

# Denman Island Residents Association Marine Guardians Committee

diraguardians@gmail.com

Comments for the Canadian Environmental Assessment Review- Fish Habitat

July 15, 2016

To Whom it May Concern: Re: **Protection of Fish Habitat**

Denman Island is an Islands Trust Island whose mandate is to “Preserve and Protect”. We are situated just off of Vancouver Island and share Baynes Sound with the Comox Valley Regional District and Lambert Channel with Hornby Island (another Trust island). Baynes Sound supports 50% of all shellfish cultivation in British Columbia. Lambert Channel and Baynes Sound provide the most important spawning and rearing grounds for herring on the BC coast and have currently been identified as a candidate for becoming a Marine Protected Area (MPA). In addition, Baynes Sound has met all the criteria for an Ecologically and Biologically Significant Area (EBSA) and is also internationally recognized as an Important Bird Area (IBA)

The Denman Island Residents Association Marine Guardians Committee (DIRA MG's) fully supports the CEA review and have watched the steady decline of fish habitat protection at the hands of not only the aquaculture industry but Fisheries and Oceans Canada (DFO), as well. We attribute DFO's being due to a conflict of interest that was created when they were mandated to promote resource extraction of our seas and oceans along with their historical purpose to protect habitat. The AQUACULTURE IN CANADA'S ATLANTIC AND PACIFIC REGIONS Standing Senate Committee on Fisheries Interim Report states that- “*The DFO's mandate, for both the promotion of aquaculture development and the protection of wild fish stocks and habitat, obviously puts the Department in a difficult situation.*”

We also realize that when the Fisheries Act was changed in 2012, habit protection was cut along with staff. This meant a reduced ability to enforce the act and bring charges. In 2000 in the Pacific region, there were 1,800 habitat-related investigations leading to 49 convictions and by 2010 the number of investigations dropped to 300 and the convictions under the habitat provisions was at 1. We would therefore encourage the new federal government to restore the Fisheries Act and to even go a step further by finding solutions to the following concerns we are currently facing:

⑩ DFO has just recently (May 2016) changed the wording of the Shellfish Conditions of License and removed habitat protection for three important CRA's (Commercial, Recreational and Aboriginal) species protected under the Fisheries Act. The catalyst appears to be to stop our community from protecting the foreshore from vehicles driving along the beach in Marine Conservation zoned areas which have been identified as spawning grounds for both Pacific Sand Lance and Surf Smelt. For example- here is the original Shellfish Aquaculture Conditions of Licence:

*“10. Protection of Fish Habitat*

*10.1 Dredging, infilling or redistribution of native beach materials is prohibited by this licence, unless expressly approved in a Shellfish Aquaculture Site Management Plan.*

**10.2***The licence holder shall not conduct aquaculture activities that would disturb Pacific Herring spawn through to the hatch of Herring eggs.*

**10.3***The licence holder shall not conduct aquaculture activities in specific Pacific Sand Lance spawning substrates (sand) in upper intertidal (above 2.6 m) during spawning windows.*

**10.4***The licence holder shall not disturb squid spawn if present on equipment or structures.*

**10.5***The licence holder shall not conduct aquaculture activities in eelgrass beds.*

**10.6***The licence holder shall operate machinery in a manner that minimizes disturbance to the intertidal areas and other fish habitat.*

**10.7***Machinery Operations:*

*(a) The licence holder shall ensure all machinery used on-site is in clean condition and maintained free of fluid leaks;*

*(b) The licence holder shall take immediate action to stop, contain and clean up any spill of fuel or lubricants. All such spills shall be reported to the Canadian Coast Guard at 1-800-899-8852”*

And the May 2016 revision-

*“8. Protection of Fish Habitat*

*8.1 The licence holder shall ensure that “Styrofoam” used for floatation is securely wrapped in containment material so as to remain intact. Any floatation material that is degrading or is otherwise no longer in use shall be removed from the marine environment and disposed of at land-based facilities.*

*8.2 The licence holder shall ensure that operations/activities conducted on the licensed area do not result in a build up of shell debris on the seabed.*

*8.3 The licence holder shall not store or leave any aquaculture equipment or structures on the licensed area unless the equipment or structures are used in that location as part of an aquaculture activity and are affixed/ secured so as not to move off the licensed area.*

*8.4 The licence holder shall not introduce or cause or allow the introduction of aquaculture refuse (including but not limited to infrastructure, equipment and materials) into the environment in the course of conducting aquaculture activities.”*

**\*\* DFO made no mention of this change at any Shellfish Aquaculture Management Advisory Committee Meetings which I have attended over the last two years.**

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⑩ As well, 3-4 tons of escaped shellfish industry equipment has been removed annually from Denman Island beaches over the last decade. Most of the debris is plastic which we now know through numerous studies, breaks down into microplastics. These microplastics not only cause physical harm but can also act as vectors for additives incorporated during manufacture (PBDE's) and organic pollutants (PCB's) sorbed from the surrounding seawater. When ingested by everything from birds to zooplankton to humpback whales, these microplastics cause reproductive and genetic damage in all species and bio-accumulate, yet the escapement of plastics continues. Overuse and abuse of plastics (most not meant for use in an ocean environment) is wreaking havoc on fish health and marine ecosystems. New evidence (2016) shows microplastics reduce fitness and survival of fish larvae putting species such as herring at serious risk. Geoduck cultivation is about to go mainstream and relies on tons of household PVC pipe per tenure along with nets used to cover the top of the pipes. This is a misuse of PVC plastic which is known to be the most toxic of the of the plastics family and is not intended for marine use. Baynes Sound was identified in 2014 as the site most contaminated by microplastics on the Pacific coast.

⑩ Since the inception of deep water shellfish culture (which increased shellfish production

exponentially in Baynes Sound), there has been no Carrying Capacity Study released even though it was commissioned by DFO and financed by PARR in 2011 and promised for completion by March 2013. In the meantime, FLNRO keeps assigning tenures and DFO keeps issuing licenses.

⑩ In the last few years, DFO has also assigned the shellfish tenure holder the task of complying with installation regulations, inspection and maintenance of their own tenures. As well, tenure markers are no longer required on inter-tidal tenures. FLNRO does no enforcement of marine tenure boundary compliance issues and when asked what is the course of action for an identified deep water tenure operating outside its assignment (with photographic and GPS coordinate evidence), the reply was ***“FLNRO will just amend the boundaries”***.

⑩ Inspection of shellfish tenures is now complaint driven and, if found non-compliant, the tenure holder is sent three successive warning letters. This lack of compliance and enforcement allows growers to use harmful practices which negatively impact fish habitat and create a mono-culture on their inter-tidal tenures which excludes other species and also harms habitat. Equipment such as anti-predator nets (which prohibit diving ducks from feeding) are hard to maintain and can trap and kill fish, birds and mammals. Clearing the tenures of rocks to install anti-predator nets destroys the habitat of Plainfin Midshipman who along with forage fish, feed larger fish, sea birds, mammals, eagles, herons etc. Eelgrass (which herring rely on) is often torn up when removing anti-predator nets to harvest clams and in light of a peer reviewed study done by Dr. L. Bendell that proves these nets do not significantly increase production, one has to wonder why they are allowed by DFO.

With the realization that our seas and oceans are in crisis and our surrounding waters are finite, the DIRA MG's are passionate (like most marine stewardship groups) about protecting our beaches and waters. Our group is committed to do our part to ensure a diverse, healthy and vibrant marine ecosystem but unfortunately we have found (through experience), that our efforts to protect fish habitat have not been supported by DFO and FLNRO. Hopefully, with the positive changes that we are now seeing in the current federal government (such as this CEA Review), we can help to restore what has, in the past, made us so proud to be Canadian.

Thank you for the opportunity,

Edina Johnston (retired shellfish grower)  
co-chair DIRA Marine Guardians

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