

From: hwbranch@aol.com
To: [Rockett, Derek \(ECY\)](#)
Subject: Comments on Imadacloprid
Date: Tuesday, February 11, 2014 7:22:51 AM

Department of Ecology,
Re: Permit to apply Imadacloprid to the tide flats of Willapa Bay.

To the Department of Ecology:

The use of Imadacloprid on tide flats in Willapa Bay would be destructive and non-sustainable.

Killing burrowing shrimp to harden the benthos runs antithetical to the precepts of Ecosystem Based Management, which emphasizes ecological resilience by virtue of the extent to which a system can maintain its structure and function. Instead of focusing on the impacts of single activities, we should focus on the array of services inherent in marine ecosystems, including interactive and cumulative effects. The place to look is back in history, in this case before the advent of aquaculture as currently practiced.

Historically, the bay could be characterized as a disturbance driven cycle between tide flats and eelgrass beds; tide flats first after a storm followed by eelgrass, until the next storm. Dispersed among these fluid environments native oysters grew in reefs made up largely of their own shells. These can still be seen in places like Bucerias, Mexico, where divers harvest oysters for sale in Puerto Vallarta. By eliminating ghost shrimp, we are severing this cycle including all of its qualities and species.

Although they do some of the same things, shellfish cannot replace ghost shrimp. Ghost shrimp are food for other species. When we eliminate ghost shrimp we impact the species that feed on them. Ghost shrimp and shellfish provide different ecosystem services. They feed on different things in different ways. They have different impacts on the planktonic community. Their waste is different. They have different impacts on water chemistry. There are direct impacts and indirect impacts.

Natural marine ecosystems are productive, resilient and maintenance free. In Bucerias, divers harvest oysters in a specific area. Other areas are characterized by a variety of fish and ecosystem services including all the planktonic activity characterizing shallow nearshore areas. Much of these activities occur on a microscopic level and we don't readily recognize their importance as the foundation of the food web. It's about primary and secondary production, then larger fish, not primary production then market.

Chemical insecticides have a history of being invented, given the green light by regulatory agencies and then eventually being discovered to have untended effects. It's impossible to predict long term effects and interactions within the broader environment. How will this insecticide react with herbicides being sprayed in the same area, in a saltwater environment, over a period of time?

Even if it were possible it would be slow coming. Manufacturers generate the research on their own products. Experiments are designed for a desired result. If they begin to head the wrong way, funding is pulled. If they are completed and don't get the desired result, they remain unpublished. But eventually data makes its way into the public domain and chemicals are banned. Industry wants to always have new products waiting in the wings for these occasions. Imadacloprid may have already run its course. In January of 2013 the European Food Safety Authority declared that "neonicotinoids pose an unacceptably high risk to bees and that the industry sponsored science upon which regulatory agencies' claims of safety have relied on may be flawed, or even deceptive." <http://en.wikipedia.org/wiki/Imidacloprid>

This week, hundreds of thousands of people signed petitions circulated nationally by several NGOs asking major outlets to stop selling neonic pesticides. The next step will be hand delivery of the petitions to retail outlets in a high profile display. Will the Washington State Department of Ecology be

next?

If it's not sustainable it's destructive; if its destructive it's not sustainable. In this case, both. If the only way to sustain the practice is by blanketing the intertidal zone with chemicals, it's time to admit the obvious.

Harry W. Branch
239 Cushing St NW
Olympia WA 98502
360-943-8508

From: [Lubliner, Nathan \(ECY\)](#)
To: [Rockett, Derek \(ECY\)](#)
Subject: FW: japanese eelgrass
Date: Wednesday, February 05, 2014 7:37:45 AM

Hi Derek,

I received these comments but he discusses the oyster/burrowing shrimp issue as well.

Nathan Lubliner
Aquatic Plant Specialist
Water Quality Program
nathan.lubliner@ecy.wa.gov
360-407-6563

From: hwbranch@aol.com [mailto:hwbranch@aol.com]
Sent: Friday, January 03, 2014 10:13 AM
To: Lubliner, Nathan (ECY)
Subject: japanese eelgrass

Nathan Lubliner
Washington State Department of Ecology
PO Box 47696
Olympia WA 98504

Re: Permit for *Zostera japonica* management

Dear Nathan Lubliner:

If the Department of Ecology is concerned about invasive, non-native species, how about the Pacific oyster (*Grassostrea gigas*)? These oysters are not native and do not tolerate changes in pH as well as the native Olympia oyster (*Ostrea conchaphila*). The Pacific Coast of North America is characterized by natural changes in pH due to upwellings. Species that have evolved here are better suited to live here.

As I understand it, Imazamos will be used to kill eelgrass and Imidicloprid will be used to kill ghost shrimp in the benthos.

Once upon a time these intertidal areas were characterized by a disturbance driven progression of species. Simply put, ghost shrimp and tide flats are first to settle after a disturbance followed by eelgrass which dominates in some environments until the next disturbance and so on. Disbursed throughout this active ecosystem Olympia oysters grew on reefs.

The benefit of Pacific over Olympia oysters is that they can be grown on a large scale, employing machines and chemicals that increase profit. In the process of pursuing greater profit we have obliterated the natural disturbance driven cycle of tide flats, eelgrass and native oyster reefs. Now we are proposing to maintain this false environment, chemically.

The Department of Ecology's mandate is weak on protecting ecosystems and strong on moving Washington forward in the global economy. Given that shellfish aquaculture is looking less sustainable as practiced, due to chemical and biological toxins, ocean acidification and other factors, perhaps the State will see fit to recognize that we would be better protected, economically, by protecting and enhancing natural ecosystems.

Sincerely,

Harry Branch
239 Cushing St NW
Olympia WA 98502
(360) 943-8508