

Bass Strait Central Zone Scallop Fishery Briefing for Export Approval for Scallops Taken During Scientific Surveys

Background

The Bass Strait Central Zone Scallop Fishery was granted a Wildlife Trade Operation (WTO) exemption in 2003 which expired on 21 April 2006. Given that fishing concession holders will not be allocated any quota on their fishing entitlements for 3 years from 2006 as a result of a Ministerial Direction in 2005, a full reassessment of the fishery under the *Environment Protection and Biodiversity Conservation Act 1999* to gain a new WTO exemption is not considered appropriate at this time. The Australian Fisheries Management Authority (AFMA) however, would like to continue the survey program that has been conducted since 2000 to monitor the status of the fishery. To be cost effective the survey program relies on voluntary industry participation with a small amount of catch retention permitted as an incentive to participate. AFMA is therefore seeking a WTO declaration to cover the possible export of product taken during such surveys. This brief outlines the status of the fishery, the purpose of the surveys, how the surveys will be conducted and how catch of scallops will be controlled. It has been prepared as the basis for seeking a WTO declaration for an interim three year period. A more detailed description of the fishery can be obtained from the Bass Strait Central Zone Scallop Fishery Assessment Report 2002 and the *Bass Strait Central Zone Scallop Fishery Management Plan 2002*.

Status of the Fishery

Management Arrangements

The Bass Strait Central Zone Scallop Fishery is managed under a formal management plan and Statutory Fishing Rights (SFRs), using a combination of input (limited entry, size limits, seasonal and area closures) and output controls (catch limits). Boat SFRs and quota SFRs were issued to all eligible stakeholders in the fishery in December 2004 and took effect from 1 January 2005.

On 14 December 2005, the Minister for Fisheries, Forestry and Conservation issued a formal Direction to the Australian Fisheries Management Authority to put an end to overfishing, and to limit the risk of future overfishing. As part of this Direction the Minister has stated that "*the TAC level for the Bass Strait Central Zone Scallop Fishery should be set at zero for a minimum of three years from January 2006, (excluding official stock surveys)*".

The total allowable catch for the 2006 fishing year has been set in accordance with the *Bass Strait Central Zone Scallop Fishery Management Plan 2002* taking into account the Minister's Direction. The total allowable catch (TAC) for the 2006 fishing season is zero for commercial scallops and zero for doughboy scallops. AFMA has requested an amendment to the Plan which will enable AFMA to give effect to the Ministerial Direction in its entirety and set a zero TAC for the 2007 and 2008 fishing seasons in line with the Direction.

Scallop Abundance

The area of the fishery which contains the largest known bed of scallops has been closed since 2000 to protect a minimum spawning biomass of scallops. This bed, which is known as bed 4X, has been estimated to contain 400 tonnes of scallops. Over the last 5 years there appears to have been a slow recovery of the stock. A survey of the closed area in December 2005 found that a new scallop bed had been established within the closed area to the north / north-east of bed 4X, this bed has been estimated to contain 151 to 381 tonnes of scallops. What is thought to be a small patch of scallops has also been found to the north east of bed 4X but the entire extent of this patch of scallops has not been mapped. Outside the closure area 140 tonnes of scallop catch was reported in 2005. Industry reports indicate that scallops are patchily distributed in the area directly north of the closure.

Purpose of Scientific Surveys

In the absence of fishery-independent surveys, fish abundance is usually estimated from data provided by the industry in catch and effort returns, catch disposal records and anecdotal reports. Given the relatively low abundance of scallops in the Central Zone Fishery at present, relying on fishery dependent data to manage the industry is not ideal as by the time sufficient data on an area is compiled from catch and effort returns, that area has most likely been fished out. The Direction to set a zero TAC also prevents any fishery dependent data from being collected over the next three years.

Ideally, management of the fishery requires a full assessment of the distribution, abundance and condition of stock throughout the Central Zone. This enables informed decisions such as area closures, estimates of total allowable catch and periods of opening in relation to scallop condition may be considered. Surveys are the best means of collecting information to support such assessments. The aim of surveys is primarily to find new scallop beds and estimate scallop biomass and determine individual scallop size and condition. Surveys of known scallop beds also monitor for die offs and new recruitment to improve knowledge about scallop bed dynamics, and assess bycatch levels to gain a better understanding about the environmental impacts of scallop fishing.

Survey Design

Two types of surveys are envisaged; a survey of the known beds to monitor their condition and a survey of the broader area of the fishery to determine if there are any new scallop beds. Both types of surveys would rely on commercial scallop fishing vessels being used to conduct the surveys, as the only practical way to survey the abundance of scallops is to use a scallop dredge to collect sample catches. A standard commercial toothed dredge with a width of 4.2m and an inner mesh liner of approximately 23mm by 35mm is traditionally used. Normally a larger mesh size would be used but the aim of these surveys is to collect information about all the scallops present (including juveniles), as well as the abundance of other bycatch species.

Survey of Known Beds

AFMA contracts a research provider to develop a survey design which determines exactly where the sample tows are to take place. Over the last five years the Tasmanian Aquaculture and Fisheries Institute has provided this service. The

surveys utilize a random stratified design which is developed in consultation with the fishing industry and draws on information gathered from previous surveys. The surveys are designed with the aim of determining scallop biomass within a reasonable level of confidence.

The last survey of bed 4X, conducted in December 2005, comprised 10 dredge tows around 500 meters in length through the area of the bed. It is anticipated that a similar number of tows would be required to re-assess the condition of the two scallop beds that have been previously mapped out. The third bed, which is yet to be fully mapped, will require more intense surveying to establish its size and biomass.

Upon completion of each tow the number of scallops caught is determined, shell widths are measured and the proportion of the catch containing dead shell is estimated. The proportion of the catch that comprises bycatch is also estimated and if possible individual bycatch species are identified and abundances are determined.

Survey of the Broader Area

Only a small portion of the historical fishery has been fished in recent years and there are a number of locations particularly on the western side of the fishery that have yielded significant catches of scallops in the past but have not been fished since the mid 1990's. Consideration is being given to a targeted survey of those areas that have been anecdotally reported to contain scallops, have previously yielded scallops, or are considered likely to yield scallops. The survey design would be determined by AFMA in consultation with industry and scallop researchers using the most up-to-date information available at the time.

Once the areas to be explored have been established, survey transects would be determined and volunteer operators advised of the transects that they would be required to survey. Should scallops be found along the transect, further tows in every direction would be undertaken to map the extent of the patch of scallops. The survey coordinator, fisher and observer would determine the most appropriate strategy for this at the time.

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Control of Scallop Catch

As an incentive to participate in the surveys and to offset vessel charter costs, the retention of a specified amount of catch would be permitted. Scientific permits would be granted to the small number of operators selected to participate in the surveys. Each scientific permit would specify a maximum allowable take of commercial scallops as a condition of the permit. Scallop catch would be monitored through the catch disposal record system that is already in place for the fishery and by the use of onboard observers.

Surveys conducted in the past have offered retention of catches in the range of 3 to 10 tonnes shell weight of scallops per research permit. The allowance for any survey is determined by considering the costs and risks for operators of participating in the survey. Subject to advice from the scallop fishery Management Advisory Committee and approval by the AFMA Board, AFMA management would envisage making

available a total of up to 150 tonnes (shell weight) of scallops per annum for monitoring both the known beds and conducting a comprehensive survey of the broader area of the fishery.

Further Information

Further information on the Bass Strait Central Zone Scallop Fishery can be found in the Fishery Assessment Report. Previous survey methodologies and results can be found in a series of survey reports which are available on the AFMA website at the following link:

http://www.afma.gov.au/fisheries/scallop_squid/scallop/publications/default.htm