

MSC Variation Request

Yalu Estuary Manila Clam

Marine Stewardship Council variation request

Table 1 – Variation request

1	Date submitted to MSC
	September 4 th , 2019
2	CAB
	SCS Global Services
3	Fishery name and certificate number or CoC certificate number
	Yalu Estuary Manila Clam
4	Lead auditor or program manager
	Gabriela Anhalzer—Program Manager of Fisheries, SCS Global Services
5	Request prepared by
	Shelby Oliver
6	Scheme requirement(s) for which variation requested
	<p>Per requirements FCP 7.12.5 a <i>If the CAB decides that any of the assessment trees need modification, the CAB shall:</i> <i>a. Apply for and obtain a variation from the MSC to 7.10.3 before preparing the Announcement Comment Draft Report.</i></p> <p>Fisheries Standard v2.01</p> <p>Variation is requested for the SB enhanced bivalve fishery assessment tree for hatch-and-catch (HAC) bivalve fisheries per GSB3.1 where ‘Principle 2 PISGs are applicable to enhanced HAC bivalve fisheries.’</p> <p>We request to apply the same requirements to the HAC system with translocation as required for a catch-and-grow system with translocation where: <i>‘if an enhanced CAG bivalve fishery in assessment involves the translocation of seed or adult shellfish, the assessment team shall score the fishery against the Translocation PISGs 2.6.1, 2.6.2, and 2.6.3 (SB3.1.4).</i></p>

7	How many times has a variation for this requirement been accepted for the same assessment of the same fishery?
	A variation request was submitted previously but for a different proposed modification to the assessment tree.

Table – Variation justification

1	Proposed variation	
	<p>SCS is seeking this variation request per FCP 7.12.5a where the CAB shall <i>‘Apply for and obtain a variation from the MSC to 7.10.3 before preparing the Announcement Comment Draft Report.’</i></p> <p>The Yalu Estuary Manila Clam fishery is an enhanced HAC bivalve fishery that includes translocation.</p> <p>The UoA for the enhanced hatch-and-catch (HAC) bivalve fishery consists of the following processes:</p> <ul style="list-style-type: none"> • Broodstock are selected from the commercial fishery targeting the wild Manila clam population in Fujian Province, eastern China. • Broodstock are then induced to spawn in ponds where the Manila clam larvae settle out. The larvae remain in the ponds for a period of approximately four months¹, and once the Manila clam spat reaches a size of ≤ 2 mm, they are moved to nearby mudflats until they are reared to juvenile size. • Juvenile Manila clams (4-10 mm) are harvested from the mudflats using hand sieves or towed nets and then bagged, ready for transport to Donggang, China. • Juvenile Manila clams harvested from mudflats in Fujian Province are transported via truck (i.e. translocated) to Donggang, China. • The juvenile Manila clams are placed into leased, subtidal grow-out areas that have been prepared for the clams.² • The Manila clams remain in these beds for 24-30 months until they are ready for market. • At this point, all Manila clams from the leased areas are harvested using a clam dredge. <p>SCS proposes to vary from the requirement laid out in Annex SB for enhanced HAC bivalve fisheries by modifying the assessment tree to include the PI’s related to translocation for Principle 2 (i.e., PI’s 2.6.1, 2.6.2, 2.6.3) because of the translocation of the Manila clam seed (i.e. Manila clam seed is moved from Putian to Donggang). Manila clam is native to both Putian and Donggong.</p>	
2	Additional time requested	
	Original deadline date	N/A variation request related to the SB assessment tree
	Modified deadline date requested	
	Length of additional time requested	
3	Justification	
	<p>We request this modification to the SB assessment tree because it will ensure that the HAC assessment adequately addresses/considers the potential genetic and other impacts that need to be assessed as a result of translocation, as is the default for the CAG assessment when translocation occurs.</p>	

¹ The four month period represents the hatchery phase and following this period, the Manila clams continue to mature in the wild environment.

²Preparation for the clams does not comprise habitat modification. It essentially involves a conventional fishing operation to remove some potential clam predators from the culture areas. We anticipate scoring any non-clam species taken in this part of the fishery as primary, secondary or ETP species, whilst accounting for habitat and ecosystem impacts as per any other fishery assessment.

	<p>In consideration of the guidance in G7.4.6 that “a single fishery may display several of the features of CAG, HAC or habitat-modified fisheries”, and that “it is intended that any overlap between categories should not become complicating factors in determining whether a given fishery is within or outside scope.”</p> <p>We note that:</p> <ol style="list-style-type: none"> 1) The translocation is for the stock within the natural production area (Eastern China) from which the fishery’s catch originates (G7.4.6). 2) Although is is a HAC fishery, incorporating the additional CAG PIs for translocation (2.6.1-2.6.3) addresses the guidance (G7.7.1.2.b) that “<i>Performance Indicators (PIs) may need to be developed to determine the extent of movement within a range that can be considered to have acceptably low risks. Related performance assessment will require the identification of the ‘natural production area’ or genetic range of a stock.</i>” 				
4	If a fishery assessment, implications for assessment				
	This variation request impacts the HAC assessment tree by including the addition of PI’s related to translocation (i.e. 2.6.1, 2.6.2, and 2.6.3).				
5	If a fishery assessment, mitigation of the implication for assessment				
	<p>By considering the potential impact of translocation of Manila clam seed from Putian to Donggong, we are ensuring that the potential impact of translocation on the parent population (i.e. Donggong) are being considered.</p> <p>The assessment team recognizes the traceability risk of Manila clam seed translocated to Donggong originating from an area other than Putian (i.e. outside of the UoA). The assessment team will be carefully assessing traceability risks around this issue.</p>				
6	If a fishery assessment, how many conditions does the fishery have and will their progress be affected (positive or negative)?				
	N/A initial assessment				
7	What is the status of the current assessment?				
	The fishery is in the beginning stages. The contract has been signed and document collection has begun. The ACDR has not yet been prepared which adheres the requirements specified in FCP 7.12.5a.				
8	Further comments				
	<p><u>Confirmation that the fishery is within the scope of the MSC Program</u></p> <table border="1" data-bbox="199 1839 1433 2063"> <tr> <th colspan="2" data-bbox="199 1839 1433 1883">A. Linkages to and maintenance of a wild stock</th> </tr> <tr> <td data-bbox="199 1883 863 2063"> <p>i. At some point in the production process, the system relies upon the capture of fish from the wild environment. Such fish may be taken at any stage of the life cycle including eggs, larvae, juveniles or adults. The ‘wild environment’ in this context</p> </td> <td data-bbox="863 1883 1433 2063"> <p>The juvenile Manila clams that are stocked in to the on-growing production areas in the Yalu Estuary, Donggang are spawned from broodstock that are collected in the wild from a natural sea area in Fujian Province. The broodstock are</p> </td> </tr> </table>	A. Linkages to and maintenance of a wild stock		<p>i. At some point in the production process, the system relies upon the capture of fish from the wild environment. Such fish may be taken at any stage of the life cycle including eggs, larvae, juveniles or adults. The ‘wild environment’ in this context</p>	<p>The juvenile Manila clams that are stocked in to the on-growing production areas in the Yalu Estuary, Donggang are spawned from broodstock that are collected in the wild from a natural sea area in Fujian Province. The broodstock are</p>
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<p>includes marine, freshwater and any other aquatic ecosystems.</p>	<p>induced to spawn and their progeny reared to a size suitable for stocking (c. ≥ 0.13 g or 2mm). Within the whole life cycle of the clam (more than 2 years), the clams are only in the culture pond for 4 months and stay in the natural sea waters for the rest of time.</p>
<p>ii. The species are native to the geographic region of the fishery and the natural production areas from which the fishery's catch originates unless MSC has accepted a variation request to include introduced species for the pilot phase.</p>	<p>The Manila clam is native to all of eastern China, both in the Yellow Sea and the East China Sea.</p>
<p>iii. There are natural reproductive components of the stock from which the fishery's catch originates that maintain themselves without having to be restocked every year.</p>	<p>The Fujian seed stock is obtained from a wild fishery that operates in the Fujian province. Broodstock is selected every year from the wild fishery. The wild fishery is self-sustaining and is not supplemented by hatchery operations.</p>
<p>iv. Where fish stocking is used in hatch-and-catch (HAC) systems, such stocking does not form a major part of a current rebuilding plan for depleted stocks.</p>	<p>Juvenile production in the Putian region is essentially a HAC system, with the broodstock coming from local populations and the sand seed (≈ 2 mm shell length) being laid in to the intertidal for on-growing to juvenile size (≤ 10 mm shell length). These juveniles are then collected and translocated to the Donggang region for on-growing to harvest. This system is not part of a rebuilding plan for a depleted stock.</p>
<p>B. Linkages to and maintenance of a wild stock</p>	
<p>i. The production system operates without substantial augmentation of food supply. In HAC systems, any feeding is used only to grow the animals to a small size prior to release (not more than 10% of the average adult maximum weight), such that most of the total growth (not less than 90%) is achieved during the wild phase.</p>	<p>There is very limited initial fertilisation of the culture ponds to promote algal growth for the broodstock clams and cultured larvae, but no other augmentation of food supply. The main growth phase (10 mm at stocking to >30 mm at harvest) takes place in Donggang without any supplementary feeding.</p>
<p>ii. In CAG systems, production during the captive phase does not routinely require disease prevention involving chemicals or compounds with medicinal prophylactic properties.</p>	<p>N/A not CAG.</p>
<p>C. Habitat and ecosystem impacts</p>	
<p>i. Any modifications to the habitat of the stock are reversible and do not cause serious or irreversible harm to the natural ecosystem's structure and function.</p>	<p>There is habitat modification in the initial seed culture production system of Fujian Province as shallow ponds with banks made from the local sediment are constructed and cleared of debris. Both the inter-tidal and sub-tidal areas of Fujian and Donggang respectively are highly dynamic environments, where habitat modification (e.g. embankments, predator control, etc.) are unlikely to cause serious or irreversible harm to the natural ecosystem's structure and function. If the ponds were not maintained and the sea was allowed to breach the walls, it is considered that</p>

		the system would revert in time to the natural condition.
9	If applicable, additional information added after MSC's request	