



THE LYME BAY FISHERIES AND CONSERVATION RESERVE

A WIN-WIN MODEL FOR CONSERVATION AND SUSTAINABLE FISHING

The Lyme Bay Fisheries & Conservation Reserve (the 'Reserve') on the Dorset and Devon coast is a collaboration between local fishermen, marine conservationists, scientists and regulators. The Reserve, led by marine conservation charity Blue Marine Foundation (BLUE), has been hailed a world first and demonstrates that marine protected areas (MPAs), when managed properly, can restore ecosystems and give a voice to the communities that live and depend on them.

HISTORY

Lyme Bay, known as England's coral garden, is a marine biodiversity hotspot and contains rich reef habitats. It's reefs are home to the largest colony of pinks sea fans in the UK and several rare and threatened marine species. In 2008, 206km² of the bay was closed to bottom towed fishing (trawling and dredging) to protect the reefs. Over the years the coverage of the MPA has increased to 312km².

An unforeseen consequence of the bottom towed fishing restrictions was a significant increase in the number of pots and nets. Local fishermen feared for their future and expressed a desire to see management to safeguard fish stocks and livelihoods.

To manage the changes that came with the designation, BLUE brought together fishermen, conservationists, scientists and regulators and recreational interests to form the Lyme Bay Fisheries and Conservation Reserve ('the Reserve') in 2012.

THE LYME BAY FISHERIES AND CONSERVATION RESERVE CONSULTATIVE COMMITTEE

In 2012 BLUE established a Working Group to foster understanding and collaboration between the various stakeholders. The group set out to achieve the establishment of a multiple use MPA where fishing is sustainable and well-managed, important habitats and features remain protected and the fishing communities receive benefits from fishing responsibly.

The Working Group was constituted as a Consultative Committee (the 'Committee') in 2013 to formalise discussions and make sure that they were representative of the fishing communities involved. The Committee consists of 12 members, appointed by BLUE, of whom:

- four may be nominated by BLUE.
- two may be nominated by each of the commercial fishermen's associations based in the four ports within the Reserve (with a maximum number of eight nominations).
- one may be nominated by Natural England (NE).
- one may be nominated by Southern Inshore Fisheries & Conservation Authority (Southern IFCA).



- one may be nominated by Devon & Severn Inshore Fisheries Conservation Authority (Devon & Severn IFCA).
- one may be nominated by Marine Management Organisation (MMO).
- one may be nominated by Dorset Coast Forum (DCF).
- one may be nominated by National Under Tens Fishermen’s Association (NUTFA).
- one may be nominated by South West Inshore Fishermen’s Association (SWIFA).

The Committee is chaired by BLUE and meets every quarter to discuss progress, issues involving how management measures are being implemented, and lessons learned from work being done.

Each member of the Committee is signed up to a Memorandum of Understanding (MoU)¹ that includes the following principles:

1. The socio-economic and cultural importance of the fisheries within the area should be acknowledged and be central to fishery and conservation management which will aim to maximise the socio-economic benefit to local communities and secure their long-term sustainability.
2. Protected habitats and species will be afforded appropriate protection from disturbance and damage. We recognise that a diverse and healthy marine environment is of paramount importance and that the habitats and communities within the Lyme Bay Fisheries & Conservation Reserve, including the SAC, should be managed to secure their long-term protection.
3. Best possible fishery management practices will be developed, promoted and adopted to secure the long-term viability of target species populations.

The MOU has also been signed by all fishermen part of the Reserve and the signatories aim to develop a culture of trust and mutual respect, to participate in data and information sharing and the timing of communications, and to engage other local relevant stakeholders in delivering the project's aims.

THE CODES OF CONDUCT

Fishermen within the Reserve operate under a voluntary Commercial Code of Conduct, the ‘code’. The code was developed by fishermen and the Committee to regulate fishing effort and reduce impact on the Reserve’s ecology and fish stocks. The code is reviewed annually in line with the best evidence available by the Committee. To support the code fishermen, engage with managers and scientists to improve knowledge and understanding of Lyme Bay fisheries and wildlife. Experimental and monitoring areas are respected, and their preservation promoted to other fishermen. Measures in the code mostly relate to fishing effort, i.e. pot numbers and net length. A Recreational Voluntary Code of Conduct² has also been developed by recreational fishers operating in the Reserve.

¹www.lymebayreserve.co.uk/download-centre/files/Lyme_Bay_Fisheries_and_Conservation_Reserve_MoU.pdf

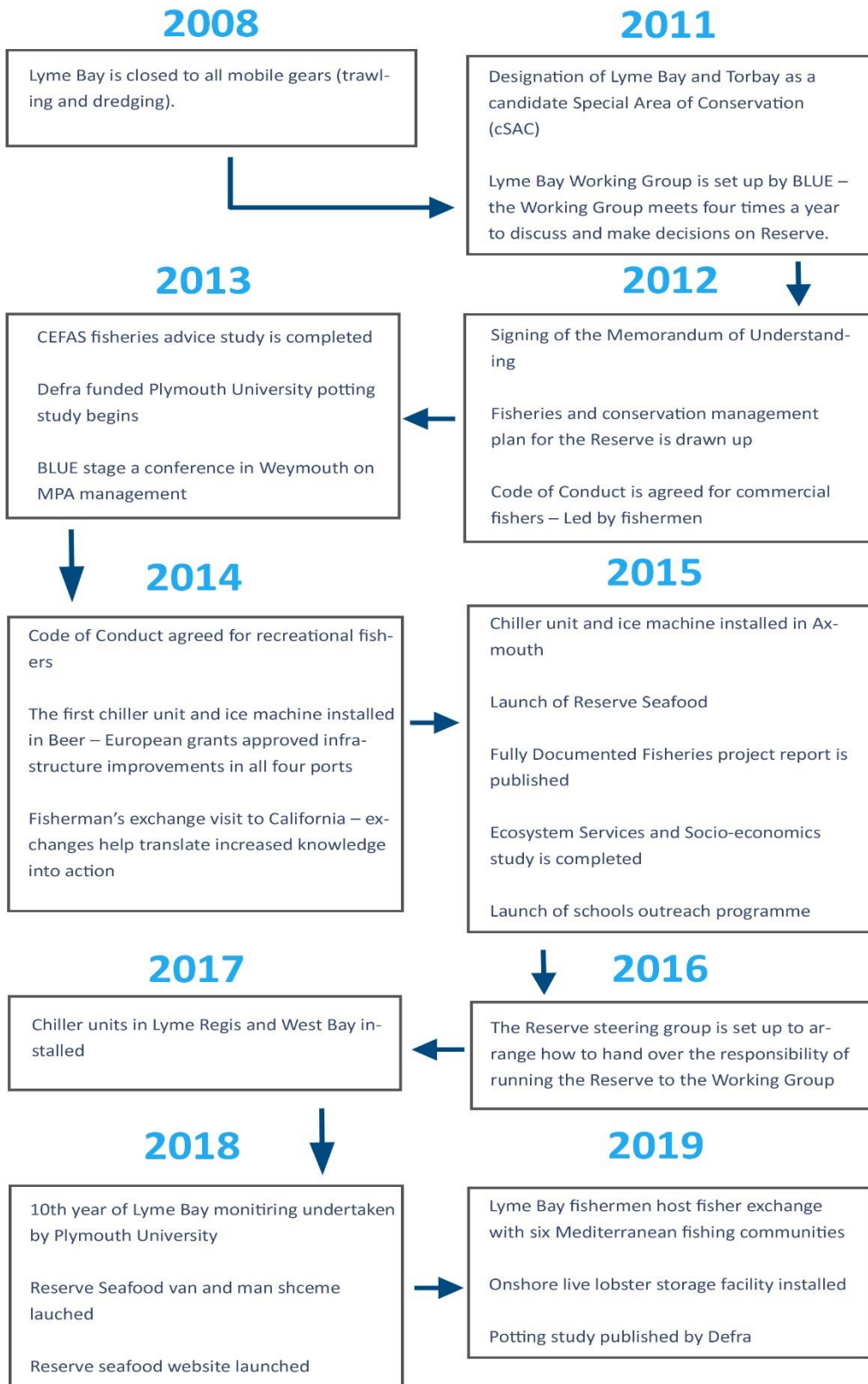
² www.lymebayreserve.co.uk/download-centre/files/Lyme_Bay_Code_of_Conduct.pdf



The Commercial Code of Conduct

- Any registered fishing vessel wishing to fish within the Lyme cSAC will voluntarily fit Inshore Vessel Monitoring Systems (iVMS).
- All gear will be clearly marked.
- Fishermen will not fish more than 250 crab/lobster pots.
- Strings will not exceed a maximum of 10 pots in each.
- Escape hatches will be fitted to all parlour pots and soft-eyed creels.
- Voluntary V-notching will be carried out at the individual fisherman's discretion.
- Fishermen will not fish more than 500 whelk pots.
- Strings of whelk pots will not exceed a maximum of 30 in each.
- Vessels will not fish a total net length of more than 4,000 yards with a mesh size of less than 7.5 inches.
- Vessels will not fish a total net length of more than 8,000 yards with a mesh size of 7.5 inches or more.
- Pots and traps that become encrusted with cuttlefish eggs will either be left in the sea by extending the season until the cuttlefish eggs have hatched or washed off at shore to maximise survival.
- Fishermen targeting wrasse will adhere to SIFCA's Wrasse Fishery Guidance and D&SIFCA's Potting Permit Byelaw.

OUR STORY



RESULTS FOR FISHERMEN

Currently, 37 boats and 42 fishermen are actively engaged in the Reserve. All boats are small scale (under 10m in size) and are usually operated by a single fisherman. The main types of gear are pots (targeting crabs, lobsters, whelks and cuttlefish), fixed nets, rod and line for finfish, and diving for scallops. The Reserve has worked with fishermen to monitor changes in catch and secure market rewards in return for adopting responsible fishing practices.

Infrastructure improvements

To support fishermen, BLUE with the aid of the European Maritime Fisheries Fund has invested in chiller rooms, ice making equipment and insulated fish boxes in all four ports. Infrastructure needs were decided per port and have been installed to improve the quality, shelf-life and consequent value of the landed catches for the fishermen.

“Quote from fisherman” OR a larger section for quotes and input from fishermen.

A 2016 report by Plymouth and Exeter Universities found that fishermen in the Reserve had the highest incomes and levels of job satisfaction compared to those outside. The report further indicated a desire by younger generations to enter the industry supported by an increase in new entrants in recent years.

Reserve Seafood

In 2014 BLUE established the Reserve Seafood brand to promote the sustainable, traceable and high-quality seafood caught in the Reserve and deliver price-premiums to fishermen. Freshness and high quality are guaranteed due to fish boxes, temperature probes, quay-side chiller units and storage units – all designed to optimise freshness and condition at the market. To sell through Reserve Seafood fishermen must adhere to a standard:

- Fish and shellfish must be caught using static gear – line, pots and nets.
- Adherence to the Commercial Code of Conduct.
- Transmission of iVMS data using the vessel tracking app.
- No category 5 species (fish to avoid) from the Marine Conservation Society’s Good Fish Guide³

In 2018, to support the scheme a Reserve Seafood ‘man with van’ was launched. The man and van delivers fisherman’s catch three-times a week to Plymouth Trawler Agents auction where it is sold to suppliers all over the UK. Common species sold through Reserve Seafood include lobster, pollack, brown crab, cuttlefish, scallops, plaice and mackerel. Reserve Seafood works with several buyers, local restaurants and businesses and launched a website in 2019: www.reserveseafood.co.uk

³ www.mcsuk.org/responsible-seafood/about-our-ratings

RESEARCH AND MONITORING

Monitoring studies have been conducted in the area since 2008, by the University of Plymouth, in partnership with the fishermen and the regional Inshore Fisheries and Conservation Authorities (IFCAs). The results have shown that the reefs are recovering well:

- 22 x increase in pink sea fans compared to outside the Reserve*.
- 3 x increase in the number of reef animals (total number of individuals) **.
- 52% increase in the diversity (total number of different species) inside compared to outside the protected areas**.
- 79% increase in Neptune's heart sea squirts (the largest sea squirt in the UK, these reef building organisms are known to be highly sensitive to disturbance) **.
- 2 x increase in the number of individuals branching sponges **.
- 4.5 x increase in the number of lobsters*.

* As of 2016, ** As of 2018 (Unpublished data)

The Potting Study

In 2013 a four-year potting study was commissioned by DEFRA to investigate the impacts of current and increasing levels of potting on the environment and the local fishery inside the Reserve. The study was carried out by the University of Plymouth and relied on close collaboration between researchers and local fishermen. It revealed for the first time that, contrary to previous understanding, high levels of potting can impact the recovery of some sensitive reef organisms by reducing their abundance over time. The study also showed that in areas exposed to high levels of potting the local fishery suffered as catches declined, as did the condition of the animals being caught (notably crab). The results also demonstrated that low levels of potting are compatible with MPAs, providing management is in place, as minimal damage was observed at this level. This is the first time a 'threshold' level of potting has been demonstrated. The experiment also introduced areas where potting was removed altogether and these provided invaluable insights in determining the impact of potting.

THE LYME BAY SCHOOLS OUTREACH PROGRAMME

Alongside the project, BLUE has established a simple education programme whereby fishery representatives visit schools to deliver presentations about the sea and fishing and the importance of its protection. This has raised awareness among the local community and wider public of the benefit of conserving the marine environment – not just for the sake of conservation but so that the healthy marine environment can be enjoyed by all and provide a sustainable economic contribution towards the local economy. To date, Blue has visited over 129 schools, both Primary and Secondary with participation from over 7,000 students.