

# Shorelines

## NEWSLETTER OF THE PROBUS CLUB OF NORTH SHORE VANCOUVER

August 2022 [www.probus-northshorevancouver.ca](http://www.probus-northshorevancouver.ca) (Members Password: **probusns2021**) Vol.20 No.08

### Management Committee

**President:**  
Darryl Stodalka

**Vice President:**  
Gord Cook

**Secretary:**  
Vacant

**Treasurer:**  
Gordon Adair

**Past President:**  
Ron Wood

**Communications:**  
Terry McLeod

**House:**  
Terry McLeod\*

**Membership:**  
Dale Douglas

**Speakers:**  
John Elliott

**Special Events:**  
Doug Magoon

\*Interim

### Monday, August 8<sup>th</sup> Hybrid Meeting

**West Vancouver Yacht Club, 5854 Marine Dr., Coffee/Buns 8:30, Meeting 9:30 with speaker**

**Dr. John J Clague,**  
**Professor and Shrum Chair in Science at Simon Fraser University,**  
*“Earthquake and Tsunami Risk in Coastal BC”*



John Clague is the former Editor-in-Chief of the Canadian Journal of Earth Sciences and is currently Vice President of INQUA (International Union for Quaternary Research). He is a member of numerous national and international professional committees and commissions, supervises numerous M.Sc. and Ph.D. students at Simon Fraser University, and serves on the supervisory committees of many more. Clague has given about 200 lectures at several North American universities, professional meetings, and public venues, and reviewed scores of papers for scientific journals.

John Clague is one of Canada's leading authorities in Quaternary and environmental earth sciences; Professor and Shrum Chair in Science at Simon Fraser University; Emeritus Scientist, Geological Survey of Canada; Fellow of the Royal Society of Canada; Professional Geologist, Association of Professional Engineers and Geoscientists of the Province of British Columbia; 30 years experience in surficial/terrain mapping, Quaternary stratigraphic investigations, engineering and environmental interpretations of surficial geological information, and natural hazard studies; noted for local, national, and international research collaboration with other geologists, geographers, biologists, and physicists.

John Clague has published 200 papers, reports, and monographs on a wide range of earth science topics of regional and national importance. Clague's research was featured in a 1997 Discovery Channel documentary on earthquakes and tsunamis on the west coast of Canada. He has influenced Quaternary scientists in the United States and Europe and his research on earthquakes, landslides, and floods has greatly increased public and official awareness of these hazards.

### Mark Your Calendars with These Important Dates



**September 12th** - Hugh Kelsey, The Royal Canadian Marine Safety and Rescue, *“Unit One, Its People and Mission,”* and Annual General Meeting.

**October 3rd** - Gordon Houston, Chief Executive and President (Retired), *“Vancouver Port Authority Amalgamation.”*

## President's Notes



Fellow PROBUS members, I hope that you are all enjoying the summer that we have been anticipating and spending quality time with close family members.

The members of your management team have been at work over the summer in anticipation of our upcoming AGM on September 12, 2022. We feel that we are able to again propose a strong slate of members to run our club

for the next year. We have recently received a commitment from Gordi Moore to sit on the team as chair of the Speaker Committee. Although we have yet to identify a candidate for the position of Communications Chair, we have sufficient depth of knowledge on the team that we will be OK going forward.

The past few meetings have been hybrid style, meaning streaming via Zoom as well as having members in person at the West Vancouver Yacht Club. When our AGM rolls around September 12, we are considering that the meeting will be in person only. The reason is that we will need to determine a quorum of 15% of membership, hard to do with a hybrid model. That means that we will need a minimum of close to 41 members in attendance. We have been seeing close to that recently but we encourage members to join us in person whenever possible.

We are still open to nominations for positions on the management team. See information on page 3 of this newsletter on how this may be achieved.

We look forward to seeing you in person on August 8th, 2022.

I leave you with a personal revelation. During a recent family gathering in the Okanagan, I discovered an interesting phenomenon. Time flies like the wind, but fruit flies like cherries.

*Darryl Stodalka, President,*



## Special Events



**All Aboard!** Take a ride on the BC Rail Bud Diesel RailCar. You are invited for a ride and to explore some of BC's Rail history at the West Coast Railway Association's Railway Museum of British Columbia in Squamish BC on August 24th, beginning at 1:30 pm. We will enjoy a private guided tour of the museum's displays and learn about the history of the West Coast Railway Association, and a glimpse of the history of some railway equipment from days past of BC Electric, BC Rail and the CPR. Enjoy viewing the Roundhouse collection and some of the outdoor exhibits, such as CPR's No. 8 Business car "The Alberta", a CPR Mail Delivery car and CPR's Royal Hudson 2860 steam locomotive (*photo above*). Become an engineer! A docent will be on hand in the cab of the Royal Hudson to show you how to operate it.

You will be able to take an approximately one-kilometer ride on the BC Rail Bud self-propelled diesel railcar over to the old BC Rail maintenance facilities where some BC Electric locomotives are under restoration. You can take a ride on the museum's mini-rail train and perhaps on a track maintenance "Speeder" if a qualified operator is present that day. It should be a fun and informative afternoon.

Given that the tour begins at 1:30 pm, we will be organizing a no-host lunch at the Howe Sound Inn and Brewing Company for those who wish to participate. A West Vancouver Seniors Centre bus will be available to transport guests to Squamish from the Seniors Centre at a cost of \$10 per person, including a free day parking pass at the centre, for those who prefer not to drive to Squamish.

The cost per person of the tour is \$20, plus \$10 if you wish to take the charter bus to Squamish. Please email Doug Magoon at [doug@probusclub.com](mailto:doug@probusclub.com) if you wish to participate, also indicating if you wish to a) participate in the group lunch and b) if you wish to utilize the charter bus to travel to Squamish.

Payments by e-transfer or by cheque mailed to PROBUS Club of North Shore Vancouver, P.O. Box 92042, West Vancouver, BC V7V 4X4.  
*Doug Magoon, Special Events Chair*

## Pacific Sciences Ent. Centre Tour

The events committee led by Doug Magoon managed to “Hockey stick” its way to a successful tour of the Pacific Sciences Enterprise Centre on Thursday, June 23rd. The second event this year had to be postponed in mid-May due to a serious weather event forecast. The participants were given a rain check and persevered and some 20 of us attended on a brilliant sunny January afternoon.

Amy Elvidge is the education outreach liaison for the facility which incorporates a lot of school student programs as well as those for industry. She welcomed us, provided us with masks and divided us into two groups.

One group was led on a tour and the other was treated to a lecture by researcher Kyle Wellbrand. We switched places later.

Amy briefed the tour group on the history of the facility before leading us through the impressive Federal building. Its origins were as a fish packing plant in West Vancouver’s early years. Then the Federal Fisheries bought the property and used it as a research centre. Now it has evolved to a centre for studies of the Ocean and freshwater investigations for environmental knowledge that will aid the public and industry to better use this resource in the future. It is unique in all of Canada because it has three sources of natural water supply at one site. This is wonderful because they can control the quality for research purposes. They can choose between the ocean water, Cypress creek, and ground water from a well.

After an extensive review of multiple laboratories and a quick précis of their research activity, we were thoroughly impressed with the scope of operations. Many scientists and researchers were involved with studies of different salmon species. Studies of micro plastics and their dispersal through the various ecosystems both oceanic and inland. Salmon species are a special concern and differentiating farmed and wild varieties is most important as they both have such an economic impact in our province. When we had exhausted the labyrinth of various labs, we exchanged places with the other group.

We were introduced to Kyle Wellbrand, a youngish researcher who has been doing deep research on the Atlantic salmon raised in Canada’s oldest fish hatchery located on the Miramichie river in New Brunswick. He is interested in solving a disquieting puzzle. Why are hatchery raised wild salmon smolts less efficient than wild smolts who run free to their ocean environment at returning to their spawning grounds after some years and do not produce enough offspring to sustain their populations? The answer to this question is important as our salmon populations in Canada are declining rapidly. There is a suspicion that placing wild smolts in a hatchery setting may be detrimental to their development. Kyle is suspicious that there is an epigenetic factor disrupting their DNA. This may be due to the methylation disruption of the hatchery fish DNA. Very interesting research that shows how much more we need to know about our oceans and rivers if we want sustainable fisheries and why we are lucky to have such a facility in West Vancouver.

We then rejoined the other group to visit the fish tanks outdoors and saw many of the fish being subjected to various studies. For a country bounded by three oceans and the freshest water in the world what a facility to have in our community..

*Jon Strom, Events Committee*

## Membership Renewals

In the next few days you will be receiving by email your 2022-2023 PROBUS membership renewal invoice for \$70.00, which is due by September 15, 2022. Payment may be made by cheque or by e-transfer using Interac. Instructions will be included in the renewal message.



Please indicate by return if there are any updates required in your personal information such as changes in your home address, email address, telephone number, etc.

This will ensure that you receive timely information concerning the activities of the club.

Your prompt response will be greatly appreciated. If you have any questions or concerns, please let me know or contact our administrator.

Looking forward to your renewal. We have an exciting program planned for the coming year!

*Dale Douglas, Membership Chair*

## Call for MC Nominations

Nominations Committee is in the process of establishing recommendations for the 2022/2023 Management Committee which is normally elected at our September Annual General Meeting. I have included our bylaw related to this.

Bylaw No. 4 – Election of Officers

1. A Nominating Committee consisting of the President-Elect, President and a Past President (if available, otherwise a Club member in good standing) shall present to the Annual General Meeting a slate of candidates for election to the Management Committee.
2. Any further nominations (with prior consent to stand) shall be conveyed to the Nominating Committee at least 14 days prior to the Annual Meeting.
3. When more than one candidate is nominated for an office, voting for that position shall be by ballot.

We have already recruited Terry McLeod to move from Communications Chair to Vice President, David Walker for Secretary, Gordi Moore for Speaker Chair, and Rick Ryan for House Chair. Gordon Cook, currently Vice-President, will fill the President position and Darryl Stodalka will remain on the MC as Past-President.

We are still open to nominations for positions on the management team. If you have any interest to fill this position, please give me a call at 604-925-2570 or send an email to Darryl Stodalka.

## Last Month Speaker - Kevin Obermeyer

Captain Kevin Obermeyer, CEO, Pacific Pilotage Authority, Navigational Safety on the West Coast of Canada

Marine pilots have been around for 1,000's of years and could be one of the oldest professions around today. In 350 BC there was Pythias and his voyages. In the 1200's the Rules of Oberon\* regarding shipping were in effect and were a major disincentive to becoming a pilot. In 1549 King Henry VIII allowed pilots to form associations (guilds). In the 1800's British Admiralty Law dealt with pilotage as did Canada (1854 Merchant Shipping Act).

*\* If a pilot undertakes the conduct of a vessel, to bring her to St Malo, or any other port, and fail in his duty therein, so as the vessel miscarry by reason of his ignorance in what he undertook, and the merchants sustain damage thereby, he shall be obliged to make full satisfaction for the same, if he hath wherewithal and if not, lose his head.*

The Pilotage Act was developed in 1972 and was amended in 1981. Four pilotage authorities were established as federal Crown corporations for the Atlantic, Laurentian, Great Lakes and Pacific regions.

The focus of the presentation was the Pacific Pilotage Authority which has its head office in Vancouver. Their mandate is to provide safe, efficient and cost-effective marine pilotage through working in partnership with ships pilots, the shipping industry and the communities in which they operate, to protect the environment and advance the interests of Canada and its people. The authority consists of: Management, Dispatch and administration staff; 9 licensed Fraser River Pilots and 2 Apprentices; Victoria office, including traffic coordinators and shore engineer; Five pilot stations (three owned and operated, two contracted) and 6 Pilot launches. Total complement is 110 full and part-time. BC Coast Pilots Ltd (a Private Company) has 117 licensed pilots and 6 apprentices. They provide marine pilots to all vessels over 350 GT operating within the compulsory pilotage waters of British Columbia. The pilot provides the captain and bridge team with expert local knowledge and is responsible for the safe navigation of the vessel. Exceptions include ferries and government vessels and vessels under 10,000 GT with Canadian bridge watch keeping officers meeting the sea time requirements.

The pilotage authorities act as a country's insurance against marine disaster through providing expert local knowledge and enhancing the bridge team by adding another level of safety on the bridge.

They recruit senior captains from the local marine industry including the fishing industry, as well as senior captains from government vessels. A high level of local knowledge is essential. It is a rigorous process to qualify as a pilot and includes two three-hour written papers (70%); one three-hour oral exam (overall minimum must

be over 70%); 9½ to 24 month apprenticeship under the instruction of a senior pilot as part of the mentor program; intensive 5-day ship model course at Warsash in the UK; 5-day full mission bridge simulator at the Maritime Simulation and Resource Center in Quebec City.

What exactly does a pilot do? Under the Pilotage Act they have the CONDUCT of the vessel which means being solely in charge of the safe navigation of the vessel while within a compulsory pilotage area. People often think that it is the captain on the ship that does everything, but it isn't. A pilot will give the helm (a course to steer on) and engine (speed to maintain) orders from the boarding area until the vessel is safely alongside. They work with the bridge team using their expert local knowledge and ship handling skills to get the vessel safely alongside and then, on departure, out to sea from berth. An example was given where a cruise ship lost power and blacked out and the pilots helped it return to dock. In 2020 there were 13 incidents with more than half of them occurring on the same dock in Vancouver harbour. With ongoing training, the pilots do simulations to learn proper handling.

Average expenditure on apprentice pilot training is \$1 million. Average expenditure on senior pilot training is \$550,000 per annum. Courses include: Bridge Resource Management (BRM); ECDIS/PPU (electronic chart and information display); Tethered tug training (jointly with tug operators); Ship model training; Azipod; Measures in Place for Liquid Bulk Carriers (Tankers) over 40,000 deadweight.

Local requirements include: two pilots on the bridge through Vancouver Harbour and 2 miles north of East Point to VH buoy; tethered Escort Tugs; Second Narrows (max 6 knots) and First Narrows; Haro Strait and Boundary Pass (max 10 knots). Current requirements of Tankers escorted to Race Rocks after pilot disembarks off Victoria will soon be extended to Cape Flattery with the pilot disembarking off Sooke.

Challenges include freighters of ever increasing vessel size; ever more regulations to consider; increasing amount of time spent on new projects; NIMBYISM and anti-energy voices; and the effects of COVID-19.

Technology is a huge part of pilot training now with large ships using laptops, GPS etc, to guarantee what you are seeing. Although there was push-back at first, most pilots would not be without it now. A big issue now is small vessels crossing into a large ship's blind spot. The small vessel assumes they can be seen, but they cannot and the blind spot can be a large area. Level of safety in place for a situation is determined by the existence of several factors: a well constructed ship; a well trained crew; 2 Pilots working; and the appropriate number of tugs assisting.

## Speaker Review Cont'd.

A few numbers given are: 0 number of oil spills from a tanker while under pilotage on the west coast of Canada (over 50 years); 0 number of major incidents involving a tanker while under pilotage on the west coast of Canada in over 50 years; 12,500 = average number of pilotage assignments per year; and 5 = average number of non-tanker incidents per year (99.96%).

### Questions

Q1 What is the level of safety on a cruise ship?

A Level 3 with 2 pilots. The equipment on a cruise ship is phenomenal.

Q2 Are there any female pilots?

A No, not yet.

Q3 What is the pay scale?

A It varies. Fraser River Pilots earn about \$200,000 base and up to About \$300,000 with overtime. Coast Pilots are a private organization that pays them when they work - salary/overtime only and no benefits. They are paid for time on the ship.

Q4 What happened in the Suez Canal?

A Due to size of the vessel and speed it was going, the helmsman seemed to be losing control.

Q5 What is your financial budget?

A Our revenue stream before Covid was about \$80 million, and now is about \$60 million. It depends on size of ship - length, depth and beam- and time spent by pilots. A cruise ship would pay about \$21,000. As this is considered an essential service, a lot of money was spent on PPE, test kits and charters (about \$2500/day). On average we make about \$2 Million profit.

Q6 Are airline standards for operating with Controllers similar to yours?

A English is the International language of the sea. On any ship you need enough people speaking English to understand and undertake requirements. They have never had to resort to a translator!

Q7 What is the difference in bouyage system?

A The UK bouyage system is opposite to the US and Canada.

Q8 What is considered an incident?

A Anything that can result in harm to a ship or a dock. There are lots of "fender benders" - Vancouver docks are not sufficient.

Q9 Who decides if tugs are needed and who pays?

A The Pilot decides if tugs are needed, and the ship pays. There are often arguments about both. If there are no tugs available when needed, then vessels won't move.

*This summary was prepared by member Darlene Dean*

## A Little Humour and a Quote

**Note to self:**

**Just because it pops  
into my head does  
NOT mean it should  
come out of my mouth.**

**Remember when you'd  
sneak out of the house  
to go to parties?  
Now I'm sneaking out  
of parties to go home!**



**To the world  
you may be one person,  
But to one person  
you may be the world**



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Editorial contributions and comments are welcomed and may be sent by e-mail to the administrator.