**I wish to make a comment and submission about the Modification Application SS1-5657-Mod-1 South Coast Mariculture, Jervis Bay Mussels.**

My understanding is that the South Coast Mariculture (SCM) wishes to move and extend its plots and increase the size of the farm from 50ha to 70ha.

Whilst it can be confusing for a lay-person like myself, the mussels farmed in Jervis Bay are Mytilus Galloprovincialis, which are an invasive species.
Mytilus Galloprovincialis is a known Mediterranean species of mussel and is recognised as invasive in other countries. (Refer Borschmann 2022)

The Australian/New Zealand native mussel is Mutilus Planulatus.
Reviewing the original application, it would appear the Environmental Impact Statement (EIS) discusses farming of Mytilus Edulis (Atlantic Blue Mussel) **NOT** Mytilus Galloprovincialis (Mediterranean Blue Mussel)

The EIS didn't investigate the status of Mytilus Galloprovincialis in Jervis Bay before the SCM began farming.

The 'spat' for Mytilus Galloprovincialis is brought from Eden, further down the eastern seaboard, a water way known to have invasive aquatic species as well as being a port for vessels, including cruise ships.

The original licence stated that harvest of the mussels was to be prior to reproduction, however it has been stated that this isn't always possible due to variants in the weather. There does not appear to be any known or public record for occasions when mussels have been harvested after reproduction.

Antidotal reports have referred to increased mussel spat fall in Currambene Creek and mussels growing on the bottom of boats and vessels.

In the study by Borschmann it concluded that 'intense' farming of a single species eg Mytilus Galloprovincialis, would result in a reduced species richness; it would out compete other organisms and increase supply to other parts of the Bay. In addition Mytilus Galloprovincialis from increased larval supply is not being controlled by predation.

There are many studies, which report on the viability of aquaculture in Jervis Bay. One in particular by Joyce, Rubio & Winberg says that:
The risk of introducing foreign pests or pathogens is much greater with translocation of wild spat collection than with hatchery produced seed. Formerly, mussel seed was collected in Twofold Bay and moved to Jervis Bay, though in future, this type of translocation from Twofold Bay may be inadvisable, as Eden is a primary port of call for international vessels. A source of hatchery spat is preferable from both a biological and production standpoint" 2009 page 23.
As recently as last month a cruise ship was stopped from entering New Zealand due to a biosecurity risk. Surprisingly the ship was sent to Hobart and then Eden. This demonstrates such dangers, as ships have the potential to be carries of pests and diseases.

I have a great concern that before any extension of the South Coast Mariculture application is given the green light, further studies should be carried out on the species of mussels, ensure that the mussel farm is not a source of spat that colonises other parts of the bay and that the translocation of mussel spat from Eden is stopped.

Please recognise I have done my best to reference my quotes:

O. Borschmann (2022) Musselling up: Assessing the large scale effects of introduced source populations of Mytilus galloprovincialis. Honours Thesis, University of Wollongong.

A. Joyce, A.M. Rubio-Zuazo & P.C. Winberg (2010) Environmental and Socio-Economic Considerations for Aquaculture in Jervis Bay, NSW. Canberra: Fisheries Research and Development Corporation.