

December 7<sup>th</sup> 2023

Submission concerning the Modification application SSI-5657-Mod-1.

I object to this modification application and wish to express concern about an expansion of the South Coast Mariculture Mussel (SCMM) Farming operations in Jervis Bay.

I can appreciate the need to move the location of the farm operations to the correct co-ordinates. However I believe it is premature to allow an expansion from 50 to 70 hectares. The industry is relatively young and in it's short time of operating questions are being raised locally about it's environmental impact on Jervis Bay Marine Park. I believe that until independent research is conducted on the impact of the mussel farming on species richness and results demonstrate it is not harmful in terms of biodiversity, ecological integrity and the health of marine life in Jervis Bay, expansion of farming area should not be permitted.

The information provided about SCMM states that the farmed species of mussel *Mytilus galloprovincialis* is endemic to Jervis Bay. NSW DPI also states this species is native to Australia. The government website [www.dpi.nsw.gov.au](http://www.dpi.nsw.gov.au) page Blue Mussel Aquaculture Prospects states:

In Australia, mussel farming is a relatively new venture undertaken in embayments of the southern states. A number of species are cultured around the world, the blue mussel (*Mytilus galloprovincialis*) is the only marine mussel species farmed in Australia. Although the blue mussel in Australia (*Mytilus galloprovincialis*) is similar to and share the same scientific name with the one from southern Europe, it is native to Australia and has been found in ancient Aboriginal middens.

The literature search between 2003-2022 I have looked at states that *Mytilus galloprovincialis* is one of the top 100 invasive species originating from the Mediterranean. Other countries such as Brazil and USA reportedly where *Mytilus galloprovincialis* was introduced, there has been very rapid growth and spread of the mussel as well as other biogenic consequences.

Considering the importance of Jervis Bay, a designated marine Park for 20yrs, it is imperative that it's biodiversity is managed and protected.

The contradiction of the origin of the species of mussel, *Mytilus galloprovincialis*, by the NSW DPI and scientific research undertaken by Australian and other International researchers must be reconciled.

There appears to be anecdotal evidence from boat owners, snorkelers and divers that the population of mussels in Jervis Bay has spread and the volume of mussel has increased since the start of the mussel farm operations of SCMM. I believe these allegations should be examined before any further development is undertaken.

I worry when I see statements promising that best practise policy are followed by SCMM. On examination of the written practises there are clauses premised by "where possible....". Surely this leaves such practises open to be side stepped.

I simply ask that we learn from other's mistakes from around the world. Closer to home, we should treat seriously what locals are saying. Jervis Bay is too special to take risks with. Let us be 100% sure the operations by SCMM are safe, sustainable and actually improves the health of Jervis Bay Marine Park.

#### Research Literature

Journal of Experimental Marine Biology and Ecology 300 (2004) 189 – 215 George Branch Nina Steffani .Nov 2003. The robust paper discusses pros and cons of the Invasive *Mytilus galloprovincialis*. I believe it offers a persuasive argument against introducing the species into a Marine Park.

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November 2020 Pre-introduction introgression contributes to parallel  
differentiation and contrasting hybridization outcomes between invasive and native marine mussels