Outputs from the Quantification of Impact Exercise in relation to an initial iteration of draft measures for the management of black seabream in three Dorset MCZs

This document details information resulting from a quantification of impact exercise carried out in relation to an initial iteration of draft measures for black seabream in three Dorset MCZs. This document is not an Impact Assessment, it provides outputs to inform an initial understanding of impact.

The initial iteration of draft measures being explored were discussed by the Authority through a Working Group, based on consideration of General, Evidence and Spatial Principles defined at the February 2024 Technical Advisory Committee Meeting. The initial iteration of measures was:

- All fishing, both recreational and commercial, across pots/traps (pelagic and demersal), nets (pelagic and demersal) and lines (pelagic and demersal) would be prohibited within Indicative Habitat Areas (IHAs).
- That the prohibition would be seasonal from 1st April to 31st July each year.

Data has been sought from a variety of sources including through a Direct Engagement Exercise with the charter vessel, recreational sea angling (RSA) and commercial fishing sectors, publicly available online data on charter vessel operations and Marine Management Organisation (MMO) landings data. There is an additional section which details examples of additional data from literature that can also be interrogated to explore wider impacts.

Contents

Impacts

Information on Impacts is split into sections:

- Impacts from the Direct Engagement Exercise – Impacts by Gear Type
- Impacts from the Direct Engagement Exercise – Impacts by IHA
- Online Data for Charter Vessels
- MMO Landings Data

For potential quantified economic impacts, a summary and cumulative assessment is provided at the end of each section. This data is then compiled under Section 4 into the Cumulative Assessment of Potential Economic Impact from Available Data. Information from the Direct Engagement Exercise has been summarised as far as possible for each sector/gear type and then for each of the IHAs.

Note that in all cases economic value relates to first sale value, direct cost for customers on charter angling trips etc. this should not be taken to reference the final income earned by a particular fisher or business as there will be outgoings as well as income. Examples provided for *economic impacts are based on information received during direct engagement, this is therefore in most cases an estimation rather than a definitive value, however the level of detail provided in order to report these examples is at a level where there can be confidence in the values presented.*

1. Direct Engagement Exercise Data

1.1 Impacts from Direct Engagement - Impacts by Gear Type

For impacts by gear type, the monetised costs have been split down to specific gear types as far as possible. For impacts to businesses and wider impacts (social, cultural, heritage, community) these are often applicable to multiple gear types due to the need for the inshore sector to be able to diversify, therefore these are presented as general points.

Specific data which is not monetised data is provided in Annexes 1 and 2.

Pots/Traps (Commercial)

Fishing Activity – General

- For pot fishing there is a need to be able to access areas which are not affected as much by the tides, tidal patterns introduce natural restrictions in lot of otherwise good fishing ground within the Purbeck Coast MCZ.

Monetised – General Points

- When the weather is more inclement, and when winds are blowing from the S or SW then there is a need to move fishing gear from closer inshore into Area 3, the deeper water in these conditions is safer for pots, without doing this there is a significant risk of losing gear.
- For both potting and netting, restrictions within areas 1-3 will push fishing vessels further east, this will increase the fuel required and thus fuel costs, reducing the profit margin associated with any catch.
- Some fishers build their own pots due to the prohibitive cost of purchasing new pots. The time required to build a new pot is time that is not spent fishing and earning money.
- Bait for pots can be caught by the fisher rather than being purchased to reduce costs, this is often caught in nets within similar areas to bream nests (targeting wrasse and other similar species).

Monetised – Additional Costs

- If bait could not be caught and had to be purchased, this could account for 20-30% of a fisher's income as a minimum
    - Example:
        - 250 pots required £100 per day spend on bait if purchased
        - This is based on a small vessel
        - 2-3 fishing days per week = £300 per week (3 days)
        - 16 weeks April to July = £4,800

Monetised – Gear Loss

- Example:
    - String of 20 pots
    - 3x strings needing to be set in Area 3 = 60 pots
    - Loss of gear = £100 per pot = £600, plus costs of ropes & anchors
    - Time lost in replacing pots when no fishing can take place
- The initial iteration of a seasonal period overlaps with the most productive and settled time of year for pot fishing when it is likely that fishers would be able to have more fishing days and more success from individual fishing trips.

Impacts on Associated Businesses

- 2 pot fishing boats support 3 local businesses in selling locally caught seafood.
- One further boat supports 4 main local businesses who purchase seafood only from that vessel
    - At least half the catch is sold locally
    - It has taken a long time to build these relationships
    - These businesses are high end and only want to serve locally caught catch

Monetised - Impacts on Associated Businesses

- Example: Fishing vessels operating out of Swanage support the use of sheds for storing equipment, conducting maintenance etc. this requires an outlay of £800 per year per shed, up to 8 sheds = £6,400 income for that business.

Wider impacts – Social/Cultural/Heritage/Community

- There are only two vessels which operate out of Kimmeridge, these restrictions may make the operations of these vessels unviable which would lead to the fishing heritage being lost from Kimmeridge.
- For potting and netting, the areas around Purbeck Coast, encompassing Areas 1-7 constitute ancestral fishing grounds, fishers operating in this area can be up to 11th generation.

Nets (Commercial)

Fishing Activity Points - General

- Many fishers operating in these areas are not targeting black seabream, the mesh used is often around 5.5 inches, designed to catch bigger species.

Wider impacts – Social/Cultural/Heritage/Community

- For potting and netting, the areas around Purbeck Coast, encompassing Areas 1-7 constitute ancestral fishing grounds, fishers operating in this area can be up to 11th generation.
- In Lulworth Cove there are only 2 surviving full time fishermen, the introduction of seasonal restrictions for Areas 1-3 in particular would make it likely that the fishing

industry would not be able to be maintained in Lulworth Cove and thus that heritage would be lost.

Lines (Commercial)

Monetised – General Points

- There are 8-10 commercial rod and line vessels operating out of Weymouth, mainly targeting bass, some target bream in smaller numbers.

Lines (Charter Fishing)

Fishing Activity Points - General

- The method of fishing has not changed and the number of trips have not increased to a large degree, however bream catches have increased (see Annex 1).
- With changing weather patterns, the period of April to June has become the best weather window of the year.
- Many of the charter vessels operating out of Poole run inshore trips only as these are favoured by a greater variety of people, are more likely to go ahead in a greater variety of conditions, incur reduced fuel costs and reduced transit time which all results in more time available for fishing. The proximity of good fishing areas to Poole also allows half day and evening trips to be run as well as full day trips.

Monetised – General Points

- Bream trips inshore have the best profit margin, fuel takes approximately 10% of the profit. For bass trips & wreck fishing, fuel takes approximately 25-30%.
- Businesses which sell bait/tackle and book trips on behalf of charter boats will be affected by any loss of charter operators.
- Charter vessels out of Weymouth rely on bream fishing during April to July, this is in part due to the decline in pollack stocks which used to be a target species for Mar-May. Fishing for bream during this period has been important for the last 5-7 years, it is a good fish for charter vessels, the best areas for fishing are sheltered, there is a good guarantee that a customer will catch a fish.
- January and February are quiet months for charter vessels, to fish for black seabream on the areas identified is the basis on which a lot of trips are undertaken and booked out by anglers during the April to July period – which supports the business throughout the quieter months - therefore this is integral to charter businesses being profitable each year.
- Charter angling trips during April to July (which are largely dependent on access to some of the IHAs) are booked up months in advance, dependent on when any regulations were introduced, a business may have trips for those months fully booked which would then have to be cancelled and refunded. Business plans are built in advance based on trips being booked well in advance and similar patterns of activity occurring each year (i.e., trips being booked solid during April to July), anticipated profits and costs are built on this model and allow charter vessels to understand their business inputs and outputs for each year.
- Over the past 10 years, wreck fishing has become less viable, catches have decreased, this type of fishing has become more winter based for charter vessels. Fishing in the

inshore area for bream and other species has become more viable during the summer months.

- Where there are declines in other species such as cod and pollack and restrictions are being introduced (pollack) there is a need to be able to diversify to other species to maintain a charter business.
    - If bream management of closures in IHAs are introduced in addition to current restrictions being faced in relation to pollack, bass restrictions and declines in other species, cumulatively this would make charter businesses unviable.
- Some anglers will do 20-30 angling trips per year with the same charter vessel provider which provides support to the business. This is based on the perception of the area being good for fishing, the ability to catch a variety of species, the experience and expertise of the charter businesses built up over many years, good facilities in local areas and relationships built with business owners and skippers.
- Some charter vessel business owners/operators have run their business for their whole working life, it is often a generational business within the family which is passed down and has taken many years to build up and establish a reputation which results in repeat customers and more interest from new customers.
    - Skills have been developed based on this business therefore there is limited ability to diversify into a different industry and very limited ability to work outside of fishing unless re-training is undertaken (expensive and time consuming) to earn an income similar to that derived from the charter business.
- Weymouth and Poole are home to the largest charter fishing fleets in the country.
- Any increased costs in fuel due to the need to get to other areas further afield if some inshore areas are closed can't be passed onto the customer as increases in the per person cost of a trip will reduce interest and particularly affect repeat custom which is vital to a charter business. Therefore, the charter vessel would have to reduce the profit margin to accommodate increased fuel costs.

Monetised – Losses (across all areas)

- Example: bream fishing across all areas accounts for 1/3 of income, these trips equate to 20-30 trips per month between April and July, 7 fishers per trip, £100 per person
    - £700 per trip
    - £14,000 to £21,000 per month
    - Four months = £56,000 to £84,000
    - 1/3 of income = £18,666.67 to £28,000
    - 6 people are dependent on the income from this business
    - Removal of this 1/3 of income would make business unviable
- Example: one business earns 60% of its income from working with charter businesses to book trips and sell equipment/bait.
    - Business is open 7 days per week during the seasonal period and works with 5-6 charter vessels, 3 of these do all their bookings through this business
        - Bookings are for 8-12 people, £75 per person per day (or private charter of £750 for the vessel), or for half-day trips £40 per person.
        - If all weekends were booked for the seasonal period
            - 17 weekends = 34 days
            - Based on day trips = between £25,500 (based on all being private bookings) to £30,600 (based on all being individual anglers)

- Between £6,375 to £7,650 to booking business
- Between £19,125 to £22,950 for charter vessels (between £6,375 to £7,650 per vessel based on 3 main vessels)

Impacts to associated businesses

- The impact to the charter fleet will be felt up the line to all associated businesses. There is the potential for charter businesses to become unviable as a result of the proposals, and on that basis, business would be lost to businesses including local marinas, tackle shops, accommodations, food & drink businesses, boat builders and boat mechanics.
- The Dorset coast has a well-established good reputation for angling, there is a good variety of species and areas which are available across the year meaning that there are always fishing opportunities. People will travel long distances to fish on this part of the coast. If these areas are prohibited areas during the season there is a risk that this reputation will be affected resulting in less visiting anglers and overall tourism.
- If there are too many restrictions impacting charter fishing on the south coast and anglers don't know if they are going to get enough benefit for the money spent, then it will become more appealing for anglers to go abroad to fish. On this basis all the associated impacts of tourism and the boost to local communities and economies will be lost.
- Charter skippers will purchase bait from local supplies as this is often included in the cost to the customer booking a place. If this is no longer required, it will impact the businesses selling bait and those collecting it.
    - Anglers prefer to purchase their bait from local sources.
- Bait and tackle shops would be affected by any impact on charter vessels and the RSA sector, there are several shops local to the Poole area that are already struggling, concern that these measures would make these businesses unviable (*There are three main tackle shops known in the Poole area, it is not known how many of these relate to this comment but at least 1*).

Wider impacts – Social/Cultural/Heritage/Community

- Charter angling provides an opportunity for different groups of people to get involved in sea angling, see the local coast and appreciate the value and importance of local species and locally caught catch. The different variety of trip types; day trips, half day, evening trips and for different species allows participation from experienced anglers to tourists.
- Charter angling also allows for people who are disabled to go fishing who might not otherwise be able to go to sea in smaller private vessels and for children to go angling to experience the coast, learn about the importance of sustainability and appreciate what is under the sea locally – promoting local seafood.
- Charter angling trips during April to July are booked up months in advance, dependent on when any regulations were introduced, a business may have trips for those months fully booked which would then have to be cancelled and refunded, this may impact people's holidays, booked accommodation etc. and would severely impact repeat custom.
- Some charter vessel business owners/operators have run that business for the whole time that they have been engaged in work, it is a generational business within the family which is passed down and has taken many years to build up and establish a reputation which results in repeat customers and more interest from new customers.

- Charter vessels rely on being able to fish in the summer, in the winter when there are few customers and much less business, operators will be able to see other gear types operating in those areas and catching bream as these activities continue through the winter, however having these areas open during the winter is not helpful for the charter fleet.
- Poole is known as one of the best angling competition venues in England. Any effect on the ability to hold those competitions would affect the perception of Poole and the heritage of the angling communities which have operated out of here for many generations.

Mitigation Measures Already Employed

- Many charter vessels already employ methods to promote good stock management for black seabream, for example an increased minimum size (30cm quoted), a bag limit per angler (5 fish quoted or a number of fish per hour) and other measures (returning all females or returning all egg bearing females or returning mature males all quoted).
    - The attitude of anglers has changed, it is no longer about taking as much as possible in a trip, majority is catch and release, there is a good awareness of the need for conservation hence voluntary measures being used by charter businesses and angling clubs.
    - Charter vessel operators find that male black seabream are only interested in the bait on hooks once they have finished nest guarding. There are periods where very few black seabream will digest bait to the point where they are then caught, during the guarding phase they will attack at hooks/bait but not take it into their mouths. There is then is a period where catches increase as the males have finished nest guarding and are hungry as they don't feed when guarding, then they will take the bait and be caught. Once another spawning round starts catch rates go down again. Catches therefore come in waves throughout the nesting season.
- Some charter vessels recommend the use of circle hooks and sometimes barbless circles, however even when using J hooks, the use of short lines results in the majority of fish being hooked in the mouth. Black seabream tend to take bait quickly resulting in mouth hooking rather than ingesting bait to the point of becoming deep hooked.
- Charter vessels already self-manage the fishery through their own policies for their boats, they also work as a community to monitor generally what measures are being used by each boat and encourage those that don't to adopt these as well as passing best practice onto RSA who use their boats. These measures are likely to result in many charter business becoming unviable, the loss of this industry would lose all the benefits outlined here.

Lines (RSA)

Fishing Activity Points - General

- Between April and July there may be up to 50 RSA vessels operating across Purbeck Coast, Poole Rocks and Southbourne Rough.
    - There may be up to 10 vessels operating over Poole Rocks at any one time.
- Angling clubs run a species competition throughout the year, points are awarded for different species caught.

    - Example from one club: black seabream are worth 5 points each up to the first five fish caught for the year, after this they reduce to being worth 1 point each. This is designed to avoid anglers over targeting one particular species and spreads the effort amongst all species including in the competition over the course of the year.
    - Species competitions are an integral part of angling clubs and the tradition goes back a long way, the more reduction there is in the species that can be caught the less people will want to participate or be part of clubs.
- One RSA vessel recorded black seabream caught as part of RSA competitions, recording catches between April and October for 2023 (Annex 2).
- Anglers will book up charter trips and competitions a year ahead, with the release of new tide books around October, at this point bookings will be made for the following year.
- Fishers out of smaller ports along the Purbeck Coast are very limited in their range to access fishing grounds.

Monetised – General Points

- There are limited areas where visiting RSA can launch boats from, there is often a cost associated with launching and considerations around the travel required to get to a particular coastal location. If fishing opportunities are limited then there will be fewer visiting boats as the cost will outweigh the benefit, this may impact the income received from launching areas (local port or council).
    - PHC Baiter Slipway Poole = £17.30 (between 6am – midnight), £13.80 (between 2.30pm - midnight) per boat
    - Mudeford Quay = £12.50 per boat
    - Swanage = between £5.00 (kayak no trailer storage) to £30.00 (any size boat/jet ski and trailer storage over 4.5m). An annual pass is available for £270.00
    - Weymouth = £13.75 (between 6am – midnight), £11.00 (between 2.30pm - midnight) per boat, yearly permit £178.75, with trailer parking £294.25
    - Kimmeridge = £20.00 per boat
- RSA who are keeping a boat locally need to pay for marina fees/mooring fees – the benefit from undertaking the activity needs to outweigh the cost of keeping the boat.
- RSA who belong to clubs pay membership fees which support the club each year, clubs which are based predominantly around boat angling will only be able to continue with a sufficient level of membership
- Angling clubs have sections – shore, pier, charter and small boat (commonly)
    - The charter section of clubs is comprised of both local, regional and potentially national members who travel to the local area to take part in charter trips. Membership of the club through this section is predicated on anglers being able to take part in charter trips, charter vessels will work with specific clubs and set aside days that are solely for club use. These members tend not to have their own vessel therefore without access to charter vessels they can't go fishing and wouldn't receive any benefit belonging to an angling club.
- The areas in Poole Rocks and Southbourne Rough could possibly be navigated around, however it would depend on the location of individual fishing marks.
- Impacts to the level of RSA activity would impact local tackle shops
    - 3 main shops supplying the local Poole area
    - The cost of bait is increasing, around £24 per lb – loss of this income would have big effect on small businesses that rely on support from local anglers and anglers using charter vessels

Monetised – Angling Clubs

- Example: one local angling club has 200 members operating with 100 boats
  - Initial membership fee £20 = £4,000
  - Individual membership = £45 per year or £50 per year for family membership = £9,000 (based on all members holding individual membership – *it cannot be quantified how many hold individual and how many hold family membership*)
  - Not known how many Members would be affected so not included in impact tables in Section 1.4.
- Example: One local club has 20 Members in the charter section at a cost of £10 per year for year 1 and £15 per year for year 2
  - On the basis of all members being in year 2 = £300 income per year for the club
  - There are approximately 24 trips per year run through the charter section with approximately 8-12 anglers participating per trip, anglers are still required to pay the charter vessel fee, £70
    - Between £560 - £840 per trip for charter operator
      - 24 trips = £13,440 to £20,160 per year for charter operator

Impacts to associated businesses

- The Dorset coast has a well-established good reputation for angling, there is a good variety of species and areas which are available across the year meaning that there are always fishing opportunities. People will travel long distances to fish on this part of the coast. If these areas are prohibited areas during the season there is a risk that this reputation will be affected resulting in less visiting anglers and overall tourism.
- Bait and tackle shops would be affected by any impact on charter and the RSA sector, there are several shops local to the Poole area that are already struggling, concern that these measures would make these businesses unviable (*There are three main tackle shops known in the Poole area, it is not known how many of these relate to this comment but at least 1*).

Wider impacts – Social/Cultural/Heritage/Community

- The Dorset coast has a well-established good reputation for angling, there is a good variety of species and areas which are available across the year meaning that there are always fishing opportunities. People will travel long distances to fish on this part of the coast. If these areas are prohibited areas during the season there is a risk that this reputation will be affected resulting in less visiting anglers and overall tourism.
- There are already many restrictions placed on RSA; bass restrictions, fewer of other species such as plaice, flounder and ray species, less mackerel for both catching and use as bait. Black seabream has become one of the staple fishing species in the summer on this basis and supports activity through local angling clubs and encourages visiting anglers.
  - RSA offers benefits to wellbeing and mental health, increasing restrictions combined with increasing costs and reducing fishing opportunities are affecting the success of RSA in achieving these benefits.
- There has already been a significant decline in the number of local angling clubs in recent years as many did not survive the pandemic. Many other clubs lost members and the

existence of these clubs is dependent on maintaining membership and encouraging new members.
- Poole is known as one of the best angling competition venues in England. Any affect on the ability to hold those competitions would affect the perception of Poole and the heritage of the angling communities which have operated out of here for many generations.

Mitigation Measures Already Employed

- The attitude of anglers has changed, it is no longer about taking as much as possible in a trip, majority is catch and release, there is a great awareness of the need for conservation hence voluntary measures being used by charter businesses and angling clubs.
- Local angling clubs provide a social environment, support for people and encourage sustainable fishing through club specific rules/regulations (i.e., often larger MCRS than regulation measures) and introduce an element of self-policing of local rules and regulations.

General Points – All Gear Types and Sectors

Impact on small and micro businesses

- Fishers using small vessels need to be able to diversify, these vessels are unable to travel large distances therefore need to be able to access local grounds for a variety of different species and gear types. When there are restrictions on one species (i.e., pollack) fishers need to be able to target a different species to maintain the ability to earn a living.
- The change in weather patterns with more inclement weather periods than used to be seen, even in the spring/summer, means that the number of fishing days has declined in recent years – there are already reduced fishing opportunities and restrictions on fishing days before any management is introduced.
    - Where this relates to business operations, this combined with increased restrictions on what can be caught and where has a greater cumulative impact.
    - This also results in inshore areas becoming more important as they are slightly less weather dependent.
    - The defined IHAs, being inshore, are safer for fishers as they provide shelter over longer periods of time.
- Outlays for the industry include insurance, moorings, boat maintenance etc. Insurance and moorings alone can require £5,000 - £6,000 per year outlay – this needs to be offset by catches before a profit can be made.
- In removing fishing from the IHAs, fishers will have to concentrate on other areas to compensate, this will result on fishing pressure which, at the moment, is spread out and limited to 1-2 boats as each fisher has their own patch, becoming more intense over smaller areas with more fishers needing to operate in the same area as each other.
    - This also increases the risk of gear becoming tangled with each other, resulting in potential loss of gear, damage to gear or loss of fishing as when tangled gear does not fish properly and fishers will need to take time to remove and untangle the gear.

Wider impacts – Social/Cultural/Heritage/Community

- Increased restrictions and increasingly limited ability to diversify is having a negative impact on fishers' mental health, being able to go fishing, spend time outdoors and on the sea improves wellbeing, increasing difficulty in doing this, financial concerns and risk of loss of local cultural heritage built up over many generations is affecting this wellbeing and having an adverse effect on mental health.
- At a time when the population of black seabream is larger in this area than it ever has been there are fewer vessels, both commercial fishing and charter, operating.
- Entry requirements for younger fishers are already very hard, it is expensive, and the outcomes need to be worth the initial investment. With less to catch and more regulation there is less incentive to get into the industry – which consists of an increasingly aging demographic.

Scientific Implications – Stocks, Sustainability etc.

- Fishing for black seabream reduces pressure on other stocks where population numbers are not as high, for example turbot and plaice. Reducing fishing for black seabream is likely to result in increased targeting of other species which do not have as robust populations.
- As a mobile species, black seabream will be exploited elsewhere, outside of the designated sites where they are protected. There is a perception that those who can be managed within the MCZs will be at a disadvantage compared to those who can operate outside of MCZs who will still be able to access the same fish.
- Fishers already fishing in areas outside of MCZs targeting bream in the rod and line sector (commercial) are concerned that management within the MCZs will push activity onto those areas increasing what is currently a sustainable level of effort.

Suggested Alternative Measures

- The charter fleet and the RSA sector would generally be supportive of a bag limit and an increase of the MCRS.

1.2 Impacts from Direct Engagement Exercise - Impacts by Indicative Habitat Area

Purbeck Coast MCZ

Area 1

Fishing Activity

- This area is important for sole, skate and ray netting.
- April is the best month for sole netting, once the spider crabs move in during May then the fishery is over.
- In April there can be approximately 6 boats netting for sole within and around Area 1.
- Charter vessels from Weymouth operate in this area, for full time operators weekend trips between April and July will be fully booked – there will also be full bookings during the school holidays (dictated by range opening).
- Whelk and lobster fishing out of Weymouth occurs across Areas 1 & 2 for at least one vessel out of Weymouth.

- Lobster fishing in this area declines from June onwards and more lobsters become berried, so it is not as worthwhile doing as most are put back.
- Lobsters are present in many of the same areas as black seabream, therefore the IHA 1-3, 6-7 are located over the best lobster fishing grounds in the area.
- If the weather is good then net fishing will take place every day – targeting pollack, sole or bass in Areas 1-3.

Monetised - General

- Areas 1-3 can account for 90% of the income for 4 boats.
- This area provides an additional source of income, specifically from sole netting, to that obtained from fishing for other species in the surrounding area.
- For both potting and netting, restrictions within Areas 1-3 will push fishing vessels further east, this will increase the fuel required and thus fuel costs, reducing the profit margin associated with any catch.
- The closure of Areas 1-3 during the seasonal period would result in 2 fishers and their associated businesses needing to find a completely new target species (current target species, sole).
- For both potting and netting, restrictions within Areas 1-3 will push fishing vessels further east to find suitable grounds. The majority of vessels operating in this area are small, 18-20ft, and it can be a 3-hour steam to get from Broadbench (Area 3) to Weymouth. The further east boats have to travel there is more chance of not being able to go due to weather and an increased risk to safety.

Monetised – Losses

Nets

- Example: Fishing for sole can give a profit of £500 per day in this area for a single vessel.
  - Average of 20 available fishing days in a good weather April = £10,000.
- Example: Two vessels undertaking ray fishing across Areas 1 & 3 which can yield 100kg of catch per day, at an average of £1.50 per kg = £200 per day
  - Fishing 2-3 days per week on average (everyday if weather is good) = £600 per week (based on 3 days)
  - 16 weeks in seasonal period = £9,600
  - 2 vessels = £19,200
  - If evenly split between Areas 1 & 3 = £9,600 for Area 1 (for 2 boats)
- Example: Between Area 1 and the southern part of Area 3 there can be a regular catch of 60kg of sole per day, average of £15-20 per kg, fishing for 10 days in April
  - 10 days = 600kg of sole
  - Between £9,000 to £12,000 for April
  - If evenly split between Areas 1 & 3 = £4,500 to £6,000 for Area 1

Total = £25,600 – *based on upper limits where a range of values is presented*

Pots

- Example: Between Areas 1-2 one vessel earns £20,000 per year in the period April to July from lobster fishing.
    - Due to the size of the area, based on a 2/3 of the catch being in Area 1 and 1/3 in Area 2 = £13,333.33 in Area 1.
    - This supports 2 crew and associated families of skipper and crew.
- Example: Between Areas 1-3 one vessel earns £40,000 per year in the period April to July from whelk fishing.
    - Not known how this is split between Areas – based on even split = £13,333.33 in Area 1.
    - This supports 2 crew and associated families of skipper and crew.

Total = £26,666.67

Monetised – Bait Costs

- Example: fishing for skates and rays in Areas 1 & 3 also provides bait for pot fishing which can equate to 3-4 boxes of bait per day at £10 per box value
    - Fishing 2-3 days per week = £120 (4 boxes, 3 days)
    - 16 weeks in seasonal period = £1,920
    - If evenly split between both areas = £960 in Area 3.
    - Inability to collect this bait would result in decline in profits for bait which is sold to other fishers and/or a need to purchase bait rather than catch it requiring an additional outlay of a similar value

Total = £960.00 – *based on upper limits where a range of values is presented*

Total for Area 1 – all gear types = £53,226.66

Area 2

Fishing Activity

- There is netting taking place in this area but due to the size of the area, some vessels could alter practices to work around it.
- Charter vessels from Weymouth operate in this area, for full time operators weekend trips between April and July will be fully booked – there will also be full bookings during the school holidays (dictated by range opening).
- Lobster fishing in this area declines from June onwards and more lobsters become berried, so it is not as worthwhile fishing for lobster at this time as most are put back.
- Lobsters are present in many of the same areas as black seabream, therefore the IHA 1-3, 6-7 are located over the best lobster fishing grounds in the area.
- If the weather is good then net fishing will take place every day – targeting pollack, sole or bass in Areas 1-3.

Monetised – General

- For both potting and netting, restrictions within Areas 1-3 will push fishing vessels further east, this will increase the fuel required and thus fuel costs, reducing the profit margin associated with any catch.
- The closure of Areas 1-3 during the seasonal period would result in 2 fishers and their associated businesses needing to find a completely new target species (current target species, sole).
- For both potting and netting, restrictions within Areas 1-3 will push fishing vessels further east to find suitable grounds. The majority of vessels operating in this area are small, 18-20ft, and it can be a 3-hour steam to get from Broadbench (Area 3) to Weymouth. The further east boats have to travel there is more chance of not being able to go due to weather and an increased risk to safety.

Monetised – Losses

Pots

- Example: Between Areas 1-2 one vessel earns £20,000 per year in the period April to July from lobster fishing (pots).
    - Due to the size of the area, based on a 2/3 of the catch being in Area 1 and 1/3 in Area 2 = £6,666.67 in Area 2.
    - This supports 2 crew and associated families of skipper and crew.
- Example: Between Areas 1-3 one vessel earns £40,000 per year in the period April to July from whelk fishing.
    - Not known how this is split between Areas – based on even split = £13,333.33 in Area 2.
    - This supports 2 crew and associated families of skipper and crew.

Total = £20,000.00

Total for Area 2 – all gear types = £20,000.00

Area 3

Fishing Activity

- This is a primary fishing area for charter vessels from Weymouth, for full time charter operators all weekend trips will be booked between April and July – there will also be full bookings during the school holidays (dictated by range opening).
- Charter boats operating out of Weymouth need options, for example if fishing for bass is difficult or not productive then vessels will switch to bream fishing, primarily within Area 3.
- This Area is sheltered and therefore is available to fish on all tide states.
- This Area is important for charter fishing out of Poole. The Jurassic coast provides a great backdrop which improves the fishing experience. Use of this Area is linked to Area 7, as Area 3 is further away from Poole, if the fishing there is not as good on a particular day then Area 7 will be visited on the return journey, if Area 7 is closed then it is too much of a

distance between Area 3 and the next closest good area to warrant go out there in the first place – the closure of certain areas would affect the usability of others.

- One vessel places all gear in Area 3, equating to 200 pots. If the area were to close this gear would have to be moved into areas that other fishers currently use causing conflict within industry.
- There are three pot vessels which operate in this area.
- Area 3 is a good area for fishers to diversify in, it can be used for commercial rod & line fishing for bass and bream, netting for sole, skates and rays and potting for lobsters, particularly during the summer when the sole netting becomes unviable due to presence of spider crabs.
- This area is popular for bass fishing during May, both Charter Vessels and private RSA will target this species in these areas during this period.
- RSA operating out of Portland will use Area 3 as a preferred area for fishing.
- There can be 6-10 charter vessels in this area on any given day between April and July (dependent on the operation of the ranges).
- The inshore part of this site in particular provides good shelter for pot fishing.
- Lobster fishing in this area declines from June onwards and more lobsters become berried, so it is not as worthwhile doing as most are put back.
- Lobsters are present in many of the same areas as black seabream, therefore the IHA 1-3, 6-7 are located over the best lobster fishing grounds in the area.
- If the weather is good then net fishing will take place every day – targeting pollack, sole or bass in Areas 1-3.

Monetised - General

- When the weather is more inclement, and when winds are blowing from the S or SW then there is a need to move fishing gear from closer inshore into Area 3, the deeper water in these conditions is safer for pots, without doing this there is a significant risk of losing gear.
- From March to the end of July, this Area can be used by charter vessels from the east when the weather is good, however there are already significant limits posed by the Lulworth Ranges which restrict when this activity can take place. Therefore, other areas outside of the ranges need to be accessible so that there are fishing opportunities for charter boat customers on all trips.
- Using this area for charter fishing is important as it provides shelter from the wind when it is blowing from the north/northeast. This makes fishing more comfortable for paying participants and means that fishing can take place all day without the need to move to multiple locations. Making charter fishing trips more comfortable and maximising the time spent fishing as opposed to transiting is important for building up a good reputation and maintaining returning visits from anglers – returning visits/regular custom forms a large majority of income for charter vessels.
- For both potting and netting, restrictions within Areas 1-3 will push fishing vessels further east, this will increase the fuel required and thus fuel costs, reducing the profit margin associated with any catch.
- The closure of Areas 1-3 during the seasonal period would result in 2 fishers and their associated businesses needing to find a completely new target species (current target species, sole).

- For both potting and netting, restrictions within Areas 1-3 will push fishing vessels further east to find suitable grounds. The majority of vessels operating in this area are small, 18-20ft, and it can be a 3-hour steam to get from Broadbench (Area 3) to Weymouth. The further east boats have to travel there is more chance of not being able to go due to weather and an increased safety risk.

Monetised – Losses

Nets

- Example: Area 3 results in approximately £6,000 of income for each of two vessels from catches of black seabream and sole = £12,000 total during the seasonal period.
    - This pays a mortgage and supports a family with three children
    - There is no ability to earn an income from elsewhere, there are no transferable skills, for many fishers this is all they know how to do.
- Example: Two vessels undertaking ray fishing across Areas 1 & 3 which can yield 100kg of catch per day, at an average of £1.50 per kg = £200 per day
    - Fishing 2-3 days per week on average (everyday if weather is good) = £600 per week (based on 3 days)
    - 16 weeks in seasonal period = £9,600
    - 2 vessels = £19,200
    - If evenly split between areas 1 & 3 = £9,600 for Area 3 (for 2 boats)
- Example: One vessel uses sole nets which yield 20-30kg per day in April, sole can average £15-20 per kg = between £450 - £600 per day (based on 30kg)
    - Based on being able to fish an average of 20 days in April = between £9,000 - £12,000
- Example: Between Area 1 and the southern part of Area 3 there can be regular catches of 60kg of sole per day, average of £15-20 per kg, fishing for 10 days in April
    - 10 days = 600kg of sole
    - Between £9,000 to £12,000 for April
    - If evenly split between Areas 1 & 3 = £4,500 to £6,000 for Area 3

Total = £39,600.00 – *based on upper limits where a range of values is presented*

Pots

- Example: One vessel sets approximately 100 pots within Area 3, these can yield 15kg of lobster per day, at a price of £18 per kg = £270 per catch
    - Fishing 2-3 days per week = £810 per week (based on 3 days)
    - 16 weeks in seasonal period = £12,960
- Example: Between Areas 1-3 one vessel earns £40,000 per year in the period April to July from whelk fishing.
    - Not known how this is split between areas – based on even split = £13,333.33 in Area 3.
    - This supports 2 crew and associated families of skipper and crew.

Total = £26,293.33 – *based on upper limits where a range of values is presented*

Commercial Rod and Line

- Example: Commercial rod & line fishing in this area can occur for up to 20 days across May and June (dependent on range firing schedule). Each trip can yield 40-45kg of bass at £12 per kg and 60kg of bream at £8 per kg
  - Per day = £540 for bass (based on 45kg) and £480 for bream = £1,020
  - 20 days = £20,400

Total = £20,400 – *based on upper limits where a range of values is presented*

Monetised – Bait Costs

- Example: fishing for skates and rays in Areas 1 & 3 also provides bait for pot fishing which can equate to 3-4 boxes of bait per day at £10 per box value
  - Fishing 2-3 days per week = £120 (4 boxes, 3 days)
  - 16 weeks in seasonal period = £1,920
  - If evenly split between both areas = £960 in Area 3.
  - Inability to collect this bait would result in decline in profits for bait which is sold to other fishers and/or a need to purchase bait rather than catch it requiring an additional outlay of a similar value

Total = £960.00 – *based on upper limits where a range of values is presented*

Monetised – Gear Loss

- Example: for one vessel, a string of 20 pots costs £2,500 and uses 17 strings, having to move into less sheltered areas risks gear loss
  - £42,500 total value if all gear lost

Total = £42,500

Total for Area 3 (excluding gear loss) = £87,253.33

Total for Area 3 (including gear loss) = £129,753.33

Scientific Implications – Stocks, Sustainability etc.

- Closing this area would require current whelk pot fishing to take place over the same ground rather than fishers having the ability to move around so that ground is given a break. For one fisher the rotation used means that no one piece of ground is fished more than once each year, this aims to give the whelk stocks a rest and ensure sustainability of the stocks.
- Closing Areas 3, 7 & 10 will focus more activity on Poole Rocks and Southbourne Rough.

Area 4

Fishing Activity

- Charter vessels from Weymouth operate in this area, for full time operators weekend trips between April and July will be fully booked – there will also be full bookings during the school holidays (dictated by range opening).
- Pot fishing for lobster takes place in this area.

Monetised – General

- There is netting taking place in this area but due to the size of the area, practices could be changed to work around it.
- This area is small and the distance from the shore means the impact to commercial fishers (not rod and line) is likely to be low.

Monetised – Losses

- No data provided.

Area 5

Fishing Activity

- Charter vessels from Weymouth operate in this area, for full time operators weekend trips between April and July will be fully booked – there will also be full bookings during the school holidays (dictated by range opening).
- Pot fishing for lobster takes place in this area.

Monetised - General

- There is netting taking place in this area but due to the size of the area, practices could be changed to work around it.
- This area is small and the distance from the shore means the impact to commercial fishers (not rod and line) is likely to be low.

Monetised – Losses

- No data provided.

Area 6

Fishing Activity

- Commercial rod and line fishing for bass occurs across this Area.
- This area is used for charter vessel fishing when there are northerly winds, provides an area of shelter.
- Bass fishing in this area would be more affected than bream fishing.
- This area is not used as much by charter vessels from Weymouth.

- For RSA, Areas 6 & 7 are not targeted as much from Poole, however vessels operating from Kimmeridge will use both of these Areas.
- Lobsters are present in many of the same areas as black seabream, therefore the IHA 1-3, 6-7 are located over the best lobster fishing grounds in the area.

Monetised – General

- This area is important not just for targeting black seabream but is an important area for targeting bass. The commercial rod and line fishing out of Weymouth utilises this area significantly for bass fishing, as it is an area which provides shelter and a known source of income. Closure would require vessels to move to other more exposed locations, increasing fuel costs whilst potentially realising less profit thus cutting margins.

Monetised - Losses

Commercial Rod and Line

- Example: Commercial rod and line fishing for one vessel yields 35-40kg of bass per day at £12 per kg with around 20 days fishing taking place across May and June
    - Per day = £480 (based on 40kg)
    - For 20 days = £9,600
    - This can be related to three potential vessels = £28,800

Total = £28,800 - *based on upper limits where a range of values is presented*

Pots

- Example: for one fishing vessel using pots, this is the main pot fishing area April and July, it is a safe area out of the weather and the tide.
    - Between Areas 6 & 7 this equates to ¼ to 1/3 of the business.
    - £1,500 per week overall = £24,000 for 4 months
    - £6,000 to £8,000 from these areas
    - If equal split = £3,000 to £4,000 for Area 6

Total = £4,000 – *based on upper limits where a range of values is presented*

Monetised – Gear Losses

- Example: if pots couldn't be placed in Areas 6 & 7 there is a risk that they would be lost as further out is less sheltered.
    - £100 per pot to replace (plus rope costs and anchors)
    - 20-30 pots per string
    - Example based on 10 strings (no. of strings in an area can vary) = £2,000 - £3,000 to replace per string = £20,000 - £30,000 to replace all across two Areas
    - If equal split = £10,000 to £15,000 for Area 6

Total = £15,000 – *based on upper limits where a range of values is presented*

Total for Area 6 (excluding gear loss) = £32,800.00

Total for Area 6 (including gear loss) = £47,800.00

Wider impacts – Social/Cultural/Heritage/Community

- Pot fishing in this area is related to 5 generations of fishing within the same family (200 years), there is a need to be able to pass this on to the next generation.

The Lulworth Ranges

- The restricted sea area for the Lulworth Ranges covers Areas 1-6 within the Purbeck Coast MCZ
- The range firing pattern varies but generally there is a closure in place during weekdays
- Current pattern (2024 spring)
  - Closed between 09:30 to 17:00, and additionally between 20:00 to 23:59 on Tuesday and Thursday
  - Open on weekends
  - Open for the following periods:
    - Easter (29 Mar to 14 April)
    - Bank Holiday (4 to 6 May)
    - Spring Stand Down (25 May to 2 Jun)
    - Summer Stand Down (26 Jul to 1 Sept)
- Therefore, for 2024, between 1st April and 31st July
  - Accessible all day – 40 days
  - Restricted access – 68 days

Area 7

Fishing Activity

- One charter vessel from Weymouth uses this area routinely.
- Between Area 7 and Area 10 100% of a charter business operates during April to July.
- This area is safe ground for pot fishing, during May to June this is an important lobster area.
- Areas 6 & 7 are not targeted as much from Poole by RSA, however vessels operating from Kimmeridge will use both of these areas.
- Angling will target multiple species in this site, for example shark and ray species, this method uses larger hooks which won't take black seabream.
- Lobsters are present in many of the same areas as black seabream, therefore the IHA 1-3, 6-7 are located over the best lobster fishing grounds in the area.

Monetised – General

- Between Area 7 and Area 10 100% of a charter business operates during April to July. Closing both these areas during this period would close the business. This business provides significant support to the local community and local businesses around the port of operation.
- This area is important for charter fishing out of Poole. The Jurassic coast provides a great backdrop which improves the fishing experience. Use of this Area is linked to Area 3, as Area 3 is further away from Poole, if the fishing there is not as good on a particular day

then Area 7 will be visited on the return journey, if Area 7 is closed then it is too much of a distance between Area 3 and the next closest good area to warrant go out there in the first place – the closure of certain areas would affect the usability of others.

- This is the main pot fishing area for one vessel between April and July, it is a safe area out of the weather and the tide.
    - Between Areas 6 & 7 this equates to ¼ to 1/3 of the business for one fishing vessel.
- The small part of Area 7 which extends to the south means that strings of pots couldn't be set horizontally as the risk would be too high of accidentally going over that part of Area 7 – this therefore makes Area 7 much larger than mapped and more of a full rectangle when it comes to pot fishing.
- Moving out of this area – there is nowhere else to go which would have the same level of fishing, particularly for lobsters.
- This area is important for crab and lobster in the summer – approx. 10% from this area for one vessel's seasonal catch.

Monetised – Losses

Charter Fishing

- Example: Between Area 7 and Area 10 100% of a charter business operates during April to July. Closing both these areas during this period would close the business. The yearly income from 1 out of 3 boats operated = £51,750, the other 2 boats = £15,000
    - Total of £66,750 per year
    - If this was split evenly between two areas = £33,375 for Area 7.

Total = £33,375.00

Pots

- Example: for one fishing vessel using pots, this is the main pot fishing area for April and July, it is a safe area out of the weather and the tide.
    - Between Areas 6 & 7 this equates to ¼ to 1/3 of the business.
    - £1,500 per week overall = £24,000 for 4 months
    - £6,000 to £8,000 from these areas
    - If equal split = £3,000 to £4,000 for Area 7

Total = £4,000 – *based on upper limits where a range of values is presented*

Monetised – Gear Loss

- Example: if pots couldn't be placed in Areas 6 & 7 there is a risk that they would be lost as further out is less sheltered.
    - £100 per pot to replace (plus rope costs and anchors)
    - 20-30 pots per string
    - Example based on 10 strings (no. of strings in an area can vary) = £2,000 - £3,000 to replace per string = £20,000 - £30,000 to replace all across two areas
    - If equal split = £10,000 to £15,000 for Area 7

Total = £15,000 – *based on upper limits where a range of values is presented*

Total for Area 7 (excluding gear loss) = £37,375.00

Total for Area 7 (including gear loss) = £52,375.00

Scientific Implications – Stocks, Sustainability etc.

- Closing Areas 3, 7 & 10 will focus more activity on Poole Rocks and Southbourne Rough.

Wider impacts – Social/Cultural/Heritage/Community

- Pot fishing in this area is related to 5 generations of fishing within the same family (200 years), there is a need to be able to pass this on to the next generation.

Area 8

Fishing Activity

- This is a productive area for lobster fishing.
- RSA vessels operating out of ports from Poole to the east (Christchurch, Solent) would be mainly limited to Areas 8-13 due to weather dependent considerations, transit time & fuel costs.
- This is a popular area for bream fishing for RSA.

Monetised - General

- This area would impact charter businesses as it is important for evening fishing trips, providing shelter and a convenient location which requires less transit time for a shorter trip – these trips help support the main income for charter fishing and open up opportunities to an increased group of people who don't necessarily want to do a whole day's fishing.
    - Better for people to try out angling and for tourists
- Pot fishing within this area for one vessel supports x2 crew, they would have to be kept on as the help is needed but this would affect the profit margin for the skipper, as to retain the crew they would need to be paid the same.
- This is an important lobster area in June and July along with Areas 9 & 10.
    - approx. 10% on income in this regard comes from these three Areas.
- Fishing for lobsters is key in Areas 8 & 10, the key period is from June to July – the initial iteration of measures would affect 30% of the overall income for one fishing vessel.

Monetised – Losses

Pots

- Example: Between Areas 8-10, approx. 25% of earnings, at an average of £2,000 total earnings per week, comes during April to July from one pot fishing vessel
    - 16 weeks (4 months) = £32,000
    - 25% = £8,000
    - If this was split evenly between three areas = £2,666.67 for Area 8.

Total = £2,266.67

Total for Area 8 = £2,266.67

Impacts on Associated Businesses

- Area 8 covers an area which is used for a nationally important kayak fishing competition held annually and run out of Swanage. The competition often sees in excess of 500 participating kayaks and is run within the April to July period. The target species includes black seabream, but it is a species competition so other species are targeted as well. The competition attracts participants from around the country and provides a boost to the local economy in Swanage from accommodation, food & drink etc. It is also an important recognition of the importance of Swanage and the Jurassic coast as a recreational fishing destination, the area has a good reputation and encourages visiting anglers accordingly.

Wider impacts – Social/Cultural/Heritage/Community

- This area (relevant to the whole of Swanage Bay) can be used for vessel anchoring (*a check online does not define any particular anchoring zones but advertises the whole of Swanage Bay other than established mooring areas or an exclusion area around the pier as being suitable for anchoring and a good, sheltered place in which to do so*)
    - It is felt that if fishing activities are to be managed in these areas, but anchoring is able to continue then this will defeat the objective to protect nests and eggs on nests as these could be removed by anchors
    - The no anchor zone in Studland Bay has pushed more boats to Swanage Bay to anchor
- Pot fishing in this area is related to 5 generations of fishing within the same family (200 years), there is a need to be able to pass this on to the next generation.
- This Area is important for RSA, it is a sheltered area close to the home port of Swanage so vessels don't have to travel far, and people can operate safely.
    - If RSA vessels have to travel further to fish, then this increases fuel costs which is likely to result in people taking less trips. This results in less wellbeing and social benefit (i.e., undertaking trips with friends/family) or vessels will venture further offshore which could have significant safety implications.
        - Many of these vessels have small engines and are subject to a greater degree to tide and wind restrictions.

Area 9

Fishing Activity

- RSA vessels operating out of ports from Poole to east (Christchurch, Solent) would be mainly limited to Areas 8-13 due to weather dependent considerations, transit time & fuel costs.

Monetised – General

- This area could be worked around for charter angling.
- This area is used for cuttlefish fishing which has the same time period as the black seabream nesting season. It is a very seasonally restricted fishery and any income from cuttlefish fishery needs to be made during this period.
- This is an important lobster area in June and July along with Areas 8 & 10.
    - approx. 10% on income in this regard comes from these three Areas.

Monetised – Losses

Pots

- Example: Between Areas 8-10, approx. 25% of earnings, at an average of £2,000 total earnings per week, comes during April to July from one pot fishing vessel
    - 16 weeks (4 months) = £32,000
    - 25% = £8,000
    - If this was split evenly between three areas = £2,666.67 for Area 9.
- Example: important cuttlefish fishing area, 4-5 tonnes can be taken between April and May (applicable to two vessels)
    - £3 per kg, 4-5 tonnes = between £12,000 - £15,000
    - For two vessels = £24,000 to £30,000

Total = £32,666.67 – *based on upper limits where a range of values is presented*

Total for Area 9 = £32,666.67

Wider impacts – Social/Cultural/Heritage/Community

- This area (relevant to the whole of Swanage Bay) can be used for vessel anchoring (*a check online does not define any particular anchoring zones but advertises the whole of Swanage Bay other than established mooring areas or an exclusion area around the pier as being suitable for anchoring and a good, sheltered place in which to do so*)
    - It is felt that if fishing activities are to be managed in these areas but anchoring is able to continue then this will defeat the objective to protect nests and eggs on nests as these could be removed by anchors
    - Within this area on a summer weekend there can be up to 50 boats anchored
- Pot fishing in this area is related to 5 generations of fishing within the same family (200 years), there is a need to be able to pass this on to the next generation.

Area 10

Fishing Activity

- This area is used at all times for pot fishing.
- RSA vessels operating out of ports from Poole to the east (Christchurch, Solent) would be mainly limited to Areas 8-13 due to weather dependent considerations, transit time & fuel costs.
- This is a popular area for bream fishing for RSA.

Monetised – General

- Between Area 7 and Area 10 100% of a charter business operates during April to July. Closing both these areas during this period would close the business. This business provides significant support to the local community and local businesses around the port of operation.
- This is an important lobster area in June and July along with Areas 8 & 9.
    - approx. 10% on income in this regard comes from these three Areas.
- This area provides shelter for charter fishing when the wind is stronger (up to 30 knots), this ensures there is an available location for fishing and reduces the risk of having to cancel trips.
- Fishing for lobsters is key in Areas 8 & 10, the key period is from June to July – the initial iteration of measures would affect 30% of the overall income for one fishing vessel.

Monetised – Losses

Charter Fishing

- Example: Between Area 7 and Area 10 100% of a charter business operates during April to July. Closing both these areas during this period would close the business. The yearly income from 1 out of 3 boats operated = £51,750, the other 2 boats = £15,000
    - Total of £66,750 per year
    - If this was even split per area = £33,375 for Area 10

Total = £33,375.00

Pots

- Example: Between Areas 8-10, approx. 25% of earnings, at an average of £2,000 total earnings per week, comes during April to July from one pot fishing vessel
    - 16 weeks (4 months) = £32,000
    - 25% = £8,000
    - If this was split evenly between three areas = £2,666.67 for Area 10

Total = £2,266.67

Total for Area 10 = £35,641.67

Wider impacts – Social/Cultural/Heritage/Community

- Pot fishing in this area is related to 5 generations of fishing within the same family (200 years), there is a need to be able to pass this on to the next generation.

Scientific Implications – Stocks, Sustainability etc.

- Closing Areas 3, 7 & 10 will focus more activity on Poole Rocks and Southbourne Rough.
- Removing the ability to use this area would force more boats into smaller remaining sheltered areas increasing pressure on a smaller area and risking conflict between

different users. It would also result in more vessels targeting the same fish over a smaller area increasing the risk of repeated catch and release and the risk of decreased catches which affects the reputation of the business.

Poole Rocks MCZ

Area 11

Fishing Activity

- Areas 11, 12 and 13 are key areas during the months of April and July for charter fishing. During May there is a 2-4 week period where trips targeting black seabream are more spread out, however during April and July these areas are very important to the local charter fleet for inshore fishing trips.
- Running half day trips limits the areas that can be reached due to need to maximise fishing time and also ensure that fuel expenditure is not exceeding income. For charter vessels out of Poole, Poole Rocks is an idea location for half day trips.
- Pot fishing can occur here for whelks.
- RSA vessels operating out of ports from Poole to the east (Christchurch, Solent) would be mainly limited to Areas 8-13 due to weather dependent considerations, transit time & fuel costs.
- The variety of fish which are attracted to the areas within Poole Rocks makes them important fishing areas.
- These areas will have 6-12 RSA vessels operating during weekends and the summer at any one time (across all Poole Rocks but would cover IHA Areas 11 & 12) – this is a safe fishing area, boats will move to less safe areas as they want to continue fishing but this results in an increased risk to safety.

Monetised - Losses

- Example: The IHA 11 & 12 would impact a key species competition which runs for a day during June. The competition is based on catch and release and the nature of a species competition means that no one species is over-targeted as fishers need variety to gain points.
    - The competition has approx. 20 participating boats, 8 persons per boat at a cost of £320 per 4 people.
        - £12,800 total income earned by competition organisers.
        - Additional monetary value for input to local community from visiting anglers – unable to be quantified for this specific case.
        - If split evenly between two areas = £6,400 for Area 11

Total = £6,400.00

Total for Area 11 = £6,400.00

Area 12

Fishing Activity

- Areas 11, 12 and 13 are key areas during the months of April and July for charter fishing. During May there is a 2-4 week period where trips targeting black seabream are more spread out, however during April and July these areas are very important to the local charter fleet for inshore fishing trips.
- Area 12 covers part of the main area within Poole Rocks which is targeted by charter vessels, this is to target multiple species including black seabream.
- Running half day trips limits the areas that can be reached due to need to maximise fishing time and also ensure that fuel expenditure is not exceeding income. For charter vessels out of Poole, Poole Rocks is an idea location for half day trips.
- RSA vessels operating out of ports from Poole to the east (Christchurch, Solent) would be mainly limited to Areas 8-13 due to weather dependent considerations, transit time & fuel costs.
- The variety of fish which are attracted to the areas within Poole Rocks makes them important fishing areas.

Monetised - Losses

- Example: The IHA 11 & 12 would impact a key species competition which runs for a day during June. The competition is based on catch and release and the nature of a species competition means that no one species is over targeted as fishers need variety to gain points.
  - The competition has approx. 20 participating boats, 8 persons per boat at a cost of £320 per 4 people.
    - £12,800 total income earned by competition organisers.
    - Additional monetary value for input to local community from visiting anglers – unable to be quantified for this specific case.
    - If split evenly between two areas = £6,400 for Area 12

Total = £6,400.00

Total for Area 12 = £6,400.00

Southbourne Rough MCZ

Area 13

Fishing Activity

- Areas 11, 12 and 13 are key areas during the months of April and July for charter fishing. During May there is a 2-4 week period where trips targeting black seabream are more spread out, however during April and July these areas are very important to the local charter fleet for inshore fishing trips.
- Nets are set across Area 13 which can be in place up to mid-April or in some years up to June. This is to target bream and sole.
- Only one fisher operates with nets in this area.

- This site is a preferred netting area when the cuttlefish fishery isn't strong, it is an area which is good for netting in most weathers and is also more free from weed than areas closer inshore.
- RSA vessels operating out of ports from Poole to the east (Christchurch, Solent) would be mainly limited to Areas 8-13 due to weather dependent considerations, transit time & fuel costs.
- This site is primarily used by RSA operating out of Christchurch/Mudeford.
- This area would overlap with a main mark for black seabream for RSAs.
- The variety of fish which are attracted to Southbourne Rough makes the area important for fishing.

Monetised - General

- Avoiding this area within S.R. would require short ends to be put on nets which requires more anchors and then there is more risk that the net will not have the right flexibility to move with the tide and will become tangled on the anchors. This reduces catch levels as the net doesn't then fish properly and incurs time required to de-tangle before the net can be reset.
- This area would not impact the cuttlefish fishery.

Monetised – Losses

- No data provided.

Wider impacts – Social/Cultural/Heritage/Community

- This is a good area for charter fishing and Southbourne Rough overall has a good reputation as a fishing location, this historic use and reputation would be lost with the closure of parts of the site and result in fewer people wanting to take trips.

1.3 General message across all gear types

Information provided from engagement applicable generally to the proposals being discussed:

Given the current population of black seabream, why can't management seek to do a little to aim to maintain those numbers (which seems to be possible with current activities) rather than seeking to do a lot, the response appears to be disproportionate to the risk. Across all gear sectors, if the black seabream population was in decline, then there would be support across the board for management measures, given the current population being seen, it is felt that the good will of industry/individuals to help will be lost which then couldn't be recovered if the population ever reached a point where more stringent management was necessary.

1.4 Cumulative Assessment of Economic Impact from Direct Engagement Exercise Data

The following tables provide outputs and cumulative assessment of economic data provided during through the Direct Engagement Exercise.

Tables 1A-C contain any quantified economic data which was provided specific to an IHA as follows:

- **Table 1A:** data for the charter vessel sector
- **Table 1B:** data for the RSA sector
- **Table 1C:** data for the commercial fishing sector, note this has been further broken down to include or exclude the quantified value of gear loss where this data was available.

Tables 2A-C contain any quantified economic data which was provided that was not specific to an IHA as follows:

- **Table 2A:** data for the charter vessel sector
- **Table 2B:** data for the commercial fishing sector

Note there is no data under this section which relates solely to the RSA sector.

The data presented in these tables provides a direct compilation of data reported **in Sections 1.1 and 1.2 of this document only**, the lack of data for certain sectors does not reflect the impact, the full economic impact should consider all available data sources in combination for each sector. Where data is not given for a specific IHA, this does not mean that there is no impact, it is a reference to the fact that no quantified economic data was provided for that IHA during the Direct Engagement Exercise. Other impacts which are not quantified are presented in Section 1.2 of this document. The number of participants who were spoken to as part of the Direct Engagement Exercise who represented each sector are as follows (*note some individuals represented multiple sectors*):

- **Charter vessel sector** = 6
- **RSA sector** = 4
- **Commercial fishing sector** = 15

Table 1A. Economic Impact from Direct Engagement Exercise – Area Specific – Charter Vessel Sector

Area	Economic Impact (£)
1-6	No data provided
7	33,375.00
8-9	No data provided
10	33,375.00
11-13	No data provided
Total	**66,750.00**

Table 1B. Economic Impact from Direct Engagement Exercise – Area Specific – RSA Sector

Area	Economic Impact (£)
1-10	No data provided
11	6,400.00
12	6,400.00
13	No data provided
Total	**12,800.00**

(*) Note this economic data relates to an RSA fishing competition run over Areas 11 & 12, the value relates to loss of earnings for the competition organisers.

Table 1C. Economic Impact from Direct Engagement Exercise – Area Specific – Commercial Fishing Sector

Area	Economic Impact – loss of earnings (£)	Economic Impact - gear loss (£)	Total Economic Impact (£)
1	53,226.67		53,226.67
2	20,000.00		20,000.00
3	87,253.33	42,500.00	129,753.33
4-5	No data provided		
6	32,800.00	15,000.00	47,800.00
7	4,000.00	15,000.00	19,000.00
8	2,266.67		2,266.67
9	32,666.67		32,666.67
10	2,266.67		
11-13	No data provided		
Total	**234,480.01**	**72,500.00**	**306,980.01**

Table 2A. Economic Impact from Direct Engagement Exercise – Not Area Specific – Charter Vessel Sector

Impact Type	Impact Group	Impact
Loss of earnings	Charter Business	28,000.00
Loss of earnings	Local booking business	7,650.00
Loss of earnings	Charter Businesses using local booking business	22,950.00
Loss of earnings	Charter Business in relation to trips from Charter section of angling club	20,160.00
Total		**78,760.00**

Table 2B. Economic Impact from Direct Engagement Exercise – Not Area Specific – Commercial Fishing Sector

Gear Type	Impact Type	Impact Group	Impact
Pots	Gear Loss	Fisher	600.00
All commercial gear types	Use of gear sheds at Swanage	Local Business	6,400.00
Total			**7,000.00**

Total Economic Impact from Direct Engagement Exercise (IHA specific + non-area specific):

- **Charter vessel sector = £145,510.00**
- **RSA sector = £12,800.00**
- **Commercial fishing sector =**
  - **£241,480.01 (excluding gear loss)**
  - **£313,980.01 (including gear loss)**

2. Online Data for Charter Vessels

To further inform the potential impact on the charter vessel sector, as not all potentially affected vessels were part of the Direct Engagement Exercise, data was sought from additional sources.

Based on data available publicly online for charter vessels, including costs for trips, no. of bookings for the 2024 April to July period, no. of persons allowed per trip, calculations have been made to estimate potential economic impact. Data is presented for three main ports; Christchurch Harbour, Poole Harbour and Weymouth Harbour. It must be noted that certain assumptions have been required as to the relevance to the specific IHA, where this is the case best knowledge has been used based on experience and specific knowledge gained through the Direct Engagement Exercise.

The number of trips identified has been based on available calendars for each vessel for April to July 2024 where trips have either mentioned black seabream directly or referenced inshore fishing which is known to likely encompass fishing in IHAs.

Port:	Christchurch
No. of vessels with available data:	2
Trip Details/Costs:	
Vessel 1	8 spaces 4 hr = £50pp – approx. 20 per month Value = £8,000 8hr = £80pp – approx. 8 per month Value = £5,120 Total = 13,120
Vessel 2	4 spaces 4 hr = £280 8hr = £380 66 trips Total = £25,080
Total Value:	**£ 38,200**

Port:	Poole
No. of vessels:	8
No. of vessels with available data:	1 – full data

	5 – no data on no. of trips, proxy used based on common patterns of trip numbers for other vessels (x2 included specifically in engagement data, not repeated here)
Trip Details/Costs:	
Vessel 1	10 spaces Half day = £40 pp (£400 per boat) 5 trips per month = 20 over four months Value = £8,000 Full day = £75 pp (£650 per boat) 20-24 trips per month = 80-96 over four months Value = £72,000 (based on individual fees and upper trip limit of 96)
5 Vessels	Based on average of £65 pp (provided) and 10 spaces per boat (provided) and an average of 20 relevant trips per month (proxy) = 80 trips over four months Estimated value per vessel = £52,000 5 boats = £260,000
Total Value:	**£ 332,000**

Port:	Weymouth
No. of vessels:	7
No. of vessels with available data:	4 – full data 2 – no availability or price provided; proxy used based on common patterns for other charter vessels 1 – no provide provided; proxy used
Trip Details/Costs:	
Vessel 1	12 spaces Half day = £40 pp Full day = £75 pp (£750 per boat) Approx. 20 full day inshore trips per month = 80 over four months Value = £72,000 (based on individual full day fees)
Vessel 2	9 spaces Full day = £75 pp Booked everyday April – July =112 trips Value = £75,600
Vessel 3	12 spaces Full day = £75 pp Booked everyday April – July =112 trips Value = £100,800
Vessel 4	10 spaces

	Full day = £75 pp 20 trips per month = 80 over four months Value = £60,000
2 Vessels	Based on average of £65 pp (proxy) and 12 spaces per boat (provided data) and an average of 20 relevant trips per month (proxy) = 80 trips over four months Estimated value per vessel = £62,400 2 boats = £124,800
1 Vessel	Based on average of £65pp (proxy) and 10 spaces (provided data) and 12 trips per month (provided data) = 48 trips over four months Estimated value = £31,200
Total Value:	**£ 464,400**

Total Value across three ports = £834,600

3. MMO Landings Data

A data request was submitted to the Marine Management Organisation (MMO) for landings data from specific vessels known to operate in IHAs. Data was requested for the months of April to July for the period 2018-2023 to provide five years of data excluding 2020 due to the potential for differences in landings to normal patterns due to the Covid-19 Pandemic. Data was obtained from the MMO under the Environmental Information Regulations 2004.

The data has been anonymised and summarised below. It should be noted that any specific considerations communicated to Southern IFCA in respect of a specific vessel and associated impacts have been incorporated as far as possible into calculations of potential economic impact. This is an estimation of potential economic impact as landings data is not at the same spatial scale as the IHAs, however based on information gathered during the Direct Engagement Exercise it is determined that this is a best estimate. A range has been provided based on the lowest total value and the highest total value of relevant landings for a given year for the four-month period.

Data was obtained for 13 commercial fishing vessels operating a variety of gear types and targeting a variety of species. The gear types covered pot fishing, net fishing and rod & line fishing. Species included European seabass, black seabream, sole, lobster, brown crab, whelk, skate and ray species, other fish species and other crustacean species.

Vessel No.	Specific Considerations	Potential Economic Impact Range from Landings Data (£)	
		Lower	Upper
1	Potential to impact 1/3 of total catch	6,970.48	9,438.88
2	Potential to impact 90% of total catch	4,297.83	4,297.83
3	Potential to impact 90% of total catch	2,720.48	6,694.56
4	All catch considered	7,568.11	13,065.89
5	Potential to impact catches of black seabream and European seabass	2,205.76	6,454.25
6	Potential to impact catches of sole, ray species, black seabream and pot fished species	3,303.21	8,923.48
7	Potential to impact lobster catches	1,593.55	4,285.40
8	Potential to impact lobster catches	36.38	2,680.21
9	All catch considered	6,696.77	13,772.91
10	All catch considered	305.90	9,716.87
11	Potential to impact pot fished species	15,723.24	19,507.12
12	Potential to impact lobster and whelk catches	10,467.79	29,170.85
13	All catch considered	1,010.50	5,388.13
Total		**62,900.00**	**133,396.38**

4. Cumulative Assessment of Potential Economic Impact from Available Data

The table below combines three data sources and provides a total for the potential economic impact of the initial iteration of draft measures:

- That all fishing, both recreational and commercial, across pots/traps (pelagic and demersal), nets (pelagic and demersal) and lines (pelagic and demersal) is prohibited within 13 IHAs across the Purbeck Coast, Poole Rocks and Southbourne Rough MCZs.
- That the prohibition is seasonal from 1st April to 31st July each year.

The three data sources are:

- Quantified economic data from the Direct Engagement Exercise which is specific to a particular IHA
- Quantified economic data from the Direct Engagement Exercise which is not specific to a particular IHA
- Online data for charter vessels

For the purpose of a full economic assessment the potential economic impact for the commercial fishing sector obtained through the Direct Engagement Exercise includes the value related to potential gear loss.

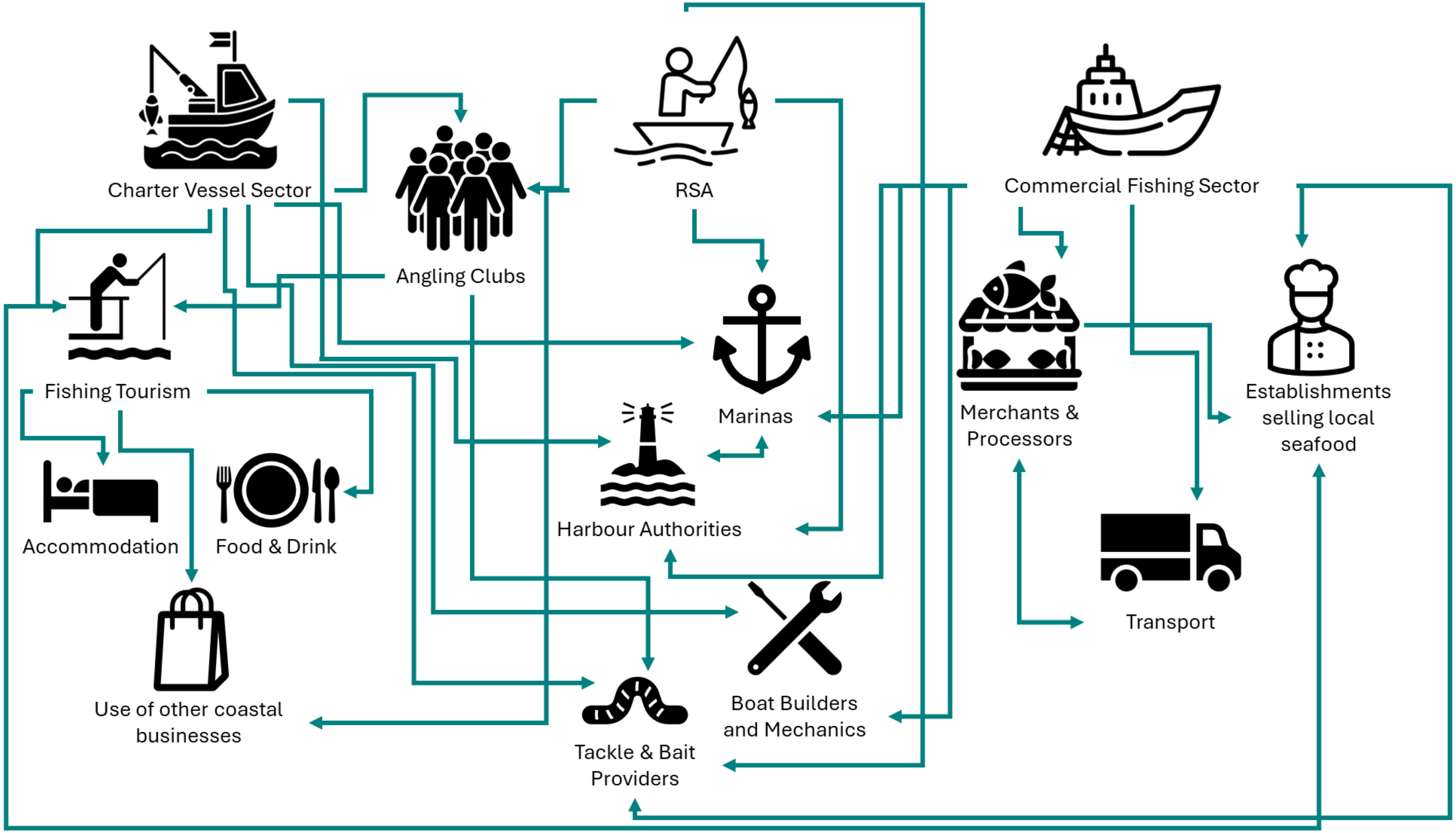
The landings data obtained from MMO for specific vessels is also presented, using the total of the upper range of potential economic impact values as a representation of the potential maximum impact. This data is not included with the above three data sources to provide an overall total as certain vessels for which MMO landings data was obtained were also consulted through the Direct Engagement Exercise therefore to add this data to the engagement data may result in an overestimate with multiple values being applicable to the same vessel.

Data Source	Sector	Value	Page Number
Engagement Data – Area Specific	Charter vessel	66,750.00	30
	RSA	12,800.00	31
	Commercial	306,980.01	31
Engagement Data – Not Area Specific	Charter vessel	78,760.00	31
	Commercial	7,000.00	31
Online data for charter vessels		834,600.00	32-34
Total		**£1,306,890.01**	
MMO Landings Data		133,396.38	35
Total		**£133,396.38**	

5. Wider Impact Considerations

The wider impacts data which was provided through the Direct Engagement Exercise was reviewed and key words/phrases extracted which cover themes of potential impacts, wider considerations and the relationship between the sectors and other businesses/the coastal community. These key words/phrases are presented in the word cloud below. *Note the size of the text does not relate to any weighting applied to a particular word/phrase.*

Consideration has also been given to the potential cascade effect resulting from any direct impacts to the three sectors covered in this report. The diagram below aims to provide an illustrative example of the other industries/businesses/groups which may be impacted as a result of any cascade effect.



6. Additional Data from Literature

The following information is sourced from published papers or reports which relates to the sectors (charter vessel, RSA and commercial fishing) which may be impacted as a result of the initial iteration of draft measures for black seabream. This information aims to provide an initial indication of elements such as wider economic contributions of different sectors to the local economy and participation in RSA. The information presented here is not exhaustive and Information sources such as these examples (and others) can be further interrogated at the appropriate point to feed into a full Impact Assessment for any further iterations of draft measures.

Williams et al (2020)[1]: The economic contribution of sea angling from charter boats: a case study from the south coast of England

- In this study, the economic contribution of charter boat sea angling on coastal communities was assessed for four ports in Dorset on the South Coast of England (Poole, Swanage, Weymouth and Portland).
- Values are provided for Gross Output, Economic Contribution and Gross Value Added (GVA) of the charter boat sector for the ports of Weymouth/Portland and Poole/Swanage.

Port	Gross Output (£)	Economic Contribution (£)	GVA (£)
Weymouth/Portland	1,078,590 (948,181 – 1,208,999)	1,646,557 (1,414,721 – 1,878,394)	510,622 (481,641-539,604)
Poole/Swanage	1,393,333 (1,334,667-1,452,000)	2,000,585 (1,890,179-2,110,990)	786,082 (779,154-793,010)

The paper provides values along with an uncertainty range based on standard errors, given in brackets.

[1] Williams, C., Davies, W., Clark, R. E., Muench, A. and Hyder, K. (2020). The economic contribution of sea angling from charter boats: a case study from the south coast of England. *Marine Policy*, 119, 104066

Williams and Davies (2018)[2]: The value of the small-scale commercial fishing fleet and recreational charter fleet to Weymouth: a tale of two fisheries

- The report looked at the commercial crab and bass fisheries operating out of Weymouth Harbour as well as the Weymouth recreational charter vessel fleet to determine gross output, indirect output and total economic activity.
- Values were given as:

Fishing Fleet	Gross Output (£)	Indirect Output (£)	Total Economic Activity (£)
Bass fishing	947,410	236,509	1,183,920
Crab fishing	279,956	258,288	538,244
Charter vessels	1,305,940	906,381	2,212,321

Williams and Davies (2018)[3]: A tale of three fisheries – the value of the small scale commercial fishing fleet, aquaculture and the recreational charter fleet, to the local economy of Poole

- The report looks to provide an indicator for the wider value created by the charter boat fleet in Poole utilising multiple data sources to complete local economic impact calculations.
- For Poole Harbour, open-book accounts of two charter vessels were used as a basis for estimating gross and indirect output for charter vessels, identifying, at the time of the report, 33 charter vessels operating out of Poole Harbour.
- Values were given as Gross Output, Indirect Output, Total Economic Activity and Total Economic Activity (75% performance) as follows:
  - Gross Output = £3,129,687
  - Indirect Output = £2,600,103
  - Total Economic Activity = £5,729,790
  - Total Economic Activity (75% performance) = £4,297,343

[2] Williams, C. and Davies, W. (2018). The value of the small-scale commercial fishing fleet and recreational charter fleet, to Weymouth: a tale of two fisheries. *New Economics Foundation to the Weymouth and Portland Fishermen's and Licensed Boatman's Association, the Weymouth and Portland Licensed Skippers Association, Southern IFCA and Seafish*, pp. 57

[3] Williams, C. and Davies, W. (2018). A tale of three fisheries: the value of the small scale commercial fishing fleet, aquaculture and the recreational charter boat fleet, to the local economy of Poole. *New Economics Foundation Report for Southern IFCA*, pp. 42

Hyder et al., (2020)[4]: Participation, catches and economic impact of sea anglers resident in the UK in 2016 & 2017

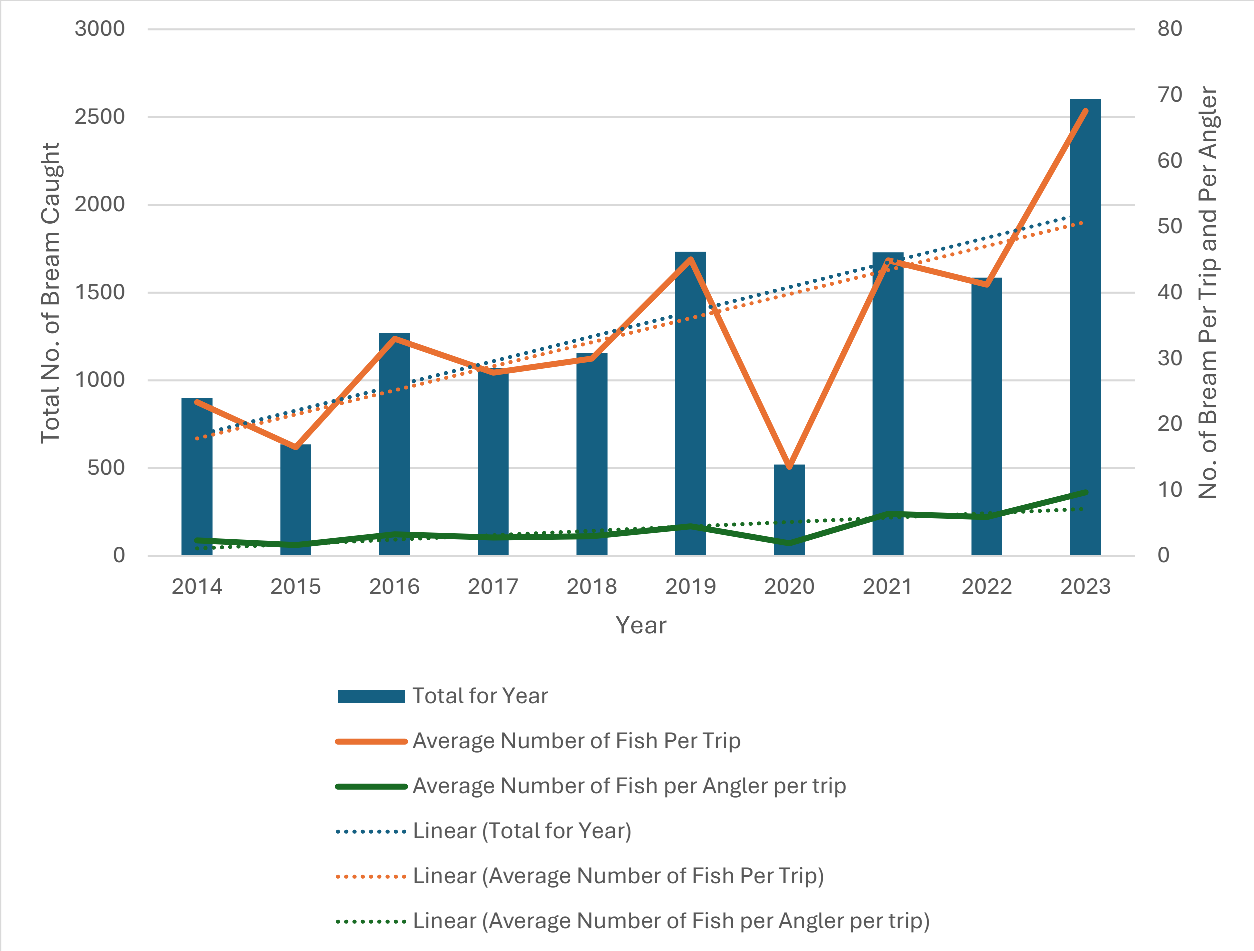
- The report follows on from the Sea Angling 2012 survey in England, adopting a revised monitoring program to estimate numbers of UK sea anglers, how often they fish, what they catch and how much they spend on their sport.
    - On average 823,000 UK residents aged 16 or older went sea angling in the years 2015-2017
        - Participation rate of 1.6%
        - Fished days = 7.0 million
    - Numbers of sea anglers were greatest in England (607,000) with the largest representation in the south west
    - A total of 100 different fish species were caught by sea anglers in the UK in 2016 and 2017 with a release rate of 80%
        - The species composition of the catch was similar in 2016 and 2017, the four most common species were whiting, mackerel, dogfish and bass with bream species accounting for 3% of the total catch (49.7 million in 2016 and 54.5 million in 2017)
    - Participants provided data on expenditure on capital (major) items and a breakdown on spend on the most recent sea angling day trip. This was used to estimate the total economic impact and jobs supported by sea angling in the UK.
        - Total expenditure estimate per adult angler = £1108 in 2016 and £1318 in 2017
        - Total direct expenditure estimates = £696 million in 2016 and £847 million in 2017 (removing imports and taxes and scaling to the UK)
        - Total economic impact =
            - 2016 - £1.58 billion (£326 million GVA), supporting almost 13,600 jobs
            - 2017 - £1.94 billion (£388 million GVA), supporting around 16,300 jobs

[4] Hyder, K., Brown, A., Armstrong, M., Bell, B., Bradley, K., Elena, C., Gibson, I., Hardman, F., Harrison, J., Haves, V., Hook, S., Kroese, I., Mellor, G., MacLeod, E., Meunch, A., Radford, Z. and Townhill, B. (2020). Participation, catches and economic impact of sea anglers resident in the UK in 2016 & 2017. *Cefas, Final Report of the Sea Angling 2016 and 2017 Project*, pp. 39

Annex 1

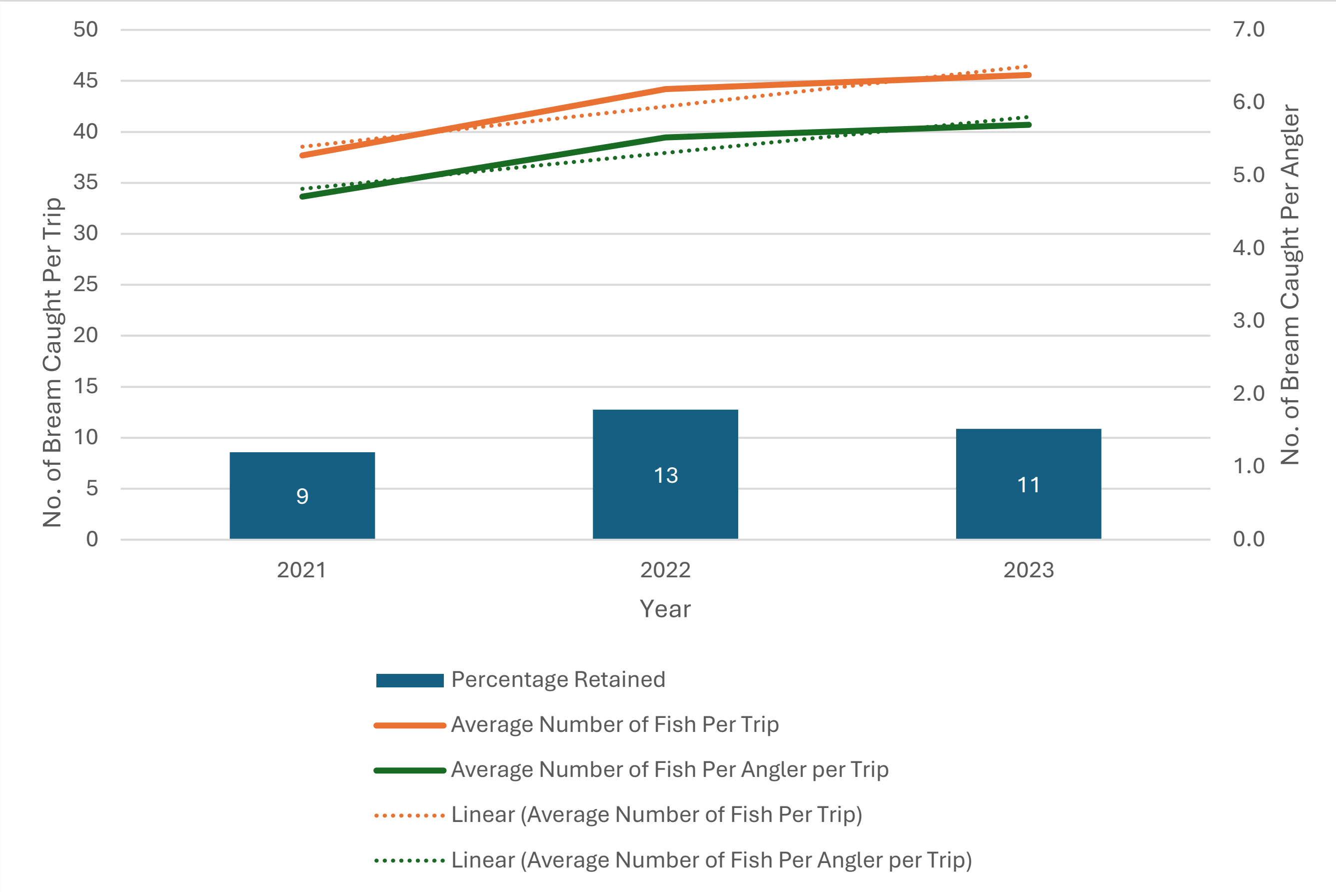
Data provided by two charter angling vessels on catches of black seabream over time related to the number of trips, the number of anglers and, for the second vessel, the percentage of the catch of black seabream which was either retained or released.

Vessel 1



- Between 2014 and 2023 the linear trend in both the total number of black seabream caught per year and the average number of fish caught per trip shows an increase. The average number of bream caught per angler also shows a linear trend increase although less pronounced.
  - Highest number of bream caught per year = 2023 = 2,603
  - Highest average number of fish caught per trip = 2023 = 67.6
  - Highest average number of fish caught per angler per trip = 2023 = 9.7

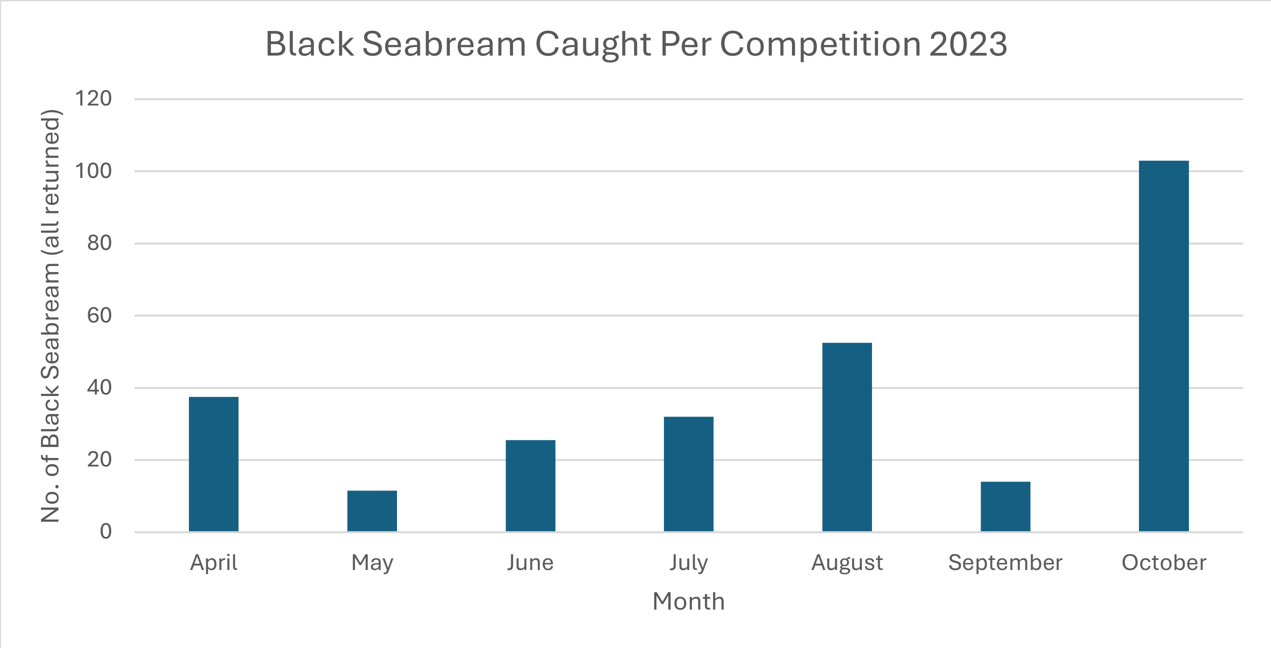
Vessel 2



- Between 2021 and 2023 the linear trend in both the average number of fish caught per trip and the average number of fish caught per angler per trip increased.
    - Highest average number of fish caught per trip = 2023 = 45.6
    - Highest average number of fish caught per angler per trip = 2023 = 5.7

Annex 2

General data provided during evidence gathering exercise.



- The number of black seabream caught per competition through 2023 by one RSA vessel.
    - Highest in October 2023 = 103
    - Lowest in May 2023 = 23
- Competitions runs across Poole Bay and Purbeck Coast
- All fish were returned