

From internship to master's degree: Jared Dick propels further into his specialty

Jared Dick (whehs-wiss-sunup) was taught by his late grandparents that it is important to protect natural resources for future generations.

As a past Uu-a-thluk intern who became a fisheries biologist and who is now embarking on a master's degree in environmental studies, you could say he took that advice to heart.

Dick was born and raised in Ahahswinis, Hupacasath First Nation Ha-houlthee (chiefly territory) and grew up having salmon as a major part of his life.

He pursued an undergraduate degree in marine biology at the University of Victoria and in 2012, at the age of 18, joined Uu-a-thluk as a summer intern after his first year of studies. He liked it so much he returned every summer for the next four years.

It was during his second summer with Uu-a-thluk that something clicked for Dick and his goal of becoming a teacher was replaced by the desire to build a career in fisheries management.

"I had fished my whole life but had no idea the amount of science, stock assessment and collaboration between groups that went into having a fishery every year," Dick said.

According to Dick, "the stars aligned" in 2017 when he graduated with his bachelor of science and stepped into the role of term associate biologist with Uu-a-thluk, backfilling a maternity leave. Six months later, further changes within the department presented an opportunity for Dick to apply for the role of Central Region Biologist (based out of Tofino). He got the job.

As a fisheries biologist over the past six and a half years, Dick has spent countless hours in the field and in meetings, working towards the goal his grandparents inspired in him.

According to Jared Dick, swim surveys are the most exhilarating part of his job.



His work has taken him to the Bedwell River to monitor juvenile salmon out-migration and to Heskiaht Lake to work on salmon habitat restoration. Dick has taken on the aquaculture file for Uu-a-thluk and is a member of the First Nations Fisheries Council Aquaculture Coordinating Committee and Fisheries and Oceans Canada's (DFO) External Advisory Committee on Aquaculture Science.

When asked what he enjoys most about his work, Dick is quick to answer.

"Swims. Snorkel swims. I'm addicted," he said.

"I would swim 15 days in a row if there was a weather window. I love being in the environment, swimming with the fish, learning and experiencing what they experience."

He also cites listening to the late Dr. Simon Lucas speak at the Council of Ha'wiih Forum on Fisheries as an important experience in his career so far.

This breadth of experience has led Dick to his next chapter: the pursuit of a master's degree.

Together with Ha'oom Fisheries Society and DFO, Dick will research and contribute a Nuuchahnulth perspective to the West Coast Vancouver Island (WCVI) Chinook Rebuilding Plan.

Under the guidance of Candace Picco, Ha'oom Fisheries Society biologist, and Kerry Holt, Research Scientist at DFO (and in collaboration with the University of Victoria), Dick will interview Nuuchahnulth elders and knowledge-holders with the goal of

Continued from page 1...

defining what a rebuilt Chinook population looks like for Nuuchahnulth.

Holt, along with Picco and Sabrina Crowley, developed limit reference points (LRPs – the lowest point at which a fish stock level can fall before serious harm will occur to it) for some wild WCVI Chinook populations, however, the scientists involved in the project agreed that the Western Science perspective is not enough and that Dick's research is critical to the process.

"We have absolutely no input from the First Nations ... there's no Indigenous perspective or inclusion of Indigenous Knowledge in the development of these LRPs and Chinook rebuilding targets," said Dick.

Picco, who has known Dick for the better part of a decade, looks forward to how his graduate research will unfold.

"From his time as an intern, it was clear his enthusiasm, tenacity and passion for the work was there," Picco said.

Dick hopes that his ongoing educational journey will inspire Nuuchahnulth youth to follow in his footsteps and offered them some advice:

"Do what interests you. If you're interested in the sciences, pursue them, even if it means stepping out of your comfort zone. You'll be surprised at how exciting it can end up being."

Northeast Pacific Deep-sea Expedition connects Nuuchahnulth kids to ocean depths

Exploring ecosystems in the depths of the Pacific Ocean is no easy feat.

This past June, Nuuchahnulth and other Indigenous children and youth were shown how it is done courtesy of the 2023 Northeast Pacific Deep-sea Expedition school outreach program.

Five one-hour "Ship2Shore" livestream sessions were delivered to students in their classrooms, via Zoom, between May 31 and June 5. An all-ages public outreach event hosted by the Canadian Parks and Wilderness Society also took place on World Oceans Day (June 8).

"It's amazing what can be achieved with today's technology," said Alison Wale, Uu-a-thluk's Capacity Building Coordinator.

"I would have loved the chance to connect with deep-sea researchers in real time when I was a kid," she added.

Approximately 130 students spanning from Haida Gwaii to T'Sou-ke First Nation participated in the events, including students from the Alberni Valley's E.J. Dunn and Alberni Elementary Schools.

Pacific Deep-sea Expeditions have been taking place annually since 2017, except for the summer of 2020 when the expedition was cancelled due to COVID-19.

Over the years, scientists have surveyed ecosystem components from the surface to the seafloor and mapped uncharted areas to discover and confirm underwater features like seamounts (underwater mountains), hydrothermal vents and cold seeps.

This year, on July 27, 53 new seamounts were made official in the Canadian Geographical Names Database following the expedition.

Scientists have collected water samples and voucher specimens of rarely seen underwater animals and documented sightings of mammals and seabirds in the offshore environment. Data collected are used to inform research and marine conservation planning.

On May 31, Dr. Cherisse Du Preez, deep-sea ecology lead with Fisheries and Oceans Canada (DFO) and the crew discovered the first hydrothermal vent of the expedition.

Located at 1700 m in the Explorer Ridge vent field, the vent was named Uu-a-thluk in honour of the Nuuchahnulth Tribal Council's (NTC) role as an expedition partner.

The 2023 Northeast Pacific Deep-sea Expedition took place from May 26 to June 12 and was a collaborative effort between DFO, the NTC, Council of the Haida Nation, Pacheedaht and Quatsino First

...continued on page 4

Keep Up With Uu-a-thluk

To keep up on day-to-day posts about Uu-a-thluk and related fisheries issues, follow us on Facebook @uuathluk and X (formerly Twitter) @Uuathluk.

To receive Uu-a-thluk's newsletter digitally, sign up at <http://eepurl.com/hZRfhn>.



UPDATES

Uu-a-thluk welcomes two new staff members



In late May, Claudia Tersigni joined the Uu-a-thluk team in the role of Northern Region Biologist (on a term basis, backfilling a maternity leave). Claudia is a graduate of Quest University in Squamish and her previous work with Cedar Coast Field Station provided her the opportunity to work alongside Nuuchahnulth Nations and Uu-a-thluk staff before she joined the team. Claudia can be reached at claudia.tersigni@nuuchahnulth.org.



In July, the team welcomed Isaiah Dick as Uu-a-thluk's summer intern. Isaiah grew up in Sooke, before moving to Port Alberni during his last few years of high school. He enjoys working outdoors and being on the water and would like to explore fisheries management as a possible career path. Isaiah can be reached at isaiah.dick@nuuchahnulth.org until mid-September.

ʔaayaaqa (Herring) Herring Spawn Dynamics Project

The existing management approach for British Columbia Pacific herring fisheries assumes that population productivity is independent of the diversity of life history traits within and among local populations. Nuuchahnulth knowledge and biological research, however, suggest there is substantial diversity within herring populations on West Coast Vancouver Island (WCVI).

The ʔaayaaqa (Herring) Herring Spawn Dynamics Project aims to further develop a Nuuchahnulth approach to ecosystem-based fisheries management. The project will integrate life-history-driven differences in population response to fishing and climate change into models of WCVI Pacific herring spawning populations. It is the first project to address these topics with an aim to developing Indigenous management frameworks that could be implemented in real-world fisheries.

Strategic Plan Renewal

Uu-a-thluk staff have completed the engagement phase of the Uu-a-thluk Strategic Plan renewal process. Thank you to Nuuchahnulth Ha'wiih, knowledge holders, fisheries managers, technicians and community members for participating in the three virtual open engagement sessions (April 4, 13 and 25), half-day Council of Ha'wiih Forum on Fisheries discussion (March 23) and individual meetings. Staff are translating the feedback that was received and will be presenting a draft 2024-2029 Uu-a-thluk Strategic Plan for approval by the Ha'wiih at the October Council of Ha'wiih Forum on Fisheries.

Nuuchahnulth appointments

At the June Council of Ha'wiih Forum on Fisheries meeting, it was decided that wickaninnish, Cliff Atleo, would be renewed as Forum Chair for a two-year term, with a plan to mentor a new Chair. Dr. Don Hall, former Uu-a-thluk Program Manager, was endorsed as the nominated Nuuchahnulth representative on the Pacific Salmon Commission Southern Panel. Dr. Hall will mentor Uu-a-thluk's Jared Dick into the role.

Continued from page 2...



Uu-a-thluk is...

Council of Ha'wiih
Forum on Fisheries

The Ha'wiih or their representatives of:

Ka:yu:'kt'h'/Che:k'tles7et'h',
Nuchatlaht, Ehattesaht/Chinehkint,
Mowachaht/Muchahtlaht, Hesquiaht,
Ahousaht, Tla-o-qui-aht, Yuuufli?ath,
Toquaht, Uchucklesaht, Tseshah, Hupacasath, Huu-ay-aht and Ditidaht.

Joint Technical Working Group

First Nations, Uu-a-thluk, and
Department of Fisheries and Oceans
staff working together to solve problems
and take advantage of opportunities.

Staff

Biologists, managers, capacity
development, marine stewardship and
communications and fundraising staff
conducting the day-to-day work under
the direction of the Council of
Ha'wiih and First Nations.



ča'inwa · Gooseneck barnacle

Uu-a-thluk Ph: 250.724.5757
P.O. Box 1383 Fax: 250.724.2172
Port Alberni, B.C. info@uuathluk.ca
V9Y 7M2 www.uuathluk.ca

Nations, Ocean Networks Canada (ONC) and the Canadian Coast Guard.

Researchers aboard the CCGS John P. Tully explored the proposed Tang.gwan - ḥačx^wiqak - Tsigis Marine Protected Area, an area located about 150 kilometres west of Vancouver Island.

Using ROPOS (Remotely Operated Platform for Ocean Sciences), the "Cadillac" of remotely operated vehicles, the science team explored depths of up to 3,200 metres. What they found was exceptional.

The team discovered one of four known deep-sea octopus nurseries in the world, 65 kilometres west of Hesquiat Harbour. The purple deep-sea octopus has a minimum of a four-and-a-half-year egg-brooding period, the longest known period of any animal.

They also documented one new coral species and a whale fall (deceased whale at the bottom of the ocean).

Perhaps the most remarkable of all was the discovery of an ancient, active underwater volcano topped with a Pacific white skate egg nursery. The volcano was covered in tens of thousands of skate eggs and the crew obtained the first-ever footage of a deep-sea animal laying an egg.

"It was an incredible, mesmerizing, symphony of life that we got to witness," said Dr. Cherisse Du Preez, in conversation with the BBC.

Du Preez was one of the crew members aboard the Tully who engaged in live chats with students during the Ship2Shore broadcasts. She was joined by several of her teammates including Moronke Harris, PhD student at the University of Victoria, Rayne Boyko, Marine Planner with the Council of the Haida Nation and Chelsea Stanley, Acoustic Research Technician with DFO.

Together with video co-hosts on land that included Uu-a-thluk's whes-wiss-sunup, Jared Dick, and huu-yik, Sabrina Crowley, the crew shared their findings with the students, as well as Indigenous knowledge, accounts of life at sea and their educational journeys that led them to the expedition.

Students did not waste the opportunity to ask the crew questions:

"Do you ever get sea-sick?"

"Which deep-sea creatures would make the best pets?"

"What inspires you to keep doing this?"

Crowley answered the final question by noting that the ocean is our garden, and that coastal communities rely on it for food. Boyko cited her connection to food and place, while Stanley told the kids she derives inspiration from the fact that there is so much more to learn about and preserve in the ocean.

Bringing the deep ocean to those who do not have the chance to travel to it and sparking interest in ocean science and conservation are of importance to expedition partners.

According to Nick Hammar, ONC's Youth Programs Coordinator, "We need a critical mass of people who care about the planet to enact policy change and the only way to achieve that is to educate young, open minds."



From left, Rayne Boyko and Moronke Harris inspire Nuuchahnulth children during a live 2023 Northeast Pacific Deep-sea Expedition community outreach broadcast.