sensitive wildlife areas could be cordoned off."
"Most anglers respect and want to preserve and protect wildlife and the vegetation that benefits a fishery. Their increased presence may, in fact, help to deter and provide some protection from the increased numbers of predators such as mink, cormorants and otters which have been unduly reducing some wildlife species - for example smaller birds and waterfowl (eggs in particular), water voles and amphibians."
"It's already illegal to disturb nesting birds, which will likely steer clear from building nests near busy established fishing spots (swims). Any established spots can be closed if animals are known to be nesting nearby. Plant life has to be cut back every summer for bankside access anyway."
"The close season as it is at present takes no account whatsoever of other river wildlife or habitats. The date established were simply a convenient means of settling a disagreement between the north and south anglers, Sheffield versus London. Those dates never were intended to account for anything else but coarse fish and to this day, on days either side of the close season there is other wildlife spawning, hatching, or breeding - SUCCESSFULLY."
"Sadly, some fishing and fishermen cause damage to wildlife and habitat through irresponsible actions. I think the change [to remove the close season] would cause an additional threat to this, extending the period all year round. Habitat and wildlife need this period too."

Environment Agency comment: While we can use fisheries byelaws to manage any risks posed by angling to wildlife and habitats, the purpose of the close season byelaw is explicitly to protect coarse fish stocks and fisheries. However, any proposal to change or remove the close season must also consider whether it will have an impact on protected wildlife and habitats. Specifically, before we were to change or remove the close season on rivers that are designated as Special Areas of Conservation or Sites of Special Scientific Interest, we (and Natural England/Natural Resources Wales) must be satisfied that doing so would not have an adverse impact on the features for which the river is designated. These features might include salmon and other protected fish, wildfowl and aquatic mammals or plant communities. Where we cannot conclude no impact, we would need to retain the close season. This might result in a number of principal coarse fishing rivers, for example, the Hampshire Avon, Wensum and the Norfolk \& Suffolk Broads, retaining the close season.

## Other views/general comments

Many respondent gave views on related pressures associated with the close season.

- Deterring poaching and predation. Around one third of anglers who want to remove the close season feel that the additional presence of anglers on the riverbank through the current close season would help deter predators and poachers, as well as reporting pollution/ illegal activity, thus protecting and improving their fisheries.


## Examples

"Given the significant levels of predation faced by any unprotected fisheries, and especially rivers (from crayfish, cormorants, goosander, mink and otters and illegal poaching) I think an angling presence throughout the year would enable the following: a far better view of the level of predation; a possible deterrent to predation merely by the presence of anglers; a deterrent to poaching and illegal forms of fishing such as netting"
"Removing the close season altogether will help combat both poaching and predation from cormorants etc. Currently most clubs do not patrol waters during the close season allowing poachers to go unnoticed."

Environment Agency comment: Any decision to retain, change or remove the close season must be based on the risks angling during this time pose to coarse fish. The presence of anglers on the bank deterring illegal fishing and/or predation is an incidental benefit. Where illegal fishing poses a risk, this should be addressed by more focussed enforcement and/or volunteer close season patrols (including the Angling Trust Volunteer Bailiff Service). Predation can be managed by improving habitats to protect fish from predators or where necessary licensed predator control.

- Other river activities are not restricted during the close season. Around 17\% percent of respondents who want to remove the close season said that other river activities are not restricted during the close season, for example boating, cycling, rambling, etc. Many say that these can cause similar or greater disturbance than angling, which is more benign, and/or comment on the unfairness that only one activity of many that could disturb spawning fish and/or wildlife, is regulated via a close season.


## Examples

"Rivers see plenty of other activity during the close season, other than anglers, boating, canoes, kayaks, swimmers, dog walkers, hikers, nature lovers, river workers, Search and Rescue Teams, poachers, to name a few, all have unrestricted access, disturbing fish and wildlife during the process."
"I don't think there would be sufficient bankside disturbance to cause a problem, particularly as others, such as dog walkers, bird watchers and boaters/canoeists can walk riverbanks or use rivers regardless of any fishing close season."
"Other activities on the river banks are far more detrimental to the river bank wildlife than anglers, for example, water skiers on the tidal Trent."

Environment Agency comment: We recognise that other waterside or in-river activities can cause disturbance to fish and other wildlife to a greater of lesser extent. Many of these are beyond the Environment Agency's remit. However, it is worth noting that it is an offence for anyone to "wilfully disturb" spawning fish and/or fish spawn (section 2 of the Salmon \& Freshwater Fisheries Act, 1975) and we can take action where such disturbance poses a serious risk or causes an impact. We also regulate other river management activities, such as dredging for flood risk management, to avoid the prime coarse fish spawning season.

Where other recreational activities pose a risk, angling clubs and fishery owners may be able to agree access agreements, to avoid disturbance during critical times.

## Angling participation - impacts on individual anglers

We wanted understand how any changes to the close season (either changing the dates or removing it altogether) would affect individual anglers and their angling participation.

## Question 6.1 Please tell us about your fishing

What type of fishing do you do? Coarse anglers make up $71.8 \%$ of the response to the consultation ( 9672 anglers). Game anglers made up $1.8 \%$ of the response (240) and mixed coarse/game anglers $26.2 \%$ (3527). Less than $2 \%$ (241) of respondents either did not fish, did not fish in freshwater or did not answer the question.
Where you fish for coarse fish? The majority of coarse anglers fished any type of waters (77.0\%). However, $15.5 \%$ said they fished rivers only, $6.1 \%$ said stillwaters only and less than $1 \%$ said canals only. $5.0 \%$ either did not go coarse fishing or did not answer the question.
Do you fish for coarse fish on stillwaters or canals between 15 March and 15 June? Of those that answered the question, the majority of coarse anglers (71.1\%) said they did fish stillwaters and canals during the close season on rivers: $28.9 \%$ said they did not ( 526 did not answer the question).
Full details are given in Table 7a.
We asked a series of questions to understand how much more often anglers would fish if the close season was changed or removed.

- 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?
Changing the close season. Changing the close season to 15 April to 30 June would provide an addition 16 days available river fishing. We wanted to understand how many anglers would take advantage of this time to go river fishing and how often.
If the start of the close season was moved back to 15 April, most anglers (70.0\%) said they would fish rivers during this time and most of these (46.0\%) said they would fish three or more times. $26.9 \%$ of anglers said they would not fish rivers during this time. However, moving the end of the close season back to 30 June would curtail angling activity: unsurprisingly, $82.1 \%$ of anglers say they fish rivers during the first two weeks of the current open season, with $47.8 \%$ saying they go three times or more.

Not surprisingly, most anglers that support changing or removing the close season say they would fish between 15 March and 15 April if the close season was changed ( $85.2 \%$ and $93.4 \%$ respectively). Similarly, most anglers that support retaining the close season would not fish at this time (59.1\%), although over one third (36.5\%) say they would.
Removing the close season. Removing the close season would provide an additional 93 days available river fishing. We wanted to understand how many anglers would go river fishing during this time and how often.
The majority of anglers ( $67.3 \%$ ) say they would go river fishing between 15 March and 15 June if the close season was removed, with $20.5 \%$ saying they would go 11 times or more. $29.9 \%$ would not go river fishing during this time.
Most anglers who support retaining the current close season said they would not go fishing at this time (66.5\%), although some (29.0\%) say they would. Conversely, most
anglers who support removing the close season would go fishing at least once (96.7\%), with $35.6 \%$ say they would go fishing eleven or more times.

Full details are provided in Table 7b.
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?

We want to understand why some anglers would not go river fishing if the close season was changed or removed. $29.0 \%$ would not want to fish while fish were spawning. A further $11.2 \%$ feel that it is necessary to allow rivers time to recover; $6.5 \%$ prefer to fish stillwaters; and $5.4 \%$ say they would not want to disturb wildlife. $37.8 \%$ said they would fish during this time. Full details are provided in Table 8 and Figure 8.
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?
If the close season was changed or removed, anglers going river fishing during this time may not go fishing on stillwater fisheries or not so often. We wanted to understand whether this was likely to have a significant impact on angling at stillwater fisheries. Of those anglers that already fish stillwaters during the current close season, most said that they would continue to do so as often (58.6\%); $26.8 \%$ said they would fish stillwaters less often and $8.8 \%$ said they would no longer fish stillwaters. A small proportion (3.6\%) said they would fish stillwaters more often. $17.6 \%$ of anglers do not currently fish stillwaters during the close season. Full details are provided in Table 9 and Figure 9.

Table 7a. Angling activity

| What type of fishing do you do? | Count | Percent |
| :--- | :--- | :--- |
| Coarse fishing | 9672 | 71.8 |
| Game fishing | 240 | 1.8 |
| Mixed coarse/game fishing | 3527 | 26.2 |
| I do not fish in freshwater | 27 | 0.2 |
| Total (of those that answered) | 13466 | 100.0 |
| Not Answered | 214 | 1.6 |


| Where do you fish for coarse fish? | Count | Percent |
| :--- | :--- | :--- |
| Rivers only | 2043 | 15.5 |
| Stillwaters only | 797 | 6.1 |
| Canals only | 55 | 0.4 |
| Any waters | 10111 | 77.0 |
| I do not go coarse fishing | 133 | 1.0 |
| Total (of those that answered) | 13139 | 100.0 |
| Not answered | 541 | 4.0 |


| Do you fish for coarse fish on stillwaters or canals between 15 March and 15 June? | Count | Percent |
| :--- | :--- | :--- |
| No | 3799 | 28.9 |
| Yes | 9355 | 71.1 |
| Total (of those that answered) | 13154 | 100.0 |
| Not Answered | 526 | 2.0 |

Table 7b. Additional fishing opportunities if the river coarse fishing close season was removed or changed

## 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?| Option | Three or more times |  | Twice |  | No more than once |  | I would not go fishing at this time |  | Not Answered |  | Grand Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| 1. Retain the close season | 762 | 14.3 | 498 | 9.4 | 681 | 12.8 | 3139 | 59.1 | 231 | 4.3 | 5311 | 100.0 |
| 2. Change the close season | 768 | 61.2 | 204 | 16.3 | 96 | 7.7 | 161 | 12.8 | 25 | 2.0 | 1254 | 100.0 |
| 3. Remove the close season | 4659 | 68.4 | 1064 | 15.6 | 638 | 9.4 | 300 | 4.4 | 146 | 2.1 | 6807 | 100.0 |
| 4. Do not know/undecided | 70 | 34.3 | 49 | 24.0 | 37 | 18.1 | 42 | 20.6 | 6 | 2.9 | 204 | 100.0 |
| 5. Not answered | 38 | 36.5 | 9 | 8.7 | 16 | 15.4 | 36 | 34.6 | 5 | 4.8 | 104 | 100.0 |
| Grand Total | 6297 | 46.0 | 1824 | 13.3 | 1468 | 10.7 | 3678 | 26.9 | 413 | 3.0 | 13680 | 100.0 |


| Option | Three or more times |  | Twice |  | No more than once |  | I do not go fishing at this time |  | Not Answered |  | Grand Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| 1. Retain the close season | 1831 | 34.5 | 1041 | 19.6 | 1020 | 19.2 | 1197 | 22.5 | 222 | 4.2 | 5311 | 100.0 |
| 2. Change the close season | 493 | 39.3 | 252 | 20.1 | 238 | 19.0 | 250 | 19.9 | 21 | 1.7 | 1254 | 100.0 |
| 3. Remove the close season | 4097 | 60.2 | 1196 | 17.6 | 832 | 12.2 | 558 | 8.2 | 124 | 1.8 | 6807 | 100.0 |
| 4. Do not know/undecided | 77 | 37.7 | 36 | 17.6 | 41 | 20.1 | 45 | 22.1 | 5 | 2.5 | 204 | 100.0 |
| 5. Not answered | 43 | 41.3 | 19 | 18.3 | 18 | 17.3 | 20 | 19.2 | 4 | 3.8 | 104 | 100.0 |
| Grand Total | 6541 | 47.8 | 2544 | 18.6 | 2149 | 15.7 | 2070 | 15.1 | 376 | 2.7 | 13680 | 100.0 |


| Option | Eleven times or more |  | Three to ten times |  | Once or twice in total |  | I would not go fishing at this time |  | Not Answered |  | Grand Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| 1. Retain the close season | 177 | 3.3 | 645 | 12.1 | 723 | 13.6 | 3534 | 66.5 | 232 | 4.4 | 5311 | 100.0 |
| 2. Change the close season | 169 | 13.5 | 466 | 37.2 | 228 | 18.2 | 362 | 28.9 | 29 | 2.3 | 1254 | 100.0 |
| 3. Remove the close season | 2421 | 35.6 | 3495 | 51.3 | 664 | 9.8 | 115 | 1.7 | 112 | 1.6 | 6807 | 100.0 |
| 4. Do not know/undecided | 22 | 10.8 | 90 | 44.1 | 43 | 21.1 | 44 | 21.6 | 5 | 2.5 | 204 | 100.0 |
| 5. Not answered | 18 | 17.3 | 29 | 27.9 | 18 | 17.3 | 35 | 33.7 | 4 | 3.8 | 104 | 100.0 |
| Grand Total | 2807 | 20.5 | 4725 | 34.5 | 1676 | 12.3 | 4090 | 29.9 | 382 | 2.8 | 13680 | 100.0 |

Table 8. 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?

| Principal reason | Number | $\%$ |
| :--- | :--- | :--- |
| I disagree with fishing while fish are spawning | 3834 | 29.0 |
| To allow rivers time to recover | 1479 | 11.2 |
| To avoid disturbing other wildlife, such as nesting birds | 719 | 5.4 |
| To take a break from fishing/do other activities | 500 | 3.8 |
| I prefer to fish stillwaters for coarse fish | 867 | 6.5 |
| I prefer to fish for game fish | 345 | 2.6 |
| Other | 487 | 3.7 |
| None of the above $\boldsymbol{\text { I would fish on rivers if the close season was removed or changed }}$ | 5012 | 37.8 |
| Total | 13243 | 100.0 |
| Not Answered | 437 | $3.3 \%$ |
| Grand Total | 13680 |  |

Figure 8. Reasons not to fish if the close season was removed


Table 9. If the statutory river coarse fishing close season was changed or removed, would you continue to fish on stillwaters during this time?

| Option | No, I would <br> no longer <br> fish <br> stillwaters | I would fish <br> stillwaters <br> less often | I would fish <br> stillwaters <br> about the <br> same <br> amount | I would fish <br> stillwaters <br> more often | I do not fish <br> stillwaters <br> during this <br> time | Not <br> Answered | Total |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Retain | 454 | 399 | 2601 | 75 | 1611 | 171 | 5311 |
| Change | 89 | 265 | 638 | 32 | 213 | 17 | 1254 |
| Remove | 427 | 2311 | 3203 | 281 | 525 | 60 | 6807 |
| Undecided | 6 | 36 | 118 | 8 | 32 | 4 | 204 |
| Not answered | 11 | 12 | 48 | 7 | 21 | 5 | 104 |
| Total | 987 | 3023 | 6608 | 403 | 2402 | 257 | 13680 |
| Percent of <br> total | $7.2 \%$ | $22.1 \%$ | $48.3 \%$ | $2.9 \%$ | $17.6 \%$ | $1.9 \%$ | $100.0 \%$ |



## Additional comments

- Allows more fishing opportunities. Many anglers report that fishing is difficult or impossible during the winter months (due to high flows or flooding) and unsuitable in summer (due to low flows/high temperatures and/or weed growth). Many of those who support removing or changing the close season say that it will allow them to fish more often and during a time of year when conditions are often better for river angling and which provide better access for those with limited mobility. Some claim the risk to fish is negligible during this time: others claim the angling benefits outweigh the risks. Some of those wishing to retain the close season say there is a wider variety of other angling opportunities, whether on stillwaters and canals, for game fish or sea fishing.


## Examples

"I feel there is a need for a change of dates for the close season as with climate changes more and more often we have wet springs making the rivers unfishable from February to March due to being flooded. So I think changing the dates gives anglers more time fishing but also gives protection to the river and fish."
"Due to low water and thick weed the stretch of water I fish on the Ribble is unfishable from June to September when we start to get the first floods of autumn which brings more misery for anglers here with an abundance of leaves and debris washed down the river making it impossible to fish, this can last until January making it a very short season and not worth the rod license money."
"I have fished rivers in West Sussex and Surrey for the last 2 seasons after a break from coarse fishing for over 30 years. My experience upon returning to coarse fishing rivers, is that weather conditions (flooding and river flow rates) have precluded me from fishing rivers from mid-December to the close of the season in mid-March."
"We run matches on out local river throughout the winter months, from October through to March, removing the close season would give us probably another six weeks or so to be able to run matches before the river gets so weedy that it's unfishable - when it imposes its own close season as its unfishable from June to October."
"Anglers have never had a wider choice of available stillwaters and canals to fish between March 15 - June 15."

Environment Agency comment: One of the Environment Agency's core goals is to increase angling participation, indeed, it is part of our legal duty. Increasing participation also underpins recovering the rod fishing licence income that we need to provide our fisheries service. While changing or removing the close season would provide additional angling opportunities on rivers and potentially some economic benefits for angling-dependent businesses, the Environment Agency believes, on balance, that these are limited and that they do not override the risks to the long-term viability of fish stocks. It does not believe the current close season is a significant barrier to increasing angling participation, river angling or fishing licence sales.

## Impacts on angling clubs and groups

As well as individual anglers, we wanted to understand how any changes to the close season would affect angling clubs, including membership, fishing activity and fishery value.

Overall, we had responses from representatives of 225 angling clubs across England. These clubs are of varying sizes: we have not attempted to weight the results according to membership. NB. Individual members from many other clubs also responded, but we have restricted this analysis to the 225 representatives.
Clubs owning river and/or stillwater fisheries are equally represented: fewer clubs own or lease canal fisheries - see Table 10 and Figure 10.
Question 7.3 Is the current statutory river coarse fishing close season a barrier to more people joining your club?
Opinions on whether the close season is a barrier to more people joining angling clubs were fairly evenly balanced. Of those that answered, $35.8 \%$ agree or strongly agree that it is a barrier, compared with $35.2 \%$ that say it is not. The remainder are either neutral (neither agree nor disagree - 22.4\%); are undecided (6.7\%). Sixty clubs did not answer. See Table 11 and Figure 11 for details.

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?

We wanted to understand if angling club members would be able to take advantage if we changed or removed the close season, or if other barriers would prevent this. Of those clubs that answered, most (110 or 62.9\%) do not foresee any other barriers that would prevent their members fishing during this time. Of the 65 clubs that said there were barriers, the most frequent responses are that club members spend this time maintaining the fishery and that rivers are reserved for game fishing during this time (both 30.8\%). A further $20.0 \%$ reported that they only hold the lease for 9 months. Fifty clubs did not answer the question. See Table 12 and Figure 12 for details.

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?

Of those that answered and that had river fishing rights, $26.4 \%$ said the value of their fishery would increase if the close season was changed or removed; $50.7 \%$ said it would not change; and $5.7 \%$ said it would fall. See Table 13 and Figure 13 for details.
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?
Angling clubs perceive that the values of their stillwater and/or canal fisheries are unlikely to be significantly affected by changing or removing the close season. While $11.6 \%$ said it would increase values, most ( $85.1 \%$ ) either thought they would remain unchanged or did not know. Less than 1\% said they would reduce. See Table 13 and Figure 13 for details.
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)?
Asked about running costs, over half (54.4\%) said they would remain the same; 24.7\% said they would increase; and $5.7 \%$ said they would fall. $15.2 \%$ either did not know or preferred not to say. See Figure X for details.

Table 10. What type of coarse fishing does your club own or lease?

| Fisheries lease/owned | Count | Percent |
| :--- | :--- | :--- |
| River | 125 | 55.6 |
| Stillwater | 111 | 49.3 |
| Canal | 49 | 21.8 |
| NB. Some clubs own/lease more than one type of fishery |  |  |

Figure 10. What type of coarse fishing does your club own or lease?


Table 11. Is the current statutory river coarse fishing close season a barrier to more people joining your club?

| Row Labels | Count | Percent |
| :--- | :--- | :--- |
| Yes, strongly agree | 33 | 20.0 |
| Yes, agree | 26 | 15.8 |
| Neither agree nor disagree | 37 | 22.4 |
| No, disagree | 27 | 16.4 |
| No, strongly disagree | 31 | 18.8 |
| Undecided/do not know | 11 | 6.7 |
| Sub-total | 165 | 100.0 |
| Not Answered | 60 |  |
| Grand Total | 225 |  |



Table 12. Are there other barriers preventing your members from fishing if the close season was changed or removed?

| Reason | Count | Percent (overall) | Percent (yes) |
| :--- | :--- | :--- | :--- |
| Yes, we only lease our river fishing rights for 9 months | 13 | 7.4 | 20.0 |
| Yes, the river is reserved for game angling during the close season | 20 | 11.4 | 30.8 |
| Yes, other river events make angling difficult/unviable at this time | 4 | 2.3 | 6.2 |
| Yes, club staff and volunteers are unlikely to be available | 4 | 2.3 | 6.2 |
| Yes, we use this time to maintain the fishery | 20 | 11.4 | 30.8 |
| Yes, other - please specify | 4 | 2.3 | 6.2 |
| Total - yes (all barriers) | 65 | 37.1 | 100.0 |
| No (there are no other barriers) | 110 | 62.9 |  |
| Total | 175 | 100.0 |  |
| Not Answered | 50 |  |  |

Figure 12. Are there other barriers preventing your members from fishingif the close season was
changed or removed?


64 of 100

Table 13. Would changing or removing the close season affect the value of your fishery?

| Option | River |  | Stillwater/canal |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Count | Percent | Count | Percent |
| Yes, our fishery would increase in value | 37 | 26.4 | 14 | 11.6 |
| No, our fishery would not change in value | 71 | 50.7 | 80 | 66.1 |
| Yes, our fishery would fall in value | 8 | 5.7 | 1 | 0.8 |
| Do not know | 21 | 15.0 | 23 | 19.0 |
| Prefer not to say | 3 | 2.1 | 3 | 2.5 |
| Sub-total | 140 | 100.0 | 121 | 100.0 |
| We do not own or lease any river fishing rights | 20 | 8.9 | 35 | 15.6 |
| Not Answered | 65 | 28.9 | 69 | 30.7 |
| Grand total | 225 |  | 225 |  |

Figure 13. Would changing or removing the close season affect the value of your fishery?


Table 14. Would changing or removing the close season affect the running costs for your river fishery?

| Option | Count | Percent |
| :--- | :--- | :--- |
| Yes, our running costs would most likely <br> increase | 39 | 24.7 |
| No, our running costs would most likely remain <br> the same | 86 | 54.4 |
| No, our running costs would most likely reduce | 9 | 5.7 |
| Do not know | 22 | 13.9 |
| Prefer not to say | 2 | 1.3 |
| Sub-total | 158 | 100.0 |
| Not Answered | 67 |  |
| Grand Total | 225 |  |



## Additional comments

Many clubs offered additional comments on the potential positive and negative impacts of changing or removing the close season.

- Clubs which supported retaining the close season raised concerns that the riparian owners would charge them more for leasing the fishing rights. One suggested a rent increase would be irrespective of whether they chose to retain a voluntary close season. Another said the potential increase in revenue would not cover the additional costs. Other clubs say they use the current close season to maintain the fishery (maintaining pegs and vegetation) and were concerned that they would be unable to secure enough club members for a work party if they had the option to fish. One club raised concerns that having different close season arrangements on opposite river banks would generate friction between neighbouring clubs. A couple of clubs said the current arrangements allowed coarse and game anglers to have their own times on the river.
- Those that support removing the close season say that the additional time available to fish, in particular during the warmer months, would encourage more people to go fishing/join their club. They also say their bailiffing costs would reduce, as anglers fishing during this time would deter would-be offenders. Additional permit sales would cover any increased maintenance costs. Although only mentioned by one club representative, but stated by very many individual anglers (and covered in more detail below), angler presence during this time would deter predators, so improve their fishery performance.


## Views from fisheries and angling representative organisations

We asked for national and local fisheries organisations to give their views on how changing or removing the close season might affect national objectives for angling and the environment, including increasing the number of anglers, especially juniors, and the number of angler-days.
We received response from the following:

- national fisheries organisations - Wild Trout Trust; Salmon \& Trout Conservation; Institute of Fisheries Management (NB. The Angling Trust told us it would not be responding due to a wide range of views without consensus)
- river trusts - South Cumbria Rivers Trust; Westcountry Rivers Trust; Severn Rivers Trust; and Afonydd Cymru (the rivers trusts of Wales and Marches - while Afonydd Cymru predominantly covers Welsh rivers, it also has interests in border rivers, the Wye, Severn and Dee)
- local fisheries consultative bodies - Upper Thames Fisheries Consultative; Thame Valley Fisheries Preservation Consultative; and Loddon Fisheries \& Conservation Consultative
- angling participation organisations/projects - Fishing for Forces; Get Hooked on Fishing; Angling4Success; Angling for All (Newcastle upon Tyne); Fishing For Disabled Kids; Manderson Trust; one other angling charity (details withheld)

Of the 17 bodies, 13 supported retaining the close season, 2 supported removing it, 1 supported changing it and 1 did not answer.
The Angling Trust has taken a neutral stance, given the wide range of views of its members.
Question 8.2 Do you think the current statutory river coarse fishing close season is a barrier to more people going fishing?
Eleven of these organisations either disagree or strongly disagree with that the current close season presented a barrier to angling participation. One neither agrees nor disagrees and five chose not to answer.
Question 8.3 Do you think the current close season reduces or enhances the social and economic value of angling?
Five organisations feel the current close season either enhances or significantly enhances the social and economic benefits from angling. One organisation says it reduces these benefits and five say it neither reduces nor enhances them. The remaining 6 are either undecided or chose not to answer.

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?
Three organisations feel removing or changing the close season would enhance angling social and economic benefits; four feel it would reduce or significantly reduce them; and four feel it would neither reduce nor enhance them. Six did not answer.

## Additional comments

Several organisations commented that the number of stillwaters and canals that do not operate a close season means that there are many opportunities to fish during the river close season and that these waters are generally more suitable for events catering for new or beginner anglers. Another feels that the focus should be on removing other barriers to angling participation, specifically lack of access to fishing, a narrow focus on certain coarse angling disciplines and that there are fewer angling parents fish to accompany their 68 of 100
children. Other concerns were around the potential conflict with game fishing on mixed fisheries.

One of the angling charities, that takes disabled children fishing, feels that having more opportunities to do so outside of the school summer would help their work.

## Views from the angling and angling-related trade

We wanted to understand how the current and any potential change to the coarse fish close season might affect the angling trade and businesses dependent (wholly or in-part) on river coarse angling. We publicised the consultation through the angling press, via social media and direct to local tackle shops, to engage as many such businesses. We also invited the Angling Trades Association to respond and to raise awareness with its members.

Please note, before we seek government confirmation of any proposed new byelaw, we must carry out a Business Impact Test or BIT, to quantify as far as possible the (positive and negative) impacts on business. The questions in this consultation do not constitute a BIT, but were intended to improve our understanding of the implications for businesses to help inform any future assessment.

While 142 respondents said they were responding as a business which is dependent on angling (including commercial fisheries), in responding to later consultation questions, another 178 described themselves as owning or working for such a business. We have used the total of 320 as the basis for this analysis. These include 178 fishing tackle and bait manufacturers and suppliers; 53 commercial fishery owners ${ }^{3} ; 53$ angling guides; 24 accommodation and catering businesses; and 12 fishery contractors.
Overall, 215 business support removing the close season; 82 support retaining it; and 21 changing it. Two were undecided.

- Of the 53 commercial fishery managers, most support retaining or changing the close season ( 25 and 7 , respectively); 7 support changing the close season; and 20 support removing it. The split between river, stillwater and canal fishery owners is very similar.
- Accommodation and catering businesses strongly support removing the close season (15 out of 24).
- The angling trade (fishing tackle and bait manufacturers and suppliers) were well represented and also strongly support removing the close season (146 out 176).
- Slightly more angling guides supported removing the close season that retaining or changing it (29 out of 53), but slightly more (7 out of 13 ) fishery contractors supported retaining the current close season than removing it.

A detailed breakdown is provided in Table 15 and Figure 15.
Question 9.2 How does the current statutory river coarse fishing close season affect your business?

We want to understand whether and how much the current close season affects angling related businesses, whether through sales of fishing equipment and permits, or trade with businesses catering for river anglers. This is a very high level assessment: any proposed byelaw would require a Business Impact Test to quantify net economic impacts.
Overall, of those who answered, $42.5 \%$ of angling-related trades feel that the current close season has some or a significantly negative impact on business. $16.3 \%$ say it has some or a significant positive impact and $25.9 \%$ say it has neither a positive nor negative impact.
Within these figures, the fishing tackle trade feels strongly that the close season has a negative impact on trade - 59.0\% of businesses feel it has some or a significant negative

[^2]impact. The feeling among most other sectors is more evenly balanced. Further detail is provided in Table 16 and Figure 16.

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?
We asked businesses how changing or removing the close season would affect them.
Of those that answered, $27.5 \%$ of businesses feel changing the close season would have some or a significant positive impact, whereas $64.4 \%$ feel removing altogether would have such an impact. $26.1 \%$ feel that changing the close season would have a negative impact on business, whereas $8.0 \%$ feel removing it would. More in the angling trade (tackle and bait manufacturers/retailers) feel that it would have a positive or significantly positive impact on business ( $26.8 \%$ and $51.2 \%$, respectively). Further detail is provided in Tables 17a/17b and Figure 17a/17b.

## Additional comments

Many businesses provided comments to support their opinions on retaining, changing or removing the close season.
A number of those businesses that support retaining the close season report that anglers switching to other forms of fishing, principally trout fishing, maintain tackle sales in April and May. Some suggest tackle shops in mixed fishery areas could diversify to cater for such anglers. Others are concerned that removing the close season would have an impact on stocks and fishery performance and this might have a longer term impact on trade.
Several raised concerns that the first two weeks of the river season are their busiest and moving the end of the close season to 30 June would have a significant impact on sales. The Wild Trout Trust (a charity and charitable company) reports that the first two weeks of the close season are an important time for tree works, which would no longer be available if the season was extended into April: the additional two weeks in June would be unavailable because of nesting birds. It is also concerned that a perceived impact on game fishing could have a longer term impact on its membership.
Very few comments were provided supporting changing the close season.
Of those businesses supporting removing the close season, a fair number report that changing the close season, specifically extending the close season to 30 June would significantly impact on the peak sales or holiday bookings season around 16 June, for example in the Norfolk Broads. Overall, many angling-dependent businesses anticipate increasing sales/bookings if the close season was removed, not simply due to the increase in available fishing, but because river fishing improves in April and May and angling activity generally increases as the weather becomes more settled. As evidence, they report poorer or near absent sales during the current close season. While many tackle shops have a stillwater angling clientele, the advent of onsite tackle shops at commercial stillwaters means others are wholly dependent on river anglers.

## Examples

"I manage tackle shops throughout the south of England. A number of these shops rely on trade from river anglers and the close season contributes to them having little trade over the period. Abolishing the close season would significantly increase business with these shops close to running water." Large fishing tackle supplier
"Our sales can be monitored and it is noticeable that during the close season we have a dip in sales. This effects every one of our retailer customers whose livelihood depends on a buoyant
angling trade with fewer barriers to participation and retention. Let people go fishing. " Large fishing tackle supplier
"My business relies on healthy grayling stocks through the winter months to provide more income. By disregarding their spawning season, they are a delicate fish and this will inevitably impact on their future stock levels and ultimately make it harder to take people fishing for them as stocks will dwindle particularly on harder fished locations. " Fishing holiday company
"The tackle trade and business should not be a consideration when thinking of altering the closed season, the focus should be $100 \%$ environmental." Fishing tackle supplier.

Environment Agency comment: We acknowledge that the current close season is a barrier to trade for many businesses that are dependent on angling. We also note that some angling businesses support retaining the current close season. While changing or removing it may bring some benefits to these businesses, we have a duty to maintain, improve and develop fisheries: our priority is to protect the long term viability of fish stocks to ensure a future for river fisheries.

Table 15. Support for different close season options from businesses wholly or partly dependent on angling

| Row Labels | 1. Commercial fishery |  | 2. Catering and accommodation |  | 3. Fishing equipment, tackle and bait |  | 4. Angling guide |  | 5. Fishery contractor |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| 1. Retain the close season | 25 | 47.2 | 6 | 25.0 | 24 | 13.5 | 20 | 37.7 | 7 | 58.3 | 82 | 25.6 |
| 2. Change the close season | 7 | 13.2 | 3 | 12.5 | 7 | 3.9 | 4 | 7.5 |  | 0.0 | 21 | 6.6 |
| 3. Remove the close season | 20 | 37.7 | 15 | 62.5 | 146 | 82.0 | 29 | 54.7 | 5 | 41.7 | 215 | 67.2 |
| 4. Do not know/undecided | 1 | 1.9 | 0 | 0.0 | 1 | 0.6 | 0 | 0.0 | 0 | 0.0 | 2 | 0.6 |
| Total | 53 | 100.0 | 24 | 100.0 | 178 | 100.0 | 53 | 100.0 | 12 | 100.0 | 320 | 100.0 |



[^3]Table 16. How does the current statutory river coarse fishing close season affect your business?

| Row Labels | Commercial fishery |  | Catering and accommodation |  | Fishing equipment, tackle and bait |  | Angling guide |  | Fishery contractor |  | Grand Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| 1. Significant positive impact | 3 | 5.7 | 1 | 4.2 | 14 | 7.9 | 4 | 7.5 |  | 0.0 | 22 | 6.9 |
| 2. Some positive impact | 10 | 18.9 | 4 | 16.7 | 12 | 6.7 | 3 | 5.7 | 1 | 8.3 | 30 | 9.4 |
| 3. Neither positive nor negative impact | 23 | 43.4 | 4 | 16.7 | 32 | 18.0 | 21 | 39.6 | 3 | 25.0 | 83 | 25.9 |
| 4. Some negative impact | 3 | 5.7 | 2 | 8.3 | 44 | 24.7 | 9 | 17.0 | 1 | 8.3 | 59 | 18.4 |
| 5. Significant negative impact | 3 | 5.7 | 5 | 20.8 | 61 | 34.3 | 8 | 15.1 |  | 0.0 | 77 | 24.1 |
| 6. Undecided/do not know | 3 | 5.7 | 4 | 16.7 | 6 | 3.4 | 3 | 5.7 | 2 | 16.7 | 18 | 5.6 |
| Total | 45 | 100.0 | 20 | 100.0 | 169 | 100.0 | 48 | 100.0 | 7 | 100.0 | 289 | 100.0 |
| Not Answered | 8 | 15.1 | 4 | 16.7 | 9 | 5.1 | 5 | 9.4 | 5 | 41.7 | 31 | 9.7 |
| Grand total | 53 |  | 24 |  | 178 |  | 53 |  | 12 |  | 320 |  |

Figure 16. How does the current statutory river coarse fishing close season affect your business?


Table 17a. How would removing the statutory river coarse fishing close season affect your business?

| Row Labels | Commercial <br> fishery | Accommodation <br> and catering | Fishing <br> equipment, <br> tackle and <br> bait | Angling guide | Fishery <br> contractor |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Num | $\%$ | Num | $\%$ | Num | $\%$ | Num | $\%$ | Num | $\%$ | Num | \% |
| 1. Significant positive <br> impact | 6 | 13.6 | 7 | 36.8 | 86 | 51.2 | 12 | 25.0 | 1 | 12.5 | 112 | 39.0 |
| 2. Some positive <br> impact | 9 | 20.5 | 3 | 15.8 | 45 | 26.8 | 15 | 31.3 | 1 | 12.5 | 73 | 25.4 |
| 3. Neither positive nor <br> negative impact | 19 | 43.2 | 3 | 15.8 | 24 | 14.3 | 15 | 31.3 | 2 | 25.0 | 63 | 22.0 |
| 4. Some negative <br> impact | 4 | 9.1 | 0 | 0.0 | 3 | 1.8 | 3 | 6.3 | 1 | 12.5 | 11 | 3.8 |
| 5. Significant negative <br> impact | 4 | 9.1 | 3 | 15.8 | 6 | 3.6 | 1 | 2.1 | 1 | 12.5 | 15 | 5.2 |
| 6. Undecided/do not <br> know | 2 | 4.5 | 3 | 15.8 | 4 | 2.4 | 2 | 4.2 | 2 | 25.0 | 13 | 4.5 |
| Total | 44 | 100.0 | 19 | 100.0 | 168 | 100.0 | 48 | 100.0 | 8 | 100.0 | 287 | 100.0 |
| Not Answered | 9 | 17.0 | 5 | 20.8 | 10 | 5.6 | 5 | 9.4 | 4 | 33.3 | 33 | 10.3 |
| Grand total | 53 |  | 24 |  | 178 |  | 53 |  | 12 |  | 320 |  |

Figure 17a. How would removing the statutory river coarse fishing close season affect your business?


Table 17b. How would changing the statutory river coarse fishing close season to 15 April to 30 June affect your business?

| Row Labels | Commercial fishery |  | Accommodation and catering |  | Fishing equipment, tackle and bait |  | Angling guide |  | Fishery contractor |  | Grand Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% | Num | \% |
| 1. Significant positive impact | 4 | 8.9 |  | 0.0 | 18 | 10.8 | 1 | 2.1 |  | 0.0 | 23 | 8.0 |
| 2. Some positive impact | 6 | 13.3 |  | 0.0 | 39 | 23.4 | 9 | 18.8 | 2 | 25.0 | 56 | 19.5 |
| 3. Neither positive nor negative impact | 24 | 53.3 | 7 | 36.8 | 58 | 34.7 | 22 | 45.8 | 1 | 12.5 | 112 | 39.0 |
| 4. Some negative impact | 6 | 13.3 | 1 | 5.3 | 18 | 10.8 | 5 | 10.4 | 3 | 37.5 | 33 | 11.5 |
| 5. Significant negative impact | 2 | 4.4 | 8 | 42.1 | 23 | 13.8 | 8 | 16.7 | 1 | 12.5 | 42 | 14.6 |
| 6. Undecided/do not know | 3 | 6.7 | 3 | 15.8 | 11 | 6.6 | 3 | 6.3 | 1 | 12.5 | 21 | 7.3 |
| Total | 45 | 100.0 | 19 | 100.0 | 167 | 100.0 | 48 | 100.0 | 8 | 100.0 | 287 | 100.0 |
| Not Answered | 8 | 15.1 | 5 | 20.8 | 11 | 6.2 | 5 | 9.4 | 4 | 33.3 | 33 | 10.3 |
| Grand total | 53 |  | 24 |  | 178 |  | 53 |  | 12 |  | 320 |  |



## Other views/general comments

Very many anglers and others provided a wide range of comments to support their opinion on the close season. Many were directly in response to the consultation questions and are covered above: many others were either indirectly connected or unconnected to the specific questions, but valuable comments nonetheless. Here is a selection of these:

- anglers are responsible and can take the necessary action to protect spawning fish: a number of anglers have told us that should they become aware of spawning fish or nesting birds, they would choose not to fish for a period, only returning when the risk had passed. Other anglers suggested that banning keepnets or prohibiting angling in know spawning areas during the spawning period would mitigate for removing (or to a lesser extent changing) the close season.
- other impacts cause more damage: undoubtably, coarse fish stocks and fisheries are subject to many other pressures, including from land and water use, river management and habitat loss. The Environment Agency and many others are working on a range of programmes to tackle these pressures. While the impact of angling may be relatively low compared with these, it is important that it does not contribute additional pressure.
- enforcement implications: some respondents commented that having different close seasons for different species, for example pike, would increase confusion among anglers and be difficult to enforce. The same would be true where different clubs adopted different close seasons or where statutory close seasons were retained on protected sites.
- impact on how angling would be portrayed: several respondents commented that removing the close season would affect the public image of angling, that is it would be at odds with other field sports and (some) other angling disciplines


## Consultation satisfaction

We asked everyone who participated in the online survey to say how satisfied/dissatisfied they were. The majority were either satisfied (48.0\%) or very satisfied (29.9\%). A small proportion were dissatisfied (2.0\%) or very dissatisfied (0.6\%). The remainder of those than answered, were neither satisfied nor dissatisfied (16.6\%).


While many welcomed the consultation, some commented on that the consultation could have been structured differently. These included:

- we asked too many questions and this would deter others from responding
- the only necessary question we need to ask was whether the close season should be retained, changed or removed
- many of the questions we asked were unnecessary and did not apply to everyone OR that different sectors of the angling community, for example anglers, angling clubs and the tackle trade, should have been consulted separately, using different sector-specific questions
- the questions were loaded in favour of a particular outcome (to change the close season)


## Next Steps

The Environment Agency has decided to retain the current close season.
It announced the decision to the England Fisheries Group in August, via the angling and wider media and through its September newsletter to online rod fishing licence buyers. It is also writing to everyone who responded to the consultation (and who gave contact details).

This report is published to allow everyone to understand the nature of the consultation response, the level of evidence there is around the close season and the rationale of the decision. We have also published all the consultation responses for which we had consent to do so. Please note these have been anonymised and any personally sensitive information has been removed.

While we have no current plans to carry out further research into the close season, we will consider any further evidence that becomes available.

## Appendices

## Appendix 1 -Summary of the evidence around the close season

## 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.

## 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 below.


Figure 1 Coarse fish spawning times

## 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.

## 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.


## 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. A summary of each is provided below.

## 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.


## 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 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.


## 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.


## 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.


## 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 considerable 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 anglingrelated mortality. Conversely there is evidence that fish will feed avidly after spawning whilst they are still physically and physiologically weakened.


## 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 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


## 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.


## 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 $4^{\circ} \mathrm{C}$ to $14^{\circ} \mathrm{C}$.
- 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 chalks steams 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).


## 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.

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.

## 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.

## 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.

## Risks to other fish species

## 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.

## 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.

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.

## 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.

## 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.

Appendix 2 - Consultation publicity

| Channel | Item | Date | Audience | Results |
| :---: | :---: | :---: | :---: | :---: |
| Print/ digital media | Environment Agency news release | 14 Jan | Angling community General public Other news outlets | Articles in angling press - Angling Times, Anglers Mail and Trout \& Salmon magazine. <br> Articles in general press - The Times, Daily Star and various regional papers. |
| Social media | Facebook - Environment Agency national | 14 Jan | Angling community General public Other social media (to share) | 118 comments; 353 shares; >17,000 post-clicks; reach of nearly 86,000 |
|  |  | 01 Feb |  | 0 comments; 6 shares |
|  | Facebook - Environment Agency Great Ouse and Fenland Fisheries Team | 31 Jan | Local East Anglia angling community | 4 comments; 7 shares |
|  | Twitter - national | 14 Jan | Angling community General public <br> Other social media (to share) | 19,525 impressions; 239 engagements |
|  |  | 15 Jan |  | 16,800 impressions; 170 engagements |
|  |  | 01 Feb |  | 6,633 impressions; 66 engagements; |
|  | Twitter - Env Agency Anglia | $\begin{aligned} & 02 \text { Feb } \\ & 03 \text { Feb } \end{aligned}$ | Local stakeholders angling and others | Not known |
|  | Twitter - Env Agency Yorks \& NE | 15 Jan |  |  |
|  | Twitter - FBG North East | 15 Jan |  |  |
|  | Twitter - Env Agency NW | 15 Jan |  |  |
|  | Partners' social media (many partners and others in the angling community shared or made their own posts) | $\begin{aligned} & \text { 14 Jan to } \\ & 11 \text { Mar } \end{aligned}$ | Anglers and others | Not measured |


| Newsletters | January e-newsletter (lead item) | $\begin{aligned} & \hline 22 / 23 \\ & \text { Jan } \end{aligned}$ | All online rod licence customers opting in to digital communications* | Emailed to 514.8k addresses; received by 513.5 k licence holders; opened by $133.1 \mathrm{k} ; 5,283$ clicked through to the consultation page; generating an estimated 2,500 responses. |
| :---: | :---: | :---: | :---: | :---: |
|  | February e-newsletter (reminder) | $\begin{aligned} & 19 / 20 \\ & \text { Feb } \end{aligned}$ |  | Emailed to 327.3k addresses; received by 321.9 k licence holders; opened by 157.0k; 2,634 clicked through to the consultation page; generating an estimated 700 responses. |
|  | Close season specific newsletter | 28 Feb/ <br> 1 Mar |  | Emailed to 323.4k addresses; received by 321.6 k licence holders; opened by 158.3k; 20,994 clicked through to the consultation page; generating an estimated 5,400 responses. |
| Direct mail | Email invitations to 39 angling and other organisations | w/c 14 Jan | Angling, wildlife conservation and other river user representative organisations | Responses (including nil responses) received from 11 |
| Local publicity | Area Environment Agency teams were asked to publicise the consultation locally via tackle shops, angling clubs, fisheries, etc, including a flyer to encourage those preferring to respond in writing. | w/c 14 Jan | Local fisheries community, including those less likely to respond online | Not measured |

* The number of licence holders not opting in to receiving Environment Agency communications following the introduction of the General Data Protection Regulation (GDPR) meant the reach of our e-newsletter reduced from 514.8 k in January to 323.4 k in March.


## Appendix 3 - Natural England's consultation response



Natural England wish to thank the Environment Agency for their thoroughly researched, well presented and objective appraisal of the coarse fish close season on English rivers. We welcome this consultation between all parties interested in the conservation of rivers and their associated fish populations.
Natural England is responsible for assessing the condition of rivers designated as Sites of Special Scientific Interest (SSSI) and Special Areas of Conservation (SAC) under the Habitats Directive. For sites that include obligate freshwater or diadromous fish as notified features, Natural England's assessment has indicated a widespread failure to achieve Common Standards Monitoring targets for these habitats and associated species features in designated rivers across England.

Most of England's river SSSIs and SACs are based on the notification of river habitat, and fish species such as Atlantic salmon, bullhead, lamprey species, shad species and spined loach are notified as additional features to emphasise the importance of sites to those species. The notified river habitat feature includes the channel, bank and riparian zone, and sites include important hydrologically connected seminatural habitats. The habitat feature includes both the abiotic (hydrology, hydrochemistry, geomorphology) and biotic (characteristic biological assemblages) elements. The objectives for the habitat and management practices used to deliver them are based on natural function (see ${ }^{1}$ Mainstone et al. 2016 for further information).

Many of the SSSI and SAC rivers where fish species are a notified feature are in unfavourable condition due to impacts on the natural function of the river habitat. This loss of natural function maybe due to impacts such as:

- man-made barriers affecting river geomorphology (and therefore physical habitat provision), natural water level variation and fish migration;
- poor water quality resulting from land management activities;
- inappropriate land management in both the riparian zone and wider catchment;
- impacted hydrology (abstraction, flow regulation and flow diversion); and
- over-exploitation of particular species.

These issues are replicated in the wider river network in England, often with greater severity since other rivers do not benefit from the added protection and focus afforded by SSSI and SAC notification. Despite measures that have been, and are being, put in place, these pressures will continue to impact on fish assemblages and will compound stress on fish populations already under pressure due to potential climate change effects.
In many cases within the river environment, fish species (such as pike) are keystone species which, if affected by human stresses, may have a disproportionate impact on other aquatic species and the functioning of the site as a whole.

Legislation governing the implementation of the angling close season is geared towards the direct protection of fish stocks by limiting exploitation stress during the spawning period. However, Natural England must consider the wider issues surrounding effects of the close season on the condition (natural functioning) of designated sites. Non-fish related pressures linked to the abolition or amendment of the close season may include:

- increased disturbance of other species features such as birds and mammals;
- increased damage to riparian features such as vegetation;
- increased damage to physical features such as increased bank erosion.
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In addition, Natural England is responsible for reporting to JNCC on the implementation of the Habitats Directive in England (under Article 17 of the directive). As part of this reporting procedure the conservation status of Species of European Interest listed under Annex V must be assessed and this includes the rheophilic species barbel Barbus barbus and grayling Thymallus thymallus. Under the directive assessments are made of the controls on exploitation implemented by member states. These controls include:

- temporary or local prohibition of the taking of specimens in the wild and exploitation;
- regulation of the periods and/or methods of taking specimens; and
- application of hunting and fishing rules which take account of the conservation of such populations. The close season is part of a suite of fishery management measures which, in combination, fulfil the requirements of Annex $V$, i.e. the managed exploitation of species listed under the annex.
Our response to this consultation specifically applies to designated sites and their associated habitat and species features. However, the issues highlighted and general management principles proposed may be extrapolated to the wider river resource.

To avoid repetition when answering questions posed within the consultation document, reference will be made to the information outlined above.

## Section 1: About you

a) Please tell us if you are responding as an individual or on behalf of an organisation or group.

Responding on behalf or an organisation or group
d) If you are responding on behalf of a group or organisation, please select from one of the options below

I am responding on behalf of a government agency/department
f) If you are responding on behalf of a group or organisation, please give its name here.

Natural England
g) What is your email address?

Dave.ottewell@naturalengland.org.uk
h) Can we publish your response?

Yes
j) Please tell us how you found out about this consultation.

From the Environment Agency
Section 2: Your views
1.Coarse fish close season options

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

Retain the current 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?

## Yes

Early spawning fish species such as pike, grayling and dace have the highest probability of being impacted by early season angling pressure. These fish are likely to be keystone species within many upper and middle reaches of rivers, such that additional pressure on these species during the spawning season may disrupt the natural functioning of a site. It is the opinion of Natural England that, while not perfect, the current start of the close season on 15 March better protects site function than a later season start of 15 April. Should the close season be moved to April 15 the potential impacts are likely to disproportionately affect sites located in the upper and middle reaches of rivers and will not be mitigated by a later finish to the season for other late-spawning lowland fish species. In addition, when considering climate change effects, likely scenarios indicate a general warming of freshwater systems. Under these conditions a probable consequence is earlier spawning periods for fish, therefore, it is imperative that current early spawning fish species have protection from exploitation pressure beginning at least as early in the year as it does currently.

Question 2.2 Do you believe removing the statutory coarse fishing close season on rivers would pose a risk to coarse fish?

## Yes

The comprehensive evidence and expert judgement presented as part of this consultation process and the combined expert judgement of Natural England freshwater habitats and species specialists indicate that there is a significant risk of an increased negative impact on freshwater fish species if the potential for angling exploitation pressure is increased, particularly during the spawning period for most coarse fish species within England. The increased pressure on these fish species may manifest itself as a degradation of the contribution made by the fish community to the natural functioning of riverine sites. In addition, the removal of the close season may allow an increase in angling pressure on non-target species, which may be a notified feature of a designated site (particularly migrating Atlantic salmon smolts). It should also be bome in mind that the close season is considered as part of overall exploitation management on rivers for the Annex $V$ species barbel and grayling.

Although the coarse fish close season legislation is designed for the express purpose of protecting fish stocks during the spawning season, Natural England has a statutory duty to consider all notified features of designated sites. If the close season was removed there is the potential for increased disturbance of notified species features, including birds and mammals during their breeding season, again with the potential to affect overall habitat function.

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

## N/A

Natural England has not considered this question further as we believe the close season should not be removed due to the risks to coarse fish populations as a whole, nor the start date delayed to the 15 April due to the risk to early spawning coarse fish species. Equal levels of protection should be awarded to the full fish assemblage present within English rivers, with particular reference to the maintenance of natural ecological function of riverine designated sites.

## 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 and trout?

Yes

The current close season effectively covers the period of maximum Atlantic salmon smolt and sea trout smolt migration. If moved to 15 April there is a small risk of early migrating salmon smolts and sea trout smolts being exposed to coarse fishing gear and baits, to which they may be susceptible. There is a significant risk of mortality associated with capture stress in both salmon and sea trout smolts. For nonmigratory trout, with the exception of a longer period of potential angling pressure, there is unlikely to be a change in mortality rates associated with spawning as spawning should be completed before the beginning of the current close season.
Question 3.2 Do you believe removing the statutory coarse fishing close season on rivers would increase the risk to salmon and trout?

Yes

If the close season was to be totally removed a significant portion of the salmon smolt and sea trout smolt run may be exposed to coarse fishing gear and baits, increasing the risk of smolt mortality discussed in 3.1. For non-migratory trout, extended angling pressure with coarse fishing gear and baits may expose them to additional exploitation pressure, however, mortality rates associated with spawning would not be increased.

## 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?

Yes

Eel, smelt, shad species and river and sea lamprey are listed as Priority Species, identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP), later transcribed into the Priority Species list for England within S. 41 of the Natural Environment and Rural Communities Act 2006. The act states:

S41 Biodiversity lists and action (England). Natural Environment and Rural Communities Act 2006
(1) The Secretary of State must, as respects England, publish a list of the living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity.
(3) Without prejudice to section 40 (1) and (2), the Secretary of State must-

[^4]In addition shad species and lamprey species are listed under a combination of Annex II \& V of the Habitats Directive.

It is likely that any increased risk associated with an amended close season will be small and speciesspecific. However, when the above legislation is taken into account, even a small increase in risk must be considered significant.

1. For eel, due to its autumn downstream migration and marine spawning lifecycle, any increased risk would be solely related to the potential increased time available for angling with standard coarse fishing gear.
2. All lamprey species are unlikely to be impacted to any extent due to their inability to take coarse fishing baits. The only conceivable impacts could result from increased trampling of ammocoetes or the highly improbable foul-hooking of an adult.
3. It is possible that an early run of shad species may encounter coarse fishing gear during early to mid April, however, it is likely that the amended April 15 date would still provide protection during most migration events in May and it is possible that an extension of the close season until June 30 could, in occasional years, provide protection for late shad migration runs.
4. For smelt an April 15 start to the close season is likely to expose a greater number of fish to coarse angling gear during their early spring spawning migration. Therefore, there is a risk of increased exploitation pressure on the species. However, smelt are normally only found at the lower end of river catchments in areas that may not be popular with river anglers.

In summary, although there is a theoretical increased risk to some of the above species with an amended close season, the risk is thought to be extremely small.
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?

## Yes

As stated in question 4.1, the above species are variously listed as S41 Priority Species under the Natural Environment and Rural Communities Act 2006 and Annex II and V under the Habitats Directive. Again any increased risk for eel associated with the removal of the close season would be solely related to the increased time available for angling with standard coarse fishing gear. The risk for lamprey would remain extremely low, with the possibility of increased trampling of ammocoetes by wading anglers. The risks to both shad species and smelt would be significantly increased as their full spawning migration periods would be exposed to coarse angling gear.

## 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?

Yes
All wild birds, their nests, eggs and dependent young are protected by the Wildlife and Countryside Act 1981 and it is an offence, with certain exceptions, to intentionally take, damage or destroy the nest of any wild bird while it is in use or being built. In addition, Schedule 1 of the Act lists those species that are especially vulnerable to disturbance during the breeding season. It is an offence to intentionally or recklessly disturb any Schedule 1 bird while it is nest building or is at (or near) a nest with eggs or young, or to disturb the dependent young of such a bird.
The accepted guidance for bird nesting season gives the period of the $1^{\text {tt }}$ March to $31^{\text {zt }}$ July. Although some birds have eggs or dependent young outside of this period, the period of most intense breeding activity for the majority of birds is considered to be April - May in the south of England, extending into June in the north. This period falls largely within the current close season dates and thus the current close season will reduce disturbance of breeding birds and modification of riparian bird habitat attributable to angling activity. If the start dates were moved to 15 April, angling disturbance may lead to a reduction in early nest site selection within riparian vegetation. It is possible that some benefit may be gained by later nesting species which can benefit from reduced competition, reduced predation pressure and increased
food availability, but, as early broods are generally more successful than later ones, it is likely that increased early season disturbance would result in a net negative impact on bird populations overall. It has been suggested by NE bird specialists that a possible compromise would be to amend the current close season dates to the 1 April and 30 June as this is likely to cover the majority of early breeding bird species while better accommodating late breeding birds.

The current close season coincides with the establishment and main growing season of riparian and aquatic vegetation. During the early season growth period many plant species are very sensitive to physical damage. Excessive trampling or cutting may lead to a loss of vegetation which, in turn, may disrupt natural process by decreasing available cover for aquatic fauna and increasing the speed of bank erosion and fine solids deposition within the river channel. If the close season was moved to 15 April the initial growth periods of many plants may be vulnerable to increased early season disturbance. If the season was extended until 30 June, there would continue to be a net loss of protection from the levels afforded by current close season dates. This reduction would not be mitigated by the later finish date as the extension would cover the less vulnerable period of vigorous growth in late spring/early summer.
It is possible that the net reduction in time period covered by the proposed amendment of the close season dates could theoretically increase angler disturbance of aquatic mammals such as water vole, water shrew and otter which are protected by the Wildlife and Countryside Act and may be listed as designated site features.
Otters may breed and raise young at any time of year in England, natal holts may be located some distance away from the water's edge and females may regularly move locations, therefore, any change to the close season is likely to result in little change in angler disturbance to otter. Any impacts on otter are likely to be limited to impacts on prey fish populations which may result from changes to the close season.
Water voles may breed and produce multiple litters between March and October. Once established they are highly territorial and unlikely to be easily disturbed by anglers unless banks, and the vole burrows contained within them, are physically damaged by practices such as excavating pegs and ground levelling. However, early in the season, as water voles are establishing territories, they are more susceptible to disturbance, therefore, a change of close season dates from mid-March to mid-April carries a limited but possible increased risk of angler disturbance to water voles.
Water shrews may live well away from river banks, often favoring wetland areas or ponds. Any changes to close season dates are not thought to pose an increased risk of angler disturbance to water shrew.

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?

Yes
A complete removal of the close season is likely to further exacerbate disturbance impacts discussed in question 5.1. It is highly likely that the resulting increase in disturbance by anglers will impact on nesting bird species associated with riverine and riparian habitats. In addition, vegetation may be subjected to physical damage during its sensitive early season growth phase with associated impacts on the physical and biological functioning of the river channel, including the availability of suitable nesting habitats. Direct disturbance of some protected mammals may be increased with the potential to impact on early season litters.

## References

Environment Agency, 1998. A Coarse Fish Close Season on Canals - paper in evidence to the review of Fisheries Policy and Legislation: Paper Number EA
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

Environment Agency (2018b). A survey of anglers' views on the coarse fish close season. Internal Environment Agency report.

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[^0]:    ${ }^{1}$ https://www.anglingtrust.net/page.asp?section=1016\&sectionTitle=The+River+Close+Season+Debate

[^1]:    ${ }^{2}$ Please note, 71 respondents who responded as individuals indicated they had also responded on behalf of an organisation. Similarly, 230 respondents who responded on behalf of an organisation indicated they had also responded as an individual.

[^2]:    ${ }^{3} 17$ fishery managers managed river fisheries; 26 managed stillwater fisheries; 8 managed canal fisheries; some managed more than one fishery type; and some did not declare what fishery they managed 70 of 100

[^3]:    73 of 100

[^4]:    (a) take such steps as appear to the Secretary of State to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any list published under this section, or
    (b) promote the taking by others of such steps.

