



BEAVERTAIL LIGHTHOUSE MUSEUM ASSOCIATION

# *The Lighthouse Log*

Spring 2018

## *The Quarterly Newsletter of the BLMA*

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## ***Beavertail Lighthouse Museum Association***

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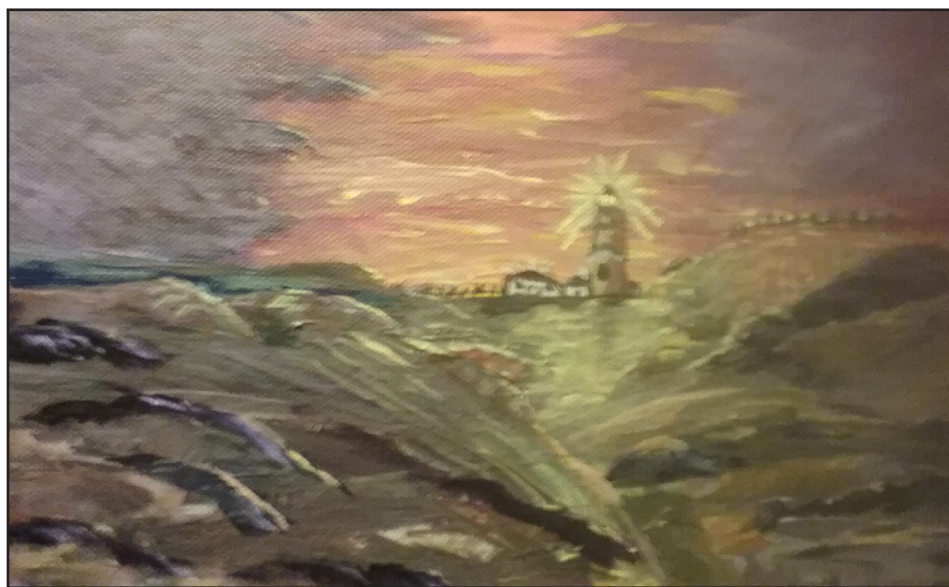
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## **Spring 2018 Editor's Message**

There really are trees blossoming at Beavertail. Maybe cabin fever finally won out, or it's just time for an eye exam, but I swear there are buds everywhere! Last winter was interminable, and when snow & ice gave way to swampy back yards, it wasn't much better. A little early for quality time on a sunny deck? Perhaps, but backyard grills are getting a workout as usual, weather notwithstanding. Folks on Conanicut Island kind of force Spring to arrive; neighbors are burning firewood and charcoal simultaneously, if my nose is any indicator. (Of course, now that pollen is everywhere that nose will be a nuisance again, but the tradeoff is worth it.)

Turning to business, our 2018 Season begins in less than three weeks. The museum schedule appears on the back cover, starting Memorial Day weekend as usual. (Opening day is May 26th, and our first Tower Climb is slated for May 28th, 12PM -3PM.) It can't happen soon enough.

Since the prior issue we obtained estimates for the roof repair of the old fog signal building which will need to be updated, in the interim the protective top remains in place. Some know it as the Aquarium, and the structure is an important part of our historic site. There is a wood substructure concealed by the old copper roof, which could be damaged if it was exposed to the elements much longer. Across the parking lot you can't miss the new garage doors, donated by a local firm, which are as attractive as they are functional.

Our Gift Shop was given a new look with user friendly display shelves, which show off gift items much more readily. The shelving makes searching for that permanent memory of your visit a lot easier. At the same time, we will expand the list of available gift items, and please remember that credit & debit cards are now accepted.

*Continued Page 2*

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*New Display Shelves in Gift Shop*

final port of call off Block Island. A number of visitors and members ask us what BLMA can and can't do, so we've started a series of our activities vs. those of the Historical Commission, USCG and DEM.

Update on our anniversary event: On June 16, BLMA plans to commemorate 25 years on site. In the past quarter century we grew from a small, albeit enthusiastic, museum to what many now consider the finest Maritime Museum in the U.S! A schedule of events will follow shortly. Light refreshments will be available and a video commemorating our first 25 years will be displayed.

I guess that covers matters for now. Please join us when we reopen Memorial Day weekend. We can only hope to provide clement weather, but pleasant conversation and a memorable time are in store come what may.

*NOTE: Cover 'photo' is actually an 11" x 14" painting by a good friend's granddaughters, who know how much Beavertail means to me. Awesome job. Thanks guys.*

Warm regards

*Bob Dutson*

## **“Thank You” to Two Retired Senior RI DEM Managers**

Two senior RI Department of Environmental Management officials retired from that organization at the end of last year. Both Larry Mouradjian Deputy Director of DEM and Robert Paquette Chief of Parks and Recreation after a combined career of 76 years (39 & 37 respectively) were two men who championed BLMA from inception.

Larry as the previous Chief of Parks and Recreation helped BLMA formulate and undertake the stewardship of the site and provided help and support from RI State as needed. Robert as his successor followed in the same manner and guided the BLMA board over obstacles and found ways to provide services and sources of funding. Both continually complimented our museum operations and the direction it has taken. They served as mentors to BLMA and represented the state in striving to preserve the site and its buildings and provide an educational component for visitors to the state park. BLMA wishes both Larry and Robert a happy retirement

- VK

## South County Rocks

The pics included herein show one of many 'Kindness' rocks being produced by South County Rocks, and one from right here on Conanicut Island. The artists involved place various hand painted rocks, some with 1960's-era messages like "Love", "Peace" or similar wording on the top side, and a label with their info on the bottom side. Some of them, like the ones shown, depict the sun, trees or some other familiar object. I gather the idea is that one can't get enough of the two commodities mentioned above, and I certainly second that emotion. Ideally, one passes it along (the rock and/or the warm, fuzzy feeling) and before you know it we have achieved a lasting global peace.

The first one shown was placed on one of the guard rail posts in front of our lighthouse on the access road. I believe it was set there by a woman who passed by with her dog, unbeknownst to me as I enjoyed a leisurely trip around the park, just before I reached the post and saw it.

I discovered the second rock in a local establishment after the original article was completed. It's from the Friends of Jamestown Seniors. So I had to rewrite the whole piece.

Well, OK, why does South County rock you ask? Especially since Beavertail, which is supposed to be the focus of my efforts, is on Conanicut Island within Newport County, and not in South County, sometimes known as Washington County. At least now we have an artistic effort from the island to show as well. (Only in RI, which has all of 5 counties, can you have confusion about county names.) That other place is nice enough, but it's across the west passage of Narragansett Bay as viewed from Beavertail, and actually requires a trip across the bridge to visit! To some islanders that means it might as well be in another country (that's certainly true.) So why did some unknown friend venture onto our turf and leave us a present? Just for the love of it I guess. That's also true, I hope.

South County Rocks and Friends of Jamestown Seniors are not affiliated with BLMA but I felt their hearts were in the right place. So I'm giving them some free press. And their rocks turn up all over the place. Pass the message along. -BD



## The Beavertail "Players"

This is the first of several articles describing our role and responsibilities on site. After fielding a number of inquiries about "Who does what?" and "Why isn't the light working?" we felt there was a need to do this.

BLMA is one of five entities which have a role in administration of the many operations on site. We have certain defined responsibilities, as do the other entities. Beavertail Lighthouse Museum Association was incorporated as a 501(c)3 corporation in 1993. BLMA is separate from the US Coast Guard, RI DEM and RI Historical Commission, the CRMC, the four other groups involved, but any or all of us may be present or involved when necessary.

As BLMA, we operate the museum as our primary and most visible activity. Museum activities include staffing the museum rooms and gift shop to receive visitors, and updating displays. Upgrades to displays and exhibits have been continuous the past several years with large additions in 2017. The gift shop is being remodeled this year for the coming season. We also conduct tower climbs on alternating weekends from 12-3PM or 1-4PM, requiring four members of BLMA in addition to regular museum staff. This has proven to be one of our most popular regular features. And of course we arrange group tours for classrooms, senior centers and special groups. We will hold special functions like the recent "Night at the Light" in October 2017, which may have been the event of the year in southern RI.

Many volunteers ("Docents") join with the Board of Directors each year to assist in museum operations. They have an orientation in May, with individual training in Museum & Gift Shop activities. The Board monitors such activities and also arranges tower climbs, group tours and special functions. NOTE: Tower climbs are done by permission of the USCG, and their regulations must be followed at all times.

The BLMA Board meets 11 months of the year at an off site location, to review past & future museum operations, staffing needs, building maintenance, web site updating and other defined activities as appropriate.

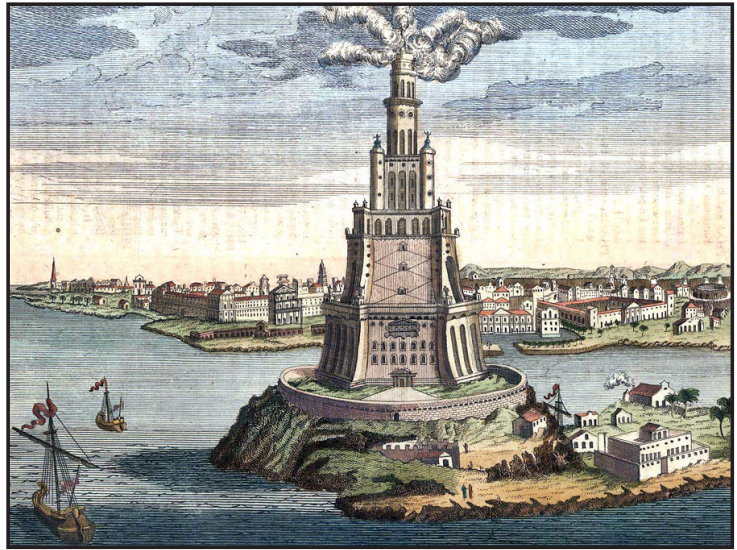
As part of our responsibilities, and without doubt the most costly role we fill, BLMA maintains and repairs the buildings and utilities & heating systems on site. This includes the two primary structures plus the Oil House, Light Tower, Garage and the old Fog Signal Building. Monitoring of building conditions is done year round, including visual examination of walls, windows, roof covers, doors and walkways. Minor repairs are completed immediately upon discovery. When needed, more extensive repairs are conducted as soon as possible, using qualified contractors. (Contractors must meet technical proficiency and historic building work criteria, and approval from the other entities may be needed.) BLMA cannot repair or make any changes to the tower light, fog signal or any components thereof!!

- BD

## The Pharos of Alexandria

BLMA is privileged to operate a unique museum at an historic, beautifully situated locale. The original tower built in 1749 makes Beavertail the third oldest continuously active light station in the U.S. But like Augustin-Jean Fresnel, we were relative newcomers on the global scene.

One of the man-made Wonders of the World was the “Pharos” (a word which became the base word for lighthouse in Romance languages.) Located in Alexandria, Egypt and constructed around 280 BC it has been estimated at anywhere from 450 ft to 600 ft tall. The lesser height probably is more credible. Even so that’s roughly 7 times the tower height at Beavertail! Of all the so-called Wonders this one truly deserved the name. There were three distinct levels made of stone, each uniquely shaped and centered atop one another. The builders mostly used white marble over underlying nondecorative stone. The Pharos safely guided seafarers to a strategic port, but one so treacherous to access that numerous boats were stranded en route, due to shoals and hundreds of miles of flat coastline with few distinguishing landmarks. It was a breathtaking sight, and became a local attraction and gathering place; food and beverages were served.



The Pharos was not ideally located for a different reason however. It was damaged by numerous seismic tremors and even a tsunami; the great “Crete Earthquake” in August of 1303 AD apparently demolished the structure. That seismic event is estimated at M8.0 - 8.3 (immense, in other words) on the Richter scale. (A more recent earthquake of similar magnitude (8.1) on April Fool’s Day, 1946, caused a tsunami which grew to around 130 ft high!! It destroyed Scotch Cap lighthouse on Unimak Island, Alaska.) A team of divers examined underwater rubble in Alexandria harbor, believed to be remnants of the mammoth structure, during a ‘mapping’ study done in 1994. The rubble shows evidence the Pharos might have been constructed of stone removed from an even older structure!

The elaborate Pharos was an egomaniac’s dream, befitting Alexander the Great. Of three discrete levels, the uppermost was a cylinder approx 60 ft high, similar to many modern light stations, but surmounted by a highly polished mirror with a thin metallic coating. The mirror reflected light from continuous flames on the upper deck, and was rumoured to be visible to ships in the Mediterranean as far as 100 miles away. During daylight hours smoke was visible a “full day’s travel distance.” The top portion was in turn supported by a middle level designed as an 8-sided tower with a spiral staircase. The lowest section was around 240 ft. high, in appearance much like modern offices with many windows, but with slightly tapering walls. There was a 600 ft long inclined ramp used to convey heavy materials and wood fuel up to the entry point, and ultimately onto a spiral ramp to the uppermost level. This bottom section sat within a large square courtyard with surrounding walls. It was supported by a base only 20 ft thick, but constructed of stone blocks placed so precisely as to form in effect a solid rock base. The square plaza measured around 100 ft on each side.

Here at Beavertail, fire destroyed the original wood tower in 1753 and the 1938 hurricane leveled the old fog signal structure. One learns from past mistakes. The current tower is of stone and masonry material, and like the Pharos structure, won’t burn. The new fog signal device is outside within a fence so no actual structure is exposed to future storms. It could be rebuilt fairly quickly. Historically we have minimal concerns about seismic activity on site. Given proper care, our light tower might still be standing at the start of the 4th millenium. That’s more than I can say.

*Note: Technical details of the Pharos were found in various web sites. Information about the Scotch Cap lighthouse was obtained from the Keeper’s Log published by U.S. Lighthouse Society.*

- BD



## Unique Light Station

If there is another lighthouse facility with more history, attractions or charisma than this place called Beavertail it must be extraordinary indeed. There's so much to know about it, we almost take its history and scenic beauty for granted (right!) For board members, there is no off season. We are always immersed in planning and preservation efforts; activities seem nonstop. Over this past year we saw new 'parge' coatings applied to walls and electronic museum displays, more Coast Guard navigational aids, and huge crowds of visitors. Classrooms and senior centers scheduled tours. There was extensive national press coverage of some very newsworthy events during the Fundraising Campaign. It seems like something special is always taking place at this never complacent slice of Americana.

Native Americans around Narragansett Bay considered all of Conanicut Island, of which we occupy only the tip of the southernmost portion, as their summer home. Beavertail "peninsula" was no doubt revered for both its natural beauty and abundance of food resources, and probably had a nearly impossible to pronounce, polysyllabic name which has been lost in antiquity. It might have meant something like "Our Ancestors Blessing on Their Children." If someone knows of the actual name and lets me in on it, you will have my sincere thanks.

There is more recent historical significance, obviously. Beavertail is the third oldest continuously active light station in NA; we are still tallying personal data on its many keepers and their stories. It was a militarily strategic location through at least four wars between 1776 and 1945. Fort Burnside was established on site in 1942 as part of a never-needed (fortunately) coastal defense network, protecting the bay. A Top Secret Naval Research station known as "Spraycliff" was located at the NW part of the park. It was instrumental in winning the Battle of the Pacific, after development of a radar system small enough to mount on US fighter planes operating from carriers. Closer to home, the final naval battle of World War II occurred less than 15 miles off the point. The U-853 was tracked down, sunk and destroyed by the US Navy; it still remains a scuba diving attraction on the sea bottom.

And now, Beavertail represents what the USCG and throngs of annual visitors refer to as the "best facility of its type, and the most representative of lighthouse museums." Indeed, what we are today may be the most remarkable achievement of all. The museum materialized through donations, private resources and major grants, and is a result of accomplishments made over the past 25 years. Due to the inevitable neglect that occurred to almost every U.S. lighthouse after automation in the 1970's, the historic buildings on site needed an immense amount of restoration. That all happened little by little, as one project after another took priority and had to be pursued to completion. Many hands worked overtime. The major grants and generous benefactors involved were essential, and we treasure all individually and collectively.

The extensive building restoration begun in 2010 was perhaps best known for the work on the granite light tower. The total project was a huge undertaking, requiring over \$350,000, largely from major grants. The monetary value of all the exterior and interior upgrade projects, rebuilding of the original foundation for the 1749 tower, replication of the old foghorns, and all those electronic displays we update continuously, is so large and diverse a sum I can't even research it fully. Fortunately board members and docents gave much of their personal time and expertise, which spared many dollars; money saved went into other efforts. We are always looking to make this museum the best it can be, with an eye on the future.

This year we hope to break ground for a courtyard project that would, ironically, take us backwards in time. If the plan succeeds as expected, we will restore the exterior areas to a pastoral look few people other than former keepers and their families ever saw. I think Conanicus would be pleased.

- BD

## BLMA Origin

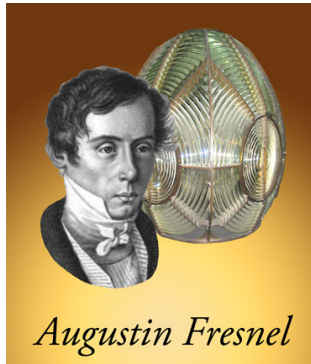
Along with celebrating BLMA's 25 years of existence and all its success and accomplishments, remembering how it all started is the story of another's struggles, ultimately leading to a successful conclusion.

In 1972 the US Coast Guard automated the light along with its fog signal and removed all "keepers" and the buildings were boarded up and abandoned. Jamestown's Parks and Recreation Director William Gurney recognized the historic value of the building and after months of negotiation obtained an agreement in June of 1977 to house a custodian. Peter Anderson was selected, the first of three custodians. He and his family resided in the Keeper House for 16 years. About the same time RI DEM was concentrating on opening "Beavertail State Park" (1981). Later in 1989 it established "The RI Parks Association" with the idea of housing a nature related maritime museum in the Assistant Keepers house as a first in a concept to tie five Narragansett Bay Islands together as visitor recreation destinations.

Renovation in the Assist Keeper 3 first floor rooms had been completed and the museum with story boards opened in June 1989 to the public under the direction of DEM's Sarah Gleason and William McKenzie. Named the "Bay Island Parks" (Conanicut, Hope, Prudence, Patience and Aquidneck). To be headquartered at Beavertail, the DEM project need to be reevaluated and in 1992 due to the lack of funding, reduction in staff and the infestation threat of Lyme Disease, the project was abandoned. Immediately, Jamestown's Robert Sutton and Francis Shocket, both past and present town administrators and Henry Armbrust a volunteer coordinator encouraged forming a rescue organization naming themselves "The Friends of Beavertail Lighthouse". Within a year they established and incorporated as the "Beavertail Lighthouse Museum Association."

Its first officers were Hugh Bucher President, Linda Warner Vice President, Charlotte Head Secretary, and Marion Pierce Treasurer.

- VK



*Augustin Fresnel*

## Fresnel was a Latecomer (Part 1)

Lighthouse fans might easily assume that until Augustin Fresnel developed his breakthrough lens design, keepers used rudimentary open flames with little enhancement for illumination. After all, Fresnel lens technology improved the effective “brightness” of lights approximately five-fold, so previous designs must have been downright primitive, right? Well, yes and no.

Around a decade after the American revolution, Beavertail’s lightstation was approaching its 40th anniversary. Specifics of the lighting arrangement are sketchy. Prior to construction of the tower, there were bonfires maintained “as needed” which probably meant irregularly. But still, better than nothing. And obviously some visual signal was needed at a point where the bay splits into two segments, with nothing but rugged cliffs

and ledges waiting to greet hapless seafarers if they come to grief on the point.

Across the ‘pond’ the French Lighthouse Authority was generally credited with being the final word in then-current technology, through their expertise in light reflectors and the ‘Argand Lamp’. But the British hoped to gain ground for pride’s sake. Thomas Rogers & George Robinson, London experts in glass cutting and optic design, supplied lighthouse components to Trinity House, Britain’s counterpart to the French authority. Trinity House constructed an experimental lighthouse in Blackheath, and tested various lenses and reflectors, in an attempt to catch up. Various combinations of Argand lamps, crude lenses and reflectors were tried at lighthouses in England and Ireland, with mixed success. One nagging problem was the poor quality of lens glass at the time due to small air bubbles and impurities in the glass, which diminished light emitted from the lens. Brightness was inherently limited.

In 1792 Rogers left the business and Robinson behind in London, moving to Ireland. He continued experiments at a number of facilities there. He may be most famous for the Kilwarlin/South Rock lighthouse, built under his direction in 1794-1796. This was a remarkable 60 ft high granite structure, built of solid rock to the 20 ft level where the entry was located. The elevated entry minimized damage from huge waves in winter storms, very common on this off shore site. The tower was reinforced above that height, and it opened up internally above the 20 ft level, with vertical steel rods connected to steel plates. There were 5 discrete levels in the tapering tower including oil storage, living spaces and an 8 ft diameter lantern at the top. The lantern had 10 Argand-style lamps within a surrounding two-sided frame, with separate reflectors for each lamp, producing a white flash. *(Details in this article have been extracted from the Keepers Log, published by the U.S. Lighthouse Society, Issue #1, 2013.)*

- BD

## Beavertail and AIS

The Maritime “Automated Information System” (AIS) is intended to allow ships to view marine traffic in their area and to be seen by that traffic. Both ship and shore stations equipped with radio receivers can view marine traffic. BLMA for the past eight years has detected and provided ship traffic information into the international system via a receiver and telephone modem to the Maritime Systems Information Inc. Beavertail’s VHF radio receiving system tracks vessels up to 30 miles offshore and all vessels entering Narragansett Bay.

The International AIS system now includes satellite tracking world-wide. The image below is representative of the volume of worldwide ship traffic on any given day. Periodically an active presentation is shown in the museum’s interactive display room.

- VK



## Rhode Island's Perilous Coast Southeast Light, Block Island (Part 3)



Although fog is the most common culprit for totally wrecked vessels that have ended their days off Block Island's Southeast Light, the ESSEX is an exception to this. Measuring 259 feet in length and displacing just over 3,000 tons, the iron hulled freighter ESSEX, bound from Lisbon, Portugal to New York with a general cargo which included 600 tons of cork and 300 tons of sand ballast to counterbalance the empty cargo space, simply foundered off Block Island with no other reason given. The freighter was more than fifty years old and likely succumbed to her age. Although her home port was Baltimore, the ship had crossed the Atlantic and stopped at Halifax, Nova Scotia to procure additional coal for her engines. As she headed ashore in her distressed state, she was said

to be found aground with 30 feet of water in her engine room. A salvage effort was planned, since the accident occurred before violent winter weather would arrive, but when the owners determined that the salvage expense would be more than the vessel was worth, they purchased the vessel from the insurance company and attempted salvage on their own. This proved unsuccessful and except for minor salvage of a portion of the cargo, the vessel was a total loss. The incident occurred on September 26, 1941 but there is no indication that there was any influence of war activities on this loss.

On a cold December night in 1945, the dragger A. PIATT ANDREWS, of New Bedford, with 10,000 pounds of yellowtails in her holds, found herself in trouble in a snowstorm and the master, Oscar Gallant, pointed his vessel in the direction of Old Harbor, on the east side of Block Island. In addition to the weather, which the crew reported as drowning out the sound of the fog horn at Southeast Light, the craft was having mechanical issues when she ran ashore. The 64-foot craft measured 42 tons and was twenty-three years old at the time of her loss. No lives were lost in this disaster.

Shortly after the stranding of the ANDREWS, another fishing vessel, this one named E-C (although some conflicting reports called her ED or EB) ran ashore 300 yards north from Southeast Light on January 26, 1946. The 46-foot long fishing vessel was manned by two men who were not found with the wreck. A search involving Coast Guard planes and surface vessels covered an area of more than 50 square miles but no sign of the men was ever found. The E-C had sailed from New Bedford for a single day of trawling and was carrying only bait when lost.

Fifty years after the loss of the fishing boat E-C, another fishing vessel ended her days on the south shore of Block Island, near Southeast Light. This one was the steel hulled, diesel screw fishing boat GREEN ARROW. The 75-foot long craft had sailed from Point Judith on a fishing trip and is reported to have run aground due to pilot error. No mention of the crew appears in the newspaper accounts which put emphasis of the incident on the potential threat of pollution. Heavy seas and the shallow water prevented vessels that could offload her fuel from coming alongside. On December 23, 1996, one day after the stranding, it was reported that the port fuel tank was ruptured. On the 24th, the weather worsened but on the 25th the fishing boat was still intact, though badly damaged. On the 27th, efforts had apparently begun on removing what fuel oil they could and reports indicated 3,100 gallons of fuel removed and a loss of 4,000 gallons into the sea. Favorable winds kept the oil from doing serious damage to the shoreline and wildlife.

In recent years, pilot error – specifically falling asleep at the wheel – has been an increasing issue for fishermen and has resulted in a number of losses to smaller craft. The 78-foot long MISS JUDITH was lost due to this type of error on November 22, 1999. The craft was inbound for Point Judith after a fishing trip and ran ashore somewhere along the southeast corner of Block Island. The news accounts of the incident spent more time discussing statistics of the problem than it did on details of the stranding. Three vessels ran ashore and were lost during the week in which the MISS JUDITH was lost. Additionally, it was reported that since 1998, eight vessels had run ashore in the waters off Rhode Island and Massachusetts “because someone was too tired”.

This brings to a close the discussion about vessels which have been totally lost on or near the Southeast Point of Block Island. Two sailing ships, two schooners, four steamships and four diesel screw powered fishing vessels have left their bones at this, one of the most dangerous and rocky coastlines in the entire state of Rhode Island.



BEAVERTAIL LIGHTHOUSE  
MUSEUM ASSOCIATION  
P.O. Box 83  
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BMLA is dedicated to preserving America's third oldest light, providing educational experiences reflecting the best current thinking for all learners and engaging in fund raising activities necessary for enhancing visitor experiences.

Visit us on the web at  
[www.beavertailight.org](http://www.beavertailight.org)

First Name 2nd Name Last Name  
Address  
City, State Zip



## Museum Hours

Our museum will open Memorial Day weekend,  
and tower climb dates appear below  
and in Visitor Information also.

<b>MONDAY</b> MAY 28 12-3	<b>SATURDAY</b> JULY 28 1-4	<b>SATURDAY</b> SEPT 15 12-3
<b>SATURDAY</b> JUNE 16 1-4	<b>SUNDAY</b> AUGUST 12 1-4	<b>SATURDAY</b> SEPT 29 12-3
<b>SUNDAY</b> JULY 1 1-4	<b>SATURDAY</b> AUGUST 25 1-4	<b>MONDAY</b> OCT 8 12-3
<b>SATURDAY</b> JULY 14 1-4	<b>MONDAY</b> SEPT 3 12-3	

If you would like to schedule a tour of the  
Beavertail Lighthouse Museum please call (401)  
423-3270, or email us at [info@BeavertailLight.org](mailto:info@BeavertailLight.org).

## Group Tours & Events

To arrange Lighthouse tours for school or senior  
groups please contact Mrs. Linda Warner at:  
[info@beavertail.org](mailto:info@beavertail.org)

Weddings and private events on the Lighthouse  
grounds are not allowed by the U.S. Coast Guard.

For scheduling special events, including weddings  
at Beavertail State Park contact the RI Dept. of  
Environmental Management (DEM) at 401.884.2010.