

Mayne Island Community uses dock for herring spawn enhancement project

It was an article that Michael Dunn and Ian Dow came across in 2014 that described volunteer groups in Pender Harbour, Squamish Harbour and False Creek wrapping the pilings of local docks with a fabric to give herring a clean place to spawn and protecting the eggs from the toxic effects of creosote. These projects found that herring will readily spawn on this substrate and that the egg survival was increased. These other programs have been successful enough to re-establish spawning populations to these marine areas. So the idea came up to use the Miners Bay Community Dock on Mayne Island as a pilot for this herring population enhancement program

Eelgrass meadows provide important foraging grounds and nurseries for populations of invertebrates, marine mammals, marine birds and fish, including out-migrating salmon. A keystone species which targets eelgrass meadows for spawning substrate is the Pacific Herring. Herring are a key forage fish for a multitude of economically and recreationally important marine species – from salmon to seals to Bald Eagles. Miners Bay has an extensive nearshore ecosystem dominated by eelgrass, which historically supported moderate to heavy herring spawn congregations. The last large spawning events occurred in the late 1970's. We know from the Mayne Island Conservancy's detailed eelgrass mapping of this area that the conditions for spawning herring continue to persist. With herring populations in the Salish Sea apparently rebounding, this project, if successful, will help to re-establish an abundant herring spawning population in Miners Bay.

The Mayne Island Conservancy developed the project proposal and was successful in raising funds to do this pilot project at Miners Bay. The first installation of piling wraps occurred in December 2014 during slack tides. Over the rest of the winter the wraps were inspected using a remote underwater camera. During the 2015 herring spawn time most of the wraps were lost due to corrosion of the fasteners and no herring spawn was detected on those that remained.

“Last year was our first attempt and it was a real learning experience. We did not see any herring in the bay but we did learn that herring have sort of a two year cycle and I guess we were in the off year. “ according to Ian Dow. The project also benefited from the advice of Mark Thompson a commercial diver experienced with installing piling wraps and who was experimenting with different cover materials for herring spawn.

This year in time for the 2016 spawning season the pilings were wrapped again March 19, 2016. The installation done with the assistance of biologists Sarah Verstegen and Alisa Preston and her diving crew. A durable membrane commonly used on sundecks was wrapped around the piling with a cedar strip on the leading edge for rigidity. The wraps are held on with bungee cords just below the lowest tide line to ensure eggs are not exposed to air.

Crewing this Mayne Island Herring Project are Sarah Verstegen, Biologist with SeaChange Marine Conservation Society, Alisa and Tyler Preston of Rockfish Divers-Marine Science Foundation operating under the Canadian Association for Underwater Science and their divers in training, Michael Dunn of the Mayne Island Conservancy Society, Bill Jamieson, Mayne Island diver, Mark Thompson, RP Biologist specializing in herring and initiating the Howe Sound project at Squamish and Ian Dow Mayne Island Volunteer. We thank everybody for their dedication and efforts in initiating this first herring enhancement project in the Southern Gulf Islands.

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Ian Dow, Mayne Island volunteer
Michael Dunn, Mayne Island Conservancy Society