March 2019 Volume 41 Issue 3

The Binnacle

Victoria Model Boats
Victoria, B.C.

LIKE US ON facebook

Victoria Model Shipbuilding Society

Victoria's own - Thermopylae
Mike Creasy

Bread and Butter, First Attempt
Edward White

The Maritime Museum needs our help!

Our programme for the Spring and Summer

Beaver Fever is this coming weekend! Come see great Radio Sailing.

How we'll try to run the Swap and Shop.

Hollow mast or hollow laugh.

http://www.vmss.ca

From the Bridge

Greetings Everyone,

The weather is improving and there are a lot of activities and events coming up. I'm looking forward to seeing old friends and hopefully some new ones at Harrison Pond and some of the other events, here and up island.

We do need the members input on the events that still interest the members and the events that no-one is interested in. We'll adjust our priorities to suit.

There will be lots of information at this month's general meeting.

Finally the swap and shop meet has been moved to the April general meeting.

Mike Bush.

2019 Executive Committee

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Secretary: Vacant	*479-2761*
Treasurer: Mike Creasy	*888-4860*
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CRD Liaison: Adrian Harrison	*592-4232*
Parks Liaison: Mike Claxton	*479-6367*
Sailing Director: Peter Stevens	*656-8999*
Membership: Bev Andrews	*479-2761*
Facebook: Rick Gonder	*744-8610*

All above area code (250)

ON THE RADAR

Upcoming Events

Spring Swap and Shop, April General Meeting.
Beaver Fever Beaver Lake, March 16th. 10 am.
Battle of the Atlantic, May 5th. Harrison Pond.
Point Hope Shipyard, May 26th.

Meetings: Second Thursday 7:30-9:30
St. Peter's Anglican Church, Lakehill
3939 St. Peter's Road
Upcoming meeting: March 14th.

POWER: Sundays 10-12
Harrison Model Yacht Pond (HMYP)
Dallas Road at Government Street

SAILING: 1st. and 3rd. Sundays
Beaver Lake

LANGFORD LAKE
Wednesdays 9:30
Langford Lake, Leigh Rd. at Trillium

Victoria Model Shipbuilding Society

Executive Committee Meeting Minutes

March 7, 2019

1. Call to Order at 7:30 pm

2. Old Business:

- Health & Welfare No report
- Financial report attached
- Sailing - Beaver Fever March 16, 17 - support and insurance

  M. Creasy to talk to Steve Kibble re: insurance & accounting
- Membership - approval of new members (Bylaw 2.1) no report
- Parks/City Liaison Update on sewer project - gen. discussion

  Long term priorities for Harrison - Need a planning committee to upgrade HMYP plans & priorities. Rick Gonder to contact Mike Claxton.
- Upcoming events Swap meet, April 11 - rules to published in Binnacle

  Nanaimo show, April 12-14 - gen. discussion

Battle of the Atlantic, May 11? - Discussed need for advance publicity and a volunteer to organize.

Point Hope, May 26 - update

- Publicity — Position vacant
- Other — Port Alberni show - no date

Heritage Acres update - update & discussion

portable/demonstration pond - action deferred until after Point Hope show.

Survey results & possible actions - gen. discussion

3. New Business

Maritime Museum request - Ed White to prepare a letter of support

Executive committee report for next general mtg? - discussed - no decision.

4. Adjournment at 9:00 pm

You didn't just read through the minutes???!!!

We have a whole lot of business to get through in this week's general meeting, especially because we had to cancel February's for weather.

So we do need as good an attendance as we can get. There's a lot going to happen for us this spring, we want you to know about it, to be happy that it is happening, and to be prepared to pitch in with some of the work that we want to get on with. Here's some of the stuff we need to talk about before we get much older.

This summer we are going to declare a regular weekday evening at Harrison Pond as well as Sunday. Can we decide which night and when we will start and stop?

Rick has been doing some major work on a possible relationship with Heritage Acres. He'll tell you what the thinking is, and why we might go ahead.

Rick has also been hardening up the Point Hope Shipyard proposal for us to do a demonstration. Really this will be the best possible place to recruit new members.

Our Battle of the Atlantic commemoration day will be the 5th of May. We would really like a couple of members to help run that.

The Maritime Museum is starting a campaign to get some major funding and Federal recognition. Please read my honeyed words about that towards the back of this newsletter.

And next month, April 11th, will be our Swap and Shop meeting. We are wanting to invite the Nanaimo Club to come down, and to make it an open meeting for anyone to attend, so we have some organization to do about that.

Swap and Shop, April 11th. _____ Proposed Organization.

We would like this to be a big, happy, event where everyone gets rid of some stuff, and everyone goes home with some new, exciting stuff.

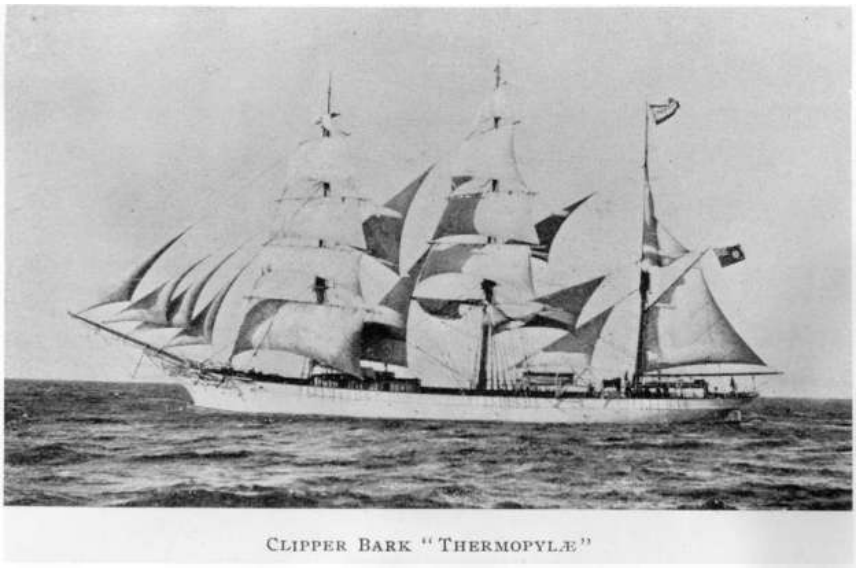
So we are proposing some simple rules that will make sure everyone gets a chance to look at and to make deals on everything.

First, we would like any items that are of significant value, say $25 or more, to be sold by silent auction. We'll provide forms to go on the tables in front of the items for people to write in bids, and the auction will end prompt at 9 pm. Owners can put a reserve price on their stuff if they wish so that no-one goes home insulted by the proceeds they get.

Secondly we want everyone to stick to the rule that no deals will be made until after the end of general business, and a break for everyone to have a quick look at everything. We'll give you a shout when dealing will start.

Victoria's Tea Clipper – by Mike Creasy

"Clippers" because they clipped time from the older ships - the tea packets - and time was critical to the value of the cargo. The tea harvest in Asia was seasonal, and first load to hit the London dock would command a premium price.



CLIPPER BARK "THERMOPYLÆ"

Cargo ships of the 1700s and 1800s were generally stout, slow vessels, built to carry large loads over long distances. Known as East Indiamen, these vessels could easily take a full year or more for a voyage from Canton to London. But Britain's East India Company, which had enjoyed a stranglehold on Asian trade, was coming under increasing pressure from competitors using smaller, faster ships. By 1834, the British monopoly was collapsing as consumers looked for fresher product and lower prices. Steam power was beginning to appear , although it was still slow, expensive, and somewhat unreliable.

Dutch and American interests began the search for faster ships in the early 1800s. The Americans had been using small, fast ships for trade and transport in the Caribbean for some time, and soon developed a version with relatively narrow beam, sharp lines and lots of sail area. These became known as the Baltimore Clippers, and they became the guiding design philosophy for what would become the tea clippers.

And tea wasn't the only time-sensitive cargo of the time. Opium, traded between India and China, was a lucrative trade for many shipowners, always looking for faster transport. Spices (the answer to boiled mutton) joined the list of new products for eager customers.

Britain's answer to this need for speed began in 1839 with an Aberdeen built ship named Scottish Maid. At only 100 feet overall, Scottish Maid was the first to sport the clipper bow with a long, forward slope and flare from the water line up. This was initially an attempt to reduce taxes, which were calculated on waterline length. The builders used model ships in water tanks - smart fellows! - to learn that heavily raked bow and stern lines would improve the ship's speed in heavy weather as well as provide lower taxes.

British, American and Dutch yards continued to build and refine their designs, ever faster, and by 1850, the race was truly on. Over 200 clipper ships were on the run from Asia to Europe and America, all rounding the Horn of Africa in magnificent style.

Clippers waited at Foochow and Canton to get the first of the year's tea crop, which came downriver in sampans. First ship back to England got a premium price for the cargo, and captain and crew received a bonus (1 pound per ton), amd display a golden cock at the mainmast.

Ariel, Fiery Cross, Taeping, Blackadder, Black Prince and dozens of other famous ships build the picture we have today: a cloud of sail, a long slender hull and a crew of hard-bitten sailor men, cheating death on the pounding ocean to outrun the fleet.

And then came Thermopylae. This star of the tea trade was built in 1868 by Walter Hood of Aberdeen for the Aberdeen Line. 212 feet between perpendiculars with a 36 foot beam, 1,900 tons displacement, she set a record on her first voyage, and was ”cock of the walk" for most of her short career.

Her famous rival Cutty Sark was built in 1870 for the express purpose of beating Thermopylae, but she never did. Both ships were nearly identical in size and sail arrangement. Cutty Sark was reputed to be better in heavy weather, while Thermopylae had the edge in light to moderate airs.

Both ships frequently logged over 350nm in a 24 hour period; an average of over 14.5 knots! Imagine the sight!

Sadly, the opening of the Suez Canal in 1869 brought an end to the tea clipper era. Steamers - slow, stinky beasts - could now take the short-cut through the Mediterranean, cutting 3,300 miles from the 14,000 mile journey 'round the Horn.

Thermopylae 's last true tea clipper voyage was in 1881. After that, she was employed on the Australian route, mainly carrying wool and tallow to China and Britain. In 1890 she was sold to Canadian rice milling interests and registered with home port, Victoria. A regular visitor here, Thermopylae was still a thoroughbred star in this little colonial outpost, remembered always by the Thermopylae Club, which still meets today.

One of her last ocean voyages was 29 days from Shanghai to Victoria, a speedy trip for the time.

Sold to the Portuguese navy as a training ship in 1895, she was given an honourable end when in 1907, she was sunk with torpedoes.

Her long time rival Cutty Sark was used by the British navy, and then became a permanent display in a drydock in Greenwich where she lives to this day.

Next time you pour yourself a cuppa, close your eyes and imagine all that cordage and canvas, booming along at 15 knots!

Bibliography:

Shippingwondersoftheworld.com
Wikipedia
http://www.bruzelius.info/Nautica/Ships/
The China Clippers, Basil Lubbock, Glasgow, 1914
BC Archives

Bread and Butter.

I like carving wood. Over the last twenty years, since my mother bought me a book on carving a boot, (Dan Semenick, New Techniques and Approaches in Wood Carving), I have carved boots,animals, caricatures, and even my first model boat, a Clyde Puffer from a 4" by 4" piece of red cedar. My best animal carvings, a cougar and a wolf, were both built up from four profile pieces cut on a bandsaw. So I do have a lot of knives and chisels, and I like using them.

Well, now I want to make my next model a Fort/Park ship, and I have been taken with the idea of making it to HO scale (1:87), so that I can use the huge variety of HO scale stuff available to model railway builders. I have the plans that Mike Creasy is using to build a 1:100 scale model, and so the first step was to get Staples to enlarge them by 18%.

The other thing I want to do with this model is to use it to make a fibreglass mould that would provide hulls for other models. Not so much for the hulls as for the experience of mould making.

The appeal of this particular hull is that it could be used for a wide variety of cargo ships. The centre sections of the hull are very boxy, but the original design is for the limited horsepower provided by steam, so the basic lines are very much like myriads of other cargo ships, both sail and power. Change the sheer line, and do some cosmetic work on the bow and stern, make the superstructure to the scale you want, and it could be any prototype from a hundred feet long to six hundred.

Anyway, this shape can be produced in three sections, the bow and stern need significant shaping and the centre is just a rectangular box with slightly rounded bottom edges. The base layer for the entire hull can be a single sheet of 1/8 " plywood, the deck another, the centre sides two more, leaving a huge interior space for any purpose at all.

The finished hull will be 54 inches long, 8 inch beam, and the displacement will be about 35 lbs. Getting towards the limits of practicality, but still doable. If it is built as a sailing ship, at least 25 lbs of the displacement could be slung on a false keel around eight to ten inches deep, which will give it the stability to carry any sail plan and perform well. As a cargo ship, the same weight of lead can sit inside on the flat plywood base, easy to place and remove for transport.

So let's talk bread and butter construction.

Suppose you want to design your own ship. For someone else to build. It's important to you that the shape of the hull makes the right compromises between strength, speed, stability, cargo space, comfort, beauty and cost. And when you know what shape you want, that the builder can

make it exactly as you want. The best way of doing this is to make a model. Since all ships are symmetrical around the long centre line, you only need to make a half model. So from the earliest times, the first way of making a contract with a shipbuilder is to make a half-hull model. A wood carving to a defined scale, showing the exact shape the buyer wants. In practice, of course, it would normally be the shipbuilder who made the half model for the buyer to approve

If the wood block that is carved is made by gluing together a number of planks, the glue lines in the finished half-hull will make it very easy to measure the exact shape of the model, and thus to scale them up to get the shape right in the real ship. Carve the model so the planks are vertical, each glue line edge that you see looking from the side is called a buttock line. Carve the model so the planks are horizontal, then the lines you see looking up from the bottom are called the waterlines. Mark the half-hull with vertical lines that are at equal distances from the bow, look at those from the bow and you see the bow sections. Look from the stern and you see the stern sections. Measure where either the buttocks or the waterlines meet the section lines, using the centre line of the hull, both cross wise and along the length, and a line parallel to the waterline as the three reference points. Add measurements of the bow, stern, and keel, where they meet the long centreline, and the points where the sheer line meets the section lines. You now have a complete description in figures of the exact hull shape of the half-hull. Multiply all those measurements by the scale, and you know exactly where the surface of the hull should end up.

Put all those measurements onto a scale drawing, join them up to show the sections, the waterlines, and the buttocks, add a table showing the measurements in numerals. Behold!, you have the lines of the ship!

We want to go the opposite way. From the lines to the model. We could cut planks either to the shape of the buttocks, or to the shape of the waterlines. Our choice. The shaped planks are then the bread, and the glue between them the butter. When they are glued together the glue lines show us what the shape should be and our job is to carve away the excess wood between the lines to get the smooth, fair, shape that we want the outside of the hull to be. We can use templates cut to the section lines to help define the shape as we carve. Then when the outside is shaped we can carve away at the inside to get to the hull thickness that we want. Commonly, when the planks are shaped on the bandsaw, a part of the plank that will clearly be waste in the hull's interior is cut out on the bandsaw before the planks are assembled to reduce the labour.

Carving the interior to thin down the hull is a nervous business, and many of the bread and butter hulls I have seen show slips of the chisel or the rasp that went right through to the outside and

had to be patched. There are also many areas of a carved hull where the wood grain direction is weak, so the hull thickness needs to be greater than that of a planked hull. The result is that bread and butter construction is almost inevitably heavier than other methods.

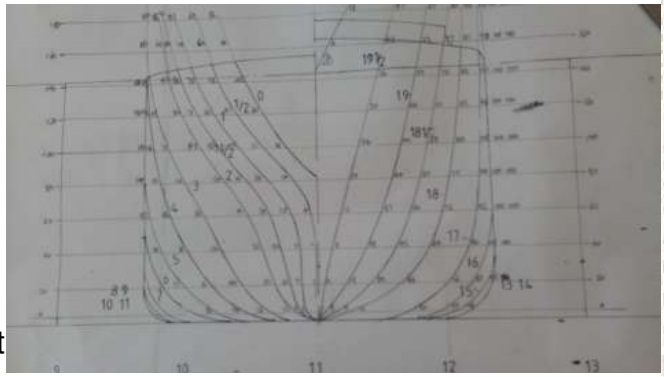
It is also much more difficult to carve an interior shape than an exterior, because the choice of angle for the cutting tool is much more restricted. Wood carving is all about working with the wood grain.

One of the ideas that I have for this build is to do the carving of the bow and stern sections separately, before joining them to the centre section, so that I have a little more room to play with. This is going to be possible because the bottom of the hull is completely flat.

The other is to reduce the interior work to the minimum by careful shaping of both the exterior and the interior sections of each "plank". I am going to target a hull thickness of 1/4" (6mm.) so I need to cut the interior section of the "plank" so that it overlaps the outside section of the plank below it by 6 mm.

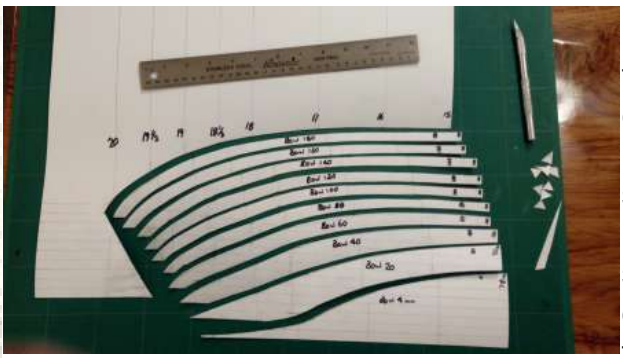
The wood I have available for this job is from an 8 foot yellow cedar 4 by 4 fence post that Windsor Plywood had on sale. I have cut this to 3/4" (20 mm.) planks. I decided the simpler way to put the run of the plank for this job is horizontal, so I needed to get from the enlarged lines plan the shape of the waterline sections at 4mm above the bottom and then at 20 mm, 40 mm, 60 mm, and so on up to 180 mm. which is above the sheer line. I extended the section curves up to the 180 mm level so that I can construct the hull all the way up above the peak of the bow first and then cut it down to the sheer line later. I will add a false deck of 4 mm ply at the 180 mm level to form a simple, robust, box shape to use as a plug for a fibreglass mould before I cut in the sheer line and start to fit out and finish the hull. A hull cast from that mould will then have all its options open for draught and sheer line according to the intended use.

I have a sheet of 0.5 mm white styrene, and I decided to use it to make a template of each curve. I needed a template sufficiently wide to hold the shape while I traced it onto the wood. Looking at the lines, I decided to cut off the bow section at station 15 and the stern section at station 5. Between stations 5 and 15 the construction will be virtually flat, 4 mm plywood sides and bottom glued to a 20mm wide by 40 mm high yellow cedar strake at the corners, into which I can shape the small radius of the ship sections in the area. I think I shall probably need to glue in a further bit of cedar block around section 5 when I come to assemble the three sections together.



So I drew lines across the station sections drawing at all the waterline levels as above, and then measured the distance from the centreline of each intersection of the waterlines and the section lines. You can see in the photo the distances (in millimetres) marked close to the intersections. This for stations 0 to 5 inclusive and 15 to 20 inclusive. All measurements are to the nearest whole millimetre. I'm not going to get

any more accurate than that! Then I transferred each of these waterlines onto the styrene sheet.



Each waterline was drawn from a centreline 10 mm further into the sheet than the last. So the lines are far enough apart to form a reasonably rigid template, with a minimum width of 10 mm at the higher waterlines at stations 5 and 15 where the ship's sides are vertical. The lines were cut with a standard modelling knife blade, and so each template, except for the 4 mm, has both the outside curve and the inside curve corresponding to the template below.

The next step is to transfer those lines onto the wood planks to define the shape for bandsawing. It starts reasonably easy. The first job is to trace round the outside lines of the template for the top of the "plank". The centre of the picture is the template for the 140 mm waterline on the uncut plank with its tracing above it. The second step is to trace on the position of the waterline below, the 120 mm. Its template is at the bottom of the picture. At the left end, which is station 5, the side of the hull is vertical, both waterlines are 100 mm out from the centreline. At the right end the stern section is sloping out quite steeply, the 140 mm line is 42 mm from centre, and the 120 mm is only 31. So the dotted line was drawn with the 120 mm template level with the 140 at the left end, and 13 mm inside the 140 at the right. I want a hull thickness of 6 mm, so the final inside line is drawn with the 120 mm curve 6 mm further in.

Visualizing all this is difficult, so I have added onto the plank surface for the sake of the photograph projected sections of the two ends as they should be after final carving. The next step is to nail another 20 mm plank underneath and then to bandsaw the outline. At the top of the picture is the result for the 120 mm stern waterline. Turn one over to make a mirror image and they are the two sides of the stern.

The final picture is of a first trial of putting these sections together up to the 120 mm level with hot melt glue. Really just to illustrate how this technique goes together and to have something to show at this month's meeting. So you have something to compare it to, watch this video of a very traditional pond yacht using the bread and butter technique.

https://www.youtube.com/watch?v=lU0qQyrBYtY.

More installments to come!

The Hollow Mast.

You all know I have been building a big, old fashioned, sailboat nearly for ever. The hull is close to finished, the first set of sails are sewn, the detachable keel is made, even the launch trolley is almost complete. All of them following my principle of making things as difficult for myself as possible.

But I did have a fairly easy solution for the mast! I acquired a long time back a 9 foot salmon mooching rod, a two piece, and have removed all the old fittings and finish. Paint it, fit it with spreaders and a crane, and I'd have something foldable to fit in the car. (The mast height from the deck needs to be about 86 inches).

Anyway, I am stood by the pond, talking to Murray one Sunday, and say I am about to start on the mast. And he says two fatal things. "You could get a one piece mast in that car coming through from the trunk." And "Wouldn't a wooden mast look good on that traditional a boat."

Well, about fifteen years ago, I got conned by my brother-in-law, in conversation in a pub, to make a hollow wooden mast for an aquaintance to replace the one on his day sailer. It was about eighteen feet long, and I had some straight grained fir left over from building the house that was well seasoned. So I did. It was basically a tapered box section, a single spreader, and twin pulleys mounted in the top. I enjoyed the job.

So when Murray started me thinking, (always a mistake), I knew I had a 6 foot plank of nearly clear cedar doing nothing, and a new waterstone as a Christmas gift that would get my planes sharper than they had ever been.

It took two weeks to build a scarfing jig that would put a 1:10 taper across a 1 1/2 inch by 1/8 inch cedar plank with my little block plane and today, I am the owner of a tapered hollow cedar mast blank.

It's one inch by 3/4 inch at the bottom to 1/2 inch square at the top, a slight bend to it because of failure to support it properly during the glue-up, but nothing that the stays and spreaders can't pull out.

I have yet to round off the corners to make the shape prettier, and I'm damned if I know what to do about attaching the sail. I have a nasty suspicion that I am going to want to make the booms similarly, and finish them by dye-ing the cedar blue to match the hull finish. The spreaders and crane will have to be polished aluminium, so will the gooseneck.

The moral of all this is, of course, Never Talk to Murray!

Help the Maritime Museum.

The Maritime Museum is in the process of applying for major funds from the federal government in order to move itself back into expanded facilities in Bastion Square. It also wants to become designated as a National rather than a Provincial museum. They are asking that those who support this objective join a letter writing campaign to let our politicians, both provincial and federal, know that this is something that we as citizens see as a long term benefit to the country, the province, and the city.

On the next page is a draft of a letter we propose to send as a club, which I hope will get your approval at Thursday's meeting. But I also will attach with this newsletter copies of the material that the Museum has produced to support this campaign, including addresses of people and organizations we should send it to, and points in favour of the proposal that the Museum would like people to make.

Obviously it will be much more powerful if we send personal letters in our own words, whether by e-mail or by post, so please take a look and see if you can find the time to join the campaign.

Edward.

Victoria Model Shipbuilding Society ____ Draft Letter.

Hon. Carole James, Minister of Finance and Deputy Premier
Room 153 Parliament Buildings
Victoria, BC
V8V 1X4

20th. February 2019

Re: Support for the Maritime Museum of British Columbia to move back to 28 Bastion Square and for transitioning into a national Canadian Maritime Museum

Dear Hon. Carole James, Minister of Finance and Deputy Premier,

We are writing to you to request your support for the Maritime Museum.

We are the Victoria Model Shipbuilding Society, a club with around sixty members who share an interest in model boats and ships. (You can find a few of us most Sunday mornings at Harrison Pond on Dallas Road).

So we have a particular interest in seeing the Museum's collection become much more accessible to the public. More space would also let us add our own volunteer efforts to the Museum's work in bringing alive the story of the Province's heritage.

We have happily joined with the museum's efforts in the past and most certainly will, given the chance, do so in the future.

The museum and its collection are central to B.C.'s story and it's identity. And at the moment they are not readily accessible. They desperately need the space to introduce that story to ourselves and especially our children. To show how the sea has enabled people to grow and thrive here since the first humans arrived, ice ages ago.

And if the museum becomes a National one, so much the better. It needs to balance the country's story more to the West, to be a destination for those Canadians who would understand the whole story and culture of Canada.

Please add your own voice and the current government's efforts to support this!

Sincerely,

Victoria Model Shipbuilding Society

Beaver Fever is on. This Saturday, 16th March, Beaver Lake.

Our local International One Metre Radio Sailing Fleet will be at Beaver Lake this Saturday from around 10 am. This is a championship competition and a chance to see what some of the best in the country can do with a few pounds of sailboat. Come out and cheer our club's sailors on.

The Victoria Model Shipbuilding Society is a non-profit club, open to all, established in 1978 under the Societies Act of B.C.

Mailing Address:
106-4480 West Saanich Road
Box 55
Victoria, BC V8Z 3E9

PLEASE SUPPORT OUR LOCAL SPONSORS