

BASS Spawning off the Essex Coast

13/01/2015

DRAFT 4

Purpose

The purpose of this paper is to ask the Kent & Essex Inshore Fisheries Conservation Authority to:

1. acknowledge the current evidence that bass spawn in the southern North Sea and are found shoaling in large numbers off the Essex coast, inside the six mile limit and in advance of/during the spawning season.
2. agree that this is a valuable resource that requires urgent research
3. quickly identify partners that it can work with, and sources of funding that may be available to it. This to obtain more knowledge of these shoaling bass and that the knowledge be used to ensure bass are fished for in a sustainable way.
4. consider introducing rules at the earliest opportunity requiring all bass landings within the district to be reported to the fisheries team or apply accepted modelling to current known landing information and provide an estimate of landings. This to further increase the knowledge of the local stock and its mortality rate.
5. engage the recreational charter boat skippers, and local commercial fishermen as soon as possible and encourage them to provide information on spawning bass and to engage with them in bringing about a sustainable and successful bass fishery.
6. establish a network of bass nursery areas as soon as possible in 2015; and

Background information

The purpose of IFCA's is to lead, champion and manage a sustainable marine environment and inshore fisheries, by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry.

On the 21st November 2014 a proposal was tabled by the Chief Fisheries Officer to members of the Kent and Essex Inshore Fisheries Authority (K&E IFCA) to identify locations within the district where nursery areas could be established for Bass. The proposal was agreed and the CFO is due to report back on how this will be taken forward at the next authority meeting which is planned for the 22nd January 2015.

An amendment was also tabled to the authority by two Marine Management Organisation appointees to seek support for research into better understanding the large shoals of mature bass congregating off the Essex coast within the six mile limit between March and May.

These fish are in spawning condition during this period and further research would help confirm that we have a sizable spawning aggregation within the district.

The amendment was turned down on the grounds that the Authority could not resource this research. The proposers of the amendment believe that, in view of the purpose of the IFCA's, the decision was fundamentally unsound and that the K&IFCA has a duty to use part of its research budget and investigate how it can obtain further funding or other support for the important research that is necessary to enable it to carry out its responsibilities in this matter.

Evidence of Bass spawning in the Southern North Sea

On the 12th August 2011, the Institute of Marine Resources & Ecosystems Studies produced a report on the monitoring of fish eggs and larvae in the Southern North Sea.

The report confirmed that in April and May eggs of sea bass in different development stages were found in the central southern North Sea and Dogger bank. In June Bass larvae were found in the central southern North Sea

Currently the EU and UK government agencies are focusing their attention on well known spawning stock in the Western approaches to the English Channel. However, there is clear evidence that a spawning stock exists in the southern North Sea.

Areas where Bass pre-spawning aggregations occur (See fig 1-3)

During March, April and May, large shoals of Bass congregate off the Essex and Suffolk coasts within the six mile limit. Key Essex locations include the Cork Sands, Whitaker Spit, East Swin, Wallet and Goldmer Gat.

These shoals are well known to local commercial fishermen and the shoals are targeted using drifting trammel nets.

Methods of capture

In the past there has not been a significant market for large Bass. The restaurant industry preferring to purchase small Bass of between 36cm and 40cm for the table

This prompted commercial fishermen to set nets with a mesh size of 90mm in order to meet demand for smaller Bass above the minimum landing size of 36cm.

However, in more recent years demand has grown, especially from Europe, for larger Bass of between 3kg and 7kg and local commercial fishermen have responded by targeting pre-spawning aggregations for these fish in March, April and May. Incidentally, it takes approximately 20 years for a bass to reach 5kg.

Fishermen have learned that by increasing mesh sizes of drifting trammel nets to 100mm or more, the larger fish become entangled. This can produce up to 300kg of prime adult fish per day for some boats.

The drift net ban proposed by the European Commission for implementation on the 01/01/2015 has been deferred. This may have provided some relief to bass caught by drift netting methods, giving fisheries time to better understand their stock levels and fish behaviours.

Observations from Recreational sector

Members of the recreational angling sector in Essex do not see significant numbers of Bass taking bottom fished bait until late April or early May. This may be because they are preoccupied with breeding and very few fish are located on the sea bottom.

From the few fish that are landed, charter skippers report large quantities of milt being excreted from male fish as they come on board. This indicates that the fish are in spawning condition.

Who depends on Bass?

As a non quota species, Bass become a target for commercial fishermen when quota is reached for other species like Sole, Cod and Thornback Ray. There are nine ports in Essex that target Bass. West Mersea and Walton on the Naze land the lions share.

21,210 recreational sea anglers fish from the three Essex piers, boats and beaches with the sector spending £50.4m on the economy.

The fishery has 44 licensed angling charter boats fishing from Essex ports and, along with the 10 main angling clubs and countless private boat owners, each support around 65 tackle shops and numerous bait suppliers.

Both sectors support businesses such as Chandlers, Marina's and engineering suppliers.

A large proportion of bass landed by EU fishermen are taken from western approaches in ICES area VIIe. Any EU restrictions to fishermen targeting spawning bass in this area could result in displacement of effort to spawning aggregations in ICES areas VIId and IVc. This should be monitored at MMO level.

Register of Buyers and Sellers information

Information from the register of buyers and sellers gives an incomplete picture on the total landings of Bass from the district.

The register includes landings for large commercial businesses, but does not include landings from the recreational angling sector, smaller commercial fishermen, the black economy and the 30kg landing threshold.

However, what the register does tell us is that there are two seasons for targeting Bass.

March, April and May - Spawning/pre-spawning aggregations

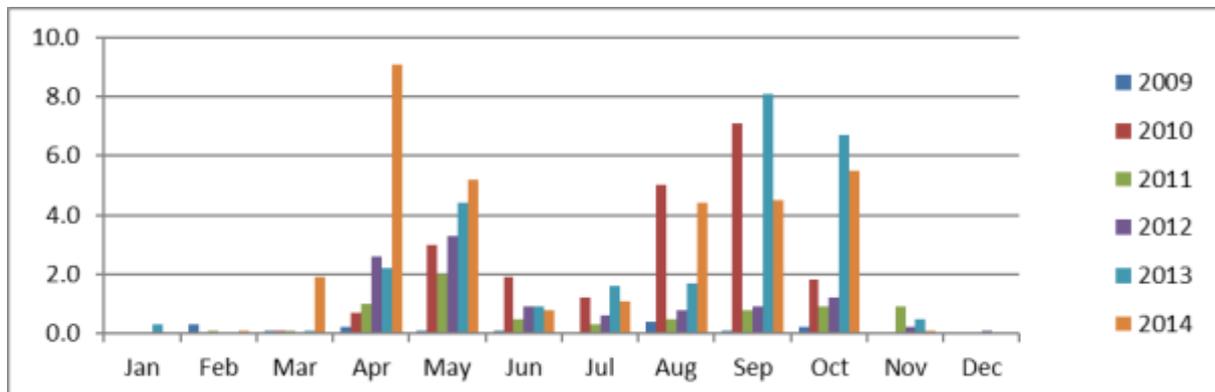
Aug, Sept and Oct - Schools of smaller fish and pre-winter aggregations.

The gap in the middle sees large amounts of green weed within the district restricting opportunities to target fish inshore.

More importantly the register shows us that, over the last three years and, despite warnings from ICES to cut landings (by 80% in 2014), we have seen significant increases in landings from our two main ports targeting bass during March, April & May.

During this three month period in 2102, the register shows fishermen in West Mersea landing a total of 6.8t. In 2013 landings increased by 10% to 7.5t and in 2014, landings increased by 116% to 16.2t.

Fishermen from Walton on the Naze landed 7.3t in 2012, 4.4t in 2013 and 7t in 2014 in the same three month period.



Landings in tonnes from West Mersea between 2009 and 2014

Source - Register of buyers and sellers December 2014

The question has to be asked, is this sustainable when national stocks are at such a low level?

The information gaps we must fill

K&E IFCA and the MMO have gaps in their understanding of the total landings of Bass for both the recreational angling and commercial fishing sectors making it very difficult to understand the impact fishing has on this important stock.

UK government agencies and IFCA's have very little data on Bass egg and larvae distribution throughout the inshore waters of the southern North Sea.

UK government agencies and IFCA's have very little data on the spawning condition of bass in the southern North Sea, the sea conditions that stimulate spawning or the locations bass spawn.

What steps must we take?

By setting up bass nurseries in key locations around the district, K&E IFCA will go some way to meeting the responsibilities of ensuring a sustainable Bass fishery.

However, there will be little point in establishing nurseries if it fails to understand and protect sufficient spawning stock to supply the juveniles that will populate these nurseries.

Failure to set up bass nursery areas and prevent unsustainable fishing for spawning adult bass will impact on the whole commercial fishing sector, recreational angling sector and the balance in the ecology within the district.

K&E IFCA does not know the true impact all fishing may be having on bass spawning stock in the district during the spawning season and therefore cannot be certain it is meeting its duty to ensure Bass are fished for sustainably.

The IFCA can address this by ensuring that:

1. During the 2015 fishing season, it consult with fishing stakeholders and agree a simple method of recording bass landings throughout the district. This becomes a key piece of information to aid decision making on managing bass stocks. This should not be a resource hungry activity for fisheries officers. Completing a log book, for example, would be a condition of being able to fish the fishery for bass or using accepted modelling methods to estimate landings could also be considered.

2. Before the 2015 season, the IFCA, government agencies and neighbouring IFCA's establish a partnership to jointly research the following:

- a) The distribution of Bass eggs and larvae throughout the district.
- b) The spawning condition of Bass found in the district between March and May.
- c) The location of spawning area within the district.

3. During the 2015 season, the IFCA should engage with angling charter boat skippers and local commercial fishermen and encourage them to provide information that will assist the partnerships in making future decisions to ensure a successful and sustainable bass fishery.

4. The establishment of a Bass nursery network in 2015.

5. If restrictions introduced by the EU in ICES area VIIe result in a significant shift in fishing effort to ICES area IVc. K&E IFCA and the MMO should be ready to introduce measures to protect bass that spawn in the southern north sea.

Help and assistance

The IFCA team are clearly under pressure to deliver a whole raft of duties in the coming years. With reducing financial support it will be difficult to deliver the recommendations above.

K&EIFCA should give urgent consideration to identifying sources of funding and assistance. For example, K&EIFCA could approach the following groups and agencies:

Professional charter boat associations
Professional fishermen's associations
Essex Wildlife Trust
Institute of Fisheries Management
Anglers Trust
BASS
Cefas
MMO
Defra
European Fisheries Fund
Universities specialising in Marine Studies
NGO's with a focus on the marine environment

What this paper is not trying to do

The observations and recommendations above are designed to raise awareness of a key asset within the district and off the Essex coast. Its purpose is to stimulate debate and to help secure a study that will enable the K&E IFCA to obtain key information on spawning for future decision making on a sustainable bass fishery.

It is not designed to ban angling or commercial fishing but the facts are there for all to see. Bass stocks are collapsing, recruitment has failed and numbers of the remaining adult fish required to recover the fishery are still being removed.

It's already too late to continue at steady state, but with careful management of the remaining stock, we can recover this for future generations.

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References

IMARES - Shortlist Master Plan Wind Monitoring of fish eggs and larvae in the southern North Sea Part A and Part B. August 2011
MMO - Register of buyers and sellers - Landings of Bass from selected ports 2009 to 2015.
K&E IFCA statement
Observations from the recreational angling sector
Sea Angling 2012 - Defra survey.
ICES report on Bass - July 2014
IFCA Angling sector database 2013
BASS - Size and age.

Attachments below:

Areas where bass spawning aggregations can be found:

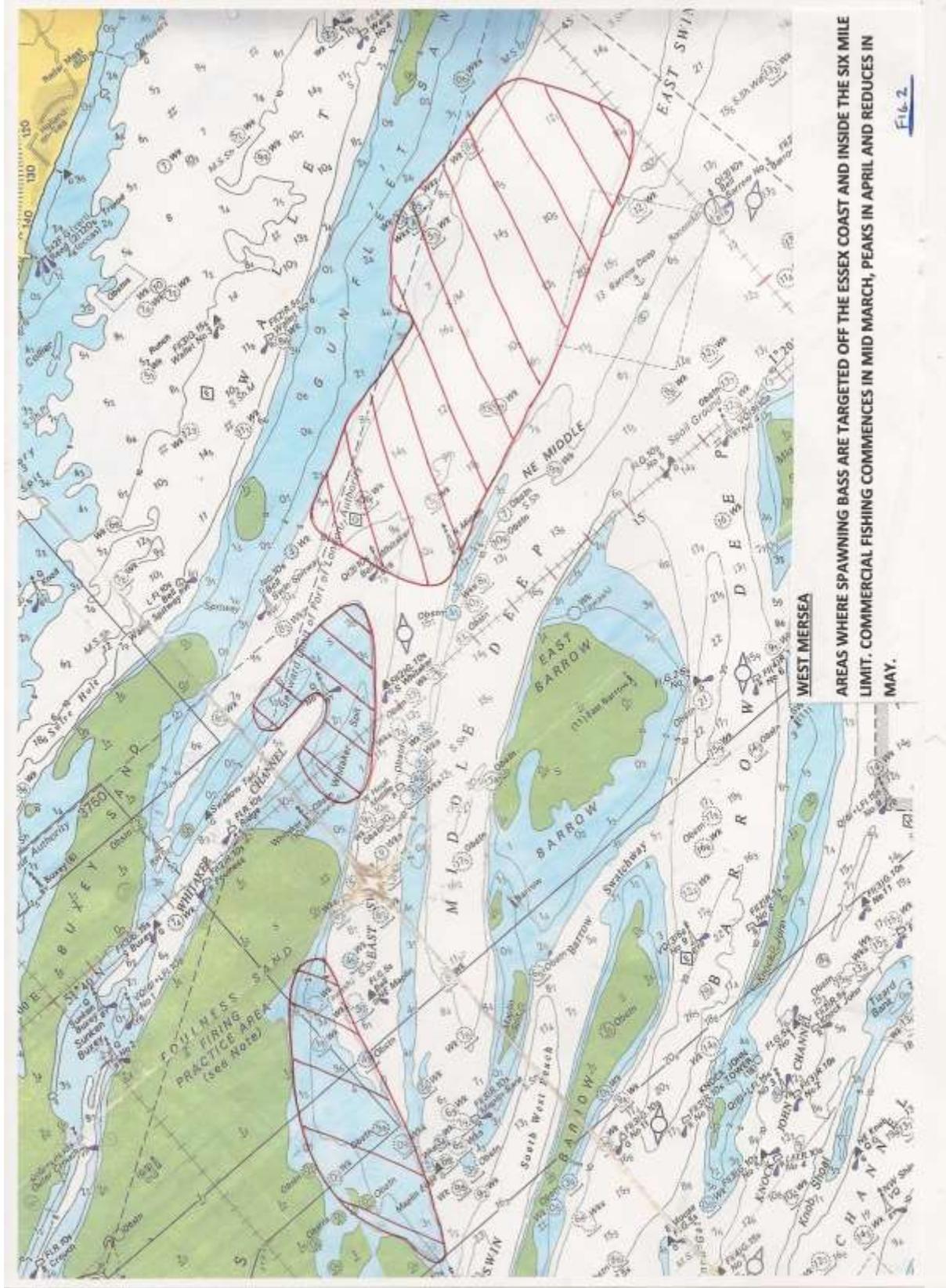
Fig 1 - Essex Coast
Fig 2 - West Mersea
Fig 3 - Walton on the Naze

ESSEX COAST

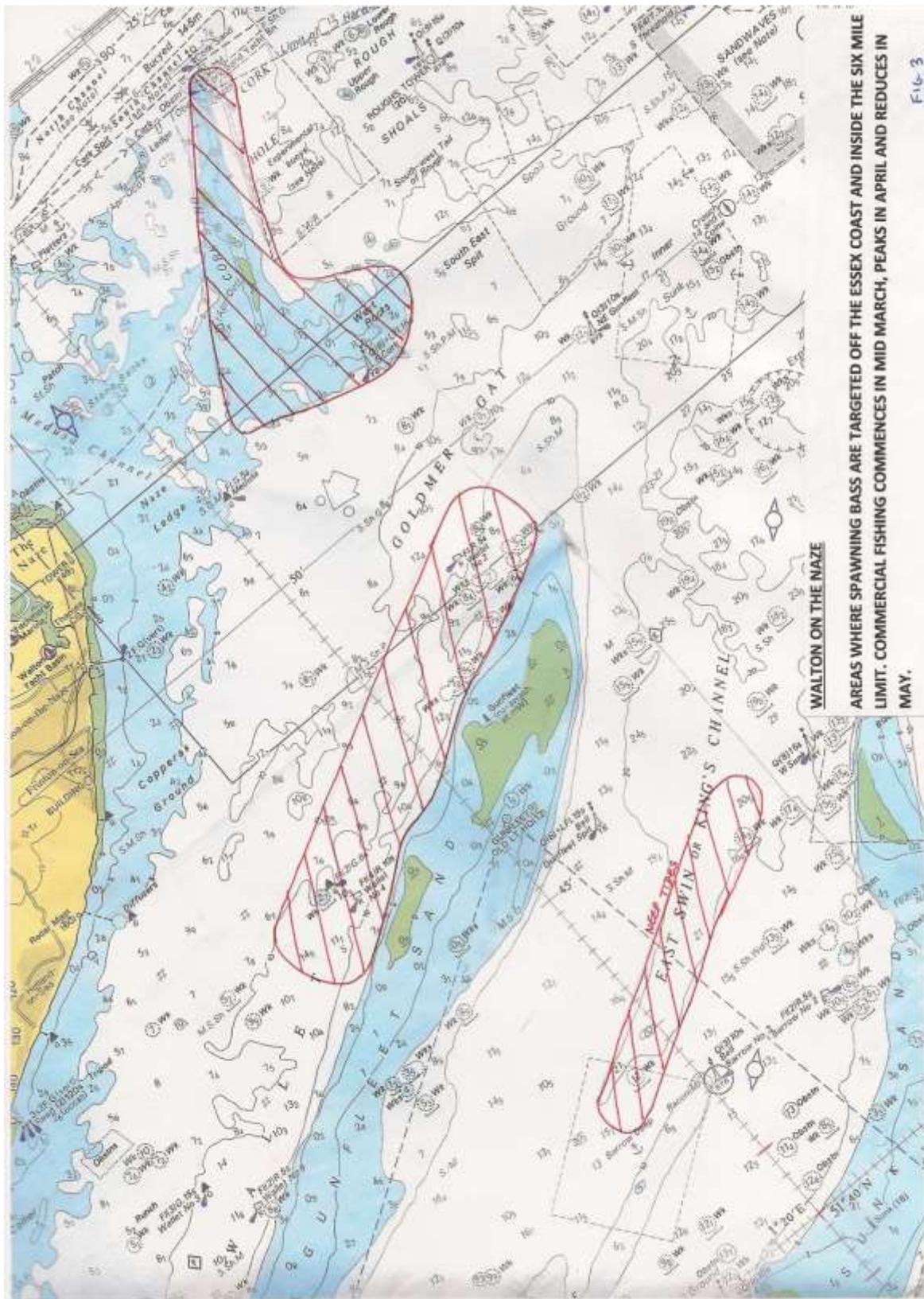
AREAS WHERE SPAWNING BASS ARE TARGETED OFF THE ESSEX COAST AND INSIDE THE SIX MILE LIMIT. COMMERCIAL FISHING COMMENCES IN MID MARCH, PEAKS IN APRIL AND REDUCES IN MAY.



Fig 1



AREAS WHERE SPAWNING BASS ARE TARGETED OFF THE ESSEX COAST AND INSIDE THE SIX MILE LIMIT. COMMERCIAL FISHING COMMENCES IN MID MARCH, PEAKS IN APRIL AND REDUCES IN MAY.



WALTON ON THE NAZE

AREAS WHERE SPAWNING BASS ARE TARGETED OFF THE ESSEX COAST AND INSIDE THE SIX MILE LIMIT. COMMERCIAL FISHING COMMENCES IN MID MARCH, PEAKS IN APRIL AND REDUCES IN MAY.

FIG 3