

Octopus Update

Officers' Recommendation

That Members note the contents of this Officers' paper which gives an update on the influx of octopus into the South of the D&S IFCA's District and the research being undertaken

Background

D&S IFCA Officers produced a paper (Agenda Item 11) on the Influx of octopus into the South of the D&S IFCA's District and the South West at the B&PSC meeting on 26th June 2025. Members of the B&PSC noted the contents of the paper.

Update since June 2025

D&S IFCA's Engagement with Potting Permit Holders

D&S IFCA Officers have been engaging with a number of Potting Permit Holders since the meeting in June. Five fishers engaged with Officers and gave information on their experiences of the influx and its effect on their fishing activity. The following summarises the responses:

Fisher 1:

Large numbers of octopus were seen by this fisher but not in all the pots that were deployed. Only one set of gear caught octopus, and this was on sandy ground and not seen on the rougher (rockier) ground. Inkwells pots seemed to be the preferred pot, and he had up to 13 octopus in one pot. In some pots there was evidence of nest building with stones and shells taken into the pots and the fisher saw evidence of predation by the octopus on other species such as crab and lobster. This fisher described how brown crab numbers had declined dramatically, and few lobsters had been seen. Octopus numbers were declining in June and July and he started to see a number of dead octopus from May / June onwards. This decline in octopus he associated with the fact that they had likely spawned and died thereafter. Since July he has seen eggs on some of the pots and a few juveniles. He was supportive of the ability to close the escape gaps after D&S IFCA gave clarification in May 2025 that, if fishing for octopus, escapes could be closed. He has bought some specially designed octopus pots which are not baited and are single occupancy pots. He set them in mid-July but the number of octopus on the ground has declined and he has only caught a few in these pots. He noted that he had seen lots of juveniles at the end of 2024 and wondered whether those juveniles were an early indication of the influx seen this year.

Fisher 2:

This fisher had been catching octopus since April 2025, but this petered out in July. He stated that octopus catches were highest predominately in the east at the start of the season and then they seemed to move west. This fisher uses inkwells and creels, and he said that the octopus' preference was inkwells. He started to see eggs on his pots at the end of May / beginning of June and has seen some juveniles in July – some the size of a thumbnail. Again, this fisher saw evidence of predation by octopus with empty scallop and whelk shells in the pots. He also reaffirmed that crab catches are very low indeed, but his lobster catches were starting to increase after the octopus began to die off. This fisher also deployed some octopus specific single occupancy pots and would invest in more should the octopus return annually.

He also stated that whilst the octopus fishery had been valuable to him it would not be enough to sustain him for the year due to the lack of crab and fewer lobsters.

Fisher 3:

This fisher has also had good catches of octopus from his inkwell pots but catches started to see a decline in July. He stated that catches were very localised with some pots one mile apart would see very different levels of catches. He did not close his escape gaps and saw a lot of predation within his creels. Again, he reaffirmed that crab catches are virtually non-existent but has seen more whelk in his crab pots which he believes is indicative of the amount of debris on the seabed caused by octopus predation. He has seen some juveniles in pots but no eggs on the pots. He is aware that the large catches by viviers vessels operating offshore in the English Channel have dropped off significantly too. He has seen a few large cock crabs in recent weeks and believes these may not have been predated on due to their size and ability to fight back. He believes that water temperature is key to in the influx of octopus and wonders whether there is a decline in crab catches due to water temperature. He is concerned that funding is being given to limited research when the octopus may not return in 2026 and beyond.

Fisher 4:

This fisher has been catching octopus since May through to end of July, but numbers have dropped of significantly. He was very appreciative of the ability to close escape gaps as this has been a real benefit to his catches. Again, evidence of predation has been significant. He has seen octopus in much of his gear across different ground types, but they dwindled on the rockier ground. He hasn't sent any eggs but again there have been juveniles in the pots - about palm size. His lobster catches have started to increase with the octopus die - off and he wonders if they had been hiding from the predation to some extent. His crab catches have declined significantly and are basically non-existent. However, he has seen juvenile crab, lobster and spiny lobster in his pots with escape gaps closed.

Fisher 5:

This fisher only used octopus pots. Catches were patchy with only catching octopus in certain areas. He believed that octopus only liked stony ground and used them as armour or to camouflage themselves. He stated that catches were not high on sandy ground and non-existent on the rockier seabed. He believes that in May they were not nesting but feeding. The single occupancy pots did not catch inshore, and he believes this is because there are more hiding places inshore on the reefier ground. Catches were higher on open ground. He has seen some palm-sized juveniles but no eggs. Towards the end of the season, he saw more lethargic females which he thought was due to them coming to the end of their lifecycle and some with tentacles missing which could be due to predation due to their slower movements.

Additional Information

Update to the SAGB Crustacea Committee

D&S IFCA Officers presented an update to the Shellfish Association of Great Britain (SAGB) meeting of the Crustacea Committee. This presentation also included an update from the South Devon and Channel Shellfishermen (whose representative was unable to attend the meeting). Points to note from their update are:

- Fishermen are reporting being 60-80% down on their usual crustacean catches and businesses are continuing to struggle.
- Fishers are extremely concerned about the future of their businesses.

- Some fishers are still seeing a few octopus, but these are much lower numbers. This could potentially be a localised second spawning wave.
- Predation on other species has been significant.
- A significant number of the fleet did not catch octopus and therefore the idea that all fishers have had an amazing season on octopus is not the case.
- The South Devon and Channel Shellfishermen stated that they look forward to hearing the outputs from the octopus research being undertaken by the Marine Biological Association (MBA).

MBA Research Update

At the SAGB Crustacea Committee, Dr Bryce Stewart gave a summary of the MBA research to date. He explained that the research is a collaborative study between the MBA, the University of Plymouth and Dr Simon Thomas, as an independent scientific consultant. The Project steering group consists of D&S IFCA, Cornwall IFCA, Defra, MMO, Cefas, South Devon and Channel Shellfishermen and local fishermen. It is funded by Defra, Plymouth City Council and Devon County Council. The project consists of two work packages (WP) :

- WP1- History, causes and consequences of octopus outburst (two-month duration). This package will review:
 - the biology of the common octopus (*Octopus vulgaris*);
 - the history of the outburst in the South West of the UK and in the NE Atlantic;
 - the potential causes of the outburst – focussing on analysis of environmental conditions during the outburst periods and assess the likelihood of the outburst becoming more common in the future;
 - the reported effect of the current outburst which included a survey of fishermen to track the bloom including timelines and geographical extent, interaction with different gear types in different area at different times, and the effect on fishing operations and income.
- WP2 – Fisheries Independent Estimates of Octopus Abundance and Behaviour (seven-month duration). This package includes:
 - MBA demersal trawl surveys of octopus abundance (July/August and October) at three historical sites;
 - Baited remote underwater video (BRUV) survey of abundance, looking at analysis of data from existing survey sites at Lyme Bay, Plymouth Sound and Isles of Scilly, plus five days of new surveys by fishermen.

Dr Stewart summarised some of outputs from the WP1 and suggested that outbreaks were associated with sustained anomalously warm sea temperatures (which would give rise to population growth) and that they may potentially be affected by sustained anomalously low salinity (fresher water), but that the latter is a tracer (providing evidence of processes or movements without directly causing them) rather than a driver (factor directly causes or influences a change) of the octopus outburst. Scientists have also modelled larval dispersal, potentially coming from the Channel Islands, but this is on-going work. The MBA is hoping to have a report completed on WP1 on 17th October 2025.

Knowledge Exchange between South West and Brittany Fishers and Scientists

A knowledge exchange visit took place in September 2025, which involved members of the South Devon and Channel Shellfishermen, the South West Producer Organisation, Western Producer Organisation and Plymouth Fishing and Seafood Association who visited fishermen, fishery managers and scientists in Concarneau, Brittany, France. This area of France has had a fishery for octopus for the past few years. Scientists in Brittany and the Finistère region, along with managers and fishermen have been involved in a project, called 'Poulpe Fiction',

which is investigating the influx of octopus there. Increases in octopus have been seen since 2021 and a more sustained but reduced fishery is now taking place, after the boom years in 2021/2023. Landings of octopus were highest in the autumn of 2021 and 2022 but have declined somewhat year on year since then.

Scientists have been looking at the biology of the species and its reproduction cycle. The research has involved dissecting samples and looking at maturation of the gonads and growth rings on the octopus beaks. Outputs show that mature females have a peak in presence between March and June and reproduction take place mostly in the spring, although it can also take place outside this period. Males were present all year. Scientists have been estimating the age and hatching times by counting growth increments on the inner surface of the octopus beak. Octopus put growth rings down every day. The study has shown that there is slow growth at the beginning of life which then accelerates before one year of age, and that octopus grow faster in the summer when temperatures are warmer.

The octopus outbreak has resulted in the virtual disappearance of scallops in the area. In 2022 a year after the bloom commenced, scientists searched for scallops in Concarneau Bay. They only found 357 live scallops. They believe it may take 20-30 years for the scallop populations to recover. Whilst depredation is evident in crab, lobster and spiny lobster with remains of animals seen in pots, the scientists are still looking at the evidence of the impact on crab and lobster stocks. The scientist also pointed out that octopus do not like freshwater inputs or areas of muddy benthic habitats.

Scientists have recognised that the bloom has lasted longer than previous blooms experienced. They still cannot be sure if the fishery will continue long term.

In 2021 there was no management of the fishery apart from the EU minimum weight. In 2022 fishers asked for management of the fishery, although this was not supported by all fishers. Zonal fisheries management in the Finistère region was introduced in 2022 to continue to regulate the number of pots used per crew member, which was already in place, and therefore maintained pot numbers and prevented an increase in effort in light of a new type of pot was being used – the 'Playmobil' pot (a type of rubberised octopus pot) – see Figure 1. There were no catch limits and no limit on the number of vessels in the fishery.



Figure 1 - A 'Playmobil' pot

In 2023 management was introduced that limited the number of licences available (98 vessels in the fishery to reduce gear conflict), specific marking of pots and technical measures on the mesh size. Two licences were introduced that related to the spatial areas of North and South Finistère.

In 2024 regional managers looked at biomass management and closures. The Finistère area was divided into two sectors (due to economic aspects) out to 12 nm. The number of pots was limited to 500 pots per vessel for the fishery in the North Finistère area (Sector 1.1) for the use of the Playmobil pots to fish specifically for octopus. In the South Finistère area (Sector 1.2) Playmobil pots were prohibited in areas where they had not been used before, stopping expansion of the octopus fishery, and in so doing, protecting the existing lobster fishery. Closure of the octopus fishery was introduced prohibiting octopus fishing from 1st July to 31st September in Sector 1.1, and from 1st June to 31st August in Sector 1.2, for 2024 and 2025. The use of parlour pots was prohibited in both sectors during the closure periods. The

closed season has allowed for other fisheries to take place e.g. long-lining, as less pots were present in the zones.

Fishers stated that octopus are more active at dawn where they will be more catchable. Fishers in this region found that setting pots for two days was the maximum soak time and often setting pots at night and hauling the following morning, but their catches were one or two octopus per pots.

There was a questions and answers session at the meeting where the English representatives asked questions relating to the possibility of an on-going fishery, food preferences and management. The scientists and managers believe that the octopus population will be self-limiting due to availability of food, and their survival depends on water temperature. Therefore, they could not conclude that the fishery there would continue. Octopus are apex predators and scavengers, operating a 'low effort' preference for food, which why they target shellfish in pots. They favour scallops as they are easy to catch and open, but mussels and oysters are not targeted as they are much more difficult to open. The quantity of food eaten by an individual octopus depends on their age and water temperature. Estimates are between 2% and 8% of their bodyweight each day depending on their life cycle stage. The fishing fleets are still divided on management of the fishery. Some believe they should try and fish it all, whilst other supports a managed fishery for the future. The Brittany fishery managers introduced management to secure as much long-term benefit from the octopus presence and, if possible, mitigate impacts on other species. At this exchange they discussed the Spanish octopus fishery which saw a bloom 25 years ago and the fishery has been managed with closures and pot limitations. Most vessels' catches are between 50 to 200kgs per day and the prices are good at approximately €15 per kg.

D&S IFCA is grateful to Beshlie Pool, Executive Officer of the South Devon and Channel Shellfishermen, who has provided information on the exchange visit to Brittany

LOCAL GOVERNMENT (ACCESS TO INFORMATION) ACT 1985

Background Papers

B&PSC Meeting Paper: [Agenda Item 11 – Influx of Octopus into Devon and the South West 26th June 2025.](#)