**Summary Report (Living Lab (NSERC PromoScience 2017 and 2018)**

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The NSERC Promo Science funded Living Lab project began in 2017 and was described as *‘A community-UVic project that provides opportunities for Indigenous and non- Indigenous youth to engage in ecocultural science education focused on water quality and biodiversity.’* There original three main goals have remained: **#1 To** **Engage, Support and Empower Youth** by creating create skills and capacity building activities with and for youth (i.e. field sampling, lab skills, mapping, and website development) **and #2 To** c**reate Educational Resources and Place-based Curriculum**, by organizing science-based field trips and create resources that include indigenous knowledge and community priorities and **#3. To** **Grow the Living Lab Community of Practice (COP)** by developing mutually supportive relationships among local First Nations, community/ NGO’s, government, schools, and the University of Victoria.

In the first year, students from Oak Bay and Esquimalt High Schools sampled water and collected invertebrates at several locations along Bowker Creek, from where it flows through Oak Bay High to its outflow at Willows Beach. Students and educators observed insects, leaches, and planeria using a stereo microscope. The vent was timed to catch a low tide at Willows Beach where additional salt water samples were collected. Invertebrates were also observed in the rocky intertidal. Two ‘field’ trips happened with the Songhees Academic Youth Leadership group, one to Chatham Island, part of the Songhees Reserve lands and one to the UVic microscopy labs, where youth observed zooplankton. Both events inspired the youth; for all but one of the SAYL members, this was the first time they’d been to their islands (called Tl’Ches in their Lekwungen language). These field trips were supplemented by classroom lectures from UVic faculty on marine invertebrates and water quality testing, with presentations by Songhees leaders on traditional land use. UVic graduate biology students also supported the field trips and a UVic fine arts student documented the event. These images and video interviews are now available on the *livinglabproject* web site. Approximately 15 Songhees youth and 40 high school youth participated.

In 2018 the project expanded to include students in the Lands Programs at Esquimalt and Spectrum High Schools and youth from the Xe' Xu T'uluts' thut, project (Sacred Circle) Youth Leadership. In 2018 a new science module (zooplankton, insect and clam identification) was added to two culture camps on Salt Spring Island (i.e., the XWAAQWUM project; http://www.xwaaqwum.com), and an all day field program on Th’Chles focused on marine biology and archaeology. More focus was on training and capacity building for Songhees youth in 2018. Finally, Living Lab held a two-day, on-campus (UVic) summer science camp (13 participants – see attached flyer). Altogether the 2018 activities involved approximately 65 indigenous youth participants.

A large public Living Lab event happened in September 2017 at First Peoples House and more public events and workshops are bring planned. Living Lab has now expanded to include the Horner Foundation and UVic Aboriginal Service Plan funding from the Ministry of Advanced Education. Local government is also engaged. Momentum is building from the pilot project into a strong collaborative committed to long-term change.